



ENTIRE RESEARCH

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Chandrashekhar Agashe
College of Physical
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Study of Muscular Endurance of School Students from Nashik District

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ABSTRACT

The purpose of the study was to study the Muscular Endurance of school students from Nashik District. Nine Thousand male students (n=9000) of Rural, Tribal, & Urban schools were selected randomly as sample by employing Fishers random Table. The subject's age group was ranging from 11-13 years. The score in each criterion measure (Muscular endurance) were taken. Descriptive statistics have been applied to process the data prior to employing inferential statistics Oneway ANOVA. Further, Scheffe's post hoc test was employed for comparison among school students. The result summarized that there was significant different among school students.

Keywords : Muscular endurance

INTRODUCTION

Considering the new trend, "Physical Fitness" is one of the aspects of physical education, which can be easily measured and evaluated in view of the existing facilities. Physical fitness is a product of physical activity, and can play a positive role in the prevention of many diseases. Thus we need to develop and structure a programme that includes an emphasis on fitness developing activities.

As result of various surveys done in India and abroad, the definition of physical fitness has changed considerable over the years AAHPER (American Alliance of Health, Physical Education and Recreation)in 1958, which is now known as AAHPERD (American Alliance of Health, Physical Education and Recreation and Dance), though the Youth Fitness Tests, has tried to measured fitness abilities. Here health criteria were not central to the selection of test items.

Through the years, various test items have been included as well as discarded from the test to evaluate one's level of Physical fitness. In recent past, physical education became sports oriented that preferred Physical fitness towards "skill related" rather than "health related".

The remarkable change has been noted in the evolution of definition of physical fitness, when United States of America declared the year 2000 as the "year of public Health" and simultaneously AAHPERD, being an

organization of physical education, has received full responsibility for the improvement of national public health. The current definition of fitness as recognized by AAHPERD (1994) includes those parts of fitness that relate to good health specially the essential components of physical fitness are cardio-respiratory fitness, flexibility, muscular strength, endurance and body composition.

India is basically a rural country with agricultural base and hence about 70 percent of the population is tribal & rural while only about 30 percent is urban. The educational system does not differentiate between these two strata. However, there is a district difference in lifestyle of the tribal rural and urban areas in India. The exposure received by the urban population of school going children is positively more and varied as compared to the tribal & rural school going population with regard to physical education. Also the facilities and the infrastructure required in the school are definitely inadequate in this sector. This has a bearing on the performance of the tribal & rural population in the physical activities as compared to their urban counterpart. There also exists a wide culture gap between the two sections thereby leading to the orthodox attitude prevalent amongst the female sex. Participation of girls and boys in physical activities from the rural areas seems to be less as compared to the girls and boys from the urban areas .

It, thus, becomes necessary to study their real status of health – related physical fitness and, to compare whether a significant difference exists in the fitness level between rural, tribal and urban school going boys.

It was, therefore, thought desirable to undertake the problem entitled, “Study of Muscular Endurance of School Students from Nashik District”.

MATERIAL AND METHODS

A survey was conducted in this study. Nine Thousand male students (n=9000) of Rural, Tribal, & Urban schools were selected randomly as sample by employing Fishers random Table. The subject’s age group was ranging from 11-13 year were surveyed for Muscular endurance. The data was collected administering 1 min. bent knee sit-ups test for abdominal muscle endurance.

RESULTS

Descriptive statistics were used for obtaining normality of data (Table 1). The percentile method was used to prepare the norms and One Way ANOVA and Scheff’s Post Hoc test was used for comparison (All values are significant at 0.05 level) (Table 2).

Table 1 : Descriptive Statistics Rural, Tribal and Urban 11, 12 & 13 Years age Group

Age Group	Test Items	N	Mean	Std. Deviation	Skewness	Kurtosis
11		3025	15	6.78	0.97	1.29
12	Sit Up	3050	17	7.12	0.60	0.41
13		3008	18	7.43	0.68	0.75

From table 1, the mean scores & Standard deviation of 11, 12 and 13 years Rural, Tribal and Urban boys in Sit up 15, 17, & 18 (SD=6.78, 7.12, &7.43) respectively .

Table 2 : One Way ANOVA Rural, Tribal and Urban 11, 12 & 13 Years age Group

Test Items	Comparison	Sum of Squares	df	Mean Square	F	Sig.
SITUPS	Between Groups	135274.125	8	16909.26563	441.2793491	0
	Within Groups	347704.1847	9074	38.31873316		
	Total	482978.3097	9082			

In fact, Table 2 indicates that there is significant difference in Muscular Endurance of 11, 12, and 13 years Rural, Tribal, and Urban schoolgoing boys of Nashik district. This in fact helps to interpret that the hypothesis HO: There is no significant difference in the Muscular Endurance of boys of each age group (11 to 13 years) from the Rural, Tribal, and Urban schools in Nashik District has not retained.

DISCUSSION

This study has a great impact in the field of physical education at the school level. The result of this study will help various academic and sports agencies in different manners. Suggestions from this study also guide the teacher education colleges to modify their curriculum according to current needs of the society. On the basis of the diagnostic tools (norms), Govt. can take immediate intervention to launch a suitable state Health Related Physical Fitness among the school students. This study throws a light on the importance of active lifestyle and prevention of lifestyle diseases, thereby motivating the parents, teachers & the students in adopting an active lifestyle.

CONCLUSION

- Rural area, the mean performance of muscular endurance of 11 years school Boys was lower than other age groups school Boys i.e. 12years and 13 years. It was highest in 13 year age group school Boys.
- In Tribal area, the mean performance of muscular endurance of 11 years school Boys was lower than other age groups school Boys i.e. 12years and 13 years. It was highest in 13 year age group school Boys.
- Also it indicates that in Urban area, the mean performance of muscular endurance of 11 years school Boys was lower than other age groups school Boys i.e. 12years and 13 years. It was highest in 13 year age group school Boys. Thus, the result revealed that, for 11 years Age Group Boys had lower muscular endurance than the other Age Group Boys i.e. 12 years and 13years irrespective of different strata.

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Comparison of Psychological Barriers Among Competitive and Amateur Players

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ABSTRACT

Background : *Anxiety, self-doubt, win-centric engagement, and social internal strain from parents and coaches are only a couple of the emotional obstacles they must overcome to succeed to their full potential. The general objective of this study was to compare the competitive anxiety among the young athletes from competitive sports and amateur sports.*

Method : *The players who have played/represented at any of the State, School, Nationals or District and Amateur players, played at local amateur level tournaments. Sports Competition Anxiety Test (SCAT) was used to collect data from the subjects.*

Conclusion : *Analysis was done with independent t test and concluded that students playing amateur sports have less psychological barriers than the players playing competitive sports. It is really important to incorporate sport psychology into athletes' daily fitness routines and training classes, as well as to advise and include parents, coaches, and others.*

Keywords : Sports Psychology, SCAT, Competitive, Amateur\

INTRODUCTION

Sports psychology is a field of sports science that includes applying psychological ideas to athletes in any sporting situation. It can also be described as an attempt to evaluate, classify, explain, change and adjust, and ultimately predict a person's reaction in any sporting scenario using a variety of psychological techniques.

Since the athlete's whole disposition is factored into the game, one of the sports psychologist's most important roles is in the arena of behavioural management. In terms of behavioural control, it suggests that sports psychology professionals can enhance an athlete's success by altering unwanted behaviours.

Pressure management is another important field where a sports psychology can help athletes succeed. Athletes are taught how to handle their tension. In order to relieve tension, a number of strategies can be used. Athletes are taught discipline on purpose. This sporty discipline helps an individual to gain a high degree of self-esteem, which increases success, builds confidence, and makes the athlete feel more confident.

As a result of the athletes' traumatic experiences, most of the athletes tend to stay away from sports in the adolescent stage. According to studies, a third of all participating athletes leave sports between the ages of fifteen and Eighteen each year. As a result of the negative and realistic nature of sport, a discrepancy between the anticipated and achieved outcome is formed. Before reaching the standard of professional sports, young and promising athletes must endure at least a decade of hardship. Many young athletes left their sport due to their failure to cope with those challenges and difficulties.

Anxiety, self-doubt, win-centric engagement, and social internal strain from parents and coaches are only a couple of the emotional obstacles they must overcome to succeed to their full potential. Hence this study was done to check whether all these psychological aspects really affects the performance of a player or not.

The general objective of this study was to compare the competitive anxiety among the young athletes from competitive sports and amateur sports.

METHODOLOGY :

The players playing various sports on a regular basis and actively taking part in amateur and competitive tournaments from Nashik were considered for this study. Subject aged from 16 to 19 years were selected from various sports i.e. Football (n = 12), Basketball (n = 13), Kabaddi (n = 21), Kho Kho (n = 14) who have played/represented at any of the following three levels i.e. State Nationals, School Nationals, Nationals and District and also Amateur (n=40), players played at local amateur level tournaments.

The variables considered for this study includes different psychological barriers through which young amateur athletes go through before, during and after a competitive sporting event. The variables were competition anxiety, self-doubt, stress, and motivation obstacles. Sports Competition Anxiety Test (SCAT), a standardized questionnaire was used to collect data from the subjects from Academies, Coaching centre and Clubs of the above listed sports from Nashik.

Coaches and players were instructed about the purpose of study and process of collecting data. The contact details such as WhatsApp numbers and mail ids of the players or parents were provided by the coaches.

Next procedure of data collection was completed by contacting the players and parents via phone calls or WhatsApp and on mail ids.

The google form containing SCAT questionnaire was circulated via email and WhatsApp. Google form was given to around 150 students from various sports out of which 115 participants responded back. As few forms were incomplete, only 100 responses (50 from competitive sports and 40 from amateur sports were considered for the study. Thus, subjects were selected with Snow-ball sampling technique

STATISTICAL ANALYSIS

Scores of the groups were compared based on the SCAT questionnaire. The data recorded was analysed by applying independent t test at 0.05.

RESULTS AND DISCUSSION

Table 1 : Descriptive of SCAT scores of Players of Competitive and Amateur Sports

	Grp	N	Mean	Std. Deviation	Std. Error Mean
SCAT	Competitive Sports	60	25.18	2.09	.27
	Amateur Sports	40	21.20	2.56	.40

Table 2 : Independent t test comparing SCAT score of Players of Competitive and Amateur Sports

		Levene's Test 20 for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	df	Sig.
(2-tailed)	Mean Difference					
SCAT	Equal variances assumed	1.77	.18	8.39	98	.000 3.93
	Equal variances not assumed			8.05	71.89	.000 3.93

From above table it is seen that the mean score of students from competitive sports is 25.15 and that of students from amateur sports is 21.20. Independent t test analysis shows that there is significant difference between the scores of SCAT test among these two groups.

Hence it is concluded that students playing amateur sports have less psychological barriers than the players playing competitive sports.

DISCUSSION

These psychological barriers may lead to complete cessation of the sport or a major decline in results. To reduce the severity of this issue, it is necessary to first comprehend why children and adolescents compete in sports. In the early days of every young athlete's career, parents and mentors play a critical role in developing sportsmanlike characteristics.

Children participate in sports mostly to enjoy and have fun, to develop their talents and abilities, to be with their peers, to experience the thrill of competition, and to get fit and healthy.

As a coach or parent, never expect sportsman to compete for the sake of winning, instead, ask them to compete for the sake of having fun. The key aim in youth sports should not be to create a competitive atmosphere. It should concentrate on developing an ecosystem that allows for mass engagement, child-centric, and working to improve the talents of each and every athlete.

It is really important to incorporate sport psychology into athletes' daily fitness routines and training classes, as well as to advise and include parents, coaches, and others.

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A Comparative Study of Motion Examination of Forehand Overhead Clear Stroke And Relationship of Anthropometric Estimations At The Time of Contact Stage In Badminton

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ABSTRACT

The motivation behind the examination was to decide the relationship of joints points with the presentation of Forehand Overhead Clear stroke at the hour of contact stage in Badminton. Author additionally needs to decide the relationship of anthropometric estimation with the presentation of Forehand Overhead stroke for example clear, Smash and Drop in Badminton

Methodology : *for the current examination the example comprised of Ten Male Indian Badminton players (Rank under 50). The age went of the subjects ran Between 22 to 27 years. Point of the body estimated by kinovea in degree and execution assessed through emotional judgment by qualified authorities based on three adjudicators rating framework. For investigation of information connection (Pearson Correlation) test was utilized. The degree of importance was set at 0.05 levels..*

Conclusion : *by the help of study it is conclude that there is significant difference was found in right wrist angle with the performance of Forehand Overhead Clear at the time of contact phase in Badminton.*

Keywords : Kinematical, forehand, overhead, clear stroke

INTRODUCTION

The frequently prescribed system to acquire time to get back to focus court is the high profound clear. If all else fails, clear especially in singles play. The protective clear is an exceptional yield that has a direction like a heave in tennis. The unmistakable might be hit with an underhand or overhand to drive the rival the forehand or strike to compel the adversary profound into the backcourt. Plays utilize the unmistakable in mix with the drop shot to compel their rivals to run and protect each of the four corners of the court. Continuously attempt to hit the bird at the earliest opportunity so your adversary has less an ideal opportunity to get to their shot. Hit overhead and underhand returns at the most noteworthy conceivable contact point. As you move into position to hit the reasonable toss your racket upward gathering the van with a level racket with your elbow broadening. Since the van should go high and profound swing your racket forward and up with your hand driving. At

that point your finish completes toward the bird's flight. The essential estimation of the unmistakable during come request is to get the bus far from your rival and to make the person in question move rapidly. On the off chance that you can get the bird behind your adversary or make the person in question move more quickly than the individual might want, your rival will have less time and will turn out to be more exhausted. On the off chance that you clear effectively, your rival should rush to execute their profits precisely and successfully. The hostile clear is a compliment, quicker clear, which is valuable in getting the bus behind your rival and conceivably making the person in question hit frail returns. The protective clear has a high and profound direction.(GriceT.2008)[6].

OBJECTIVE OF THE STUDY

The purpose of the study was to determine the relationship of joints angles with the performance of Forehand Overhead Clear at the time of contact phase in Badminton and to determine the relation of Anthropometric measurement with the performance of Overhead stroke i.e. clear, Smash and Drop in Badminton players

METHODOLOGY

For the present study the sample consisted of Ten Male Indian Badminton players (Rank under 50). The age ranged of the subjects ranged Between 22 to 27 years. The study was confined to right handed shuttlers only, Forehand Overhead Clear at the time of contact phase in Badminton.

Selection of Variable: Anthropometric measurements of all the selected players were selected as an independent variable, Forehand Overhead stroke performance was selected as an dependent variables of the present study.

Dependent Variable: Forehand Overhead stroke performance was evaluated through subjective judgment by qualified officials on the basis of three judges rating system.

Independent Variables: All the selected Independent variables like; age in year, weight in kg, height, upper arm, lower arm, palm, upper leg, lower leg, foot length was measured in centimeter by the help of Anthropometric kit (caliper, protector, meter scale etc.,).

PROCEDURE OF DATA COLLECTION

According to availability of two Casio EX-F1 high speed cameras were used, which have frequency from 60 to 300 frames per second (f/s). The data were recorded from sagittal plane and frontal plane. The data was analyzed by kinovea motion analysis software.

STATISTICAL TECHNIQUE

The statistical analysis of data pertaining to the study were collected on 10 male Badminton players. To compute the analysis of data the correlation (Pearson correlation) test was used. The level of significance to check the relationship obtained by correlation (Pearson correlation) was set .05 level. All statistical functions were performed with the SPSS (v.20)software.

FINDING AND RESULTS

Result was made on the basis of the finding of the present study. The researcher reached at the result of this empirical investigation which is presented by the respective Table-1, table-2, and figure-1.

Table 1: Descriptive Statistics of Male Badminton players in Relation to Angular Kinematical Variables of Clear Stroke in Badminton.

Variable	Mean	Std. Deviation	Minimum	Maximum	Sum
Right Wrist Angle in degree	203.9	11.541	181	218	2039
Left Wrist Angle in degree	203.3	18.061	169	226	2033
Right Elbow Angle in degree	157	4.876	150	164	1570
Left Elbow Angle in degree	83.5	17.933	57	111	835
Right shoulder Angle in degree	134.1	4.605	126	139	1341
Left shoulder Angle in degree	48.6	28.457	13	115	486
Right Hip Angle in degree	182.5	5.082	176	192	1825
Left Hip Angle in degree	196.5	5.778	190	206	1965
Right Knee Angle in degree	150.3	10.594	138	171	1503
Left Knee Angle in degree	169.9	9.097	152	180	1699
Right Ankle Angle in degree	116	9.660	102	130	1160
Left Ankle Angle in degree	94.5	7.691	86	108	945

It is evident from table 1 that mean, standard deviation, scores of Angular kinematics variable in degree during clear stroke in badminton have been found as follow: Right wrist angle 203.9 (Std.11.541), Left wrist angle 203.3 (Std.18.061), Right elbow angle 157 (Std.4.876), Left elbow angle 83.5 (Std.17.933), Right shoulder angle 134.1 (Std.4.605), Left Shoulder angle 48.6 (Std.28.457), Right hip angle 182.5 (Std.5.082), Left Hip angle 196.5 (Std.5.778), Right knee angle 150.3 (Std.10.594), Left knee angle 169.9 (Std.9.097), Right ankle angle 116 (Std.9.660), Left ankle angle 94.5 (Std.7.671) respectively.

Table 2 : Descriptive Statistic of male Badminton player in relation to anthropometrical variables of Forehand Overhead stroke in Badminton

Variable	Mean	Std. Deviation	Minimum	Maximum	Sum
Age in year	24.6	1.646	22	27	246
Height in meter	171.42	4.371	166	181.1	1714.2
Weight in kg	62.3	2.869	58	68	623
Upper arm in cm	32.46	3.164	30.1	41	324.6
Lower arm in cm	27.45	1.827	25	31.5	274.5
Palm in cm	19.94	1.199	18	21.3	199.4
Upper leg in cm	47.76	2.820	44	54	477.6
Lower leg in cm	42.07	3.205	38	48	420.7
Foot in cm	23.59	1.505	22	27.1	235.9

It is evident from table 2 that mean, standard deviation, scores of anthropometrical variables of forehand overhead stroke in badminton have been found as follow: Age in year 24.6 (Std. 1.646), Height in cm 171.42 (Std. 4.371), Weight in kg 62.3 (Std. 2.89), Upper arm in cm 32.46 (Std.3.164), Lower arm in cm 27.45 (Std. 1.827), Palm in cm 19.94 (Std. 1.199), Upper leg in cm 47.76 (Std. 2.820), Lower leg in cm 42.07 (Std.3.205), and Foot in cm 23.59 (Std. 1.505) respectively

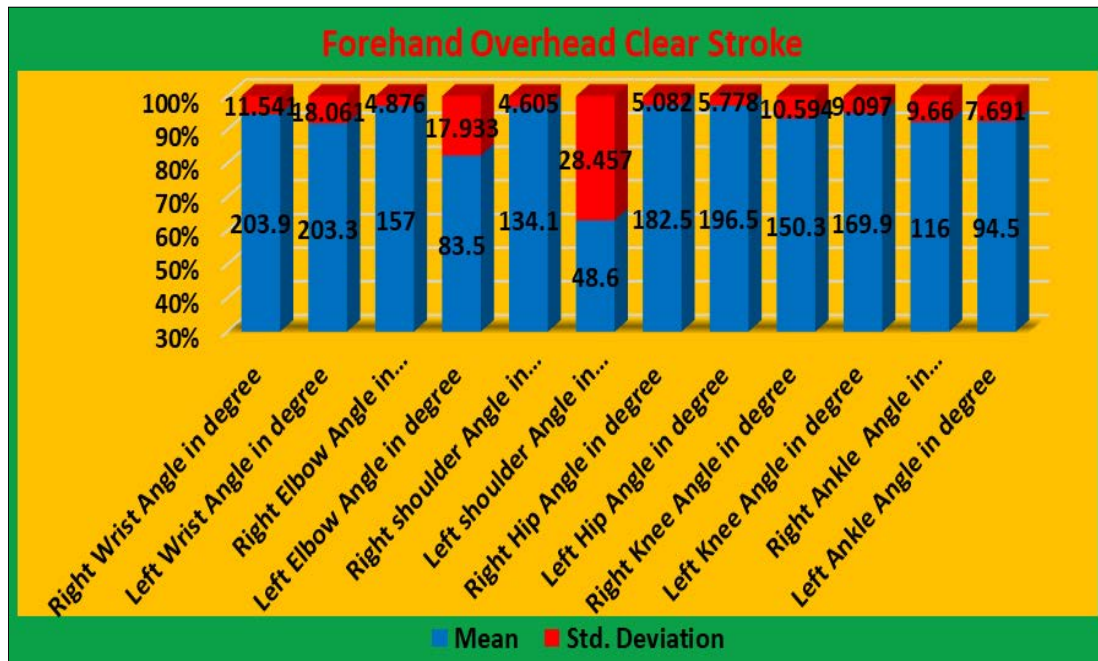


Fig 1: Graphical Representation of male Badminton player in relation to Angular Kinematical variables of Clear stroke in Badminton

Table 3: Relationship of Angular Kinematical Variables with the Performance of clear Stroke in Badminton.

Angular Kinematical Variable	Pearson correlation												
	Performance	Wrist R	Wrist L	Elbow R	Elbow L	Shoulder R	Shoulder L	Hip R	Hip L	Knee R	Knee L	Ankle R	Ankle L
Performance	1												
Wrist R	0.949*	1											
Wrist L	-0.122	-0.267	1										
Elbow R	-0.472	-0.621*	0.640*	1									
Elbow L	-0.144	-0.199	0.001	-0.085	1								
Shoulder R	0.075	0.131	0.314	0.089	-0.719*	1							
Shoulder L	0.290	0.222	0.112	-0.139	0.578*	-0.375	1						
Hip R	-0.343	-0.411	-0.305	0.138	-0.092	0.016	0.077	1					
Hip L	0.312	0.332	-0.218	-0.354	-0.040	-0.031	-0.274	-0.145	1				
Knee R	0.356	0.392	-0.305	-0.524	0.270	0.006	0.686*	0.314	0.091	1			
Knee L	-0.298	-0.296	-0.206	-0.005	-0.095	-0.092	-0.117	0.462	-0.303	-0.260	1		
Ankle R	-0.225	-0.332	0.583*	0.382	-0.089	-0.122	0.009	-0.233	-0.310	-0.476	0.035	1	
Ankle L	-0.501	-0.612	-0.053	0.239	0.352	-0.183	0.324	0.788*	-0.383	0.363	0.181	-0.031	1

*Significant at 0.05 level

Coefficient of correlation required to be significant at 8 degree of freedom = (.549)

Table-3 uncovers that in the event of wrist right acquired estimation of (.949) is more noteworthy than arranged estimation of (.549) hence it shows huge relationship of this autonomous variable with clear stroke execution. Though, in the event of wrist left, elbow right, elbow left, shoulder right, shoulder left, hip right, hip left, knee right, knee left, lower leg right, lower leg left the acquired qualities (-.122), (-.472), (-.144), (.075), (.290), (-.343), (.312), (.356), (-.298), (-.225), and (-.501) are lower than classified estimation of (.549) hence it shows unimportant relationship of these free factors with execution of clear stroke in badminton. Since the huge relationship was found between point of left wrist and point of right elbow among free factors as determined 'r' (.640) is discovered more prominent than the necessary organized estimation of (.549) at 0.05 degree of importance. Since the huge relationship was found between point of left shoulder and point of right knee among autonomous factors as determined 'r' (.686) is discovered more noteworthy than the necessary arranged estimation of (.549) at 0.05 degree of importance. It tends to be seen the huge relationship was found between point of left Elbow and point of right shoulder among free factors as determined 'r' (.578) is discovered more prominent than the necessary classified estimation of (.719) at 0.05 degree of importance. It tends to be seen the critical relationship was found between point of left Elbow and point of left shoulder among free factors as determined 'r' (.578) is discovered more noteworthy than the necessary arranged estimation of (.549) at 0.05 degree of importance. Additionally, the critical relationship was found between point of left wrist and point of right lower leg among free factor factors as determined 'r' (.583) is discovered more prominent than the

necessary classified estimation of (.549) at 0.05 degree of importance. At long last, the critical relationship was found between point of right hip and point of left lower leg among free factor factors as determined 'r' (.788) is discovered more prominent than the necessary organized estimation of (.549) at 0.05 degree of importance.

Table 4: Relationship of Anthropometrical Variables with the Performance of clear, smash, drop Stroke in Badminton.

Anthropometrical Variable	Performance		
	Clear	Smash	Drop
Age	.154	0.523	-0.163
Height	.191	0.308	0.319
Weight	.077	0.231	0.303
Upper Arm	.249	0.270	0.252
Lower Arm	.182	0.229	0.338
Palm	.151	0.297	0.030
Upper Leg	.151	0.212	0.318
Lower Leg	.328	0.316	0.115
Foot Length	.269	0.199	0.313

*Significant at 0.05 level

Coefficient of correlation required to be significant at 8 degree of freedom = (.549)

Table 4 reveals that in case of Anthropometric variable i.e. age, height, weight, upper arm, lower arm, palm, upper leg, lower leg, foot length. Obtained values (.154),(.191),(.077),(.249), (.182), (.151), (.151), (.328), (.269),is less than Tabulated value (.549) therefore it have shown insignificant relationship with performance of clear stroke.Table-3 reveals that in case of Anthropometric variable i.e. age, height, weight, upper arm, lower arm, palm, upper leg, lower leg, foot length. Obtained (.523), (.308), (.231), (.270),(.229), (.297), (.212), (.316), (.199), value is less than Tabulated value (.549) therefore it has shown insignificant relationship with performance of smash stroke.Table3 reveals that in case of Anthropometric variable i.e. age, height, weight, upper arm, lower arm, palm, upper leg, lower leg, foot length. Obtained value (-.163), (.319),(.303),(.252), (.338), (.030), (.318), (.115), (.313),is less than Tabulated value (.549) therefore it has shown insignificant relationship with performance of drop stroke. The correlation (Pearson correlation) technique was applied to determine the relationship of Anthropometrical variable with the performance of Forehand Overhead stroke i.e. clear, smash and Drop in Badminton. In case of Clear, Anthropometric variable i.e. age, height, weight, upper arm, lower arm, palm, upper leg, lower leg, foot length. Obtained values (.154), (.191), (.077), (.249), (.182), (.151), (.151),(.328), (.269), is less than Tabulated value (.549) therefore it shown insignificant relationship with performance of clear stroke, in case of Smash, Anthropometric variable i.e. age, height, weight, upper arm, lower arm, palm, upper leg, lower leg, foot length. Obtained (.523), (.308), (.231), (.270),(.229),(.297), (.212), (.316), (.199), value is less than Tabulated value (.549) therefore it has shown insignificant relationship with performance of smash stroke and in case of Drop, Anthropometric variable i.e. age, height, weight, upper arm, lower arm, palm, upper leg, lower leg, foot length. Obtained value (-.163), (.319), (.303), (.252), (.338), (.030), (.318),(.115), (.313), is less than Tabulated value (.549)

therefore it has shown insignificant relationship with performance of drop stroke.

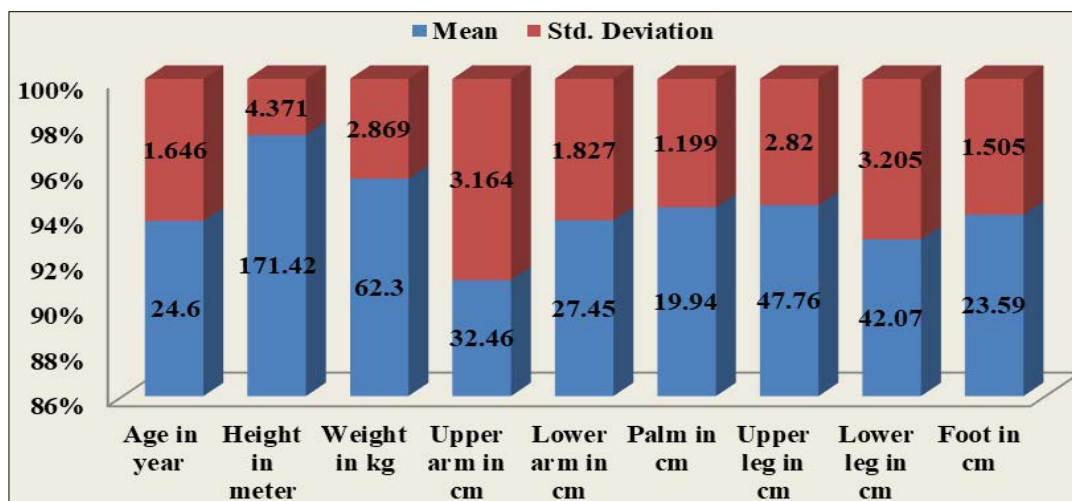


Fig. 2 : Graphical Representation of male Badminton player in relation to anthropometrical variables of Forehand Overhead stroke in Badminton

DISCUSSION OF THE STUDY

According to the goal of the investigation was to decide the relationship of joints points with the presentation of Forehand Overhead Clear stroke at the hour of contact stage in Badminton. Through this investigation, we found that there was huge contrast found between right wrist point at the hour of contact period of Forehand Overhead Clear Stroke execution in Badminton players. This might be credited to reality that; the Forehand Overhead Clear Stroke is the Defensive stroke in badminton. It most regularly utilized for sent the bus to the adversary's back limit line. Wrist joint is the vital joint of hitting hand at the hour of contact period of Forehand Overhead Clear Stroke in badminton, it is regularly prescribed system to acquire time to get back to focus court is the Forehand Overhead Clear. The hitting hand should have a long back swing with lock wrist and flexed elbow for an amazing clear.

CONCLUSION

On the basis of the obtained results from the present study the following conclusion were drawn: -

1. There was significant difference found among right wrist at the time of contact phase of Forehand Overhead Clear performance of badminton players.
2. The finding also suggests that, the right wrist is the key joint at the time of contact phase of Forehand Overhead Clear.
3. Insignificant correlation was found between age, height, weight, upper arm, lower arm, palm, upper leg, lower leg and foot length of Badminton players with the performance of Forehand Overhead stroke i.e. clear, Smash and Drop in relation to the Anthropometrical variable.

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A Study On Speed And Strength Variables Of Indian Male Long Jumpers In Relation To Performance

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ABSTRACT

The purpose of the study was to see certain speed and strength variable of long jumpers in relation to performance level.

Thirty-two male long jumpers of different level were taken as subjects for study. 10m fly run, 5 hops from six strides Run up, standing broad jump, 12 stride long jumps and full approach jump performance was recorded to study the full approach long jump performance in relation to speed and strength level of jumpers.

The results indicate that 10meter acceleration phase has Non significant relationship with long jump performance at the value of 0.162. Whereas standing broad jump with the value of 0.673, 5 hops from six strides Run up at the value of 0.624, standing broad jump, 12 stride long jump at the value of 0.786, show high correlation between strength and long jump performance at $p < .001$.

Keywords : Speed, Strength, Performance, Parameters,

INTRODUCTION

The long jump is an event of different styles. Among jumping events the long jump seems to be easy, but it is in fact a combination of different athletic skills. Quickness, speed and strength, flexibility, rhythm are the basic requirement for a good jumper. Long jumping begins with sprinting to the take-off point and finishes with high degree of flexibility and balance for an effective landing in to the pit. The relationship between approach speed and distance jumped in the athletic event of long jumping has widely been reported as both linear and highly significant (Brüggemann, Nixdorf, & Erst, 1982; Hay & Nohara, 1990; Nixdorf & Brüggemann, 1990; Lees, Fowler, & Derby, 1994; Madella 1996; Bridget & Lindthorne, 2005; Linthorne, 2008; Hussain, Khan, & Mohammad, 2011). Performance in long jump depends on multidisciplinary effort and all round development though most of the coaches and scientists are in agreement that 85% of the success in long jump lies in the speed developed during the approach run and its conversion during the take-off. The flight phase, which

covers the maximum horizontal distance, helps only to achieve maximum maintenance of velocity from what is generated during the take-off. It is because of this fact that the parabolic path of the center of gravity is fixed at the moment that the jumper leaves the ground. But, it is not by chance that all leading jumpers have good speed, specially up to 50meters to 60 meters, as this factor is an essential prerequisite for excellence in long jumping performance at all levels.

According to Jarver (1972) long jump starts with a run -up aiming to accumulate maximum horizontal speed. The jumper attempts to approach the take-off board with extreme accuracy before becoming air borne with a minimum loss of momentum.

Bosen (1972) reported that this event requires a run up of sufficient length to develop maximum controllable speed combined with effective sprinting at the take off.

Fred (1972) stated that approach speed in the long jumping is important but he is also stated that the 100M sprint time is not comparable with the result of long jumping because the long jumper speed requirement is decisive at a distance between 40M to 50M. Further he noted that higher the speed of approach run which jumper can maintain at the takeoff without a loss in the momentum, the better will be the resultant conversion of the approach speed at the take off.

Doherty (1984) is of the belief that the practice organization for long jump should consider at least five factors i.e. speed, power, skill, tendon, and tissue toughness and speed endurance.

Doherty (1984) is of the belief that the practice organization for long jump should consider at least five factors.

1. Greater speed by which to gain kinetic energy during the run.
2. Greater power in the muscles used for transition from horizontal to vertical momentum.
3. Greater skill in all phases of the event, especially in the gather and Take off.
4. Greater toughness of tendons and tissues.
5. Greater speed endurance.

Pfaff (1996) pointed out that the tests for elastic strength such as timed hopping over the barriers and alternate bounding provide valid prediction.

METHODOLOGY

The main objective of the present study was to determine the relationship of speed and strength variables with Long jump performance. The study was conducted on 32 male log jumpers of National level. The age, height and weight of the subjects were recorded. After that the following fitness test were conducted on the jumpers for the assessment of their fitness level:

Speed:

1. 10m flying run(seconds)
2. Last 10m in full approach(seconds)

Explosive Strength:

1. Half Squad(kg)-Explosive strength

Explosive Strength:

1. Standing broad jump(meters)
2. 5 Hops from 6 strides(meters)
3. Long jump from 12 strides(meters)

Sprint Endurance:

1. 150m sprint (seconds)-sprint endurance

The data was analyzed by statistical package SPSS (version 19) for the calculation of Mean, SD. Multi Co-relation was applied to find out statistical relationships between the performance and fitness variables.

The data was analyzed by statistical package SPSS (version 19) for the calculation of Mean, SD. Multi Co-relation was applied to find out statistical relationships between the performance and fitness variables.

RESULTS AND DISCUSSION**Results were as follows :****Table 1 :** Mean and SD values of Physical Parameters of the Long Jumpers

Sl. No	Parameter	MEAN	SD
1	Age (Years)	22.53	±3.068
2	Height (Cm)	175.59	±6.690
3	Weight (Kg)	69	±7.878

Table 2 : Mean and SD values of Fitness Parameters of the Long Jumpers

Sl No	Parameter	Test	MEAN	SD
1	Speed	10m flying run	1.0235	±0.09
		Last 10m in full approach (seconds)	1.0885	±0.12
2	Explosive Strength	Half Squad (kg)	211.5	±52.2
		Standing broad jump	3.124	±0.165
		5 Hops from 6 strides	19.1215 2.268471	±2.268
		Long jump from 12 strides	6.8875	±0.540
3	Sprint Endurance	150m sprint	16.6125	±0.716
4	Performance Variable	Long Jump	4.8575	±0.44

Table 3 : Multi co-relations between fitness and performance variables

	10m fly	Last 10m	150m	Sbj	5hops	from 6 strides	Jump from	12 strides	Jumfrom 16 strides	Maximum Half squat
	1									
10m fly	.923**	1								
Last 10 m	.695**	.748**	1							
150m	-.801**	-.837**	-.638**	1						
Sbj	-.419	-.532*	-.707**	.460*	1					
Jump from 12 strides	-.872**	-.913**	-.743**	.807**	.501*	1				
Jump from 12 strides	-.725**	-.832**	-.603**	.868**	.344	.743**	1			
Jump from 16 strides	.342	.446*	.110	-.286	-.039	-.365	-.349	1		
Max Halfsquat	.139	.048	.643	.221	.871	.113	.131			

The 'r' values between long jump performance and selected speed and strength parameters are presented in table 3.

Performance and 10m fly

'r' value presented in table shows anon-significant negative co relation between 10 m fly and long jump performance with a value of 0.162.

Performance and Last 10m speed of approach run.

The "r" value of last 10m approach run with long jump performance (-0.805p<0.01) shows statistically significant correlation. It shows that improvement in last 10 m approach run timing leads to improvement in long jump performance. Similar results were reported by Siris {1983}, Lohmn and Voss, (1987), Bauersfeld et al .(1992). Muraki (1979).

Performance and 150m sprint

It is evident from the achieved 'r' value that 150m sprint time shows a significant correlation with long jump performance (-0.681). As per the norms published by Bossy (1982) we found that Indian long jumpers have poor speed over 150m distance in comparison to international long jumper.

Performance and Standing broad jump

The correlation of standing broad jump with long jump performance shows highly significant value of 0.673 at p<0.01 level. Henson (1983), Siris et al (1983), Czingon (1990), Jonathon et al (1990), observed that standing broad jump test for leg power have influence on long jump performance.

Performance and 5 Hops from 6 strides

The found 'r' value (0.624) of 5 Hops from 6 strides is significantly higher than the table value. Henson (1983), Siris et al (1983), Tschien (1980), Czingon (1990), Jonathon et al (1990), observed that 5 hops from 6 strides test performance have positive impact on long jump performance. Johnson (1980) concluded hoping and bounding as most advantageous for long jumpers and multiple jump can be used to improve jumping force.

Performance and jump from 12 strides

The results presented in the table 2 shows highly significant relationship with long jump performance and the achieved 'r' value is 0.786 at $p < 0.01$ level. Doherty (1971) pointed out that the distance covered by jumper is strongly influenced by momentum gain through run up and it is converted in to forward –upward force by applying it on the take-off board.

Performance and Maximum Half Squat

The long jump performance correlation with half squat is found to be highly significant at $0.628p < 0.01$ level. The achieved Half squat mean value were found to be higher in comparison to international norm prepared by Bossy (1982).

On the basis of results presented in table 2 can conclude that the performance in long jump is determined by leg strength ability and speed endurance and acceleration over short distance does not show relationship with competition performance

CONCLUSION

The result of the study shows that:

1. The standing broad jump has significant correlation with Long jump performance.
2. Jump from 12 strides shows highly significant correlation with long jump performance.
3. Maximum half squat show significant correlation to the long jump performance.
4. Result proves that speed and strength are important parameters for long jump performance.
5. 10m fly and 150m has not significant correlation with long jump performance.

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Comparative Study of Selected Physiological and Physical Variables of Inter Collegiate Level Baseball and Softball Players

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ABSTRACT

Physiology & physical factors play a vital role in deciding the particular build of the body with various measurements of the segments of the body it has also its importance in the field of Baseball and Softball game. Somewhat or altogether the physiological parameter pulse rate, blood pressure, vital capacity and physical parameter muscular strength, power and agility have definite effects on the performance of particular game players. The researcher in the present study made an effort to test this hunch to compare the difference between the various physiological and physical measurements of Baseball and Softball players. The present comparative study is related to Baseball and Softball players in relation to physiological & physical variables. In the present study, 15 male Baseball and 15 male Softball players selected through simple random technique from Inter Collegiate Baseball and Softball players of Basweshwar College, Latur who participated in Inter Collegiate Tournament. To study the difference between Baseball & Softball players in physiological & physical variables. Statistical method of Independent sample 't' test was applied for this study.

From the results, it may be concluded that there is a significant difference in vertical jump, chin-ups & shuttle run tests of Baseball and Softball players. But no significant difference found in Heart Rate, Systolic & Diastolic blood pressure and vital capacity.

Key words : Baseball and Softball players, Physiology & Physical factor.

INTRODUCTION

Fitness is the term which is widely used in the present day health conscious society. The people have realized the importance of fitness in day to day routines and also in achieving sports excellence. Fitness denotes a person's physique in relation to its physical achievements. The latest scientific evidence also edict the fact that for internal or physiological soundness physical fitness is necessary. It is also a high concern for a coach to develop various health & skills related fitness of players. Physical and physiological fitness refers to the capacity of an athlete to meet the varied performance demands of their sport without reducing the athlete to a fatigued state.

Physiological & physical and fitness variables play a vital role in almost all games and sports. Study of human

Physiology is defined by dictionaries as 'the science of the normal functions and phenomena of living things'. Involuntary, such as pulse rate, hemoglobin; blood pressure and vital capacity & physical fitness cardiovascular endurance, muscular strength, power & agility need to perform the activity.

MATERIAL AND METHOD

Subjects

For this study total No. of 30 i.e. 15 Baseball and 15 Softball players mean age (19.04 years) from Inter Collegiate level competition participated players were selected as a sample of the study, using simple random sampling technique. This was further used for collecting and analyzing data.

Selection of Variable

The study was taken to pinpoint the Physiology & Physical fitness variables. Therefore, based on literary evidence and scholars own understanding the following variable was selected for the purpose of this study.

Table 1 : Selection of variable Table

Test	Tools	Unit
Physiological Variable		
Heart Rate	Stethoscope/stopwatch	Minute
Systolic blood pressure	Sphygmomanometer	High/Low
Diastolic blood pressure	Sphygmomanometer	High/Low
Vital Capacity	Peak flow meter	Lit/Minute
Physical Fitness Variable		
J.C.R Vertical Jump	Marking area & Meter tape	Centimeter
J.C.R Chin-Up	Chin Up Bar	No. of reps
J.C.R Shuttle Run	Ground & Marking Cone	Second

For this research, a descriptive comparative method was used. Descriptive statistics (mean, standard deviation) and independent sample t test was used for the analysis of the differences between both the groups, to test the hypothesis at 0.05 level of significance.

PROCEDURE OF THE STUDY

The researcher explained details about the conducted test to selected players and then collected data and did scoring based on players performing the test. For the collected score compute mean, standard deviation and compare using Independent "t" test to find out the differences amongst Baseball & Softball players.

RESULT OF THE STUDY

The purpose of the study was to find out the comparison of Baseball and Softball players among Inter collegiate tournaments.

Table 2 : Baseball & Softball players Descriptive statistics

Test	Players	No	Mean	SD
Heart Rate	Baseball	15	78.9	9.4
	Softball	15	81.6	12.2
Systolic Blood Pressure	Baseball	15	106.3	11.6
	Softball	15	104.2	11.9
Diastolic Blood Pressure	Baseball	15	62.4	13.5
	Softball	15	59.8	10.4
Vital Capacity	Baseball	15	460.0	73.1
	Softball	15	447.0	115.1
Vertical Jump	Baseball	15	25.35	1.51
	Softball	15	19.10	2.14
Chin-Up	Baseball	15	13.70	2.79
	Softball	15	11.04	3.98
Shuttle Run	Baseball	15	10.49	0.62
	Softball	15	11.91	0.82

Table 3 : Comparison between Baseball & Softball players Using Independent sample Test

Levene's Test for Equality of Variances				t-test for Equality of Means			
Test	Variance	F	Sig.	t	Df	Sig (2-tailed)	MD
Heart Rate	Equal variances assumed	0.57	0.45	0.76	28	0.44	2.65
	Equal variances not assumed			0.76	25.71	0.44	2.65
Systolic Blood Pressure	Equal variances assumed	0.10	0.74	0.57	28	0.56	2.15
	Equal variances not assumed			0.57	27.98	0.56	2.15
Diastolic Blood Pressure	Equal variances assumed	0.39	0.53	0.66	28	0.50	2.55
	Equal variances not assumed			0.66	25.63	0.50	2.55
Vital Capacity	Equal variances assumed	1.82	0.18	0.42	28	0.67	13.0
	Equal variances not assumed			0.42	22.18	0.67	13.0
Vertical Jump	Equal variances assumed	1.55	2.98	2.98	28	0.00	2.55
	Equal variances not assumed			2.98	27.98	0.00	2.55
Chin-up	Equal variances assumed	2.12	1.52	1.52	28	0.01	2.13
	Equal variances not assumed			1.52	25.63	0.01	2.13
Shuttle Run	Equal variances assumed	1.17	3.03	3.03	28	0.01	1.57
	Equal variances not assumed			3.03	22.18	0.01	1.57

DISCUSSION

The present study shows that significance difference between Baseball & Softball players which is similar to the study by Parvinder Singh (2012), in his study he has studied physiological and anthropometric variable of Kabaddi and KhoKho players and the purpose was to assess if both groups differ in each other. Researcher concluded that there is a significant difference between vertical jump, chin-up & shuttle run variables of Baseball and Softball players. Hence the null hypothesis is rejected and the research hypothesis is accepted. But there was no significant difference found in heart rate, systolic blood pressure, diastolic blood pressure & vital capacity variables of Baseball and Softball players. Hence the research hypothesis is rejected and the null hypothesis is accepted.

CONCLUSION

On the basis of the result obtained in the study the researcher made the conclusion that significant differences exist between vertical jump, chin-up & shuttle run variables of Baseball and Softball players. It was further concluded that vertical jump, chin-up & shuttle run performance of Baseball players is better than Softball players. But no significant difference exists between heart rate, systolic blood pressure, diastolic blood pressure & vital capacity variables of Baseball and Softball players.

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Effect of selected exercises on flexibility and coordination of volleyball players

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ABSTRACT

The main purpose of the study was to study the effect of selected exercises on flexibility and coordination of volleyball players. The age of the players was ranging from 17- 22 years. Only 40 male players were selected for the study. A total period of six weeks training was administered on the experimental groups. The subjects were selected from Kulgam district of Jammu and Kashmir volleyball players. The variables selected for this study were trunk flexibility, eye hand coordination and eye foot coordination. 't' test was used for analysis of data at 0.05 level of significance. It was hypothesized that there might be a significant effect of certain selected exercises on flexibility and coordination of basketball players.

Keywords : Eye foot coordination, eye hand coordination, flexibility, and volleyball players.

INTRODUCTION

In general, flexibility means the range of movements around the skeletal joints of the body. The flexibility is not a general body character but it is specific to each body region. If a person has a highly flexible shoulder joint, it does not necessarily mean that he/she will have good knee flexibility or hip flexibility. It is even possible that one shoulder joint is more flexible than the other. For good physical fitness, it is essential that a person has quite flexible joints and is able to maintain his or her body flexibility. The flexibility component of physical fitness enables the person to have free body movement, better coordinated movements requiring lesser work and to handle greater stress with lesser chances of injury.

Coordination is the key word especially in team sports where two levels of coordination are at work. One, coordination of the activities of different players of the team with one another's action and two each player's coordination of his/her own neuro-motor and neuro-sensory actions. The level of coordination between different players is sport specific and depends upon the coaching of sports skills. The coordination of an individual's own body system is a general motor ability which is predominantly one's innate (inherited quality). It may be greatly improved with coordination improving training and general practice of basic physical activities involving more than one muscle group action like jumping, catching, zigzag running etc.

METHODOLOGY

Find out the effect of six week (42 days) selected exercises on flexibility and coordination of volleyball players is the main aim of this study. 40 volleyball Players of age 17-22 from Kulgam district of Jammu and Kashmir were selected as the subjects by Simple Random Method. The subjects were divided into two equal groups. Those were assigned as Control Group (N=20), and experimental groups (N=20) were analyzed by using the 't' test at 0.05 level of significance. It was accepted that there would be a significant effect of selected exercises on flexibility and coordination of volleyball players.

The following training schedule was administered on the experimental group

Table 1 : Sit & Reach Pre and Post Test of Experimental Group

Days	Exercise	Set	Repetition	Set Rest
Monday to Saturday	1. Trunk Twisting	2 Min	5	2 Min
	2. Rope Skipping	2 Min	5	2 Min
	3. Jogging	2 Min	5	2 Min
	4. Fast running	2 Min	5	2 Min
	5. Stepping with Volleyball in Volleyball Court	2 Min	5	2 Min
	6. Hamstring Stretch	2 Min	5	2 Min

Experimental	Mean	S.D.	M.D.	D.F.	O.T.	T.T.
Pre. Test	20.1	4.21	3.95	19	2.99	2.09
Post Test	24.05	4.13				

The mean of pre test of the experimental group is 20.1 and the mean of post test of experimental group is 24.05. After applying 't' test there is a significant difference between pre and post test of experimental group because the value of calculated 't' (2.99) which is greater than tabulated 't' (2.09) at 0.05 level of significance, which shows improvement is found in the experimental group.

Table 2 : Sit & Reach Pre and Post Test of Control Group

Control	Mean	S.D.	M.D.	D.F.	O.T.	T.T.
Pre. Test	18.8	2.16	0.15	19	0.22	2.09
Post Test	18.65	2.13				

The mean of the pre test of the control group is 18.8 and the mean of the post test of the control group is 18.65. The value of calculated 't' (0.22) which is less than tabulated 't' (2.09) at 0.05 level of significance, which shows no improvement is found in the Controlled group.

Table 3 : Sit & Reach Post Test of Control and Experimental Group

Group	Mean	S.D.	M.D.	D.F.	O.T.	T.T.
Experimental	24.05	4.13	5.4	38	5.19	2.02
Control	18.65	2.13				

In the table-3 mean of post test of experimental group which is 24.05 is slightly less than mean of post test of control group which is 18.65. There is a significant difference between post tests of experimental and controlled groups because the value of calculated 't' (5.19) which is greater than tabulated 't' (2.02) at 0.05 level of confidence, which shows improvement was found in the experimental group after six weeks training schedule.

Graph 1 : Sit and reach mean difference between Pre and Post Test of Control and experimental group**Table 4** : Eye-hand coordination between Pre and Post Test of Experimental Group

Experimental	Mean	S.D.	M.D.	D.F.	O.T.	T.T.
Pre. Test	30.33	1.27	3.15	19	7.23	2.09
Post Test	27.18	1.45				

In table-4 the mean of pre test is 30.33 and the mean of post test is 27.18. There is a significant difference between pre and post test of control group because value of calculated 't' (7.23) which is greater than tabulated 't' (2.09) at 0.05 level of significance, which shows improvement has been found in experimental group because training was given to the subjects of experimental group.

Table 5 : Eye-hand coordination Between Pre And Post Test Of Control Group

Control	Mean	S.D.	M.D.	D.F.	O.T.	T.T.
Pre. Test	30.00	1.95	0.55	19	0.87	2.09
Post Test	29.45	2.06				

In Table-5 the mean of pre test is 30.00 and the mean of post test is 29.45. No significant difference was found between pre and post test of control group because the value of calculated 't' (0.87) which is less than tabulated 't' (2.09) at 0.05 level of significance, which shows no improvement has been found in the subjects of the control group.

Table 6 : Eye-hand coordination between Post Test Of Control And Experimental Group

Group	Mean	S.D.	M.D.	D.F.	O.T.	T.T.
Control	29.45	2.06	2.27	38	4.05	2.02
Experimental	27.18	1.45				

In Table-6 the mean of the post test of the control group is 29.45 and the mean of post test of the experimental group is 27.18. There is no significant difference between post tests of control and experimental group because the value of calculated 't' (4.05) which is greater than tabulated 't' (2.02) at 0.05 level of confidence, which shows improvement has been found in the experimental group after six weeks training.

Graph 2 : Mean Difference between Pre and Post Test of Control and Experimental Group for Eye-hand coordination

Table 7 : Eye-foot coordination Between Pre And Post Test Of Experimental Group

Experimental	Mean	S.D.	M.D.	D.F.	O.T.	T.T.
Pre. Test	8.25	1.44	1.7	19	4.47	2.09
Post Test	6.55	0.99				

In the table7 the mean of pre test is 8.25 and the mean of post test is 6.55. There is found significant difference between pre and post test of experimental group because value of calculated 't' (4.47) which is greater than tabulated 't' (2.09) at 0.05 level of significance, which shows improvement has been found in experimental group because training is given to the subjects of experimental group.

Table 8 : Eye-foot coordination Between Pre And Post Test of Control Group

Control	Mean	S.D.	M.D.	D.F.	O.T.	T.T.
Pre. Test	7.8	1.43	0.05	19	0.10	2.09
Post Test	7.75	1.65				

In the Table-8 the mean of pre test is 7.8 and the mean of post test is 7.75. There is no significant difference is found between pre and post test of control group because value of calculated 't' (0.10) which is less than tabulated' (2.09) at 0.05 level of significance which shows no improvement has been found in control group.

Table 9 : Eye-foot coordination Between Post Test of Control and Experimental Group

Group	Mean	S.D.	M.D.	D.F.	O.T.	T.T.
Control	7.75	1.65	1.2	38	2.79	2.02
Experimental	6.55	0.99				

The mean of the post test of the control group is 7.75 and the mean of post test of the experimental group is 6.55. There is no significant difference between post test of control and experimental group because the value of calculated 't' is 2.79 which is greater than tabulated 't' (2.02) at 0.05 level of significance, which shows improvement has been found in the experimental group after six weeks training.

Graph 3 : Eye-foot coordination mean difference between Pre And Post Test Of Control And Experimental Group

FINDING

It was hypothesized that there will be a significant effect of selected exercises on flexibility and coordination of Volleyball players. After six weeks training it was found that the effect of selected exercises shows significant effect on coordination of Volleyball players. So the hypothesis is accepted. On the other hand there was a significant effect of selected exercises on flexibility of volleyball players, so the hypothesis is accepted.

CONCLUSION

Within the limitations of the study and on the basis of the findings the following conclusions are drawn.

1. Selected exercises improved the Flexibility of Volleyball players significantly.
2. The control group which engaged in daily physical activity did not show significant improvement in Volleyball performance.
3. There was a significant difference found in eye hand coordination between experimental group and controlled group.

4. There was a significant difference found in eye foot coordination between experimental group and controlled group.

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Effect Of Meditation And Yogic Pranayama On Selected Physical And Physiological Variables

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ABSTRACT

Thirty students in the age group of 18 to 24 years were selected from Centre for yoga Education, Alagappa University. The subjects were divided into two groups namely control group and Experimental group. The Experimental group was given yogic pranayama and meditation for a period of twelve weeks both morning and evening on alternative days in a week. The control group did not participate in yogic pranayama and meditation training programmers. The collected data were statistically analyzed by using Analysis of Covariance (ANCOVA). The experiment group had a significant improvement on the selected physical and physiological variables except systolic and diastolic Blood pressure than that of the control group.

Keywords : Flexibility, breath holding time, systolic pressure, diastolic pressure, pulse rate and respiratory rate.

INTRODUCTION

Meditation is a practice in which an individual trains the mind or induces a mode of consciousness, either to realize some benefit or as an end in itself. The term meditation refers to a variety of practices (much like the term sports) that includes techniques designed to promote relaxation, build internal energy or life force and develop compassion, love, patience, generosity and forgiveness. Particularly ambitious form of meditation aims at effortlessly sustained single-pointed concentration meant to enable its practitioner to enjoy an indestructible sense of well-being while engaging in any life activity. Yoga postures are a great way to prepare the body for meditation. Yoga is not only rejuvenating for the body but also the brain. Yoga postures were actually designed to systematically prepare the body to meditate, though with much of the yoga available nowadays, the link to meditation is rarely mentioned.

Yogasana and pranayama have their origin in India and have taken a form of science, which is considered to be a great legacy of India to the world. Yoga is the science of right living and it can be incorporated into everyday life. Yogahasan impact on all Aspects on the individual physical, mental, emotional spiritual and religious. Yoga helps to achieve a perfect balance between the bodies, mind and complete a harmony between the individual and the universal. For meditation, a healthy and sound body and tensionless mind are required.

Various postures of yoga asanas which include standing, Sitting, supine and prone position asana help to keep the body healthy and tension free mind.

METHODOLOGY

The purpose of the present study was to find out the effect of yogic pranayama and meditation on selected physical and physiological variables of adolescents. For the purpose 30 students were selected at random, Centre for yoga education, Alagappa University Group— A(Experimental group) having 15 students. The Group — B (Control group) having 15 students. The group — B (Control Group) having 15 students. They were in the age group of 18 to 24 years. They participated in this research voluntarily and cheerfully without any compulsion. Flexibility was measured by breath count method and the blood pressure, pulse rate and respiratory rate were assessed by standard test using Sphygmomanometer, pulse radial artery by using the finger and counting breathing cycle respectively. The experimental groups were given yogic pranayama and meditation practice for a period of twelve weeks, both morning and evening on alternative days a week. Control group did not participate in any training programme.

ANALYSIS OF DATA AND INTERPRETATION OF RESULTS

The data, collected from the control group and experimental group on selected physical and physiological variables, were statistically analyzed by using the analysis of covariance (ANCOVA) a statistical technique since the two groups namely Experimental Group and Control Group tested twice before (Pre Test) the training Programmed. The level of significance, fixed at 0.05 level of confidence, was used in this study.

Table 1 : Mean and Analysis of covariance for the Pre-Test and Post-Test Data on Flexibility

Test	Control Group		Experimental Group	Source of Variance	Sum of square	df	Mean square	F ratio
Pretest	Mean	34.73	35.133	Between	1.20	1	1.20	0.26
	S.D	6.55	7.03	Within	1294.67	21	46.24	
Post test	Mean	35.06	40.60	Between	229.63	1	229.6	4.63*
	S.D	7.06	7.01	Within	1388.53	21	49.59	

F 0.05 (1.27) = 4.20.(Or) Table value 4.20 ,Significance at 0.05Level

Table 2 : Mean and Analysis of covariance for the Pre-Test and Post-Test Data on Breath Holding Time

Test	Control Group		Experimental Group	Source of Variance	Sum of square	df	Mean square	F ratio
Pretest	Mean	27.45	27.47	Between	0.003	1	28 1.20	46.24
	S.D	1.99	2.05	Within	921.35			0.0001
Post test	Mean	27.45	30.02	Between	49.41	1	28 229.6	49.59
	S.D	2.12	1.56	Within	789.69			1.75

F0.05 (1.27) = 4.20.(Or)Table value 4.20.,Significance at 0.05Level.

Table 3 : Mean and Analysis of covariance for the Pre-Test and Post Test Data on Pulse rate

Test	Control Group		Experimental Group	Source of Variance	Sum of square	df	Mean square	F ratio
Pretest	Mean	80.00	80.13	Between	0.1333	1	0.133	0.015
	S.D	3.38	3.38	Within	255.73	28	9.1333	
Post test	Mean	76.60	77.20	Between	43.20	1	43.20	5.652*
	S.D	2.94	2.57	Within	214	28	7.643	

Table 4 : Mean and Analysis of covariance for the Pre-Test and Post Test Data on Respiratory rate

Test	Control Group		Experimental Group	Source of Variance	Sum of square	df	Mean square	F ratio
Pretest	Mean	19.13	18.80	Between	0.8333	1	0.833	0.212
	S.D	1.73	2.21	Within	110.13	28	3.933	
Post test	Mean	19.33	20.93	Between	19.20	1	19.20	4.780*
	S.D	1.72	2.25	Within	112.30	28	4.010	

F 0.05 (1,27) = 4.20 (Or) Table value 4.20 Significance at 0.05 Level

DISCUSSION

The results of the study specify that physical and physiological changes improved significantly by undergoing the selected yogic pranayama and meditation practice. The changes in the selected parameters were attributed to the regular practice of yogic pranayama and meditation practice programme. Specifically the results indicated significant increases in efficiency of selected variables during the twelve week training programme. The flexibility, breath holding time, pulse rate and respiratory rate improved through yogic pranayama and meditation practice for the experimental group when compared with the control group. The evidence based on research found the effect of yoga asanas and pranayama on blood pressure, Pulse Rate and respiratory functions.

CONCLUSION

The findings of this study showed there was a significant change in physical and physiological variables. The study suggests that yoga asanas, pranayamas and meditation might have good improvement on the physiological variables of Respiratory Rate, Pulse Rate and Physical Variables like muscular flexibility.

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A Comparative Study of Agility Ability Among The Kho-Kho And Football Players

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ABSTRACT

The current study of examination is about the correlation of the speed capacity among Kho-Kho and Football players in Ahmednagar District. The players were arbitrarily picked for the investigation, 20 Kho-Kho and 20 Football players having age bunch 16-18 years. The information were gotten and examined with the assistance of measurable techniques. The outcome and determination were finished up having a critical contrast in speed capacity between both the games. The members were tried on 10X4 Shuttle run test to evaluate the Agility among Kho-Kho and Football players. The autonomous t-test was utilized to investigate the got information. The degree of criticalness was set at 0.05. Result: the discoveries of the current examination show that the Kho-Kho players are having awesome Agility contrast with Football players.

Keywords : Kho-Kho, Football, Agility, Players

INTRODUCTION

Customary exercise and physical education advances solid muscles and bones. It improves respiratory, cardiovascular wellbeing, and in general wellbeing. Remaining dynamic can likewise assist you with keeping up a solid weight, lessen your hazard for type 2 diabetes, coronary illness, and diminish your hazard for certain malignancies. To lay it out plainly, physical movement and exercise is significant for everybody. Youngsters, youths, and grownups of any age need standard physical action. Physical movement advances great wellbeing, and you should remain dynamic all through all phases of your life paying little mind to your body type or BMI. An inactive way of life and an absence of physical action can negatively affect an individual's body. Physical latency is related with an expanded hazard for particular kinds of malignancy, various constant sicknesses, and emotional well-being issues. Exercise, be that as it may, has been appeared to improve state of mind and emotional well-being, and gives various medical advantages. Obviously physical wellness additionally permits you to do things that you may not in any case have the option to do. Remaining dynamic and sound permits you to do exercises that require a specific degree of physical wellness. For instance, climbing to the head of a mountain is a compensating experience that imparts a feeling of achievement and gives fantastic landscape, however there are individuals who can't encounter this because of wellness impediments. Be that as it may, in any event, strolling around the zoo with your family or playing on the play area with your youngsters can be trying for the individuals who disregard physical movement for broadened timeframes. Being dynamic implies that it's simpler to remain dynamic as you get more established. Agility isn't exactly how quick somebody can

change direction of body, yet is subject to their increasing Agility (how rapidly they can quicken from a fixed position). Development Agility requires great quality and force, yet additionally an excessive amount of body weight and air obstruction can act to back the individual off. Agility is one of the principle wellness parts, significant for achievement in numerous games. For certain competitors, for example, Kabaddi, Kho-Kho, Handball, Basketball, Hockey, Cricket and many more games Agility is the most significant part of wellness. In numerous different games, including group field sports, great Agility is additionally significant as a major aspect of the general wellness profile. A vote of the top games requiring Agility has the undeniable ones of Olympic style events runners on top.

SURVEY OF WRITING

Uppal and Roy (1986) [18] and Angyan (1989) [3] were support the result of the present study. Sorabh Trikha 2014-17, has led an examination on Comparative status of solidarity and speed between various group games, he discovered huge contrast among cricket and hockey players corresponding to speed capacity. Some other studies conducted by Natraj H.V. & Chandrakumar, M. (2006) [16]

OBJECTIVE OF THE STUDY

To compare the Agility among the Kho-Kho and Football players.

METHODOLOGY

The researcher has described the design of the study in detail. The size and selection of the sample, the variable and the control employed the sources of data, the tools and the method of gathering data, the description of data gathering instruments and the statistical procedure used in the analysis are carefully described.

SAMPLING PROCEDURE

The samples of the present study consists of 20 Kho-Kho and 20 Football players in Ahmednagar district having age group 16-18 years.

TOOLS

4X10 Shuttle run test is used to collect the data for Agility (Kansal D.K.1996, PP 255-256)

AGILITY TEST (4X10 SHUTTLE RUN)

AGILITY

Agility is one's controlled ability to change body position and direction rapidly and accurately

FACILITIES AND EQUIPMENTS

Two blocks of wood (2"x2"x4") a stopwatch and marking powder. The subject should wear shoes or run bare foot.

ADMINISTRATION OF 4X10 SHUTTLE RUN

Two parallel lines are marked on the floor 10 yard. The two wooden blocks are placed behind the other line one of the lines, the subject is asked to start from behind the other line on the signal ready Go!. The time keeper starts the watch and the subject runs towards the blocks, pick-up one block, run back and pick-up the second block to be carried back across the starting line. As the second block is placed on the ground the timekeeper stops the watch and record the time.

SCORINGS

Two trials are allowed to each subject with some rest in between; the time of the better of the trials is nearest 10th of a second as the score of the test item.

ANALYZING THE DATA

The following statistical procedures were used to analyze the difference of the speed ability between Kho-Kho and Football players.

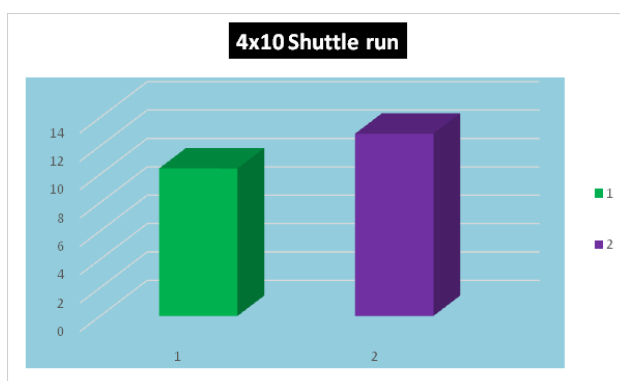
RESULTS AND FINDINGS

Speed ability between Kho-Kho and Football players

Test	Group	No	Mean	S.D.	t-value	D.f.
4x10	Kho-Kho	20	10.40	1.37		
Shuttle run	Football	20	12.85	1.17	-.74	.46

The above table shows that the mean value of a Agility of Kho-Kho player is 10.40 and the mean value of Agility of the Football player is 12.85. The result shows that the Kho-Kho players have good Agility value as compared to the Football players.

GRAPHICAL PRESENTATION



CONCLUSION

Discussion and Conclusion Based on the consequence of the investigation, it tends to be presumed that there was a noteworthy contrast between the cricket and Football players comparable to the speed capacity. Football players have speedier in contrast with the Cricket players because of the idea of the game preparing plan, ground length and the level running on the as indicated by game interest.

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Physical Activity and Academic Achievement in Children

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ABSTRACT

As the focus on academic achievement has increased, physical activity (PA) opportunities in schools have decreased in the United States. In an attempt to discover how the decline in PA may affect academic achievement, researchers have been studying the effects of PA on cognition and academic achievement in children for more than 50 years. This review takes a historical perspective on the science of PA and academic achievement prior to and during the past 5 years. A total of 125 published articles were included and reviewed. Fifty-three of these articles were published in the past 5 years. In recent years, the overall quality of the studies has increased, but the results continue to be inconsistent. Many use cross-sectional designs and the methods vary substantially. The majority of conclusions show a positive effect of PA on constructs related to academic achievement. Future studies should use strong study designs to examine the types and doses of PA needed to produce improvements in academic achievement.

Key Words : Academic achievement; Children; Cognition; Fitness; Physical activity

INTRODUCTION

Children and youth receive numerous physical health benefits from physical activity (PA), including improved fitness, cardiovascular function, metabolic function, and bone health.¹ Despite these health benefits, many children continually fail to meet PA recommendations.² To increase PA in

a large number of children, experts have targeted schools as a setting in which to promote PA.^{3,4} Most efforts to sell PA to school administrators and policymakers have emphasized its health benefits, with little success. Therefore, advocates have searched for an alternative approach to persuade decision makers to include PA in the school day. One approach has been to associate PA with academic achievement. Researchers have been studying PA and academic achievement for over half a century. Now, many researchers contend that sufficient evidence exists to institute school PA policies that will improve (or at least not detract from) academic achievement. If this conclusion is promoted before definitive data are available, however, negative consequences may result. If researchers promote PA as a way to improve academics, and administrators later fail to see this association, promotion of PA in schools could fall several steps backwards.

Government agencies have conducted reviews on PA and academic achievement that have potential policy implications. The Centers for Disease Control and Prevention (CDC) reviewed the literature through

2008 on PA during the school day and academic achievement. The CDC review concluded that PA may have a positive effect or no effect on academic performance. Additionally, the PA Guidelines Advisory Committee reviewed literature through 2007 on the health benefits of PA for children and youth, including the mental health benefits.¹ In its report, the Committee concluded,

“Although observational studies have found relationships between physical fitness and grades and test scores, those between PA and direct measures of academic achievement often have had null findings.”

The importance of this topic led the CDC to conduct a review of PA performed during the school day and academic achievement.⁶ It found half of the associations between PA and academic achievement to be positive, with most of the others reporting null associations and only a small percentage finding negative associations. The review concluded that there is either a positive or no relationship between PA and academic performance. As the focus on academics has increased in schools, No Child Left Behind has also taken action to close the achievement gap that exists in academic performance between white and black students. Health disparities accompany the academic achievement gap, including disparities in fitness and obesity between these populations. It reviewed seven studies that examined the relationship between PA or fitness and academic-related outcomes in minority children, and found an overall positive relationship. The most recent review¹⁷ examined 14 prospective or intervention studies that investigated the effects of PA or fitness on academics and cognition. Most of the studies included in the review used either self-reported grades or a cognitive testing battery as the outcome measure, and the authors did not break down the results by specific outcomes. The authors found a positive relationship between PA participation and academic performance but only two of the studies were rated as high-quality studies.

The explosion of reviews on this topic with slightly different review methodologies has led to slightly different conclusions. To help make sense of the accumulating information, Biddle and Asare²¹ conducted a review of reviews of PA training interventions and cognitive functioning. Examining the mass of information, they concluded that there is “evidence that routine PA can be associated with improved cognitive performance and academic achievement, but these associations are usually small and inconsistent.”²¹ To date, the previous reviews of this literature do not suggest an overwhelming positive effect of PA on academic achievement.

METHODOLOGY

We conducted a review of the literature in order to identify published articles about the association between PA and academic achievement. Numerous databases including PubMed, Medline, Academic Search Premier, Education Resources Information Center, and PsychInfo, were searched for the following search terms: academic, cognitive, PA, fitness, sport, exercise, and training. Studies included in this review were published before April 2012 and reported cognitive or academic achievement as an outcome of a primary study. Reviews were excluded. Observational studies had to examine an exposure of PA, fitness, sports participation, or physical education and experimental studies had to conduct a PA intervention. Studies had to include school-age children from age 6 to 18. Multiple papers that reported on the same research study were included in the review. A total of 125 (72 before 2007, 53 during or after 2007) published articles were included.

Study designs were defined as observational or experimental. Observational studies were further classified into cross-sectional or longitudinal studies. Experimental studies were further classified as randomized, quasi-experimental (included a control group but were not randomized), or within subject designs. Randomized designs are considered to provide the strongest evidence of causality.

Exposures and outcomes of all studies were identified. Independent variables included PA, fitness,

and sports participation. PA, or any energy expenditure above resting is most commonly measured through self-report or objective measures including pedometers or accelerometers. Sports participation included the specific involvement in an organized sports team.

For the purposes of this review, PA was used as the broad umbrella term for the independent variables (including sports participation, fitness, and physical education), unless otherwise noted.

Academic achievement was defined as relating to school performance or the quantity or quality of a student's work. It included content-specific knowledge, school performance, dropout, and school engagement. Measures of academic achievement included standardized tests, academic grades, teacher reports, or direct observations of classroom behavior. For this review, the terms academic achievement or academic performance will be used interchangeably to refer to the multiple dependent variables in this review, including cognition, unless otherwise noted.

The hypothesized relationship and operational conception of the above describe variables described above can be seen in Fig. 1. The relationships are operationalized for the purposes of this review, and more research is necessary before conclusions about potential mediators can be drawn.

RESULTS :

A total of 125 studies were included in this review with 72 published prior to 2007 and 53 published from 2007 through April 2012. Fig. 2 shows the number of publications per year. In the past 5 years, 10.6 primary articles have been published per year, compared to 1.4 studies per year in the previous 50 years. Table 1 presents a summary of the studies.

Since 2007, 12 experimental studies that examined the effect of PA on academic performance have been published. Seven of the 12 used a randomized design, two used a within subjects design and three were quasi-experimental. The average sample size was 313 (range of 20e1214), with a median of 163. Ten studies (83%) reported overall positive outcomes. Two studies reported no effects of the intervention on the primary outcome, and one study found that the control group had greater improvements in math and reading than the experimental group. In the past 5 years, 11 observational studies that examined cognition as an outcome have been published, one of which was longitudinal. The majority (10 of 11) of these studies examined the association between fitness and cognition. One study examined sports participation and one study also

included PA measured by accelerometer. The average sample size was 232 (range of 18e1820), with a median of 48. Schott found associations with fitness and select measures of executive functions.

Specifically, 10 positive associations were found with executive functions, including inhibition and working memory. One positive association was found with IQ. Null associations were also found with executive functions and working memory. Fourteen experimental studies on the effects of PA on cognition in children have been published since 2007. Seven used a randomized design, five were within-subject, one was quasi-experimental, and one was a pre-post design. The average sample size was 173 (range of 20 to 1224), with a median of 77. Eight studies examined the acute effects of exercise and six studies looked at the effects of a PA training program. Two studies found positive effects on attention and eight studies reported positive effects on executive functions, including inhibition and working memory. One study each found positive effects on fluid intelligence, memory, and reaction time.

DISCUSSION

Both the quantity and quality of studies on PA and academic achievement have increased markedly in the past 5 years. The experimental studies used stronger study designs and larger sample sizes, and more studies used valid and standardized measures of PA exposure and cognitive and academic outcomes. Despite these gains, however, several research gaps remain.

THE SCIENCE THEN

Based on the science available 5 years ago, it was difficult to draw definitive conclusions regarding the relationship between PA and academic achievement. The CDC review found just over half of the associations between PA and academic achievement in children to be positive, slightly under half to be non-significant, and 1.5% to be negative. Based upon the literature at the time, the review concluded that PA either has a null or positive relationship with academic performance. It also noted the weak methodological that resulted from weak study designs, small samples, and inconsistent exposures and outcomes.

THE SCIENCE NOW

While the number and quality of studies have increased in the past 5 years, it is still difficult to draw definitive conclusions regarding the relationship between PA and academic achievement. The overall findings continue to be positive; as PA increases, cognitive function and academic achievement generally increase. Almost all studies in the past 5 years have had at least one positive finding, but findings continue to be inconsistent.

THE SCIENCE STILL NEEDED

While the science on PA and academic achievement has made great strides in the past 5 years, plenty of work remains to be done. The large majority of studies continue to be cross sectional. Almost as many observational studies have been published in the past 5 years as in the previous half-century. With the plethora of observational studies, it is important to note that causal inferences cannot be made from cross sectional correlations. Within observational studies, more studies using prospective cohort designs are needed. Randomized controlled or within-subject designs will continue to provide stronger evidence of relationships. As mentioned previously, better measures of exposures and outcomes are needed, including objective measures of PA, standardized cognitive testing batteries, and limited self-report of grades. When multiple measures are used, all outcomes should be presented in final results. One way to select outcomes for a study is to work with school administrators and personnel to identify the most appropriate and relevant outcomes. Including school

staff in a community participatory research model in all stages of research will help to make study results meaningful to the policymakers the results are intended to reach.

This review has several limitations. To increase the breadth, the review included a wide range of published studies on PA and academics with less rigorous exclusion criteria than previous reviews. Inclusion criteria did not limit multiple publications from a single study, thus studies with multiple publications may have biased the results. Only studies published in peer-reviewed journals were included, excluding dissertations.

CONCLUSION

Researchers have made considerable progress in examining PA and academics in the past 5 years, yet results are still inconsistent. The overwhelming majority of published articles report positive associations between PA and cognition, particularly executive functions, and academic achievement. Little to no evidence that suggests a negative relationship between PA and academics has been published, but results may be prone to reporting bias. While the strength of research has increased substantially in the past 5 years, inconsistencies in exposures and outcomes make it difficult to draw strong conclusions. Thus, researchers must select arguments wisely when talking to school districts. To build an impenetrable case, researchers must carefully continue to identify the type, dose, and relevant outcomes using strong research designs.

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A Comparative Study on Selected Physical Fitness Components of Karate and Taekwondo Male School Players

Shiva Raj Bhatt

ABSTRACT

The purpose of the present study was to compare the physical fitness variables among school level male karate and Taekwondo players. To accomplish the goal of the current research, forty School level karate (N20) and taekwondo (N20) male players who were active in training and age ranging from 13 to 18 years old were randomly selected from Mahendranagar of Kanchanpur District Nepal. To compare the mean differences between the school level male karate and taekwondo players, 't' tests were computed using SPSS software. Agility and strength were found significantly different whereas speed was not found to be statistically significant.

Keywords: Karate, Agility, Strength

INTRODUCTION

Physical fitness is the ability to carry out daily tasks with vigor and alertness, without undue fatigue and with ample energy to engage in leisure pursuits and to meet energy situations. Physical fitness is gauged by performance and which is based on a composite of many factors. The most commonly mentioned fitness factors are speed, endurance, power, flexibility, balance, coordination and accuracy.

Fitness variables have been considered the important requisite for sportsmen to secure top level performance in games (Harold and Rosemary, 1979). Speed is the performance pre-requisite to do motor actions under given conditions (movement tasks, external factors, individual pre-requisites) in minimum time (Schnabel 1987). The agility is the capacity of an individual measured by the rate of changing his position in space. It is the ability to change the direction quickly and effectively with moving as nearly as possible with full speed.

Strength is one of the most important abilities in sports. Strength is a condition ability of a sports person. It is the ability to overcome to act against the maximum resistance.

OBJECTIVES

The main objective of the study was to compare the speed agility and strength of school level male karate and Tae kwon Do players.

METHODOLOGY

This study was designed to compare the strength, speed and agility between the karate and taekwondo players. To achieve the purpose, a total of forty (20 karate and 20 taekwondo) players were selected randomly from

Kanchanpur District of Nepal. Their age ranged from 13 to 18 years. The purpose of the study was to find out the selected physical fitness components among school level male karate and taekwondo players. The researcher used the random group design in this study. In this study randomly selected 20 karate and 20 taekwondo male players who volunteered to participate. They were measured by their speed, agility and strength. The collected data were subjected to statistical treatment using mean, standard deviation and 't' ratio by using SPSS software to find out the significance of the mean obtained.

The researcher reviewed the literature regarding physical fitness from books and journals as well as discussed with the experts, feasibility and availability of instruments and equipment. The variables used for the study are given in the following table.

Table 1 : Selection of Variables and Test

S. No.	Physical Fitness variables	Test
1.	Speed	50 m. Dash
2.	Agility	Shuttle run
3.	Strength	Push ups

RESULTS

The results are presented in the following tables:

Comparison of Scores on speed between school level male Karate and Taekwondo players are presented in table No. 2

Table 2 : Comparison of scores on speed between male school level karate and Taekwondo players.

Variable	Groups	N	Mean	SD	T
Speed	Karate	20	6.459	0.720	0.326
	Tae kwon do	20	6.393	0.539	

It is depicted from the table No. 2.0 that the calculated 't' values in case of school level karate and taekwondo players was not found to be statistically significant as the value obtained was 0.326 where as the tabulated value was 2.0244 with 38 degree of freedom at 0.05 level of significance. Mean scores are shown graphically in fig. 1

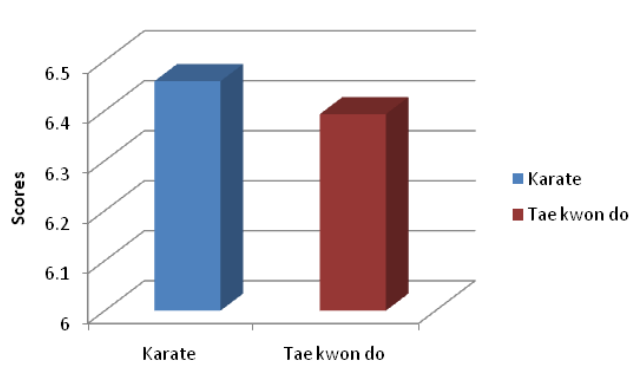


Fig. 1 : Mean Scores of Speed

Comparison of Scores on Agility between school level male karate and Tae Kwon Do players are presented in table No. 3

Table 3: comparison of Scores on Agility between school level male karate and taekwondo players

Variable	Groups	N	Mean	SD	T
Agility	Karate	20	7.896	0.867	10.171
	Tae kwon do	20	5.678	0.446	

Table 3 clearly indicates that there was highly significant differences between school level male karate and taekwondo players on the variable of Agility since the 't' value obtained at 0.05 level was 10.171 whereas the tabulated 't' value was 2.0224 with 38 degree of freedom at 0.05 level of significance. Mean scores are shown graphically in fig 2

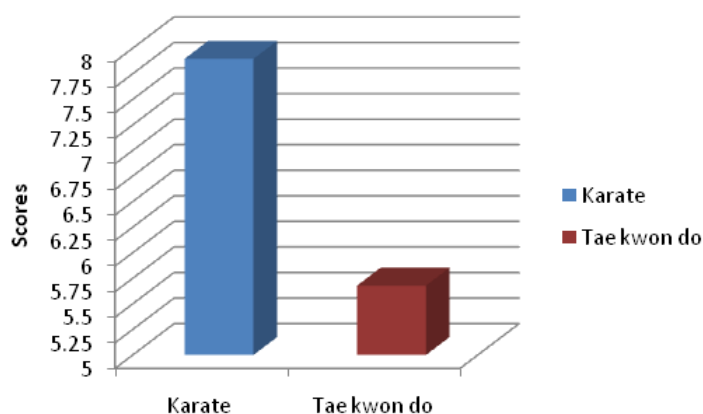


Fig. 2 : Mean Scores of Agility

Comparison of scores on strength between school level male karate and taekwondo players are presented in table No. 4

Table 4: Comparison of scores on strength between school level male karate and taekwondo players.

Variable	Groups	N	Mean	SD	T
Strength	Karate	20	53	11.32	4.518
	Tae kwon do	20	40.85	4.05	

It is clearly depicted from table No. 4 that the calculated 't' value in case of strength on school level male karate and taekwondo players was statistically significant as the value obtained was 4.518 where as the tabulated value was 2.0244 with 38 degree of freedom at 0.05 level of significance. Mean scores are shown graphically in fig. 3.

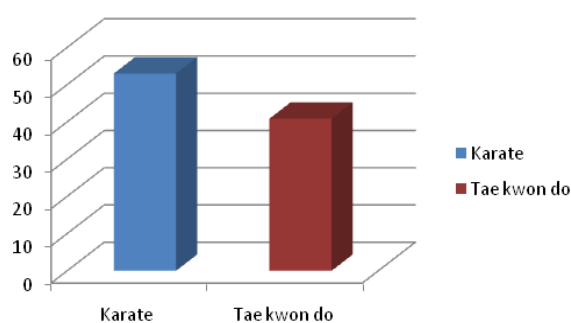


Fig. 3 : Mean scores of Strength

DISCUSSION

From the result presented in table 2,3 and 4. It has been observed that there was a significant difference on Agility and strength between school level male karate and taekwondo players. More upper body strength is required to karate players to punch (Tsuki) in comparison to taekwondo players. But in case of agility taekwon do players need more agility than karate players so that they can change their direction immediately to kick. Hence forth, the levels of Agility and strength possessed by school level male karate and taekwondo players were significantly different.

From the analysis of data it is revealed that there was no significant difference in speed between school level male karate and taekwondo players because both players need to have more speed during the game.

CONCLUSION

In the light of the findings and limitations of the present study the following conclusions were drawn:

Significant differences were obtained between school level male karate and taekwondo players on Agility and strength.

No significant difference was found between school level male karate and taekwondo players on speed.

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A Study on Injuries during Badminton Sports

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ABSTRACT

Badminton is a sport played by racquets and a net shuttle. Singles and Doubles are most popular types of the games in Badminton. Badminton sometimes takes place as a casual outdoor event on the yard or beach; in a rectangular interior courtyard formal games are played. Punctures are marked by hitting and landing the shuttle racket on the opposite side of the court. This paper presents a detailed study on various injuries occurs during Badminton. Various injuries and how to avoid these injuries are described with supported literature.

Keywords : Badminton; Safety; Injuries; Sports

INTRODUCTION

Badminton is a racquet sport played using racquets to hit a shuttlecock across a net. Although it may be played with larger teams, the most common forms of the game are “singles” (with one player per side) and “doubles” (with two players per side). Badminton is often played as a casual outdoor activity in a yard or on a beach; formal games are played on a rectangular indoor court. Points are scored by striking the shuttlecock with the racquet and landing it within the opposing side’s half of the court. Each side may only strike the shuttlecock once before it passes over the net. Play ends once the shuttlecock has struck the floor or if a fault has been called by the umpire, service judge, or (in their absence) the opposing side. The shuttlecock is a feathered or (in informal matches) plastic projectile which flies differently from the balls used in many other sports. In particular, the feathers create much higher drag, causing the shuttlecock to decelerate more rapidly. Shuttlecocks also have a high top speed compared to the balls in other racquet sports. The flight of the shuttlecock gives the sport its distinctive nature. The game developed in British India from the earlier game of battledore and shuttlecock. European play came to be dominated by Denmark but the game has become very popular in Asia, with recent competitions dominated by China. Since 1992, badminton has been a Summer Olympic sport with four events: men’s singles, women’s singles, men’s doubles, and women’s doubles with mixed doubles added four years later. At high levels of play, the sport demands excellent fitness: players require aerobic stamina, agility, strength, speed, and precision. It is also a technical sport, requiring good motor coordination and the development of sophisticated racquet movements [1].

Badminton Playing Techniques and Shots

- Forehand – hit with the front of the hand leading (similar to throwing a ball)

- Backhand – hit with the back of the hand leading (flicking: the hands extending at the wrist)
- Ready Position- Knees bent, arms at waist level and weight forward.
- Serve- the racquet head must be below the level of the server's hand while the shuttle is hit below waist level. The serve should be nice and low to the net on a short serve. For a long serve, it should be far and high. The serve is the most important shot in the game.
- Clear – hitting the shuttle high and to the back of the opponent's court. This shot is played well behind the shuttle. The point of impact is directly above or slightly behind the shuttle. The arm moves straight up as racquet head and shuttle meet. This shot is the most common and can be offensive, moving your opponent back from the net or defensive, gaining time to improve your own position.
- Smash – the ultimate attacking shot. This shot is a powerful overhead shot used to put away a shuttle that is above the height of the net. A smash is hit high in the air and you snap your wrist as soon as your racket makes contact with the shuttle.
- Jump smash – players jump upwards for a steeper smash angle
- Drop – This shot is a slow, gentle shot that falls just over the net into the opponent's forecourt. This shot is used from the backcourt. When hitting this shot catch the shuttle high before it starts to fall down. Hit out and down to make the shot fall right over the net.
- Drive- This is a line-drive shot that travels parallel to the ground, passing close over the net. This shot is used to aim and power hit at someone with your racket out in front of your body.

INJURIES DURING BADMINTON

Most of injuries in sports occur during exercise and while participating in a sport. Following are some of reasons due to which sports injuries occurs [2].

- haven't been regularly active
- don't warm up properly before exercise
- play contact sports

Though Badminton is considered as safe game there are many chances that injuieres make takes place during play. Following are some of common Badminton injuries [3].

- Patellofemoral pain syndrome
- Jumper's knee
- Collateral ligament injuries
- Medial tibial stress syndrome (shin splints)
- Ankle sprain
- Thrower's shoulder
- Plantar fasciitis

- Achilles tendon rupture
- Back pain

According to Goh et al. [4] badminton is one of the low risk games but there are chances of injuries due to players have to generate power in very difficult positions during playing. According to Hoy et al. [5], the incidence of badminton injuries are considerably less compared with other sports and Badminton does not present ocular hazards. In badminton it is obvious that the movement patterns are related to an increase in injuries and the generation of new injuries. Eye injury occurs when shuttlecock crash from an opponent's blow. Glasses can significantly reduce the risk of eye injury. Injuries to the arm and shoulder are due to defective method, while leg and back injuries are caused mostly by a lack of power or mobility [6]. Some of common injuries are shown here [7].

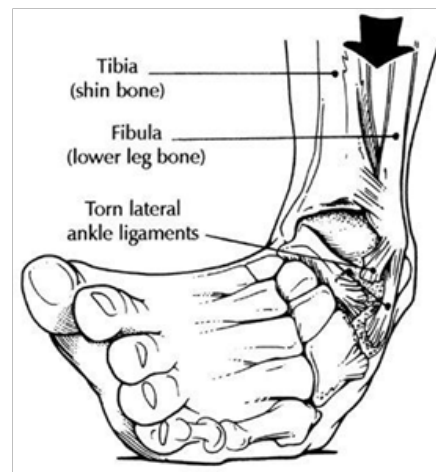


Fig. 1 : Sprained Ankle



Fig. 2 : Achilles Tendonitis



Fig. 3 : Tennis Elbow

CONCLUSIONS

Badminton is a sport played by racquets and a net shuttle. Singles and Doubles are most popular types of the games in Badminton. This paper presents a detailed study on various injuries occurs during Badminton. Various injuries and how to avoid these injuries are described with supported literature. Following are some of the common injuires during the badminton Patellofemoral pain syndrome , Jumper's knee, Collateral ligament injuries , Medial tibial stress syndrome (shin splints),Ankle prain, Thrower's shoulder, Plantar fasciitis, Achilles tendon rupture, Back pain

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Effect of Integrated Training Program on Selected Social Variables of Degree College Male Students

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ABSTRACT

The purpose of the study was to determine the effect of Integrated training programme on selected social variables of degree college male students. Methodology: In this experimental research study, 50 boys (age 18 to 20 years) were selected as subjects of degree college. The design of the study was randomized parallel group experimental design. The dependent variables were selected social variables i.e. social preference and social behaviour. Standardized questionnaire was administered for Pre-test and Post-test. The independent variable (treatment) was Integrated Training Programme (12 weeks) which comprised of different training programs. Result: The comparison of data (pre test - post test) of control group and experimental group was analyzed with the help of paired t-test. The result showed that the significant improvement in the selected social variables i.e. social preference and social behaviour due to the execution of Integrated training program among the degree college male students.

Keywords : Integrated training program, social variables, degree college

INTRODUCTION

Charles Butcher the great American physical educationalist states, “Physical education is an integral part of the total education process and is a field of endeavour which has as its aim the development of physically, mentally, emotionally and socially fit citizens through the medium of physical activities, which has been related with a view to related outcomes.

Hence physical exercises have been considered as an essential part of human life. From ancient times physical movement or the activity is the foremost important thing for the survival of man, one learns soon after birth. The literal meaning of ‘physical’ is ‘body’ which strictly relates to physique, health, strength, endurance, speed, agility, flexibility, and physical performance on the sports ground (Uppal, 2000). A well planned and regular lifetime program of exercise will help us feel better, look better and enable us to enjoy a much comfortable life than we may have been leading until now. Exercise means treating our body with new respect, working with it instead of against it and all this should be fun. It is therefore important to select a method that suits an individual and their personality and thus researcher felt that the college students should participate in physical activities of their interest and thereby continue with it for lifetime in order to lead a healthy lifestyle.

In India, now and then steps are taken to promote physical fitness but there is still a long way to go. An attempt was also made by the ministry of education, government of India, to promote the physical efficiency throughout the nation by national physical efficiency drive for men and women with certain standards on selected test items. Many state governments have attempted to make physical education program for the learners of high school to develop physical fitness. But there is no such compulsory program so far for the students studying in degree colleges affiliated to University of Mumbai either to measure their fitness level or to develop their fitness. Very few colleges affiliated to University of Mumbai conduct Foundation course in physical education. Also, the very existing fact is that most of the students of urban population do not actively participate in regular physical activities. As the students studying in degree colleges have so many tutorials, presentation, practicals, internships, peer pressure and competitions that they have to spend most of their time in the academic stream. In this competitive world, they have to undergo advance courses related to their branch of study apart from their regular academic schedule, so they rarely expose themselves to physical activity. Majority of students neglect the physical activity which leads to sedentary lifestyle. Moreover, only those who wish to excel in a particular physical activity or sport have been physically active while the majority of students neglect participation in the physical activity in most of the degree colleges of Mumbai region. This majority remains as mere spectators and claim to be sports lovers and don't take much efforts to improve their own physical fitness.

Basically, a student without physical fitness is easily overpowered by chronic diseases at the early stages. Regular physical fitness results in desirable physical appearance, promotes self-confidence, courage and overall personality among the students. Hence, physical fitness being an important feature which reflects the youth's contribution to the country as a productive citizen needs to be studied carefully.

Mumbai being one of the most populated cities in the world and with the rise of residential and industrial projects there are very few play grounds and facilities being provided by colleges to the students. There is a need to make use of available resources, infrastructure, locality and amount of time students can give from their schedule in designing a training program. Also, success of any training program depends largely upon two factors i.e. adequate facilities and well-planned activities.

Hence the researcher felt the need of integrated training program to find a solution to the problem of inadequate infrastructure or facilities of colleges in Mumbai and amount of time that a college student can spare to be physical activity from his/her weekly schedule.

Hence by keeping in mind the available infrastructure and facilities, nature of routine work of the students the investigator is impelled to design an integrated training program to create awareness among the degree college students about the value of physical activity and its benefits during the span of lifetime.

As we all know physical education not only helps in developing physical parameters of an individual but also helps in developing emotional, spiritual, intellectual, social personality of an individual. Researcher feels with the increase in virtual world amongst the youth because of video games or play stations and the social platforms developed like Facebook, Snapchat, Instagram, etc. there should be more emphasis given on team building activities, team games and encouraging youth to participate in team sports or any such related physical activities. Hence following were considered as null hypothesis for this study.

Hypotheses of the Study

H01: There is no significant difference in mean scores of social preference of the experimental group.

H02 : There is no significant difference in mean scores of social behaviour of the experimental group.

METHODOLOGY

Research design and selection of subjects for the study :

The primary purpose behind the study was to see the effect of integrated training program on wholesome development i.e. on selected physical variables of the degree college male students. The age of the subjects for the present study was fixed in the range of 18 to 20 years. Researcher selected 50 male students randomly as subjects for the study from the 600 degree college male students belonging to P.T.V.A's colleges. The selected subjects hailed from various socio-economic conditions.

The study was formulated as randomized parallel group experimental design. These selected 50 subjects were divided into two groups namely, experimental group and control group (CG). Each group consisted of twenty-five subjects. The selected subjects were initially tested on selected social variables used in this study and this is considered as the pre-test. After assessing the pre-test, the subjects belonging to experimental group were treated with integrated training program designed by researcher under the guidance of experts from field of physical education and sports. As far as the subjects in the control group was concerned, no training program was given to them. The subjects from the experimental group were treated with integrated training program for three days a week and this program lasted for 12 weeks. The sessions were conducted in the morning for one hour duration. After completion of the treatment period, all the subjects were again tested on the selected social variables and considered this as the post-test.

Selection of variables and tools to measure the variables :

Cardio vascular training, Resistance training, Circuit training, Combinational training, Adventure training and Yogic practices these were the training methods integrated in this training program giving equal emphasis to each of them. These were considered as independent variables of this study.

For this research, social preference and social behaviour inventory by M.C. Joshi and Jagdish Pandey has been used by the researcher to assess the social preference and social behaviour of the degree college male students. These were considered as dependent variables for this study. It contains two parts: Part i) Social behaviour Part ii) social preference. The inventory consists of 68 items. Each part contains 34 items to measure social preference and social behaviour of the subjects.

These were ranged on the basis of five-point scale. They are 1. Always 2. Frequently, 3. Sometimes, 4. Rarely and 5. Never. For the purposes of this study, the researcher intended to measure selected sociological variables social preference and social behaviour. The research administered the entire questionnaire consisting of 68 statements before the experiment among experimental and control group which formed the pre-test scores of the selected social variables. After the experimental period the same questionnaire was administered and the scores collected which formed post test scores.

STATISTICS

Since, there were two groups for this experimental study viz. Experimental and Control group, wherein the researcher has decided to compare Mean Scores of selected social variables in order to see the effect of integrated training program. Paired t-test was appropriately used for the data analysis.

RESULTS

Table 1 : Mean scores of Social preference of Experimental Group

Group	Mean	SD	SEM	N	df	't' value	P Value
Pre Test	101	18.65	3.73	25	24.00	-9.632	0.00
Post Test	114.44	15.25	3.05	25			

From table no. 1 it is seen that there is a significant difference in the mean scores of social preference of the experimental group. The calculated t score is -9.632 and the degree of freedom is 24. The result is significant at 0.05 level. Thus, proving that there has been significant improvement in the social preference of the experimental group due to integrated training program.

Table 2 : Mean scores of Social behaviour of Experimental Group

Group	Mean	SD	SEM	N	df	't' value	P Value
Pre Test	101.24	14.79	2.96	25	24.00	-13.91	0.00
Post Test	114.68	15.22	3.04	25			

From table no. 2 it is seen that there is a significant difference in the mean scores of Social behaviour of the experimental group. The calculated t score is -13.91 and the degree of freedom is 24. The result is significant at 0.05 level. Thus, proving that there has been significant improvement in the social behaviour of the experimental group due to integrated training program.

CONCLUSION

It is concluded that the integrated training program of twelve weeks of selected training methods has potential benefits to improve selected social variables i.e. social preference and social behavior of degree college male students.

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Effect of Pranayama on Recovery of Students undergoing Police Recruitment Training at Maharashtriya Mandal Vyayamshala, Pune

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ABSTRACT

The objective of current study was to find out the effect of Pranayama on recovery time of students undergoing police training. For the current experimental study 30 students aged 20 to 25 years undergoing Police Recruitment Training at Maharashtriya Mandal Vyayamshala, Gultekadi were chosen as sample using Purposeful Sampling Technique. The 30 students were randomly divided into 2 groups -experimental and control group. The training recovery was measured by conducting Harvard Step Test. 8 week training plan based on different types of Pranayama, i.e. Anulom-Vilom, Basrika, Ujjayi Pranayama and Omkar Chanting. Paired sample 't' test was applied to know the difference between the pre-test and the post-test. From the analysis it is clear that there was no significant difference between the two groups after the 8 week Pranayama Training program.

Keywords : Pranayama, Police Recruitment Training

INTRODUCTION

Physical fitness and sports have been integral part of human lifestyle. The diminishing status of fitness, effort by humans since their existence have been more. Lot of changes have been seen in fitness levels of different professional individuals. Individuals need to be fit to perform their daily routine with ample energy left. Different professions require different levels of fitness. Police services requires individuals to be in prime fitness both mentally and physically. In order to have fit individuals in Police services the Police conducts rigorous fitness assessment for their recruitment. Lakhs of probable candidates fill forms and undergo assessment but only few get through the recruitment process. To keep themselves abreast the individuals undergo Police Recruitment training. Intense fitness and educational training assist individuals to achieve better marks in their recruitment process. Many vyayamshala, fitness centres have been running training courses year around and have shown results. Many freshers have been joining these training institutes in order to achieve better fitness. Maharashtriya Mandal Vyayamshala has been helping individuals achieve prime fitness by providing Police Recruitment training at Gultekadi campus. The trainers have been trying intensely to keep their trainees in prime fitness by providing different opportunities and employing different training methods on these individuals. Recovering from the intense efforts done by these trainees is a major issue and hence the researcher has planned to conduct this study.

PURPOSE

To find out the effect of Pranayama on recovery time of students undergoing police recruitment training.

METHODOLOGY

For the current experimental study 30 students aged 20 to 25 years undergoing Police Recruitment Training at Maharashtra Mandal Vyayamshala, Gultekadi were chosen as sample using Purposeful Sampling Technique. The 30 students were randomly divided into 2 groups -experimental and control group. The training recovery was measured by conducting Harvard Step Test. 8 week training plan based on different types of Pranayama, i.e. Anulom-Vilom, Basrika, Ujjayi Pranayama and Omkar Chanting. The pranayama training plan is presented in table 1.

Table 1 : Pranayama Training Plan

Pranayama	Reps/Timing
Anulom-Vilom	20 reps
Inhale	03 seconds
Hold	06 seconds
Exhale	06 seconds
Hold	03 seconds
Basrika	50 reps
Ujjayi	10 reps
Omkar Chanting	02 reps

ANALYSIS

Paired sample 't' test was applied to know the difference between the pre-test and the post-test. From the analysis it is clear that there was no significant difference between the two groups after the 8 week Pranayama Training program. The analysis is presented below.

Table 2 : Comparative Analysis of the pre-test scores of Police Recruitment Training Students

Pre-Test	mean	Standard deviation	Standard error of mean	't' value	Significant value
Experimental	77.09	6.02	0.56	0.25	0.808
Control	76.51	5.58			

Table 3 : Comparative Analysis of the pre-test scores of Police Recruitment Training Students

Post-Test	mean	Standard deviation	Standard error of mean	't' value	Significant value
Experimental	78.39	5.52	0.77	0.36	0.721
Control	77.62	4.92			

From the above analysis it clear that no significant difference was found between the Harvard Step test scores of Experimental and control group after the post-test. The 't' value calculated was 0.36 and the significant value is 0.721 which is not significant at the 0.05 significant level.

DISCUSSION & CONCLUSION

From the analysis it is clear that there was no significant difference found between the experimental and control group. The reason for this might be that the control group was performing regular police recruitment training and there might have been improvement in performance along with the experimental group. The researcher had no control over the students after their training sessions. There can be a chance that the control group students were performing some yogic practices after their regular sessions. The researcher suggests to have more control over the extraneous variables and other variables that might affect the results of the study.

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A Study of Anthropometrical, Physical fitness and Skills of Indian Roll Ball players participating at the International Level

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ABSTRACT

Roll Ball is a team game played on roller skates with the ball repeatedly bounced on the ground and shooting it in to the opponent's goal post. Speed, balance, accuracy and teamwork are the 4 very important aspects of Roll Ball. The main aim of this study was to assess the anthropometry, health related physical fitness, skill related physical fitness and Roll Ball skill profiles of Indian Men's team players who have participated at the International Level. A total of 10 players playing at the International Level from the Indian team were assessed for anthropometry, physical fitness and Roll Ball skills. The players underwent a comprehensive anthropometrical testing (height in cms, weight in kgs and body fat percentage), physical fitness testing (bleep test in level, push up in nos., plank hold in sec, wall sit in sec, sit & reach in cms, 30m sprint in sec, dodging run test in sec and medicine ball throw in meters) and also underwent skill profiles testing (20mts dribbling in sec, shooting in points and sprint and turn in points). The present research aimed at profiling the performance variables of Indian Team Men International Roll Ball players. The objective of identifying general performance profile was successfully accomplished.

Keywords : Anthropometry, Physical fitness, Roll Ball skills

INTRODUCTION

The past decades have witnessed a lot of change in the performance of the players with regards to their anthropometry, physical fitness and skills. With Roll Ball as a new game introduced to the world, it was necessary to find these profiles in the players and analyze them properly, so that the future coaches of Roll Ball would find it easy for the selection process of their players. As per the demand of the game, it was necessary to do a scientific study of anthropometry, physical fitness and Roll Ball Skills of the Indian Men's team Roll Ball players.

Roll Ball is a game invented in the year 2003 in Pune, India by Raju Dabhade, a physical education teacher then teaching in Bal Shikshan Mandir, Pune. This is a team game played on roller skates with a ball which is dribbled on the floor with hands and then shot in to opponent's goal post. The team to score maximum number of goals is declared the winner. This game is recognized by Ministry of Youth Affairs and Sports Govt.

of India, School Games Federation of India and Association of Indian Universities. Till now 5 Roll Ball World Cups have been organized since the inception of the game in 2003. The headquarters of Roll Ball Federation of India, Asian Roll Ball Federation and International Roll Ball Federation is based in Pune. Roll Ball is now spread in more than 60 countries across 5 continents with more than 5 lakh players playing the game.

As the game is growing, there is a need for research in this game so as to the difference between the anthropometry, physical fitness and skills regarding the game. Hence the research scholar thought of studying these variables from the Indian point of view. The tests taken for this research are on Indian Roll Ball Players who have participated in various International Championships till now.

Many studies have examined the physical, physiological, psychological and anthropometric characteristics of elite players from different sports. A majority of these analyses reflects which type of profile is needed for specific sports like Soccer, Basketball, Rugby, Cycling, Tennis, Rowing, and Handball. It is found that players in different sports and different positions have different physical and physiologic profiles. Profiling of players is one of the major reasons for continuous rise in the performance standard of the game.

However in India; this support has been apparently limited to only top class athletes and very few sports. Some studies have thrown light on anthropometric, physical variables of Indian players according to their games (Sodhi. H. S, 1984)(Naik, 2009)(Pawar.v, 2012) (Kalidasan.R, 2011).

This game is based on various factors such as psychological, physiological, physical fitness, parameters, fundamental skills and anthropometric components of the player. All the 12 players in the team need to be good in speed, agility, strength, endurance and balance. Due to certain limitations of the researcher, the researcher has selected only anthropometry, physical fitness, and Roll Ball skills as a part of his study.

MATERIAL AND METHODOLOGY

This research is a profile study under descriptive research which aims at identifying the traits peculiar to the performance of International Level Roll Ball players. The design of this study is a descriptive survey design.

The researcher used the following material for conducting various tests as required for the research: Height – measuring tape and scale, Weight – weighing scale, Body Fat Percentage – Omron fat monitor (HBF-302), Bleep Test – marking cones, 20 meter measuring tape, bleep test audio and music player, Plank Hold – stop watch, Wall Sit – stop watch, Push Ups – stop watch, Sit & Reach – measuring tape and chalk, 30m Sprint – stop watch and plain surface of more than 30m, Dodging Run Test – stopwatch and marking cones, Modified Test of Dynamic Balance – A stopwatch, $\frac{3}{4}$ inch wide colored marking tape and a yardstick, Medicine Ball Throw – 2 kg medicine ball and measuring tape, 20mts Dribbling Test – Roll Ball, Marking Cones and stopwatch, Shooting Test – Roll Ball, rubber rings and rope and Sprint and Turn – whistle.

Ten male Indian Men's team Roll Ball players participated in this study. The player ages ranged from 19 to 27 years. Prior to fitness testing all players completed an informed consent. The players underwent a comprehensive anthropometrical testing (height in cms, weight in kgs and body fat percentage), physical fitness testing (bleep test for C.V. endurance, push up for arm strength, plank hold for core strength, wall sit for lower body strength endurance, sit & reach for flexibility, 30m sprint for speed, dodging run test for agility and medicine ball throw for shoulder strength). They also underwent Roll Ball skills testing (20mts dribbling for agility and ball control, shooting for accuracy and sprint and turn for speed and skate control). The above test-items were further confirmed to be included in the test, after taking opinions of various experts in the area

of Physical Education and Sports and considering the long-standing professional experience of the present investigator. This, in fact, ensured the content validity of the test.

Standard tests were administered to measure the items of each dimension for the collection of data. Based on the nature of the variables (i.e. anthropometric variables, physical fitness variables and fundamental skill variables), the investigator collected proper equipments. However, these equipments were thoroughly checked and their functional status has been verified to ensure accuracy in data collection.

Analysis of Data and Result :

Table 1: Summary of Descriptive Statistics of Anthropometrical Data

	Height (cms)	Weight (kgs)	Body Fat Percentage
Mean	171.77	76.66	24.4
Median	173	76	25.3
Mode	170	76	#N/A
Standard Deviation	4.29	8.61	4.48
Kurtosis	1.04	-1.43	-1.78
Skewness	-0.94	-0.25	-0.19
Range	14	23	11.5
Minimum	163	64	17.9
Maximum	177	87	29.4

In Table 1, the statistical output about anthropometrical data is summarized. The scores of Height, Weight and Body Fat Percentage were analyzed. From the table it is observed that average height of 10 subjects was found 171.78 cms while the minimum height was 163 cms and the maximum was 177 cms. From the median score it is proved that out of 10 subjects, 5 subjects had height below 173 cms while the rest 5 subjects had above 173 cms. With the help of standard deviation and mean it is understood that 60 % fall within 167.48 to 176.06 cms.

The average weight of 10 subjects was found 76.66 kgs while the minimum height was 64 kgs and the maximum was 87 kgs. From the median score it is proved that out of 10 subjects, 5 subjects had weight below 76 kgs while the rest 5 subjects had above 76 kgs. With the help of standard deviation and mean it is understood that 60 % fall within 68.05 to 85.27 kgs.

The average body fat percentage of 10 subjects was found 24.4% while the minimum was 17.9% and the maximum was 29.4%. From the median score it is proved that out of 10 subjects, 5 subjects had body fat percentage below 25.3% while the rest 5 subjects had above 25.3%. With the help of standard deviation and mean it is understood that 40 % fall within 19.92 to 28.88%.

Table 2 : Summary of Descriptive Statistics of Health Related Physical Fitness

	Bleep Test (level)	Push Ups (nos.)	Plank Hold (sec)	Wall Sit (sec)	Sit & Reach (cms)
Mean	10.17	38.44	109.77	202.66	16
Median	10.08	39	105	175	15
Mode	10.1	45	#N/A	#N/A	23
Standard Deviation	1.28	13.98	38.75	99.11	7.53
Kurtosis	0.34	1.45	4.51	0.82	-1.28
Skewness	0.17	-0.76	1.85	0.96	-0.02
Range	4.16	49	135	328	22
Minimum	8	10	67	73	5
Maximum	12.16	59	202	401	27

From Table 2, it is observed that the average level of bleep test of 10 subjects was found to be 10.17 while the minimum was level 8 and the maximum was level 12.16. From the median score it is proved that out of 10 subjects, 5 subjects had completed level below 10.08 while the rest 5 subjects had above 10.08 level. With the help of standard deviation and mean it is understood that 60 % fall within 8.89 to 11.45 levels.

The average push up score was found 38.44 while the minimum was 10 and the maximum was 59. From the median score it is proved that out of 10 subjects, 5 subjects completed below 39 while the rest 5 subjects completed above 39. With the help of standard deviation and mean it is understood that 70 % subjects fall within 24.46 to 52.42 ups.

The average plank hold of 10 subjects was found 109.77 sec while the minimum was 67 and the maximum was 202 sec. From the median score it is proved that out of 10 subjects, 5 subjects had time below 105 sec while the rest 5 subjects had above 105 sec. With the help of standard deviation and mean it is understood that 60 % fall within 71.02 to 148.52 sec.

The average of sit and reach was found 16 cms while the minimum was 5 and the maximum was 27 cms. From the median score it is proved that out of 10 subjects, 5 subjects had distance below 15 sec while the rest 5 subjects had above 15 sec. With the help of standard deviation and mean it is understood that 60 % fall within 8.47 to 23.53 cms.

Table 3 : Summary of Descriptive Statistics of Skill Related Physical Fitness

	30m Sprint (sec)	Dodging Run Test (cms)	BAS Test of Dynamic Balance (points)	Medicine Ball Throw (mts)
Mean	5.04	11.12	8.77	4.71
Median	5.06	11.17	9	4.75
Mode	#N/A	#N/A	8	#N/A
Standard Deviation	0.67	1.23	0.83	0.32
Kurtosis	1.62	-0.41	-1.27	1.10
Skewness	1.22	0.56	0.50	-0.34
Range	2.07	3.7	2	1.15
Minimum	4.41	9.53	8	4.1
Maximum	6.48	13.23	10	5.25

From Table 3, it is observed that the average time for 30m sprint of 10 subjects was found to be 5.04 sec while the minimum time was 4.41sec and the maximum was 6.48 sec. From the median score it is proved that out of 10 subjects, 5 subjects had time below 5.06 sec while the rest 5 subjects had above 5.06 sec. With the help of standard deviation and mean it is understood that 90 % fall within 4.37 to 5.71 sec.

The average time of dodging run test of 10 subjects was found to be 11.12 sec while the minimum time was 9.53 sec and the maximum was 13.53 sec. From the median score it is proved that out of 10 subjects, 5 subjects had time below 11.17 sec while the rest 5 subjects had above 11.17 sec. With the help of standard deviation and mean it is understood that 60 % fall within 9.89 to 12.35 sec.

The average of BAS test for dynamic balance of 10 subjects was found 8.77 points while the minimum was 8 points and the maximum was 10 points. From the median score it is proved that out of 10 subjects, 5 subjects had points below 9 while the rest 5 subjects had above 9 points. With the help of standard deviation and mean it is understood that 80 % fall within 7.94 to 9.6 points.

The average distance of medicine ball throw of 10 subjects was found 4.71 meters while the minimum time was 4.10 meters and the maximum was 5.25 meters. From the median score it is proved that out of 10 subjects, 5 subjects had time below 4.75 meters while the rest 5 subjects had above 4.75 meters. With the help of standard deviation and mean it is understood that 70 % fall within 4.39 to 5.03 meters.

Table 4 : Summary of Descriptive Statistics of Roll Ball Skills

	20m Dribbling (sec)	Shooting Test (points)	Sprint & Turn (points)
Mean	12.84	8.66	9
Median	12.72	9	9
Mode	12.67	9	9
SD	0.87	0.70	0.86
Kurtosis	2.59	-0.28	-1.71
Skewness	0.49	0.60	0
Range	3.33	2	2
Minimum	11.29	8	8
Maximum	14.62	10	10

From Table 4, it is observed the average time 20m dribbling of 10 subjects was found 12.84 sec while the minimum time was 11.29 sec and the maximum was 14.62 sec. From the median score it is proved that out of 10 subjects, 5 subjects had time below 12.72 sec while the rest 5 subjects had above 12.72 sec. With the help of standard deviation and mean it is understood that 80 % fall within 11.97 to 13.71 sec.

The average of shooting test of 10 subjects was found 8.66 points while the minimum was 8 points and the maximum was 10 points. From the median score it is proved that out of 10 subjects, 5 subjects had points below 9 while the rest 5 subjects had above 9 points. With the help of standard deviation and mean it is understood that 90 % fall within 7.96 to 9.36 points.

The average of sprint and turn test of 10 subjects was found 9 points while the minimum was 8 points and the maximum was 10 points. From the median score it is proved that out of 10 subjects, 5 subjects had points below 9 while the rest 5 subjects had above 9 points. With the help of standard deviation and mean it is understood that 40 % fall within 8.14 to 9.86 points.

The Mean scores of anthropometry, physical fitness variables and Roll Ball skill variables formed the profile of Indian Men Roll Ball players at International level.

DISCUSSION

Profiling the athlete on various parameters has been proved to be very important in different stages of an athlete's life, right from the choice of sport, to the development of training program, and high level of performance. It is therefore necessary to develop a study of athlete's profile to have the best level of athletes participating at the international level in any sport. This will surely prove a very important factor in the selection of athlete's for the best performance of the team. In this study, the players were profiled in general on anthropometry, physical fitness and fundamental skill variables.

CONCLUSION

The present research aimed at profiling the anthropometric, health related physical fitness and skill related physical fitness and Roll Ball skill performance variables of Indian Men Roll Ball players participating at the International level. The objective of identifying general performance profiles was successfully accomplished.

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Study of Attitude Towards and Physical Fitness Knowledge of Physical Education Teachers of Elementary School Ahmednagar District

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ABSTRACT

The purpose of this study was to determine whether a relationship exists between attitudes toward and Physical fitness knowledge of health-related fitness among elementary physical education teachers. Teaching fitness at elementary levels is an important step toward the prevention of lifestyle-related diseases, which are more difficult to prevent as we age. It is very important to teach physical fitness at elementary levels, and to instill positive attitudes in our younger students (Sander & Burton, 1989).

It was descriptive survey method in which Teachers attitude towards physical activity and physical fitness questionnaire and physical fitness knowledge questionnaire used for the data collection. In this study 60 (30 male & 30 female) samples from elementary school physical education teachers of Ahmednagar District were selected by using simple random sampling technique. Results shows according to gender wise there no significant correlation among attitude towards and physical fitness knowledge in elementary school physical education male teachers ($p=0.49$) & there no significant correlation in women ($p=0.85$). according to elementary school physical education teachers teaching experience wise 0 to 5 years teaching experience attitude towards & physical fitness knowledge there no significant correlation ($p=0.195$), 6 to10 years teaching experience there no significant correlation ($p=0.852$) and above 11 years there no significant correlation ($p=0.716$). Conclusion of this study was there is no significant correlation among attitude towards & physical fitness knowledge of elementary school physical education teachers in Gender wise & Experience wise of Ahmednagar district.

Keywords : Elementary School Physical education Teachers, Attitude toward and Physical fitness knowledge.

INTRODUCTION

Physical education is considered to be a main branch in education taking its theories from the different sciences through the guided physical activity to prepare individuals in all levels and to enable them from adjusting with their daily life requirements.

Physical Education in school plays an important role in educating and developing students' attitudes and awareness towards sports, as the student learn and practice sports in school or in pastime will enable him

to practice it in his daily life outside school (Al-shinawi, 2006). Physical education teachers hold the main responsibility in conducting different educational activities. Therefore, they must obtain the need knowledge as well as skills which are the main requirements in teaching. Therefore, taking care of education is the first step in reforming education and providing teachers with needed competencies is the most efficient method in improving learning especially in physical education (Al-Tamimi, 2009: 2).

Moreover, teachers' trends and attitudes play important role in guiding and developing their teaching behavior. Attitudes can be defined as (A feeling accompany individual's attention to the issue of what is the direction of myself or characterized by a concentration of attention on a particular topic (Al-sawari, 1996)

Further, they are a predisposition or a tendency to respond positively or negatively towards a certain idea, object, person, or situation. Attitude influences an individual's choice of action, and responses to challenges, incentives, and rewards (Sylibeh, 1999:56).

MATERIAL AND METHOD

Subjects

In the present study total number of 60 elementary school teachers they equally 30 male and 30 female physical education teachers from elementary school of Ahmednagar district. They were selected as sample of the study, using simple random sampling technique. This was further used for collecting and analyzing data.

Selection of Variable

The study was taken to pinpoint the Teachers' attitude towards teaching physical activity and physical fitness (TATPAPF) and Physical fitness knowledge Questionnaire used for Psychology variables. Therefore, based on literary evidence and scholars own understanding the following variable was selected for the purpose of this study.

Procedure

The researcher was explain details about the conducted Teachers' attitude towards teaching physical activity and physical fitness (TATPAPF) and physical fitness knowledge questionnaire was used for selected elementary physical education teachers and then was data collected and was do scoring based on teachers perform questionnaire. For the collected score compute mean, standard deviation and correlate using correlation of coefficient test to find out the relationship amongst physical education teachers' attitude towards and physical fitness knowledge.

RESULTS OF THE STUDY

The purpose of this study was to find out the correlation of Teachers' attitude towards teaching physical activity and physical fitness of elementary school physical education teachers of Ahmednagar district.

Table 1 : TATPAPF & Physical education knowledge of elementary school physical education teachers of Ahmednagar district Gender wise Descriptive statistics

Variable	Gender	No	Mean	SD
Knowledge	Male	30	11.07	1.77
	Female	30	11.60	2.42
	Total	60	11.20	1.96
Attitude	Male	30	55.92	5.59
	Female	30	55.70	4.55
	Total	60	55.87	5.33

Table no.1 Shows the elementary school total 30 male physical education teachers physical fitness knowledge score of mean was 11.07 ± 1.77 & attitudes towards score mean was 55.92 ± 5.55 .

And similarly for the elementary school total 30 female physical education teachers physical fitness knowledge score of mean was 11.60 ± 2.42 & attitudes towards score mean was 55.70 ± 4.55 .

Similarly for the elementary school total 60 physical education teachers physical fitness knowledge score of mean was 11.20 ± 1.96 & attitudes towards score mean was 55.87 ± 5.33 .

Table 2 : TATPAPF & Physical education knowledge of elementary school male and female physical education teachers of Ahmednagar district Gender wise Descriptive correlation statistics

Variable	Gender	Statistics	Correlation Coefficient
PE Knowledge & TATPAPF	Male	Pearson Corr.	0.073
		Sig (2-tailed)	0.49
		No.	30
	Female	Pearson Corr.	0.036
		Sig (2-tailed)	0.85
		No.	30
	Total	Pearson Corr.	-0.045
		Sig (2-tailed)	0.63
		No.	60

Table no.2 Shows the elementary school male & female physical education teacher's physical fitness knowledge & attitudes towards physical fitness between correlations. In this table elementary school 30 male physical education teacher's physical fitness knowledge & attitudes towards physical fitness correlation of coefficient score was 0.073. there was no significant correlation at 0.05 significant level ($p=0.49$),

Similarly as elementary school 30 female physical education teacher's physical fitness knowledge & attitudes towards physical fitness correlation of coefficient score was 0.036. there was no significant correlation at 0.05 significant level ($p=0.85$).

Same as elementary school male & female physical education teacher's physical fitness knowledge & attitudes towards physical fitness correlation of coefficient score was -0.045. there was no significant correlation at 0.05 significant level ($p=0.63$).

Table 3 : TATPAPF & Physical education knowledge of elementary school physical education teachers of Ahmednagar district Experience wise Descriptive statistics

Variable	Experience	No	Mean	SD
Knowledge	0 - 5	15	11.07	1.99
	5- 10	08	10.75	2.24
	≥ 11	07	55.84	5.16
Attitude	0 - 5	12	56.62	5.79
	5- 10	08	53.81	4.26
	≥ 11	10	55.84	5.16

Table no.3 Shows the elementary school 0-5 years experience total 15 physical education teachers physical fitness knowledge score of mean was 11.07 ± 1.99 & attitudes towards score mean was 56.62 ± 5.79 .

And similarly for the elementary school 5-10 years experience total 08 physical education teachers physical fitness knowledge score of mean was 10.75 ± 2.24 & attitudes towards score mean was 53.81 ± 4.26 .

Same for the elementary school ≥ 11 years experience total 07 physical education teachers physical fitness knowledge score of mean was 55.84 ± 5.16 & attitudes towards score mean was 55.84 ± 5.16 .

Table 4 : TATPAPF & Physical education knowledge of elementary school male and female physical education teachers of Ahmednagar district Experience wise Descriptive correlation statistics

Variable	Gender	Statistics	Correlation Coefficient
PE Knowledge & TATPAPF	0 - 5	Pearson Corr.	-0.197
		Sig (2-tailed)	0.195
		No.	25
	5- 10	Pearson Corr.	0.051
		Sig (2-tailed)	0.852
		No.	16
	≥ 11	Pearson Corr.	0.048
		Sig (2-tailed)	0.716
		No.	19

Table no.4 Shows the elementary school physical education teacher's physical fitness knowledge & attitudes towards physical fitness between correlations. In this table elementary school 0-5 years experience total 25 physical education teacher's physical fitness knowledge & attitudes towards physical fitness correlation of coefficient score was -0.0197. There was no significant correlation at 0.05 significant level ($p=0.195$),

Elementary school 5-10 years experience total 16 physical education teacher's physical fitness knowledge & attitudes towards physical fitness correlation of coefficient score was 0.051. There was no significant correlation at 0.05 significant level ($p=0.852$),

Elementary school ≥ 11 years experience total 19 physical education teacher's physical fitness knowledge & attitudes towards physical fitness correlation of coefficient score was 0.048. There was no significant correlation at 0.05 significant level ($p=0.716$).

DISCUSSION

The present study to find out the correlation of Teachers' attitude towards teaching physical activity and physical fitness of elementary school physical education teachers of Ahmednagar district which is similar to the study participation in physical exercises and sports requires strong attitudes toward physical activities. Our research findings show that physical education students have strong attitudes towards physical activities. This is consistent with the following findings, Mea and Hoe (2005, p. 100) found that Malaysian sports science students had strong positive attitudes toward physical activities and Zeng, Hipscher, Raymond (2011, p. 532) also found that their study participants had strong attitudes toward physical activities. However, their attitudes vary in different domains. Our study shows that the students' attitude is strong in the aesthetic experience domain and relatively weak on tension and risk. Mea and Hoe in 2005 differ from our findings as they found social experience as the strongest attitude and aesthetic experience as the weakest attitude toward participation in physical activities. It is probable that the strong attitude was because of prior sports exposure, moral support from parents and support from physical education teachers in their childhood. According to Trudeau and Shephard (2005, pp. 98-100), pupils who engage in physical exercises develop strong attitude toward physical activities. They go on to claim, pre-adolescent students who were compelled by their teachers to be involved in physical exercises are highly likely to experience negative attitude toward physical activities in their adult life. Martin-Matillas (2010) reveals that adolescents who received moral support from their relatives engaged in physical activities more than their counterparts who received little or no moral support. This shows the importance of social encouragement in influencing attitude toward physical activities.

CONCLUSION

On the basis of the result obtained in the study the researcher made the conclusion that correlation of Teachers' attitude towards teaching physical activity and physical fitness of elementary school physical education teachers of Ahmednagar district.

- Elementary school 30 male physical education teacher's physical fitness knowledge & attitudes towards physical fitness correlation of coefficient score was 0.073. there was no significant correlation at 0.05 significant level ($p=0.49$),
- Elementary school 30 female physical education teacher's physical fitness knowledge & attitudes towards physical fitness correlation of coefficient score was 0.036. There was no significant correlation at 0.05 significant level ($p=0.85$).
- Elementary school male & female physical education teacher's physical fitness knowledge & attitudes towards physical fitness between correlations of coefficient score was -0.045. There was no significant correlation at 0.05 significant level ($p=0.63$).
- Elementary school 0-5 years' experience total 25 physical education teacher's physical fitness knowledge & attitudes towards physical fitness correlation of coefficient score was -0.0197. there was no significant

correlation at 0.05 significant level ($p=0.195$),

- Elementary school 5-10 years' experience total 16 physical education teacher's physical fitness knowledge & attitudes towards physical fitness correlation of coefficient score was 0.051. there was no significant correlation at 0.05 significant level ($p=0.852$),
- Elementary school ≥ 11 years' experience total 19 physical education teacher's physical fitness knowledge & attitudes towards physical fitness correlation of coefficient score was 0.048. There was no significant correlation at 0.05 significant level ($p=0.716$).

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Effect of Yoga Training Program on Selected Skill Related Physical Fitness Factor & Shooting Performance of Inter School Male Basketball Players

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ABSTRACT

The purpose of this study was to examine the “effect of Yoga training program on selected skill related physical fitness & shooting performance of inter school male Basketball players”. It was an experimental study in which pre-test & post- test non equivalent groups design was used. 30 male Basketball players mean of age (15.17 ± 2.15) were selected as samples by using simple random sampling technique ($n=30$) from millennium school karve nagar pune. ($n=30$) they were equally divided into, Experimental group ($n=15$) and Control group ($n=15$). Basketball agility drill, Basketball coordination & Basketball shooting test was conducted on both the groups obtained data was analyzed by using Independent sample t-test. Result shows that data collected was analyzed by using Independent t-test to see if the change of yoga training program was useful to improve skill related physical fitness & shooting performance. Further data was analyzed by using Independent ‘t’ test the mean score of experimental group of Basketball agility mean was 2.61 similar test control group mean was 1.68 & ‘t’ value was 3.42, Basketball coordination mean was 3.31 similar test control group mean was 2.14 & ‘t’ value was 4.70 and Basketball shooting performance mean was 1.96 similar test control group mean was 0.83 & ‘t’ value was 5.64, which shows the significant difference at 0.05 level thus researcher concludes that there was improvement of performance Basketball Agility, Coordination & Basketball performance of experimental group as compared to control group due to the treatment given.

Keyword : Yoga training program, Basketball Agility, Coordination & Shooting performance.

INTRODUCTION

The word “Yoga” is derived from the Sanskrit root “Yuj” meaning to bind, join, attach and yoke to direct and concentrate one’s attention on, to use and apply. It also means union or communion. It is the true union of our will with the will of God. It thus means, yoga is a practical aid, not a religion. Yoga is an ancient art based on a harmonizing system of development for the body, mind and spirit. The continued practice of yoga will lead you to a sense of peace and well being, and also a feeling of being at one with their environment. The practice of Yoga makes the body strong and flexible. It also improves the functioning of the respiratory, circulatory, digestive and hormonal systems. Yoga brings about emotional stability and clarity of mind. Exercise is needed all year long. For proper functioning, the human organs need exercise as an essential ingredient on a regular basis just as demand for nutritious food. Asanas are physical exercise enabling the body to be physically fit. These exercises in physical education play an important part in helping the pupils to maintain a slim and

youthful body. Several tests and experiments have been conducted to know the values and importance of asanas. The most important point to realize before starting the practice of yoga is that “The asanas are not just simple exercises but sustained scientific patterns of posture.”

Basketball games need agility of players to fast body movement and fraction on time change the position that provides the impact on performance and eye hand coordination to dribble the ball and tackle the ball and score the basket. Shooting is one of the vital skills in the Basketball game and accuracy of shooting improves your performance and high on sky skill level.

MATERIAL AND METHOD

Method of the study :

The present study was an experimental research which was conducted with a purpose to see the effect of Yoga training program on selected skill related physical fitness & shooting performance of inter school male Basketball players.

Research Design

True experimental design was used for this study to check the hypothesis; this research was based on pre-test and post-test non-equivalent group design.

Method of Sampling

For the present research whole population a total number of 30 male Basketball players were selected on the basis of a purposively method of sampling technique from Millennium school Karve nagar Pune.

Selection of Variable

The study was taken to pinpoint the variables was Basketball Agility, Basketball Coordination & Basketball Shooting.

PROCEDURE OF THE STUDY

The researcher assembled all the subjects from his population and was given to them instruction about the need, importance description of the experiment and explanation of Basketball agility, coordination & Basketball shooting tests and Yoga program and selected a total number of 30 male Basketball players in the age group 15 years old selected through purposive sampling technique. The selected subjects were pre-tested by Agility, Coordination & Shooting tests and after that the subjects were divided into two even groups i.e, experimental and control group with the help of randomly method of sampling and eight weeks Yoga program which was given six days in a week was implemented only on experimental group not control group. After the Yoga program both the groups i.e, experimental and control groups, were post tested for data collection.

STATISTICAL TOOLS

After data collection, data of pre-test and post-test of both the groups i.e, experimental and control group, compared by independent sample t-test and interpretation were drawn.

The level of significance was kept at 0.05 to test the hypothesis.

RESULTS OF THE STUDY :

The obtained results are present in the following table which represents the results of descriptive analysis and independent sample t-test to compare the mean of the group's i.e, experimental and control group.

Table 1 : Descriptive statistics to gain the Agility, Coordination & Basketball shooting performance of experimental and control group

Test	N	Mean	Mean Diff	't'	df	Sig(2 tail)
Agility Exp	15	2.61	1.10	3.42	28	0.001
Con	15	1.68				
Coordination Exp	15	3.31	1.16	4.70	28	0.001
Con	15	2.14				
Shooting Exp	15	1.96	1.13	5.64	28	0.001
Con	15	0.83				

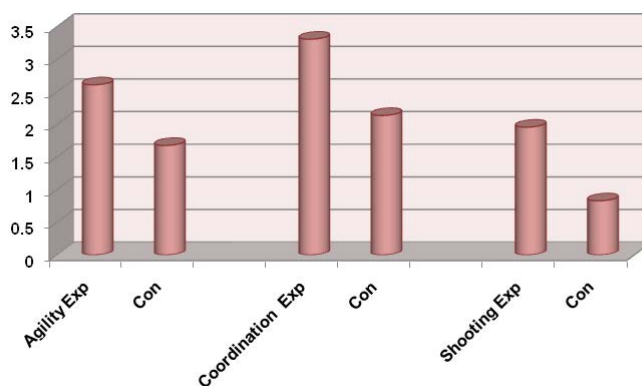


Fig. 1 : Comparisons of group mean to the Agility, Coordination & Basketball shooting performance of experimental and control group

The figure no. 1 shows that there was significant improvement in Agility, Coordination & Basketball shooting performance of the experimental group due to treatment.

DISCUSSION OF FINDINGS

Discussion on the results of Basketball agility, coordination & Basketball shooting which indicate the Basketball performance; It was observed from the finding that the effect of Yoga on Basketball agility, coordination & Basketball shooting of Basketball players from table No. 1, shows that there was a significant difference between experimental group and control group of subjects regarding to the all test items. This indicates that Yoga program had positive effect on Basketball agility, coordination & Basketball shooting of experimental group. Therefore the set hypothesis that there will be a significant effect of Yoga on Basketball agility, coordination & Basketball shooting of Inter School Basketball players was accepted.

This finding was supported by Singh, K., et al (2010) studied the effect of Suryanamaskar on muscular endurance and flexibility among inter college student the results shows that muscular endurance and flexibility

was significantly improved in group A compared with the control one, and it was also concluded that Suryanamaskar may be recommended to improve muscular endurance and flexibility.

CONCLUSION

On the basis of the result obtained in the study the researcher made the concluded that eight weeks Yoga program was significantly effective to increase the Basketball agility, coordination & Basketball shooting of Inter School Basketball players which indicate the level of performance and also the findings of this study may be helpful to the Inter School Basketball players to doing regular practice of Yoga to improve skill performance.

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Assessment Tools for Physical Literacy Self Perception among Children and Adolescents: A Review

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ABSTRACT

Physical literacy is an important determinant of how children and youth develop skills, knowledge, understanding, confidence, motivation and attitude across a variety of activities so that they engage in activities with poise and confidence throughout their lives. Self-perception of a physical activity participant impacts their physical literacy skills. Constructing and refining methods to evaluate perceived physical literacy is sensible and vital. This review article encapsulates the findings of published tools used in different settings for evaluating physical literacy self-perception among children and adolescents. This will also deliver a reference for utilizing physical literacy self-perception assessment tools for future research. Google Scholar, Scopus and EBSCO databases were used to identify studies where tools for assessing physical literacy self-perception among children and adolescents were employed. Literature screening and data extraction was completed according to pre-established inclusion and exclusion criteria. Ten articles met the inclusion criteria. All included studies that measured the physical literacy self-perception among children and adolescents were presented with the title, objectives, author, year, sample, tool, methods, domains and findings of the study. Varied assessment tools have been used to measure perceived physical literacy. Perceived Physical Literacy Instrument (PPLI) has been used in both children and adolescents along with the PLAYself tool. There is clearly a scarcity of assessment tools that is all-embracing the diverse domains that needs to be measured.

Keywords : physical literacy, self-perception, assessment tool, children, adolescents

INTRODUCTION

Margaret Whitehead, the pioneer in the physical literacy movement formulated a theory which states that physical literacy is multifaceted and must include not only motor competence but also fitness, physical activity, confidence, motivation, knowledge and understanding for lifelong participation (Caldwell et al., 2020). In recent times, it has been proposed that physical literacy and health are complementary. Increased participation in physical activity reflects through the benefits derived like, enhanced physical functions, improved mental health and better social connects. (Cairney, Dudley, Kwan, Bulten & Kriellaars, 2019). An additional crucial point to be highlighted is that participation in physical activity is determined by how physically literate an individual is. Hence it is imperative that opportunities to gain knowledge and participate in physical activity through

formal and unstructured formats must be delivered to children, adolescents, adults and special populations (Caldwell et al., 2020).

The concept of developing physical literacy for all ages within the society is vitally important for all those involved in promoting sport and physical activity. Many children and youth today lack the basic skill, knowledge and physical activity behaviours needed to lead healthy active lifestyle as evidenced by the startling rates of inactivity and decreased fitness (Tremblay & Lloyd, 2021). Children's and adolescents self-perception as a physical activity participant impacts their physical literacy skills. The self-perception of children and adolescents may be a concern if it is of a disengaged and negative nature because this can affect how children view physical literacy. If children and adolescents find physical activity un-enjoyable and if they do not think they are skilled at it, they may stop trying and fall behind in their classes. Thus appropriate assessment of physical literacy self-perception would help identify the limitations and aid in designing appropriate interventions.

There is a limitation to the choice of assessment tools available to measure young children and adolescent's self-perceptions of the skills they perform to the skills that are assessed by a teacher through actual measures. It is important to understand how well self-perception of a skill and actual performance of the skill are in sync. Identifying and defining the domains included in physical literacy self-perception assessment tools would assist to understand how well perceptions are aligned with actual skill (Liong, Ridgers & Barnett, 2015).

Objective

In this review article, studies published with tools for assessing physical literacy self-perception among children and adolescents were selected and reviewed. The review aims to list various tools for the assessment of perceived physical literacy from various viewpoints and provide suggestions for referencing physical literacy self-perception assessment tools in future studies.

MATERIALS & METHODS

2.1 Retrieval Procedure

Databases (Google Scholar, Scopus and EBSCO) were accessed for the of physical literacy self-perception among children and adolescents reviews. The keywords, physical literacy, perceived physical literacy, physical literacy self-perception in children, physical self-efficacy, play self-tool, perceived self-efficacy, perceived motor competence were used. The review consisted of articles that were published till December 2020.

2.2 Inclusion & Exclusion criteria

Published research articles were included in this review when they fulfilled the following criteria: (1) studies using physical literacy self-perception assessment tools (2) children and adolescents as the sample of the study (3) inclusion of studies conducted globally (4) Language for studies reviewed was English.

Three exclusion criteria's were determined: (1) studies where adults or special population were the study sample; (2) systematic reviews; and (3) publication with only abstract

2.3. Literature Screening, Quality Check, and Data Extraction

The pre-set inclusion and exclusion criteria were followed while screening the studies. The studies were cross-checked to determine its relevance and integrity. The data was classified into studies involving children and adolescents. Ten studies that included perceived physical literacy assessment tool were recorded and tabulated.

The articles were extracted and tabulated in the following categories: title, author, year of publication, objectives, physical literacy self-perception tools, sample, methods, domains and findings.

RESULTS & DISCUSSION

This review includes studies on physical literacy with emphasis on self-perception in children and adolescents. Ten studies fulfilled the inclusion criteria, which included 7 different tools for the assessment of physical literacy self-perception among children and adolescents. Some of the published studies were excluded in this review as they did not assess physical literacy self-perception among children and adolescents though they measured physical literacy. Studies with no full access were not reviewed.

Table 1 : highlights studies wherein children were the sample population and Table 2 shows studies conducted among adolescents.

Table 1

Title of the Study	Author, Year	Objectives	Name of the PL self-perception Tool	Sample	Methods	Domains	Findings
Associations between perceived and actual physical literacy level in Chinese primary school children	(Li, Sum, Sit, Wong & Ha, 2020)	Relationship between perceived and actual levels of PL	Chinese version of the Canadian Assessment of Physical Literacy, 2nd edition	327 children (153 boys and 174 girls)	Empirical Study	Daily Behaviour, Physical Competence, Motivation and Confidence, and Knowledge And Understanding.	Physical education teachers must motivate girls to participate in school activities
Outcomes and Feasibility of a 12-Week Physical Literacy Intervention for Children in an Afterschool Program	(Bremer, Graham & Cairney, 2020)	Design, evaluate a PL intervention Assess feasibility and acceptability of program of leaders.	Intrinsic Motivation Inventory (Ryan, 1982). Bandura's self-efficacy Scale. PLAYself Tool	Children (N = 90) from eight afterschool programs. 7-13 years of age	Empirical	Intrinsic Motivation, self-efficacy, confidence and relative rankings of different literacies	An all-encompassing PL intervention after school is feasible and will ensure the child is active within a PL program
Physical Literacy, Physical Activity, and Health Indicators in School-Age Children	(Caldwell et al., 2020)	associations between physical literacy and health, and MVPA	PLAYself Tool	222 children (113 girls, 10.7 ± 1.0 years old)	Cross-sectional study.	Environment, physical literacy self-description, relative rankings of literacies (literacy, numeracy, physical literacy) and fitness	PL was associated with health, and that the association between PL and aerobic fitness was mediated by MVPA.
The Canadian Assessment of Physical Literacy: methods for children in grades 4 to 6 (8 to 12 years)	(Longmuir et al., 2015)	validity evidence for the CAPL	The Children's Self-Perception of Adequacy in and Prediction for Physical Activity (CSAPPA) Scale, developed by Hay and colleagues	963 (children) In class 4, 5 and aged 6. 8 to 12	Cross-sectional study.	Motivation & Confidence. perception Of children's own ability to be successful in PA.	CAPL offers a comprehensive assessment of Physical literacy.

Development of a self-report scale to assess children's perceived physical literacy	(Barnett et al., 2020)	develop a pictorial scale of perceived physical literacy	Pictorial child report scale of perceived physical literacy	17 (children) aged 4-12	Qualitative study	Physical, psychological, cognitive and social	A step towards the development and testing of a pictorial instrument to measure perceived PL.
Laying the foundations for physical literacy in Wales: the contribution of the Foundation Phase to the development of physical literacy	(Wainwright, Goodway, Whitehead, Williams & Kirk, 2018)	naturalistic intervention and its contribution to the development of PL.	Harter and Pike perceived physical competence and social acceptance scale (Pictorial Scale of Perceived Competence)	49 (Children) aged 5 and 6	Mixed Method	Cognitive competence, physical competence, peer acceptance, maternal acceptance	Foundation Phase lays the foundations of physical literacy without aspects of the physical competence, specifically object control skills.

Table 2

Title of the Study	Author, Year	Objectives	Name of the PL self-perception Tool	Sample	Methods	Domains	Findings
Influence of Perceived Physical Literacy on Coaching Efficacy and Leadership Behaviour: A Cross-Sectional Study	(Hui Li et al., 2019)	influence of perceived physical literacy in predicting coaching efficacy and leadership behaviour	Perceived Physical Literacy Instrument (PPLI) for adolescents	352 adolescents (14.78 ± 1.73 years old)	Empirical	Knowledge and Understanding, Self-expression and Communication with others, and Sense of self and Self-confidence	The study explored PPLI and provided a new perspective for coaching education programs by emphasizing the concept of PL.
Perceived physical literacy instrument for adolescents: A further validation of PPLI	(Sum et al., 2018)	Reliability and validity of "Perceived Physical Literacy Instrument".	Perceived Physical Literacy Instrument" (PPLI)	1945 adolescents in Hong Kong	Survey	"knowledge and understanding", "self-expression and communication with others", and "Sense of self and self-confidence"	PPLI was reliable and valid to assess perceived physical literacy.
Relationship between perceived physical literacy and physical activity levels among Hong Kong adolescents	(Choi, Sum, Leung & Ng, 2018)	To study the associations between the perceived-PL and PA levels	Perceived-Physical Literacy Instrument (PPLI)	1,945 (adolescents) aged 12 and 18	Cross-sectional study.	knowledge and understanding" "self-expression and communication with others", and "Sense of self and self-confidence"	The study explored the affiliation between perceived PL and PA levels, Important to develop PL in PE lessons in Hong Kong
Investigation into the Relationship between Adolescents' Perceived and Actual Fundamental Movement Skills and Physical Activity	(McGrane, Powell, Belton & Issartel, 2018)	Association between (FMS) competence, perceived FMS competence, and PA	The Physical Self Confidence scale	584 (adolescents) aged 12.82-15.25 years	Cross-sectional study.	Perceived motor competence, confidence	Advised to track youngsters over time to better understand the relationship between perceived and actual FMS, as well as PA participation.

Six studies included in table 1 were conducted to assess physical literacy in children and four studies seen in table 2 had adolescents as its sample. All studies included assessment tools to measure the physical literacy self-perception. These studies were conducted in different countries (UK, China, Australia, Canada, and Hong Kong). The main study features highlighted in the tables are, title, author, year of publication, physical literacy self-perception tool, sample, methods, domains and findings. The assessment tools used a multifaceted approach to physical literacy self-perception. The tools can be categorised into four domains: (1) assessments based on perceived physical competence ; (2) assessments based on perceived cognitive abilities; (3) assessments based on perceived social abilities; and (4) the combination of two or more measurement modes.

The physical literacy self-perception assessment tools used in the studies included varied dimensions: a) physical competence; b) motivation; c) confidence; d) knowledge & understanding; e) daily behaviour; f) self-efficacy; g) relative rankings of different literacies; h) environment; i) physical literacy self-description; j) fitness; k) cognitive competence; l) peer acceptance; m) maternal acceptance; n) self-expression and communication with others; and o) motor competence.

This review brings to light the varied assessment tools have been used to measure perceived physical literacy. Studies which measure children shows diverse tools used (n=6) compared to the tools used for assessing adolescents (n=2). It is seen that the most often used tools for children are the Canadian physical literacy tools like the PLAY self (Jefferies, Bremer, Kozera, Cairney & Kriellaars, 2020) and PPLI (Liu & Chen, 2020). Studies which include very young children in ages ranging from 4 to 6 have used pictorial scales like the Pictorial child report scale of perceived physical literacy (Lopes et al., 2016) and Harter and Pike perceived physical competence and social acceptance scale (Harter & Pike, 1984). In three studies with adolescents Perceived Physical Literacy Instrument (PPLI) has been used and one review The Physical Self Confidence scale is used to assess perceived PL (Bressan & Weiss, 1982).

The results clearly presents a scope for development of newer assessment tools that would be all-encompassing (Edwards et al., 2017), that are comprehensive and that attempt to capture all domains and dimensions of perceived physical literacy among children and adolescents.

CONCLUSION

This review is a first to provide insight into studies that measure or assess physical literacy self-perception among children and adolescents from several perspectives, especially the choice of tools available for assessment to the domain items that are included in each of the tools. The review attempts to identify the suitability of tools for use in different research settings. Recommendation for further research includes research across all age groups as the current reviews include only children and adolescents. Perceived physical literacy among young adults, adults and special population maybe considered to provide a holistic view of physical literacy self-perception assessment tools.

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The Effect of Imagery Training on Fielding Performance In Cricket.

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ABSTRACT

Imagery in Cricket Mental Training is one of the central building blocks of your cricket success. Imagery communicate directly with the subconscious mind, they have the power to re-structure the wiring and building blocks of the cricketers' memories and beliefs. They literally re-structure the neural circuits of the brain. The new wiring gets constructed through practicing the exercises. This really is the secret and it is much faster than trying to think your way to cricket success with your conscious mind. Visualization and Imagery are two different tools of the imagination. The term "mental imagery", "mental practice", and "mental simulation" are used interchangeably; mental imagery appears to be the major component of mental practice (Hall, 1985) . Richardson (1967) defined mental practice as "the symbolic rehearsal of a physical activity in the absence of any gross muscular movements". Mental imagery consist of intentionally bringing images to mind or rehearsing performance without actually physically enacting the performance. Mental imagery is not limited to visualization, and it has been recommended that it involves all senses like sights, sounds, smells, touch and taste (vealey& Greenleaf, 2006; vealey& Walter, 1993). Mental Imagery is a well-known mental training strategy in the sport setting, and has been shown to be a highly effective performance-enhancing technique among athletes of all ages (Gregg & Hall, 2006; Munroe-Chandler, Hall, Fishburne, & Strachan, 2007) sport types (Munroe, Hall, Simms, & Weinberg, 1998), and competitive levels (Hall, Rodgers, & Barr, 1990). Mental imagery is more effective if its occurs directly prior to performance and after skills have been developed. Presently, most practitioners use the broader term mental imagery to describe structured mental practice techniques to create or recreate an athletic performance (Holmes & Collins, 2001; Vealey& Greenleaf, 1998). Athletes use mental imagery in competition and practice (Hall, 2001). sports visualization is a method essentially aimed at building up the athlete's confidence and self-belief to overcome performance anxiety. It is designed to remove negative triggers and replace them with positive thoughts, which can sharpen a person's focus and create more confidence. Some athletes, especially professional and collegiate athletes, have been known to use imagery and visualization techniques as an advantage during training and competition.

INTRODUCTION

Imagery in Cricket Mental coaching is one most the central building blocks of your cricket success. Imagery communicate directly with the subconscious mind, they have the power to re-structure the wiring and building blocks of the cricketers' memories and beliefs. Imagery is where the individual is inside themselves, they are the actor looking through their own eyes, participating in their performance, batting, bowling, fielding, and wicket

keeping. It is more powerful for wiring in new performance programs, it has greater feeling, it is actually you experiencing your performance when you are doing the imagery.

OBJECTIVE OF THE STUDY

The Purpose of the study was to examine the effect of imagery training on fielding performance in cricket.

METHODOLOGY

To examine the effect of Imagery training on fielding performance in cricket primary data has been collected through Pitch Vision Academy fielding tests was used to test the various fielding skill. Throw length, Throw Accuracy, Underarm Throw Accuracy Test, Catching and Ground Fielding Test. Experimental research has been carried out to collect the data. The experiment has been performed on 32 cricket team players age below 19 years. This is two group (control, experimental) pre and posttest design. Training was given to the experimental group only. Finally, when the training period of 12 week was over the post test was taken and the data collected and analyzed. Mean, Standard Deviation and T-Test was used for analyzing the collected data of this study

1. Throw Length Test –

Procedure:

- Setup an area as for a javelin throws.
- Have the ball rolled out and after completing a long barrier, throw the ball as far as possible.
- Record the distance from where the ball first bounces.

Scoring : Take the best of 3 throws.

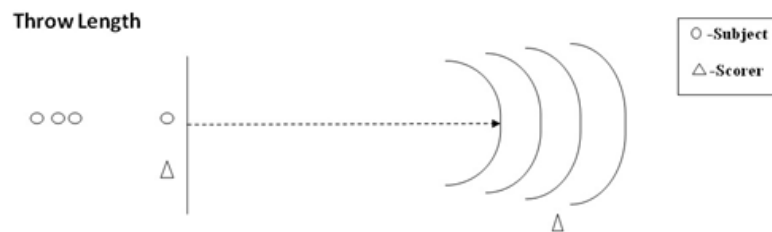


Fig. 1: Throw Length Test

2. Throw Accuracy Test –

Procedure :

- Place a ball 25 yards from a wicketkeeper over the stumps.
- Pickup and throw the ball in to the keeper
- If the keeper has to take a pace away from the stumps to take the ball you so not score a point.

Scoring : Record the number of times you get the ball to the gloves out of 20.

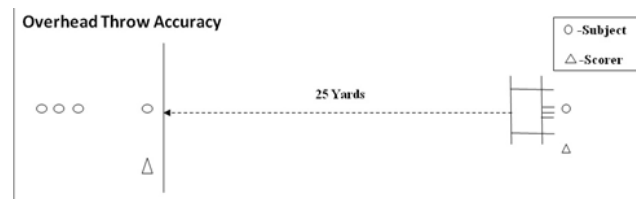


Fig. 2 : Throw Accuracy Test

3. Underarm Throw Accuracy Test:

Procedure :

- Place the ball 5 yards from the stumps
- Pick up and underarm throw at the stumps.

Scoring : Record the number of times the ball hits out of 20.

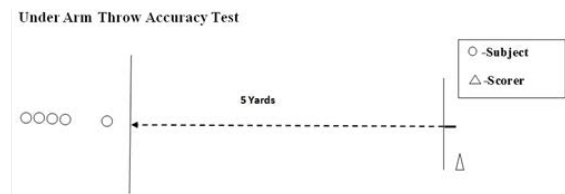


Fig. 3 : Underarm Throw Accuracy Test

4. Catching Test :

Procedure :

- Have a ball throw or hit to you from 30 yards.
- Scoring: Record the number of successful catches out of 10.



Fig. 4 : Catching Test

5. Ground Fielding Test:

Procedure :

- Have a wicketkeeper or coach roll the ball out to a marker 10 yards from the stumps.
- Pick up with 1 or 2 hands (depending on the test type) and return to the keeper.

Scoring : Record the number of clean pickups out of 10.

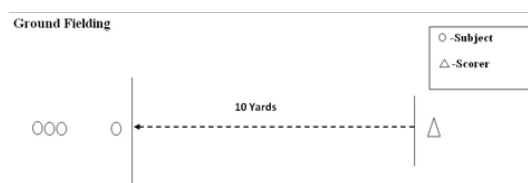


Fig. 5 : Ground Fielding Test

STATISTICS AND RESULTS

Table 1 : Descriptive Statistic Table

Skill	Pre Test			Post Test			Change in Mean
	Mean	Std. Error of Mean	Std. Deviation	Mean	Std. Error of Mean	Std. Deviation	
Under Arm Throw	6.68	.28459	1.138	7.68	.32556	1.302	1.00
Ground Fielding	6.75	.30957	1.238	8.06	.24948	.997	1.31
Throw Accuracy	2.25	.34761	1.390	4.00	.34157	1.366	1.75
Catching	7.37	.28687	1.147	8.50	.25820	1.032	1.13
Throw Length	42.25	1.62660	6.506	43.50	1.36931	5.477	1.25

In the above table no -1 descriptive statistic table of Imagery group the Under Arm Throw skills average pretest mean is 6.68 and average posttest mean is 7.68 for the performance of 16 players. After the comparison of pretest and posttest the difference of mean is 1. From the above statics it is seen that there is a difference found in under arm throw skill after treatment. Descriptive Statics for Ground Fielding, Throw Accuracy, Catching and Throw Length is same as above.

Table 2 : Paired Samples Correlations

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Pre Under Arm Throw & Post Under Arm Throw	16	.739	.001
Pair 2	Pre Ground Fielding & Post Ground Fielding	16	.121	.654
Pair 3	Pre Throw Accuracy & Post Throw Accuracy	16	.491	.053
Pair 4	Pre Catching Test & Post Catching 1	16	.619	.011
Pair 5	Pre Throw length- (mtr) & Post Throw length (mtr)	16	.948	.000

From the table no -2 of Paired Samples Correlations between Imagery and Control groups it is seen that the p-value of Ground Fielding skill and Throw Accuracy is 0.654 and 0.053 which is more than 0.05 ($P > 0.05$). Because of this, we can conclude that statistically the difference is not significant between the means of posttests of Ground Fielding and Throw Accuracy in the treatment and control groups.

From the table of Paired Samples Correlations between Imagery and Control groups it is seen that the p-value of Under Arm Throw, Catching and Throw length is 0.01, 0.11 and 0.00 respectively which is less than 0.05.

Table 3 : Paired Samples Test**Paired Samples Test**

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Inter- val of the Difference				
					Lower	Upper			
Pair 1	Pre Under Arm Throw - Post Under Arm Throw	-1.00000	.89443	.22361	-1.47661	-.52339	-4.472	15	.000
Pair 2	Pre Ground Fielding - Post Ground Fielding	-1.31250	1.49304	.37326	-2.10808	-.51692	-3.516	15	.003
Pair 3	Pre Throw Accuracy - Post Throw Accuracy	-1.75000	1.39044	.34761	-2.49092	-1.00908	-5.034	15	.000
Pair 4	Pre Catching Test - Post Catching 1	-1.12500	.95743	.23936	-1.63518	-.61482	-4.700	15	.000
Pair 5	Pre Throw length- (mtr) - Post Throw length (mtr)	-1.25000	2.17562	.54391	-2.40931	-.09069	-2.298	15	.036

The above table no -3 shows that p-value of Under Arm Throw, Ground Fielding, Throw Accuracy, Catching and Throw Length skill is 0.000, 0.003, 0.000, 0.000 and 0.036 which means that the difference between Imagery and control group is significant as the p-value is more than 0.05. This means that there was improvement in Under Arm Throw, Ground Fielding, Throw Accuracy, Catching and Throw Length skill because of the Imagery training program.

SUGGESTION & RECOMMENDATIONS :

Almost all top cricketers use Imagery technique or some sort of mental image. Most often when we just watch a match, we don't realize how a bowler builds up the stage for slipping in a Yorker by bowling barrage of fast bouncers. Unless one imagine the plan in his head - it's difficult to execute. Like that for batsmen also, the batting starts in their head much before the match starts. Like which bowler to attack, how to approach the innings, which shots to play based upon the pitch condition and which not. In fact, I would go to the extent that cricket is game where in every step a top level cricketer needs visualization technique to become successful. After reading through varied studies, visual representational process looks somewhat promising and useful. Though it's not as useful as physical observe, visual representational process fairs higher than the least bit. Hence, a program with physical observe combined with mental coaching looks to be the most effective technique. Nearly all of the studies show that mental coaching improves motor skills. Additional recently heaps of studies go even more and prove that visual representational process will improve varied skills associated with sports in actual field contexts. Visual representational process looks to be useful to anyone WHO needs to enhance at their sport. Whether or not you're a recreational jock or an expert doesn't matter. The advantages of representational process have tried thriving at any level. Therefore if you're an expert trying to interrupt into the highest, or a club player WHO merely needs to defeat his/her friend, I like recommend representational process at the side of physical observe. Not solely will representational process improve specific motor skills however it conjointly looks to boost motivation, mental toughness and confidence, all which can facilitate elevate your level of play. Similar study can be done on different population from other sports like kabaddi, kho-kho, ball games, other age group and gender.

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Comparative Study of Physical Fitness Components of Undergraduate College Girls in Sangamner, Dist. Ahmednagar

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ABSTRACT

The purpose of the study was to find out the difference of Physical Fitness Components of undergraduate college girls between three faculties i.e. Arts, Commerce and Science in Sangamner Tahsil, Dist- Ahmednagar. The investigator applied survey research designs for this study. With the help of random sampling technique researcher selected 900 of under graduate college girls all faculties i.e. B.A., B.Com, B.Sc. from 03 colleges in Sangamner Tahsil, Dist- Ahmednagar their age Ranged between 18 to 21 years. For the collection of data, all students of performed Cooper's 12 minute run or walk test which is easier to measure Cardiovascular Endurance, Bent Knee Sit Ups measures Muscular Endurance of stomach muscle, Sit and Reach test measures Flexibility of hip and hamstring muscle and to measure Body Height and Body Weight.

Therefore, it was included in this study. All girls' students of this age group 18 to 21 years performed all physical fitness tests which are easier to measure Cardiovascular Endurance, muscular endurance and flexibility therefore, it was included in this study. In statistical procedures, the mean performance of descriptive statistics was used for the comparison of performance between three faculties i.e. Arts, Commerce and Science.

Keywords : Physical Fitness Components, College Girls' Students, and Faculties.

INTRODUCTION

Many health leaders feel that the foundation for life time fitness can be laid through youth programmers. This study showed that in government and private colleges; across rural and urban areas and across gender there was a positive attitude towards physical education. There are several factors, which affect physical fitness such as family background, college, available facility, interest, health, diet, economic condition of the student, environment etc. There is a need to undertake systematic research on college health initiatives. By testing we assess the status and achievement of the learner. This study aims to assess the status of Physical fitness of First Year College girls located in Sangamner Tahsil, Dist Ahmednagar of Maharashtra state.

OBJECTIVE

To compare faculty wise (Arts, Commerce and Science) Physical Fitness Components of girls at undergraduate level.

HYPOTHESES

There is no significant difference in Physical Fitness Components of students from the faculty of Arts, Commerce and Science in Sangamner Tahsil, dist- Ahmednagar

SAMPLE

Out of 05 Arts, Commerce and Science colleges located in Sangamner Tahsil, Dist. Ahmednagar, Maharashtra 03 colleges selected for study i.e. S. M. B. S. T. College of Arts, Science and Commerce, Sangamner, Malpani Sangamner College, Sangamner, and L. B. T. Arts, Commerce and Science college, Talegaon Dighe, Sangamner. From these 03 colleges' undergraduate girls' students of Arts Commerce and Science were the sample of this study. In the age group of 18 to 21 years taking about 900 undergraduate college girls students are randomly selected for this study.

METHODOLOGY

For this study the researcher tried to identify the comparison between 03 faculties i. e. B.A., B.Com. and B.Sc in Sangamner Tahsil, Dist. Ahmednagar age group 18 to 21 years undergraduate girls students by testing physical fitness variable i.e. Cardiovascular Endurance, muscular Endurance, Flexibility and Body Mass Index with the help of statistical analysis

The present research is a normative survey study that goes through a method of survey research under descriptive one For the selection of samples, a simple random sampling technique was used. The data was collected taking in account B.A., B.Com. and B.Sc in Sangamner Tahsil, Dist. Ahmednagar age group 18 to 21 years. The investigator hence proposed to randomly select 300 girls students from each category i.e. B.A., B.Com. and B.Sc undergraduate girls from the age group 18 to 21 from 03 colleges.

For the collection of data, the researcher used standardized tools for research. The test item was conducted as the standard physical battery and the procedures described in the AAHPERED health related physical fitness test. Cooper's 9 minutes run-walk test ACSM's (2005) was administered to assess cardiovascular endurance. Literature in physical education establishes an exercise Bent Knee Sit Up if performed for one minute, can predict one's functioning level of abdominal muscles Miller (2002). The sit and reach test is the most widely used test for assessment of flexibility. It does not represent total body flexibility, but it does represent hamstring, hip, and lower back flexibility. Body mass index is also a good indicator of body composition. It is a rough measure of body composition that it is based on the concept that a person's weight should be proportional to height.

Statistical Analysis: Descriptive statistics was applied. Statistical Package for social Sciences (SPSS) MS windows was used for statistical analysis.

Analysis of data :

Variable wise descriptive analysis of faculty Comparison

The faculty comparison for each variable is shown in tables from Table no.1 to Table no.6 the value shown in the tables is the mean performance value of each variable.

The mean performance value of the variables is compared for each faculty. For this, mean performance value is plotted against the faculty.

I Comparison of Body Height :**Table 1 :** Mean performance of Body Height (N=900)

Faculty	Body Height
Arts	1.54
Commerce	1.52
Science	1.55

II. Comparison of Body Weight :**Table 2 :** Mean performance of Body Weight (N=900)

Faculty	Body Weight
Arts	49.34
Commerce	51.25
Science	50.95

III. Comparison of Muscular Endurance :**Table 3 :** Mean performance of Muscular Endurance (N=900)

Faculty	Muscular Endurance
Arts	16.79
Commerce	17.11
Science	16.74

IV. Comparison of Cardiovascular Endurance**Table 4 :** Mean performance of Cardiovascular Endurance

Faculty	Cardiovascular Endurance
Arts	1276.88
Commerce	1268.53
Science	1262.43

V. Comparison of Flexibility:**Table 5 :** Mean performance of Flexibility (N=900)

Faculty	Flexibility
Arts	19.32
Commerce	19.08
Science	19.29

VI. Comparison of Body Mass Index:

Table 6 : Mean performance of Body Mass Index (N=900)

Faculty	Body Mass Index
Arts	20.69
Commerce	22.09
Science	21.13

FINDINGS

The analysis of data with respect to physical fitness variables compared faculty wise shows following things.

For height variable it is seen that the average height of science faculty (1.55 mtr.) is more than arts faculty (1.54 mtr.). Whereas average height of commerce faculty (1.52 mtr.) is less than these two..(Table No.1). It shows that Science students are taller.

Average weight for commerce faculty (51.25 kg) is more than science faculty (50.95 kg.) Arts faculty average weight is less (49.34 kg.). .(Table No.2). Commerce faculty students weigh more than the rest.

Commerce students have more muscular endurance (17.11) while science have less (16.74). Arts faculty (16.79) is in between these two. .(Table No.3). It shows that the Muscular Endurance is the best for commerce.

Cardiovascular endurance of Science (1262.43 mtr.) is less than commerce (1268.53 mtr.) while it is more for Arts (1276.88 mtr.). Commerce faculty average is in between these two. (Table No.4). Arts faculty is the best in cardiovascular endurance & Science faculty is poor in it.

Arts faculty is top in flexibility (19.32) and commerce faculty (19.08) is at bottom. Science (19.29) average is in between these two.(Table No.5).In flexibility arts faculty is the best .

Body mass index of commerce faculty (22.09) is more than science (21.13) while it is less for arts faculty (20.69).(Table No.6) B.M.I. of commerce faculty is the best & poor for Arts faculty.

CONCLUSION

The descriptive analysis of data with respect to physical fitness components variables compared faculty wise clearly shows the following things.

- The investigator observed differences in physical fitness components for different faculty undergraduate college Girls students in Sangamner Dist. Ahmednagar. Therefore the null hypothesis is rejected.
- Arts faculty students are best in cardiovascular endurance and their flexibility is more. However, they are less in height, weight and muscular endurance.
- Commerce faculty students are good in muscular endurance and weight but their flexibility and body height is less than the other faculty subjects.
- Science faculty subjects are good in height, and B.M.I. They are very less in cardiovascular endurance and muscular endurance.

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Please add the entire descriptive analysis so that comparisons can be understood well, use open tables.

Discuss the findings and then conclude so that the results are methodically presented.

Creative Dance Program Intervention on Gross motor skill in children with learning disabilities

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ABSTRACT

The development of fine and gross motor skills begins during the critical years of early childhood. The absence of both gross and fine motor skills may negatively impact children's relationships with their peers as well as their participation in future physical activity for children with learning disabilities and creative dance as an expressive and non competitive activity can be one of the tool to achieve that .The aim of this study to investigate the suitability of a creative dance program, focusing on the development of motor skills in children with learning disabilities (LD). An interventional program of creative dance was designed and implemented for 6 month. Many international studies have examined the gross motor skills of children studying in special schools while local studies of such nature are limited. The effect of six month creative dance program (CDP) on gross motor skills in children with learning disabilities were assessed in this study utilizing a scientifically design(LD; n=10 M age=09 years. SD= 0.66) with the Test of Gross Motor Development-3 (TGMD-3, Ulrich,2017). Participants score obtained, raw score transformed to standard score and percentile. The result after creative dance program intervention revealed significantly greater positive gains over time on gross motor skills in the children with learning disabilities, the result showed that their gross motor performance is Below Average according to descriptive ratings of TGMD-3 norm.

Keywords : Creative Dance Program, Gross motor skill, children with learning disabilities, school children

INTRODUCTION

Learning disability is a generic term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, and/or mathematical abilities (Shaw, Cullen, McGuire, & Brinckerhoff, 1995). Children develop at different times with different strengths. Many people believe that children automatically develop locomotor skills through maturation. Although maturation is a part of the development process, Pica (2008) describes that, at this point, children have not yet developed the part of the skill where technique is the main focus. For example, when children begin running they have not yet developed the technique of moving their arms and legs in opposition. Without practice and the correct technique, children do not fully develop the muscles for strength needed for proper development of those skills. Motor difficulties of these individuals have yet to receive the same amount of

attention as their academic problems. Unfortunately, there is little information on the movement problems of children with learning disabilities using an information processing framework.

The Gross Motor Skills of Children with Typical Development the Test of Gross Motor Development-2 (TGMD-2, Ulrich, 2000) has been used extensively to assess the motor performance of children with typical development. Internationally, Pollatou, Konstantina and Karadimou (2005) assessed the gross motor skills performance of 95 preschool children (50 girls, 45 boys; M Age = 5.4 years old) and revealed no gender difference.

Lieberman et al., (2004) investigated 29 children with HI (n = 27; 11 girls, 18 boys, M age = 6 years, age range: 4 – 9 years) using the TGMD (Ulrich, 1985). Lieberman et al.,(2004) compared the motor development of children with HI who have non-hearing parents (n = 14) with those who have hearing parents (n = 15). The results revealed age as a significant factor for both locomotor and object control skills. In general, a higher percentage of children with HI had either reached or surpassed average performance levels in object control skills compared with locomotor skills.

Maloy and Sattler (1979) used the Modified Lincoln- Oseretsky Motor Development Scale (Bialer, Doll, &Winsberg, 1974) to measure the motor ability of boys, eight to eleven years old, 32 with and 32 without learning disabilities. Their results followed the same trend as Pyfer and Carlson (1972). This test requires an individual to perform a variety of motor tasks ranging from gross movements of the whole body to fine motor movements of the hand. Based upon total scores, boys with learning disabilities performed significantly poorer than the nondisabled boys. In addition, boys with learning disabilities also performed significantly below the normative values at each age level.

The predictive ability of the Test of Motor Impairment (Stott, Moyes, & Henderson, 1984) was considered by Sugden and Wann (1987). They evaluated a group of 30 children eight years of age and 31 children 12 years of age, all with moderate learning disabilities, and compared the results to 61 chronological age peers without learning disabilities. The test consisted of four sections which involved manual dexterity, static balance, dynamic balance, and ball skills. At the eight year old level there were ten times as many movement problems in the group with learning disabilities.

Creative dance is defined as the interpretation of a child's ideas, feelings and sensory impressions expressed symbolically in movement forms through unique uses of his/her body (Dimondstein, 1971). Creative dance/ movement celebrates spontaneity, originality and individuality through structured movement opportunities in which the dancer continuously invents movements according to personal preferences (Joyce, 1994). It is a method of learning about one's own personal strengths and weaknesses, and a means to explore new physical, social and emotional territories. Dance encourages innovation and honors individual experience and resources at whatever stage they arrive (Joyce, 1994).

Brunt, Magill and Eason (1983) reported that preschool and children with learning disabilities ages 8 to 10 years of displayed delays in motor development and deficits in basic motor skills such as galloping, skipping and hopping. Additional studies indicates that children with learning disabilities often have difficulty acquiring and performing motor skills (Kendrick & hanten,, 1979, Kowalski & Sherrill 1992).

Von Rosseberg-Gempton et al. suggest that creative dance promotes a bond between children through sharing ideas, physical space and accepting individual differences, and that this may help young children be more spontaneous and creative and lead to increased leadership and communication skills.

A number of investigators have also found positive effects of dance programs in improving a variety of different developmental outcomes for special-needs children (Caf, Kroflic & Tancig, 1997; Chamberlain-Rickard, 1982; Jay, 1991; Reber & Sherrill, 1981).

Dance educators and therapists have long espoused the benefits of creative movement and dance for children of all ages (Bloch, 1977; Chaney & Kephart, 1986; Fleming, 1976; Gilbert, 1992; Karff, 1969; Stinson, 1998).

Interventional programs for motor activities, play and dance showed how effective they are in developing basic motor skills and thus, cognitive development in kindergarten and primary school children (Madicetall, 2018; Becker, 2013; Yilmazetall, 2018; Zachopoulou et al, 2004; Shovaletall, 2015; Venetsanou & Kambas, 2009; Wang, 2004; Goodwayetall, 2003)..

Therefore this study aimed to investigate the effect of CDP on gross motor skills of aged 8 to 10 years children with learning disabilities and examine the differences in their motor performance in pre test and post test score as compared with the TGMD-3 norm population (Ulrich, 2017). This study is then be useful to stakeholders (i.e. Schools, Teachers, Educators, Counsellors, Therapists, Parents, Caregivers) in the field of mainstream and special needs education as the data collected will also provide insights to the motor abilities of children with learning disabilities in special schools in Pune city.

METHOD

Participants in this study were selected from Phoenix school from Prism foundation in Pune city. Participant for CDP were obtained through a purposive sample technique. The subject sample were comprised of 10 children with learning disabilities eight through ten years of age. The identification of the children with learning disabilities was based on independent assessment of school authority. The parents of each child received a permission form. At the time of data collection they did not have an illness or injury. Permission was taken from the school authority and parents consent form were signed. Child with neuromuscular disorder, visual impairment or hearing impairment was excluded from the study. Pre test using TGMD 3 ULRICH conducted in May 2019 then Creative dance program intervention implemented for 6 months after successful implementation of CDP post test was taken in the month of December. The treatment group followed six month creative dance program, which occurred twice a week for 30 min.:

Dance Program. The dance program offered was designed by the first author to be appropriate for the children's developmental level (eight- to ten-year-old). The creative dance/movement program movement structured by six dance concepts according to Gilbert (1992). These dance concepts, which were incorporated into lessons and weekly themes, included (1) Body parts (head, fingers, hand, etc.), shapes (curved/straight, symmetrical/asymmetrical, etc.), relationships (body part to body parts, individual to groups, body parts to objects, etc.), and balance; (2) Movement/ locomotor (walking, running, jumping, etc.); (3) Space, involving place (self space/general space), size (big/small, far reach/near), level (high, low), direction (forward/backward, right/left, up/down), pathway (curved/straight/zigzag), and focus (single/multi); (4) Time, speed (fast/slow) and flow (pulse/pattern/breath); (5) Force, energy (sharp/smooth), weight (strong, light), flow (free, bonded), combinations (step-hop, two-step, creep, etc.) and non locomotor (staying in one place, however, this could involve bending, twisting in the same place) and The structure of each dance class consisted of five sections: a greeting, warm-up and stretching, and dance improvisation and cool down. During the movement sessions, the instructor was always visible to the children by either being in the middle of the circle or in front of the children. In the greeting section of the session, the group held hands in a circle to say hello. In the warm-up, stretching section, most of the time everyone would be in a circle in their marked/ allotted spots.

Table 1 : Age and Gender of children with learning disabilities (n=10)

min	max	mean	SD
08	10	09	0.66

INSTRUMENT

In this study participant's gross motor performance were evaluated using the TGMD-3 locomotor subtest and ball skill. TGMD-3 examines the gross motor development of children with and without learning disabilities from age 3 years, 0 months to 10 years, 11 months (Ulrich, 2000). This test consists of 13 test items divided into two sub test (6 locomotor test items and 7 ball skill test items). The locomotor subtest includes run, gallop, hop, skip, horizontal jump and slide while the object control subtest includes two hand strike a stationary ball, one hand forehand strike, stationary dribble, kick, catch, overhand throw and underhand throw. The TGMD-3 instrument was selected for its reliability (large normative sample), suitability (same age group and gender ratio) and short assessment duration (Ulrich 2000). Each test item includes four to five performance criteria to describe the performance qualitatively. Motor performance is observed and evaluated based on predetermined qualitative performance criteria that represent each TGMD-3 assessment item. Scores are determined for each respective criterion based on whether the criterion was fulfilled (score awarded=1) or not (score awarded=0) Ulrich 2016. Two trials are completed for each motor skill item and scored accordingly. The total score for each item is established by the summation of all accumulated to determine the total locomotor and ball skills. The maximum score a participant can obtain on the TGMD-3, for locomotor subtest, ball skills subtest and overall gross motor performance, is 46, 54 and 100 respectively (Ulrich 2016). Each subtest produces a total raw score that is then converted to standard scores, percentiles, or age-equivalent scores. Standard scores of subtests are summed for gross motor skill categories to produce composite standard scores called fine gross motor quotients (GMQ), classifies children's motor skill performance as very superior, superior, above average, average, below average, poor, and very poor based on their GMQ.

PROCEDURE

This testing sessions were completed in school during the PE lessons of the participants on the school ground. Prior to testing and data collection, rapport building with the participant, equipment set up according to TGMD-3 requirements were carried out to allow familiarization and to reduce anxiety amongst the children. TGMD-3 items were explained using verbal and physical demonstration twice for each motor skill of the test items before each trial. participants were then given the chance to perform each skill twice. The tester observed the performance of each participant and awarded score of '1' when the participant performed the test items accordingly to the performance criteria of the skill. A score of '0' was awarded when the participant did not meet the performance criteria of the skill. The duration of each subtest took no more than 30 minutes.

DATA ANALYSIS-RESULT

Age Equivalent & Chronological Age

The results of Pre test showed that the children with learning disabilities were performing below-norm for both ball skills and locomotor skills when compared with the age equivalents of the TGMD-3 norms. While the mean chronological age of all children with learning disabilities was 9 years, both their locomotor skills and ball skills showed that they were performing at an age equivalent of 3 years (see Table 2A) Gender differences, although not the primary focus of this study both male and female present in this study . The descriptive ratings indicated

that these children with learning disabilities were performing at very poor level for the 13 test items. In table 2B for post test result showed greater gain on mean score, GMQ, percentile and performing at an age equivalent to 4-5 years. The descriptive rating indicated that they were performing at below average level.

Tab. 2 (A) : Pre Test Converting raw score of subtest to age equivalent (n=10)

Locomotor	Ball Skill	Total Score	Age equivalent	GMQ	Percentile	Descriptive rating
4.6	5.5	10.1	<3-0	<70	<1	Very poor

Table 2(B): Post Test Converting raw score of subtest to age equivalent (n=10)

Locomotor	Ball Skill	Total Score	Age equivalent	GMQ	Percentile	Descriptive rating
15.2	17.4	32.6	4-5	80-89	1	Below average

DISCUSSION

This study examined the effectiveness of implementing a creative dance intervention for improving the children's gross motor skill. The researcher taught the children with learning disabilities creative dance activities that used balance, locomotor movement and rhythms with and without music. In terms of implications for practice and policy, the present investigation provides clear, strong and scientifically rigorous evidence for the importance of dance and creative movement programs in early childhood for children with or without learning disabilities. Creative dance is an ideal medium for aiding children with learning disabilities in their psychomotor development because it is non competitive, social creative and physically stimulating. Dance is an activity often overlooked when designing physical activity program for children with disabilities. Physical activities such as sports have been recognized as being instrument in the promotion of physical, mental and social skills (Blair, Kohl, Paffenbarger, Clark, Cooper, & Gibbons, 1989). Therefore, it would be reasonable to assume that creative dance, which is also a physical activity, could have similar effects but without the adverse side effects like feeling upset when losing a competition or developing tendencies towards unwanted social characteristics such as aggressive behaviour. Creative dance could be used as a prevention strategy by promoting good physical and mental functioning. Early improvement of these developmental delays is imperative to the success of the child in classroom, playground and physical activity settings. The outcomes of this study suggest that the presence developmental delays in this are important to policy makers, caretakers, and physical educators. Gross motor skills play an important role in developing the child holistically. To improve the performance and develop the gross motor skill by providing them movement interventions in PE classes at the schools.

CONCLUSION

The findings of this study before the intervention their performance was at very poor level and lagging behind their age matched peers approx 6 years but after creative dance program their performance enhanced over period of time in terms of TGMD-3 test items indicated significant gains on locomotor skills as well as ball skills in children with learning disabilities. So it is concluded that the creative dance program was effective and beneficial for gross motor skills development of children with learning disabilities.

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“Effect of Zumba fit fat Training on HRPF factors of working Womens Aged from 25 to 35 years”

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ABSTRACT

The aim of this research was to determine the effects of Zumba fitness program on HRPF component of working women. 30 women aged 25-35 participated in the conducted research and were divided equally into Experimental and controlled group. The Zumba fitness program was estimated after three weeks of exercise, total of 18 training sessions. BMI, Muscular Strength, Muscular Endurance and Flexibility were measured at the beginning and at the end of the research. The effects of fat-free training model were analyzed by using Paired sample T test. The obtained result showed that Zumba fitness program achieved statistically slight improvement in total BMI loss ($p=$), Muscular Strength ($p=$), Muscular Endurance & Flexibility ($p=$). The study results clearly indicated that the Zumba fitness exercise can be used as effective group fitness exercise for the change in HRPF component of women if done 3 or 5 times a week.

KeyWords: Zumba, HRPF.

INTRODUCTION

Zumba is an activity work out regime made Colombian artist and cyclist/choreographer Alberto “Beto” “Force Pedal” Perez during the 1990s. Z. Zumba is a brand name possessed by Zumba Fitness, LLC. The Brazilian pop vocalist Claudia Leitte has become the worldwide minister to Zumba Fitness. Zumba includes dance and oxygen consuming developments performed to fiery music. The movement fuses hip-bounce, soca, samba, salsa, merengue and mambo. Squats and thrusts are additionally included. Zumba Fitness, the proprietor of the Zumba program, doesn’t charge authorizing expenses to rec centers or wellness focuses. Around 15 million individuals take week by week Zumba classes in more than 200,000 areas across 180 nations. Zumba is a dance wellness strategy dependent on salsa and other Latin dance moves, performed to Latin and world music beats, and arranged to permit individuals of any wellness or dance experience level to appreciate a phenomenal exercise. In the event that you think you’d like a thrilling class loaded up with positive sentiments and gathering like fun, Zumba settles on a fantastic decision of a gathering wellness strategy to help your wellness objectives.

FAT AND CALORIE BURNING

At its center, Zumba classes are proposed to give a huge calorie consume high-impact action finished in view of span preparing. Contingent upon body weight, sex, wellness level and other normal actual components,

the quantity of calories you copy in an average Zumba class will rise to that of any quick social moving hour, for example, salsa, disco or jitterbug. For a great many people, that can amount to 400 to 600 calories consumed every hour. With the classes arranged to give time periods in both speed of music and sort of developments, class individuals' energy use is expanded for fat-consuming advantages. Wellness moves are additionally consolidated inside Zumba moves, so don't be astonished on the off chance that you end up moving from a quick merengue beat to a long, slow arrangement of push-ups on the divider, or completing a few arrangements of squats followed by plyometric hops.

FULL BODY WORKOUT

Zumba is both a dance class and a wellness class. Beside its heart-medical advantages, Zumba gives an exercise to the entire body. From head and shoulder rolls that slacken up the neck and warm up the chest area, to footwork that reinforces and extends calves and lower legs, this wellness technique addresses practically every muscle and joint. Indeed, even the individuals who are simply learning the dance steps will end up awakening the day after a Zumba class with a complete post-exercise feeling. Hips and abs get specific consideration in the Latin dance style, and similarly as with many dance practice classes, thighs and butts frequently wind up being sore the day after class. Adaptability isn't disregarded in a Zumba class either, with warm-ups and cool-downs a customary piece of Zumba programming.

There are five wellbeing related actual wellness segments - HRPF. They are heart and lung perseverance or cardiovascular perseverance, strong strength, solid perseverance, adaptability, and body organization.

Cardiovascular Endurance is the capacity to practice the whole body for significant stretches of time. It requires a solid heart, sound lungs, and clear veins to supply the body with oxygen. Exercises to improve wellness around there incorporate running, swimming and oxygen consuming dance. An individual should do the movement consistently for at least 20 minutes inside their objective pulse zone. Perseverance/cardiovascular action should be done at least 3 days of the week

Strong Strength is the measure of power you can advance with your muscles. It is regularly estimated by how much weight you can lift. Individuals with strength have less issues with spinal pains and can complete their day by day assignments effectively. Instances of solid strength incorporate push-ups, weight lifting weighty load with not many redundancies, and pull-ups. Wellness testing will be estimated by doing push-ups.

Strong Endurance is the capacity to utilize the muscles, which are joined to the bones, commonly without getting worn out. Individuals with great solid perseverance are probably going to have better stance, have less back issues, and be preferable ready to oppose weariness over individuals who need strong perseverance.

Adaptability is the capacity to utilize your joints completely. You are adaptable when the muscles are sufficiently long and the joints are adequately free to permit development. Individuals with great adaptability have less sore and harmed muscles. Extending when exercises will assist with improving adaptability. The sit-and-reach and the storage compartment lift are two tests used to quantify adaptability.

Body Composition is the level of body weight that is fat contrasted with other body tissue, for example, bone and muscle. Individuals who have a high level of fat are bound to be sick and have a higher passing rate than lean individuals. Exercise and eating the correct nourishments in the legitimate sums can improve body structure. Body organization can be estimated utilizing an instrument called calipers, a particular scale, or it very well may be determined by utilizing the weight record (BMI) which utilizes tallness and weight to decide your BMI.

METHODOLOGY

30 females old enough 25-35 years were examined. 15 were essential for the Experimental gathering that went to the Zumba preparing and 15 where some portion of control bunch who didn't go to the Zumba preparing. Test and Re test was led.

In a trial, information from a trial bunch is contrasted and information from a benchmark group. These two gatherings should be indistinguishable in each regard aside from one: The contrast between a benchmark group and an exploratory gathering is that the free factor is changed for the trial gathering, however is held consistent in the benchmark group.

An Experimental gathering is the gathering that gets a trial methodology or a test.

This gathering is presented to changes in the Independent variable being tried. The estimations of the autonomous variable and the outcome on the needy variable are recorded. An analysis may incorporate various test bunches all at once.

A benchmark group is a gathering isolated from the remainder of the trial with the end goal that the free factor being tried can't impact the outcomes. This disconnects the autonomous variable's impacts on the trial and can assist rule with excursion substitute clarifications of the trial results.

While all investigations have a test gathering, not all analyses require a benchmark group. Controls are amazingly helpful where the exploratory conditions are perplexing and hard to seclude. Investigations that utilization control bunches are called controlled experiments. The most basic sort of control bunch is one held at common conditions so it doesn't encounter an evolving variable.

Members marked the educated assent after the strategies and motivation behind the examination was clarified. Members were needed to go to 18 meetings which was led in 3 weeks. The instructional course was led 5 days seven days beginning from 19 Feb. 2019 To 10 Mar.2019. Members were approached to maintain a strategic distance from any major actual work in the previous 3 weeks, and dodge weighty dinners and caffeine beverages or enhancements 2-3 hours prior to entering the gathering wellness studio.

All Zumba class tests were acted in a dance studio situated at Vibgyor High School, Airoli, Mumbai. To control any between teacher inconstancy, a solitary guaranteed Zumba educator coordinated a similar Zumba® movement and music.

The class length was 60 min and made out of 12 Latin American, Hip Hop and Bollywood Songs relating to a particular arrangement of movement. Members followed the developments of the educator, yet were permitted to alter the position, reach, and effect of every development just as make acclimations to the movement as indicated by their inclination.

The initial two tunes performed were warm up rhythms, enduring a joined length of 7 min. The initial two tunes comprised of essential advances and movement designs. The center 10 melodies were viewed as the oxygen consuming stage with the multifaceted nature of the developments and footwork expanding logically all through the 10 tunes. The oxygen consuming stage went on for 48.8 min and was separated into three portions each enduring 14.9 min. The last two melodies were the chill off tunes and had a term 8.2 min. In the second to last tune the speed of developments was taken to half time. All melodies were arranged to follow the Zumba equation.

TOOLS AND MEANS

These test manage explicit age, sex or class and the coefficient of dependability and legitimacy are not steady and differ in wide reach whenever applied in the current investigation. In this way, research researcher utilized one of the standard tests which is pertinent to the examples.

- Coopers 12 minutes run/walk test - Cardiovascular Endurance
- Modified push up test-Muscular Strength
- Bent knee sit-ups test – Muscular Endurance
- Sit and arrive at test-Flxibility
- BMI

RESULT

Results of descriptive parameters of initial and final Data of HRPF component.

Table 1 : Descriptive Statistics Experimental Group (Pre Test) N= 15

	12Min R/ W	sit up	push up	Sit reach	BMI
Mean	1433.4167	16.3333	12.5000	2.5083	26.0833
Median	1416.5000	16.0000	12.5000	2.7500	26.3500
Std. Deviation	131.11928	6.00505	6.43146	1.56232	3.23133
Std. Error of Mean	37.85088	1.73351	1.85660	.45100	.93281
Minimum	1201.00	4.00	3.00	-.10	20.20
Maximum	1624.00	28.00	25.00	5.00	31.20

From the table 1 the Mean of 12 min run/ walk, Sit up, Push up, Sit& Reach & BMI is 1433.4167, 16.3333, 12.5000, 2.7500 & 26.3500 respectively. The Median of 12 min run/ walk, Sit up, Push up & Sit & Reach& BMI is 1416.5000, 16.0000,12.5000,2.7500 and 26.3500 respectively The standard deviation of pre-test is 131.11928,6.00505,6.43146,1.56232 & 3.23133 respectively.

Table 2 : Descriptive Statistics Experimental Group (PostTest) N=15

	12Min R/ W	sit up	push up	Sit & Reach	BMI
Mean	1483.2500	17.5000	14.0833	3.1500	24.8583
Median	1467.5000	17.0000	14.5000	3.2000	25.0000
Std. Deviation	144.70919	6.40312	6.48717	1.49757	2.81633
Std. Error of Mean	41.77395	1.84842	1.87268	.43231	.81301
Minimum	1258.00	4.00	4.00	.50	20.40
Maximum	1699.00	30.00	26.00	5.50	30.90

From the table 2 the Mean of 12 min run/ walk, Sit up, Push up,Sit & Reach & BMI is 1483.2500, 17.5000,14.

0833,3.1500 & 24.8583 respectively. The Median of 12 min run/ walk, Sit up, Push up & Sit & Reach & BMI is 1467.5000, 17.0000,14.5000,3.2000 and 24.8583 respectively The standard deviation of post-test is 144.70919,6.40312,6.48717,1.49757 & 2.81633 respectively.

Table 3 : Descriptive Statistics Controlled Group (Pre Test) N= 15

	12Min R/ W	sit up	push up	Sit reach	BMI
Mean	1278.0000	12.9167	12.0833	1.9583	24.6917
Median	1249.5000	13.0000	11.0000	2.0000	24.3500
Std. Deviation	147.13877	6.73469	7.32937	1.10820	3.31181
Std. Error of Mean	42.47530	1.94414	2.11581	.31991	.95604
Minimum	1064.00	5.00	3.00	.30	18.30
Maximum	1539.00	22.00	30.00	3.70	29.80

From the table 3 the Mean of 12 min run/ walk, Sit up, Push up, Sit& Reach & BMI is 1278.0000, 12.9167, 12.0833, 1.9583 &24.6917 respectively. The Median of 12 min run/ walk, Sit up, Push up & Sit & Reach& BMI is 1249.5000, 13.0000, 11.0000, 2.0000and 24.3500 respectively. The standard deviation of Pre-test is 147.13877, 6.73469, 7.32937, 1.10820 & 3.31181 respectively.

Table 4 : Descriptive Statistics Controlled Group (Post Test) N=15

	12Min R/ W	sit up	push up	Sit reach	BMI
Mean	1295.7500	13.5000	13.3333	2.1333	24.8417
Median	1269.5000	13.5000	12.0000	2.2500	24.8000
Std. Deviation	145.74893	6.88212	7.61975	.77028	3.41373
Std. Error of Mean	42.07409	1.98670	2.19963	.22236	.98546
Minimum	1080.00	4.00	4.00	.50	18.50
Maximum	1535.00	23.00	31.00	3.00	30.20

From the table 4 the Mean of 12 min run/ walk, Sit up, Push up, Sit & Reach & BMI is 1295.7500, 13.5000, 13.3333, 2.1333 &24.8417 respectively. The Median of 12 min run/ walk, Sit up, Push up & Sit & Reach& BMI is 1249.5000, 13.5000, 12.0000, 2.2500and 24.8000 respectively. The standard deviation of post-test is 145.74893, 6.88212, 7.61975, .77028& 3.41373 respectively.

Table 5 : Experimental Group t test (Paired Samples Test)

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		T	df	Sig. (2-tailed)
				Lower	Upper			
12 Min Run/Walk pre - post	-49.83333	36.86297	10.64142	-73.25495	-26.41172	-4.683	11	0.001
Bent Knee Sit Up pre -post	-1.16667	0.83485	0.241	-1.6971	-0.63623	-4.841	11	0.001
Modified Push Up (Max) pre -post	-1.58333	1.1645	0.33616	-2.32322	-0.84345	-4.71	11	0.001
Sit & Reach pre - post	-0.64167	0.31176	0.09	-0.83975	-0.44358	-7.13	11	0
BMI pre - post	1.225	1.33765	0.38615	0.3751	2.0749	3.172	11	0.009

From the table 5 the Mean of 12 min run/ walk, Sit up, Push up ,Sit & Reach & BMI is 49.83333, -1.16667, -1.58333, -0.64167 & 1.225 respectively. The Std. Deviation of 12 min run/ walk, Sit up, Push up & Sit & Reach is 36.86297, 0.83485, 1.1645, 0.31176 and 1.33765 respectively. The Paired Differences significance of 12 min run/ walk, Sit up, Push up & Sit & Reach and BMI is 0.001, 0.001, 0.001, 0 & 0.009 respectively.

Table 6 : Controlled Group t test (Paired Samples Test)

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		T	df	Sig. (2-tailed)
				Lower	Upper			
12 Min Run/Walk pre - post	-17.75000	22.23071	6.41745	-31.87472	-3.62528	-2.766	11	.018
Bent Knee Sit Up pre -post	-.58333	1.31137	.37856	-1.41654	.24987	-1.541	11	.152
Modified Push Up (Max) pre -post	-1.25000	1.48477	.42862	-2.19338	-.30662	-2.916	11	.014
Sit & Reach pre - post	-.17500	.49566	.14309	-.48993	.13993	-1.223	11	.247
BMI pre - post	-.15000	.61274	.17688	-.53932	.23932	-.848	11	.415

From the table 6 the Mean of 12 min run/ walk, Sit up, Push up ,Sit & Reach & BMI is -17.75000, -.58333, -1.25000, -.17500 & -.15000 respectively. The Std. Deviation of 12 min run/ walk, Sit up, Push up & Sit &

Reach is 22.23071, 1.31137, 1.48477, .49566 and .61274 respectively. The Paired Differences significance of 12 min run/ walk, Sit up, Push up & Sit & Reach and BMI is .018, .152, .014, .247 & .415 respectively.

CONCLUSION

The research of three-week Zumba fitness program on a sample of 30 women showed statistically slight effects on changes in HRF component of women from experimental group and No effects on women from controlled group. Changes are reflected in the reduction of BMI, Improvement in Muscular Strength, Muscular Endurance & Flexibility. The research showed high efficiency of Zumba fitness training program on the reduction of body fat and improvement of Other HRF Components, which is very important since it is the common motive for joining group fitness programs. The uniqueness of Zumba fitness exercising is in the variety of Latin dance choreographies and dynamic music that create an atmosphere of fun (Zumba party) in which trainees forget they are practicing. This approach to exercise enables long-lasting interest and continuous exercising. It would be interesting to examine the effects of Zumba fitness program on the reduction of body fat of individual body segments observed over the long period and continuous exercise (at least 3x per week), or to compare the effectiveness of applying Zumba fitness program compared to the other group fitness programs. It should be noted that researches about the effects of Zumba fitness exercise are rare compared to studies of other aerobic exercise. This is because the Zumba fitness is the latest "hit" that appeared in the domain of aerobic exercise and that its actual effects on different populations and for different purposes are yet to be examined. This dissertation is a contribution to the clarification of its actual effectiveness in the changes of physical parameters of women.

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Assessment of Sport Performance : Theoretical Aspects and Practical Indications

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ABSTRACT

Sport evaluation is a fundamental moment in the training process of every athlete, every team and is an indispensable support for the coach. The aims and all the aspects related to the assessment, will be taken into consideration,

together to that can have a positive effect on performance, allowing each athlete, team and coach a good workout or match, whatever their competitive level. The approach is argumentative theoretical for the part relating at the training theory. Firstly, summarizing and deducting the scientific idea of research and of apply it in the practices of measurement and evaluation of the sport performance. One of the topics investigated is the relationship between genetic factors and training factors, in determining the performance of an athlete. The athlete's evaluation process should be useful in setting up and controlling the training and providing information to improve sport performance.

Keywords : measurement, test, evaluation, training, performance

INTRODUCTION

Sport evaluation is a fundamental moment in the training process of every athlete, every team and is an indispensable support for the coach. This aspect be part of in the interest of academic field of the scientific activity, related to the development of theories, techniques and methods for training and for the practice of different sports and motor activities and evaluations of performances. Sport performance is influenced by a series of factors that are variously connected to each other; these factors contribute in determining the performance in different ways, which can be distinguished in quantitative, qualitative and temporal. Sport training is a training process that aims to achieve the highest possible performance under two aspects: quantitative and qualitative. To analyze the factors that determine sport performance, different approaches can be used, with the aim of obtaining all that information to evaluate one or more variables, representative of one or more aspects (qualitative and quantitative) that are, in some way, related at the sport performance. There is a difference between measuring and evaluating even though these two processes are connected to each other. The term measure indicates the process by which a variable is assigned to a given numeric value; therefore, measuring is merely quantitative, objective and reproducible. Once detected the different variables (measured quantities), through appropriate conversion calculations, it is possible to obtain all the other quantities that

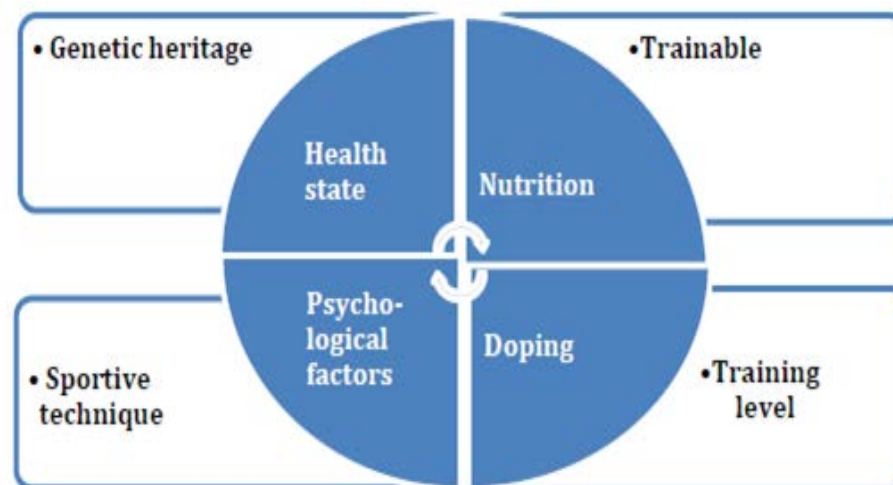
are defined derived quantities (Nelson, 1995). This procedure takes the name of analysis, mathematical operations that allow presenting the data collected in different form. With the term to evaluate, however, we mean the procedure that allows interpreting and judging the measured quantity (variable detected). Often, however, the assessment is based on subjective personal experience, on specific knowledge of sports activity and can also be influenced by feelings, opinions and prejudices. The evaluation can be defined as a process applied systematically to identify the dimension of the contribution of the various factors related to sport performance. The aim of the athlete's assessment is to set and to control the training or to provide useful information to improve sport performance. All the measurement and evaluation process must be supported by scientific research, which aims to establish or verify the knowledge, laws, hypotheses and theories concerning the different aspects of knowledge. Furthermore, scientific research is characterized by rigor, advertising and controllability and uses an experimental design, which also presupposes statistical analysis. In this paper, the aims and all the aspects related to the assessment, will be taken into consideration, together to that can have a positive effect on performance, allowing each athlete, team and coach a good workout or match, whatever their competitive level.

METHODS

The approach is argumentative theoretical for the part relating at the training theory. Firstly, summarizing and deducting the scientific idea of research and of apply it in the practices of measurement and evaluation of the sport performance.

PERFORMANCE FACTORS

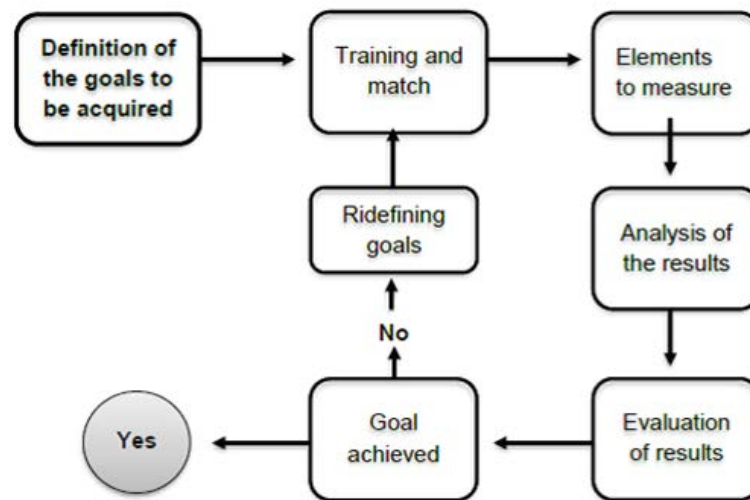
Sport performance is the result of several factors, some of which are closely related to the athlete, hereditary and acquired (Figure 1); while others act in an integrated way on the athlete and on the team, influencing the training and competition process. One of the topics of interest in sporting activities is the relationship between genetic factors (the talent is partly genetically determined) and training factors, in determining the performance of an athlete. According to study), the sons of the great athletes have a 50% chance of inheriting notable sportive abilities. A probability that rises up to 75% in the case of children of a couple of great athletes. The genetic patrimony has a fundamental role in the performance, not only the anthropometric, physiological and psychological characteristics can be partly inherited, but also the improvement capacity induced by training (Bouchard, 1986)



Another important factor is the ability to support high training loads, which can also be inherited; positively influencing performance, limiting the possibility of incurring injuries and overtraining syndrome. This characteristic, the positive reaction to training, is called trainable, and can be defined as the ability to improve one's motor potential in response to a series of training stimuli. The latter is inevitably linked to the sportive technique, which can be defined as the set of all those elements that allow you to adapt the athlete's motor behavior to the contextual situation, between which, also, the error correction made by the coach with verbal rules, in order to obtain the best possible performance. Today is consolidated the importance of physical activity to health, but also the state of health of the athlete is important and must be investigated through a dual assessment, functional and sportive fitness; while the functional one may depend on the performance, the sportive fitness has the preventive purpose of excluding contraindications to competitive sportive practice, or to establish in the sedentary subjects the exercises devoid of risks. Related to the state of health there is certainly also nutrition, which must provide, first of all, the energy substances necessary to support the training and the increased food needs of the athlete. Physicality and well-being, contributing to the psychic development. Psychological factors are often essential for sportive results. Victory and defeat often depend on the athlete's personality and in some ways on the difficult balance of emotions caused by the psychological relationships established between athletes (own team and opponents), with coaches, referees, managers, journalists, public, family and friends. Finally, even doping can contribute to altering the performance in an illegal manner; in fact, there are athletes that try to improve in artificial way their performances, legal or illegal, healthy or harmful to health. Therefore, its role in determining certain performances cannot be ignored or underestimated, especially for the impact on athletes' health and on the education of young people. Doping concerns the whole society, it involves not only elite athletes but amateurs too, their friends and relatives.

RESULTS

The assessment of sport performance can be achieved on the basis of a scale of reference values; this is done considering both the type of measure (test) and the descriptive statistics applied to it; or express the data collected as a percentage of the values obtained from the reference values. The initial assessment serves to identify the characteristics of an athlete or group of athletes, or to define or complete the anthropometric and physical-motor profile of each of them. In this case the tests are used to perform a sort of photograph of the athlete's status and will then help to define the objectives necessary to set up the training program (entry test). The assessment procedures can be proposed several times during a sportive season, in order to evaluate the effects of training and therefore the achievement of the planned objectives in the short, medium and long term (control and outgoing tests). A further opportunity to evaluate the effects of training is the search of relationships with the performance (Figure 2). It is not correct to think that the performance can only be investigated through one or more tests; in fact, we must not forget that the best test is the match. Sometimes the tests are administered with the purpose of motivating an athlete and in particular cases, also to satisfy a specific desire of the athlete, whose psychological meaning must be understood and whose importance must never be underestimated. Among the different procedures that can be used there is also the assessment made during the match, in this case the coach collects empirical data visually and then analyzes them only on basis of his experience, to quickly provide feedback to the athletes who will use them in the same match.



DISCUSSION

In the last years there has been a massive entrance of pervasive computing among sport-related technologies; the use of these modern technologies (Gps, slow motion, tracker, accelerometers, bio-sensors) allows to provide real-time experimental data from which to obtain the information useful for improving the sport performance. It is possible to distinguish the tests in general and specific. The tests that investigate the physical qualities such as strength, power, endurance, flexibility etc., are defined general and have the purpose of verifying the acquisition of the minimum necessary levels to proceed in training and for injuries prevention. When a physical quality is insufficient, the appearance of overload or injury pathologies can be observed and the improvement of other physical qualities or sportive technique is often negatively influenced. The specific tests, however, have a high technical value and can be studied from time to time according to the specific needs (specific) of each individual athlete. According to some authors this distinction concerns essentially the place where the tests are carried out: in a laboratory, in the gym or on the training field. Today we can consider this distinction obsolete, since many laboratory tests can be carried out in the field and some so-called field tests can be performed in the laboratory. Field tests have the characteristic of not requiring complex and expensive equipment, and therefore of being simple and quick to perform, easily interpretable and economical; some examples: the Cooper test, the Shuttle test or Leger, Jump and reach test, Speed test (35 meters). These tests are available to everyone, can be proposed at any time and are a very valuable aid in training planning. Regardless of the type, each test must possess three basic requirements (validity, reliability and objectivity) that guarantee the goodness of the information that is collected.

Coaches and anyone involved in training of young athlete and of the teams must have a deep theoretical knowledge of the factors of the sport performance, of the operational tools and the procedures of detection and evaluation, in order to be able to direct all the physical and technical programming, the methodological choices and procedural attentions, while respecting the characteristics of the athletes and of the sport teams. The evaluation of sport performance is a fundamental moment in the training process of every athlete and every team and is an indispensable tool for every coach or sportive operator. The knowledge of the main theoretical aspects, which we have dealt in this study, is necessary to avoid incurring conceptual errors and interpretation. It is important that every sportive technical includes in the training planning moments dedicated to the assessment, which allow him to verify the achievement of the objectives set and also the goodness of his work.

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Implementation of SPPU, Pune Physical Education Scheme on PCCCS students

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ABSTRACT

This study was aimed at effective implementation of Physical Education scheme of Savitribai Phule Pune University (SPPU), Pune on physical fitness of under graduate boys' students from Pratibha College of Commerce and Computer Studies, Chinchwad. To assess the current status of physical fitness of college going Boys, researchers used experimental method of pre- test and post-test analysis. Physical education scheme was designed as per SPPU, Pune norms and implemented it on the chosen sample. Population was three hundred and Sample was Eighty Seven (31%) under graduate college going Boys students from Pratibha College of Commerce and Computer Studies, Chinchwad. This study revealed that physical fitness improved after careful application of this program in the college. But norms of endurance test should be validated again.

Keywords : Physical Education Scheme, Physical fitness

In today's competitive scenario the inactivity or sedentary lifestyle is a common problem in all age group, especially the young generation. It is very necessary to do some kinds of physical activity in our day to day life. Physical activity is typically defined as any bodily movement produced by skeletal muscles that result in energy expenditure above the basal level. (U. S. Department of Health and Human Services, 1996). Physical activity can be categorized in various ways, including type, intensity, and purpose or context. Physical activity is the broad and organizing concept around which more specific activities can be arranged. Physical activity, performed as sport and exercise, can also be understood within the context of leisure, recreation and active living. (Bouchard, 1990). The benefits of regular, consistent physical activity are well documented. Physical activity plays an important role in the prevention of chronic diseases and conditions including cardiovascular disease, certain types of cancer, type II diabetes, and obesity. (Physical Activity and Health: A Report of the Surgeon General., 1996). It has been recommend that every day the school age children and the teenagers should accumulate at least 60 minutes of moderate to vigorous intensity physical activity to ensure healthy development (L. H. Williams, T.J.Hall and J.E. Rink, 2010) Hatona (1993, 1997) has proposed in the public health recommendation, to accumulate 10,000 steps per day to confer health benefit or to be an inactive, which has been taken with the help of pedometer. (Tukor- Locke C, Bassett, 2004). Regular participation in physical activities is associated with a longer and better quality of life, reduced risks of a variety of diseases and many psychological and emotional benefits. As we look towards the college students usually, they have very busy schedules and often place exercise at the bottom of their list of priorities. They are spending their entire

day in sitting in the classes, meetings, studying in the library and completing assignments using a computer. Some students are doing jobs and family commitments on the top of our educational responsibilities. And remaining time they are spending with their friends and family so very less time they are giving for physical activity (Thomas & Kotecki, 2007).

While performing physical activities students were facing lots of barriers such as lack of time and place, suitable facilities, lack of knowledge, enjoyment, self-motivation, self management skills i.e. set personal goals, monitor progress or rewards progress towards such goals, lack of encouragement, supports as well as attitude towards physical activity etc. (L. H. Williams, T.J.Hall and J.E. Rink, 2010). So, it is very necessary to work on these kinds of barriers.

The Sedentary persons can increase the Physical Activities in many ways. The Traditional, Structured approach described by the ACSM and others the specific recommendations regarding type, frequency, intensity and duration of activity. Recommended activities typically included fast walking, jogging, cycling, swimming, fitness classes, yoga, playing any game on ground, climbing stairs rather than taking the elevators etc. But looking towards the barriers, Suryanamaskar is the best solution for the individuals in which we do not need any kind of equipment, very less time and place is required as we as no need to go out of our home. (Physical Activity and Health- A report of the Surgeon General, 2002)

Physical activity has long been acknowledged as an important part of a healthy lifestyle, and recent scientific evidence has linked regular physical activity to a wide range of physical and mental health benefits. Research has demonstrated protective effects of varying strength between physical activity and risk for several chronic diseases, including coronary heart disease, hypertension, non-insulin-dependent diabetes mellitus, osteoporosis, and colon cancer. (Gutin, 2004) In fact, investigators suggest that 12% of the total number of annual deaths in the United States is attributable to a lack of regular physical activity. (Malina, 1991)

Now a days it is very necessary to do some kind of Physical Activity to be fit or healthy and stay away from various kind of diseases but because of today's competitive atmosphere in each and every field, the young generation is lacking in Physical Fitness as well as they are facing many kinds of health problems. They are not able to give enough time for any kinds of Physical activities. So, it is very necessary to motivate the young generation for any kind of Physical Activities such as Suryanamaskar. Suryanamaskar is an Activity which is very helpful for all round development of the individual. (Chavhan) This kind of program, they can live healthy lifestyle and became Physically, Psychologically and Socially Fit.

In Government Policy for Sports 2012, it was expected to improve the physical efficiency of the youth those who are admitted to higher education system in Maharashtra State and should undergo the physical training programs for enhancement of the physical efficiency. (Mane, Deepak., 2015) SPPU, Pune framed and implemented the Physical Education Scheme from Academic Year 2015. Aim of this scheme was to make Physical Education as an integral part of educational system and promote physical activity among sedentary students.

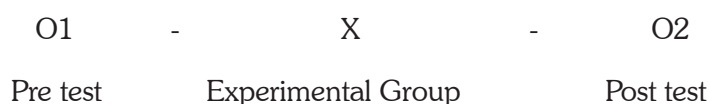
As the researcher is working in Pratibha College of Commerce and Computer Studies (PCCCS), Chinchwad, he found that the Boys from PCCCS, College were Physically not fit as well as inactive, so the researcher wanted to see are they become Active or not? So, the researcher selected cited problem. "Implementation Physical Education Scheme on Physical fitness of Under Graduate Boys students from Pratibha College of Commerce and Computer Studies, Chinchwad"

Purpose of the study was to examine the current Physical Fitness level of Boys from Pratibha College of Commerce and Computer Studies, Chinchwad and to execute physical education scheme on Under Graduate students of PCCCS, College. Also to measure and evaluate the effect of physical education scheme on the Physical Fitness of college Boys from Pratibha College of Commerce and Computer Studies, Chinchwad this study was conducted.

METHOD AND DESIGN OF THE STUDY

To study the effect of physical education scheme, researchers adopted Experimental research method. An experimental design was a blue print of the procedure that enables the researcher to test hypothesis.

Researcher used Single group Pre test-Post test non equivalent group design for the present study.



In this study, Independent Variable was Physical Education Scheme. This program consisted of creating environment for Physical fitness, and testing of physical fitness with duration of one academic year.

In this study, dependent Variable was Physical Fitness Component. Physical Fitness was a composite score of Endurance, Strength, and Flexibility.

Population of the study was All First Year Under Graduate College Boys students from Pratibha College, Chinchwad, i.e. N= 284. Sample for this Study was all present (87) First Year B.Com. College Boys students from PCCCS College, Chinchwad. (31 % of population)

Tools of data Collections used in this study was Physical Fitness test consisting Flexibility measured by sit and reach test, Endurance measured by 12 min run and walk test, Strength measured by sit ups test.

Method of Analysis for the Quantitative data was used as followed

Mean - Mean was the arithmetic average of a Physical Fitness scores, Standard deviation and t test - The Paired Samples t Test compares two means that are from the related sample. (Pre test- post test).

PROCEDURE OF THE STUDY

It was an experimental research which was conducted with the purpose to evaluate the effect of twelve months (once in a week) physical education program on Boys from PCCCS College. The researcher conducted the pre-test on whole sample; this was followed by the implementation of twelve months physical education program. After the completion of physical education scheme, the post-test was conducted. The researcher took pre-test - post test non equivalent group design which includes Physical Fitness test. After collecting the data, it was analysed statistically to see the effect of twelve months physical education program on Boys from PCCCS College, Chinchwad.

Descriptive Data and its Analysis

Table 1 : Fitness test data of the year 2015-16

	Sit/ Reach	Marks	VJ	Marks	Sit ups	Marks	Total Fitness Score
Avg.	23	11	33	20	25	8	57.72
SD	24.94		4.21		2.77		8.43
N=87							

Table no. 1 showed fitness test data for the year 2015-16 of all first year Boys' students. (N=87). Sit and reach mean was 23 inch having SD= 24.95. Average marks of this sample were 11 out of 20. This denoted that flexibility of all students were average. Vertical Jump test mean was 33 cm having SD= 4.21. Average marks of this test were 20 Out of 20. This denoted that leg power was outstanding. Sit ups test mean was 25 having SD= 2.77. Average marks for this was 8 Out of 20. This denoted that strength of core was below average.

Table 2 : Fitness test data of the year 2016-17

	Sit/ Reach	Marks	Sit ups	Marks	12 min r/w	Marks	Total Fitness Score
Avg.	18.54	17	33	12	1914	4	55.19
SD	3.50		8.25		1840		10.33
N=70							

Table no. 2 showed fitness test data for the year 2016-17 of all first year Boys' students. (N=70). Sit and reach mean was 18.54 cm having SD=3.5. Average marks of this sample were 17 Out of 20. This denoted that flexibility of all students were Excellent. 12 minutes run and walk test mean was 1914 meters having SD=1840. Average marks of this test were 4 Out of 20. This denoted that endurance was poor. Sit ups test mean was 33 having SD=8.25. Average marks for this was 12 Out of 20. This denoted that strength of core was average.

Effectiveness of the Physical Education Scheme on Fitness of the Students

To verify the effect of the scheme on physical fitness of college students, researcher presented following data.

Table 3 : Composite Score of Fitness test

Year	2015-16	2016-17	t
N	87	70	1.69 (p < .05)
Avg. (Out of 100)	57.72	55.19	
SD	8.43	10.33	

The t-value is 1.69. The p-value is .045906.

Hypothesis Testing Null Hypothesis, $H_0: u_1 - u_2 = 0$,

Null hypothesis was rejected and thus physical education scheme for under graduate students of PCCCS, college was significant effect on Physical Fitness components.

It was observed that, careful implementation of the scheme required well advance planning of yearly time table at college level. Also, the norms of some physical test, particularly run walk test need to be validated. In this study, major sample students just got two to six marks out of twenty. It means that, majority sample was failed in this particular fitness test.

CONCLUSION AND RECOMMENDATION

This study revealed that physical fitness improved after careful application of physical education scheme in the college. Also, for boy's students, it was helpful to improve overall physical fitness score. The current study revealed that Physical Fitness status of under graduate students was average level. Researcher suggested that physical fitness level should be increased more with regular sessions in the time table of the college. Validity of physical fitness test norms for 12 minutes Run Walk test should be verified as the score achieved in this particular test for all college students was below average level.

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Development of Sport Psychology in the Field of Competitive Sports

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ABSTRACT

Compared with the field of mass exercise and physical education, competitive sports have received more attention from sports psychology. A series of sports psychological intervention techniques have been used in the Beijing Olympic Games, such as psychological film and music, psychological website, psychological testing for athletes and rapid adjustment of multi-functional service vehicles. Leading technologies in the psychological field such as electroencephalography event related potential and computer quadrant map are used to diagnose the mental state or training effect of athletes during exercise. The rise of positive psychology has a rich theoretical and applied field, and also enriches the theory and application fields of modern sports psychology. Sports psychology has seen many new trends in the 20th century, and smooth experience is one of them. In the field of competitive sports, the connection between psychological monitoring and sports practice is the closest. Psychological monitoring is also moving towards a systematic and specialized direction. It is suggested that the research results of sports psychology that have been obtained can be applied more in future practice.

Keywords : Sports psychology; Competitive sports; Psychological monitoring)

INTRODUCTION

With the success of the 29th Beijing Olympic Games in 2008, Chinese sports psychologists have received more attention from insiders and outsiders, and the scientific and applied research of competitive sports psychology has been more widely recognized. At present, the research and application team of competitive sports psychology in China has continued to grow and develop, and has gradually embarked on a more standardized and sustainable development path.

Application of Competitive Sports Psychology in Beijing Olympic Games

In preparing for the psychological training of the Beijing Olympic Games, Chinese sports psychologists used a variety of methods to carry out a variety of psychological services for athletes of key projects. The psychological support provided to athletes mainly involves the following aspects: concentration, emotional control, emotional stability, goal orientation and role positioning, psychological stability, psychological stability, psychological fatigue recovery, self-confidence, wake-up level adjustment, of negative emotions caused by weight control, training communication, team cohesion and so on.

PSYCHOLOGICAL DIAGNOSIS AND MONITORING METHODS

Traditional methods of psychological diagnosis and monitoring include: literature, on site observation, questionnaire survey, follow-up test, case analysis, expert interview, oral report, etc.

The latest psychological diagnosis and monitoring methods include: (1) Brain image Brain image analysis technology can display valuable information such as the efficiency and competitive state of the athlete's brain processing information. (2) EEG topographic map ultraslow fluctuation analysis technology Organizational theory emphasizes the importance of brain function in the regulation of sports training and competitive state during the formation of motor skills. Based on this theory, the ultraslow fluctuation analysis technology of brain waves can be used to assess athletes' athletic ability, training intensity, central fatigue, stress level, and learning ability.

PSYCHOLOGICAL TRAINING METHOD

The game psychological countermeasures library refers to any problems that may be encountered in the game or each preparation step, and there are corresponding coping strategies, including effective behaviours, word prompts, etc., and classifies all coping strategies. It includes a game pre-emptive event countermeasure library and a game program activity countermeasure library. Ding Guerin, Zhang Zhongqiu, Zhang Liwei, Li Jingcheng, Wang Changsheng, Wang Zhi, Chi Lizhong and others helped the national weightlifting team, the national gymnastics team, the national diving team, the national artistic gymnastics team, the national shooting team, the national taekwondo team, and the national ping pong team establish a pool of psychological countermeasures for athletes from all teams to participate in the Beijing Olympic Games.

FOUNDING A PSYCHOLOGICAL SERVICE WEBSITE

The Beijing Olympic Psychology Expert Group also specially designed and established the "Olympic psychological Service Network." The site combines confidentiality, Security, knowledge, professionalism and fun, and leverages the site's unique psychological support capabilities and strong expert resources. The Olympic Psychological services website has a variety columns, including the athlete's home, the coach's home, the team home, multimedia psychological adjustment counselling, leisure clubs, and psychological assessment. On the basis of effectively integrating relevant professional knowledge resources at home and abroad, it has built a psychological assistance platform integrating knowledge, professionalism and fun.

CREATE A MENTAL MOBILITY VEHICLE

In order to better help athletes adjust their mental state before the Olympic Games, the key psychological laboratory of the National Sports General Administration of China has specifically designed and implemented the "Olympic Psychological Adjustment Vehicle". The Olympic psychological adjustment vehicle plays an important role for the Olympic athletes to reduce neuropsychological fatigue, decompression and relaxation, enjoy the body and mind, and strengthen self-confidence, so that athletes can adjust their minds at any time when needed. During the Olympics, psychological adjustment services were provided for the national judo team, boxing team, wrestling team, women's water polo team and diving team.

THE DEVELOPMENT TREND OF COMPETITIVE SPORTS PSYCHOLOGY

Positive Sports Psychology

In August 2010, the first International Conference on Positive Psychology was held in China, marking the increasing attention of psychologists in studying the positive experiences of human being and the potential,

motivation, and will of human beings. Positive Psychology is a new field of research that is emerging in the American psychology community. It focuses on the positive aspects of human power and virtue, and requires psychologists to look at human potential, motivation, and abilities in a more open and appreciative way. Positive psychology is a new model of psychological research, which is relative to negative psychology. The so-called negative psychology (Negative Psychology) is mainly based on human psychological problems, mental illness diagnosis and treatment. For example, in the past century of psychological research, the familiar vocabulary is morbidity, hallucinations, anxiety, arrogance, etc., and rarely involves health, courage and love.

SMOOTH EXPERIENCE

In the field of sports psychology, Flow is generally considered to be a positive emotion. It refers to an emotional experience in which people show a strong interest in an activity or thing and push the individual into a certain activity or thing. and introduce Flow into the field of sports psychology and define it as “the best state of experience, in which athletes are fully engaged in a task and create a state of consciousness that exerts the best level of exercise. In the field of sports psychology, psychologists’ discussion of flow state is not limited to descriptive research. They also pay attention to the psychological mechanism of fluent state and its influencing factors, so as to better help athletes reach the peak experience. In past studies, researchers proposed precompetitive plans, confidence, optimal arousal, motivational focus, and intrinsic motivation, which are factors of influencing the flow state of athletes.

SPORTS INVESTMENT

The concept of exercise engagement (Athlete Engagement) comes from Positivity In Sport Psychology. In China, research on sports investment is still blank. O far, through the search of the four core journals of international sports psychology, we have only found two articles on sports investment, and both of these articles only provide a preliminary descriptive analysis of sports investment.

As an important indicator of athlete’s positive psychological aspect, sports input can reflect the active and healthy psychological state of athletes, and is conducive to stimulating athletes’ positive qualities, such as: optimism, resilience, sense of meaning and creativity, thus effectively promoting the development of athletes and mature, laying a solid foundation for enhancing athletic ability and improving sports performance.

THE SYSTEMATIC AND SPECIAL TREND OF PSYCHOLOGICAL MONITORING OF HIGH-LEVEL ATHLETES

At present, there are a number of projects in china that have conducted psychological monitoring studies on training or competition processes for high-level athletes. Zhang Zhongqiu et al. used systematic exercises, psychological intervention procedures, biofeedback techniques, pre-match behavioural procedures, and short-term counselling focus resolution methods to systematically train and monitor the key athletes of the National Diving Team.[9]

Traditional psychological monitoring methods include: psychological testing, questionnaires, and physiological indicators. For psychological regulation, sports psychologists adopt different methods. At present, most studies focus on the impact of individual psychological skills training or comprehensive psychological skills training on operational performance. The research on targeted and systematic psychological training combined with project characteristics and athlete characteristics is not rich. Therefore, it is still necessary to further explore how to implement psychological skills training reasonably and effectively.

CONCLUSION

After the 2008 Beijing Olympic Games, the research and application of China's competitive sports psychology has made a historic breakthrough, and has now stood at a new height and a new starting point.

First of all, we must pay attention to the research materials from the first-line coaches, which can bring great inspiration to our research, we should learn from it effectively. At this stage, based on psychological monitoring combined with the characteristics of special sports to carry out reasonable and effective comprehensive psychological control remains to be further studied. Secondly, coaches and athletes still lack sufficient understanding of psychological training. Psychologists must first establish a good relationship with them, communicate the scientific nature of psychological training to them with a sincere attitude and practical actions and active participation of the athletes.

Finally, we should strive to improve the objectivity of the evaluation of psychological training effects. Combine psychological indicator, physiological indicators and behavioural indicators, combine cross-sectional research and tracking research, and combine others' evaluation with self-evaluation. Construct a structural model for evaluating the effects of sports psychology training. This is an important challenge for sports psychological and an important guarantee for the effectiveness of athletes' psychological monitoring, psychological training and psychological and psychological counselling.

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Effectiveness of FMS Corrective exercise intervention on Functional Movement Screen Test Scores in Semi-professional Freestyle Swimmers

Dr Kashmir Sabnis

ABSTRACT

This study will assess the basic fundamental movements of 25 Semi-professional Swimmers using the functional movement screen (FMS) assessment and determine if an intervention program will be successful at improving the results. Participants will be selected according to inclusion and exclusion criteria of the study and will be given a complete a corrective exercise program 4 times per week, for 8 weeks. All participants will be asked to continue their usual training routine with lower intensity and avoiding the fundamental movements which has lower scores. A mid-intervention FMS test after 4 weeks will be included to examine if successful results were noticed sooner than the 8-week period. And again the FMS test will be repeated after 8 weeks. The results will be statistically analysed and interpreted.

BACKGROUND

Material and methods :

- Study Design: Intervention
- Study set up: Nearby Sport Academies approved by Deenanath Mangeshkar Hospital
- Sampling method: Simple Random Sampling
- Target Population: Male freestyle swimmers training for more than 3yrs

Inclusion Criteria :

- Age 15-25yrs
- Male players
- Training for more than 3yrs

Exclusion Criteria :

- History of any Musculoskeletal disorder within 6 months
- History of any cardiovascular disorder
- History of any neurological disorder
- History of any surgery or medical disorder

Materials Required :

- 2 by 6 box
- 4 foot dowel
- Resistance bands
- Adequate space for testing

25 Freestyle Swimmers were selected by simple random sampling method by chit method. Informed consent will be taken and procedure explained. Their FMS scores will be measured before, during, and after an 8-week intervention.

Participants in the intervention group will be given 10-15 mins of general warm up consisting of light jogging and joint mobility exercises. They will be required to complete a corrective exercise program 8 times per week; this quantity has previously been successful at improving FMS scores. All participants will be asked to continue their standard training routines with low intensity and avoid the functional movements which have low scores.

Results: Significant FMS score was observed after 4 week intervention in swimmers. Significant improvements were also seen post 8 week intervention but the difference between the improvements when 4th week and 8th week were, 4th week progress was more significant.

Conclusion: The clinical implications of this study suggest that significant improvements in FMS scores were observed post FMS corrective exercise training. Also, the improvements observed after 4 weeks post functional movement training were larger than after 8 weeks of FMS training.

INTRODUCTION

Task specific training for sports is crucial for improving sports performance. 1 Strength and Conditioning programs also look at improving the sports performance through task specific training. 2 Numerous studies have documented that anterior and posterior muscle imbalances could increase the risk of injuries in sports. 3,4,5 Sahrman stated that repeated movements or prolonged postures may cause a change in movement patterns through tissue adaptation, consequently altering motor control. 6 Studies suggest that swimmers develop forward head posture and rounded shoulders due to task specificity which is a risk factor for future injury. 7

Cook et al. 8 established that numerous strength and conditioning programs often failed to take into consideration the quality of the client's basic fundamental movements; pre-activity movement screening would be advantageous to establish competency without compensation. Moreover, individuals who continue to train using unsatisfactory movement patterns would be more susceptible to injury, thus adding "fitness on movement dysfunction" 9. The functional movement screen (FMS) is an assessment tool developed to investigate the fundamental movement patterns of individuals 10,11. The FMS consists of 7 fundamental movement pattern assessments and 3 clearing tests requiring mobility, stability, and balance; each test is scored on a scale of 0-3 with a maximum value of 21 for the 7 tests 9. Normative FMS values of general active males have been reported to be 15.8 ± 1.8 12. Kiesel et al. 11 and Kiesel et al. 13 stated that the FMS had the ability to predict athletes at risk of injury and established athletes who scored ≤ 14 on the FMS were 11 times

more likely to become injured throughout the season. Corrective exercises have been developed to retrain dysfunctional movement patterns, establish symmetrical movement, and balance posture 9.

Total 5 intervention studies have been done till date. Of these studies three studies do not have a control group. The results revealed that the intervention significantly improved FMS scores to above the injury factor of 14. Conversely, Frost et al. 14 reported no significant increase in FMS scores when comparisons were made against a control group during an intervention program. However, the study appeared to portray confounding factors that could have impacted the outcome. Although the decision regarding FMS exercise selection was made by coaches based on the initial screening results, the programs were instructed by strength and conditioning professionals who were unaware of the results. Furthermore, the study does not specify if the professionals assigned to implementing the intervention had any prior experience or certification regarding corrective exercises; skill to oversee corrective exercise could vary significantly between individuals. Finally, there was a high priority placed on strength, power, and aerobic development for the intervention group 1. However, if the program was generic for all participants, particular exercises could have been contraindicated depending on limitations and weakest links identified from the initial screening, therefore, could have negated the corrective exercise focus. The intervention study by Bodden, 2015 stated improved results in mixed martial artists though the participants continued their training at peak intensities. There is still a need of further studies to investigate the results of corrective interventions on FMS scores.

The purpose of this study will be to find effectiveness of intervention corrective exercises on FMS scores in semiprofessional freestyle swimmers.

METHODOLOGY :

25 Freestyle Swimmers were selected by simple random sampling method by chit method. Informed consent was taken and procedure explained. Their FMS scores were measured before, at 4 weeks, and after an 8-week intervention.

Participants were given 10-15 mins of general warm up consisting of light jogging and joint mobility exercises. They were required to complete a corrective exercise program 4 times per week ; this quantity has previously been successful at improving FMS scores 11. All participants were asked to continue their standard training routines with low intensity and avoid the functional movements which have low scores.

Method of random allocation: The players were selected by random chit method. Chits of names of players were kept in the box. The coach was asked to pick 25 chits randomly. The chits with player's names were selected for the study from the academies.

All procedure was thoroughly explained to the players and an informed consent was obtained from each of them. The consenting players agreed to be checked and trained for functional movement corrections.

PROCEDURE :

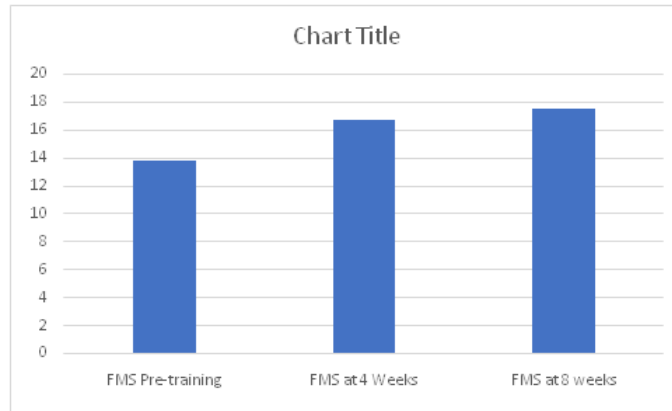
Outcome Measure :

Functional Movement Screen 8,9

RESULT

Mean standard deviation and standard error was carried out for all the groups in this study. Within the group analysis was done by paired t test and Pearson correlation tests.

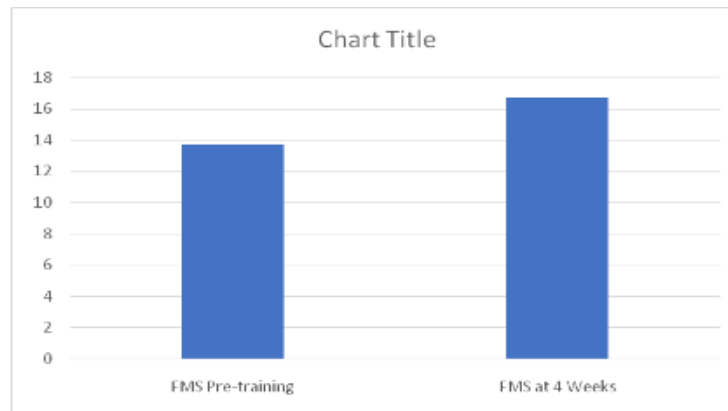
Table 1: Score comparison between



	FMS Pre-training	FMS at 4 Weeks	FMS at 8 weeks
Mean	13.72	16.72	17.48

Table 2 :

	Mean
FMS Pre-training	13.72
FMS at 4 Weeks	16.72



By applying paired T test, significant value was ($p < 0.05$) was observed in FMS group after 4 weeks of intervention

Table 3 :

	Mean
FMS at 4 Weeks	16.72
FMS at 8 weeks	17.48

By applying paired T test, significant value was ($p < 0.05$) was observed in FMS group after 8 weeks of intervention

Table 4 : Score comparison between

	Mean Difference
Diff T1 & T2	3
Diff T2 & T3	0.76

By applying paired T test and Pearson correlation test, significant value was ($p < 0.05$) was observed in FMS group after 4 weeks of intervention than in 8 weeks of intervention.

DISCUSSION

The basic twelve fundamental movement skills required to play a sport are balancing, running, jumping, catching, hopping, throwing, galloping, skipping, leaping and kicking. These being the basic locomotor and stabilising skills, they require specific movement of body parts in correct biomechanical way. This is a part of normal developmental process. These fundamental movements are voluntary movements and are reflex directed and the pattern in which the movements are performed is called the movement pattern.

To play a sport, an athlete requires higher motor skills and advanced movement patterns. Thus the fundamental movements form a base to play any kind of sport from beginner level to the elite level. Control of these movements by our nervous system depends on the sensory information received which will then help recruit the muscles to carry out a goal or movement function. If there are some changes in the sensory information, the movement execution will be changed accordingly. That is, if wrong signals are given, there will be a wrong functional movement pattern. Wrong sensory information can be due to fatigue or stresses on the body. This can alter the movement pattern or biomechanics of the movement, which if wrong, can be injurious to the body.

Hence the Functional movement Screen (FMS) was introduced to evaluate the functional movements in players. The tests place the individual in extreme positions where weaknesses and imbalances become noticeable if appropriate stability and mobility is not utilized. It has been observed that many individuals who perform at very high levels during activities, are unable to perform these simple movements. These individuals should be considered to be utilizing compensatory movement patterns during their activities, sacrificing efficient movements for inefficient ones in order to perform at high levels. If these compensations continue, then poor movement patterns will be reinforced leading to poor biomechanics.

In this study, we evaluated 25 swimmers for FMS scores pre-training, after 4 weeks of training and after 8 weeks of training. The training comprised of functional movement corrective exercises 4 times per week. It was found that FMS scores showed maximum improvement in first 4 weeks of training. Post 4 weeks to 8 weeks there was little improvement. This suggests that the movement pattern improves after functional movement corrective exercises and maximum improvement is seen in first 4 weeks of training. This can be due to neuronal response of motor learning which later leads to long term adaptation in the motor response.¹⁵

Thus clinical implication of this study thus suggests that movement pattern can be improved in swimmers to increase sports performance and the corrective training can be given for 4 weeks and then progressed to strength training for purpose of injury prevention as FMS score predicts the injury risk score too.

CONCLUSION

The clinical implications of this study suggest that significant improvements in FMS scores were observed post FMS corrective exercise training. Also, the improvements observed after 4 weeks post functional movement training were larger than after 8 weeks of FMS training.

Scope of further study: Further studies can be done to know for how long does the new improved score is maintained.

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The Comparison of Sport Orientation between Athletes and Non-athletes

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ABSTRACT

The object of this study was to examine the competitiveness, win orientation, and goal orientation and the comparison of sports orientation between Athletics and Non-athletes.

For this research, players from Pune Municipal Corporation and Pimpri Chinchwad Municipal Corporation area have been selected as population. A total of 168 players have been selected as sampling. In it, 84 athletes and 84 non-athletes have been selected. The players of Pune Athletics Club and M.H. Sports Club in the age group of 16 to 22 years in the Pune Municipal Corporation area who have participated at the District, State, and National level have been selected as athletes. Also, students studying at Mahatma Phule College in the Pimpri-Chinchwad Municipal Corporation area have been selected as non-athletes.

The sport orientation questionnaire (SOQ) developed by Gill and Dzewaltowski Deeter (1988) was used to investigate the Competitiveness, Win orientation, and Goal orientation of the subject. For this present study, the investigator used descriptive statistics and an Independent Sample t-test to analyse the data. After the analysed we found that the non-athletes competitiveness scores higher compare to athletes ($p < .005$). The athlete is more win and goal-oriented. There was a significant difference in mean Competitiveness, Goal Orientation between athletes and non-athletes. There was no significant difference in mean Goal Orientation between athlete and non-athletes ($P > 0/05$).

Key words : Competitiveness, Win orientation, Goal orientation, Athletes, Non-athletes.

INTRODUCTION

Success and achievement orientation is the orientation of a person towards domination and competitiveness so that they can move into a better position. Achievement in sports competitions (sport orientation) depends upon goal orientation which is in turn dependent on the task or ego orientation. (Sheikh, M., J. Afshari and H. Sheikh, 2011).

In light of the value of sport-specific constructs and the appropriateness of a multidimensional achievement orientation measure, Gill and Deeter (Gill, D.L. and T.E. Deeter, 1988) developed the Sport Orientation Questionnaire (SOQ). They reported that a series of exploratory and confirmatory factor analyses revealed a consistent, logical three-factor structure across three separate samples Alpha reliability coefficients and test-

retest correlations indicated that the three subscales of competitiveness, win orientation and goal orientation were internally consistent and stable over time (Manouchehri J. and F. Tojari, 2013). The Sport Orientation Questionnaire has been used widely in various studies since 1988. For instance, the reliability and the validity of SOQ were tested in the various studies by Sheikh et al. in which they all reported a good fit model on the scale and it can be realized that the SOQ in various communities has been worked properly for measuring athletic tendencies. Manouchehri and Tojari and Manouchehri et al. also found that athletes in the diverse levels of competing in sports are not the same in winning orientation. They realized that athletes competing at the world and The Olympic level is more winning-oriented. Sport orientation is a significant Questionnaire that measures individual differences in sport achievement orientation (Gill and Dzewaltowski, 1988; Bowker et al., 2003). It is important to consider the definition of “fit” physical activity types and sport orientation (Kokaridas et al., 2009). One study has noted that the fit between athleticism and sport orientation are important (Findlay and Bowker, 2009). Gill and Deeter’s Sport Orientation Questionnaire (SOQ) (1988) measures the different processes that people use to judge competence and evaluate success within a sports context. They eminent between win, goal, and competitive sport orientations. Win and goal orientations reflect individuals’ choices and responses during exercise, sports activities and competition. Athletes who have the win orientation desire to win and avoid losing in sport, they evaluate success is compared with the others. Those with a goal orientation focus on achieving personal goals in sport and evaluate success in comparison with them. Individuals holding either a win or a goal orientation are interested in performing well; however, these two orientations indicate different bases for evaluating one’s performance. In contrast to win and goal orientations, competitive orientation strongly influences on one’s selection to participate in competitive sports. Individuals who are strongly oriented toward competition are motivated to join and seek achievement in competitive sport. The SOQ discriminates competitiveness, which is a component of any sports activity, from win and goal orientations. It, therefore, permits a more nuanced investigation into sport orientations for individuals involved in a range of sport activities from competitive to non-competitive (Elizabet, 2005). Researchers found that athletes with higher scores than athletes with lower scores in competitiveness have lower levels of competitive anxiety (Gones, & Swain, 1992; Kang, 1990)

The Sport Orientation Questionnaire (SOQ) was developed as a multidimensional, sport-specific measure of individual differences in sport achievement orientation. Exploratory and confirmatory factor analyses revealed a stable, three-factor structure across three separate samples of university and high school students. The three separate but related subscales of competitiveness, win, and goal orientation demonstrate high internal consistency and stability over time. The SOQ competitiveness score differentiates students in competitive activities from those in non-competitive activities, providing evidence for construct validity. The overall factor stability, reliability and validity evidence suggests that the SOQ can be a valuable measure for the investigation of competitiveness and achievement behaviour in sport. Competitiveness orientation is defined as a desire to enter and strive for success in sports competition (Martens, 1976; Vandewalle, 1997; Gill and Deeter, 1988; Kohn, 1992; Shields and Bredemeier, 2011). The concept of goal orientation, meanwhile, defines one’s disposition toward developing or validating one’s ability in achievement settings (Roberts and Ommundsen, 1996; Vandewalle, 1997; White et al., 1998). Individual goals serve as organizing principles, influencing the meaning of activities and how individuals respond to success (White and Zellner, 1996). In competitive sports situations, competitiveness orientation is influenced by individual differences and situational factors (Gill and Deeter, 1988; Martin and Gill, 1991). Meanwhile, the dimensions of goal orientation are constructed by recognizing the value of sports, goal-setting, working hard to win, and vibrancy in the activity. Compared to competitiveness orientation, goal orientation seems to be less affected by specific sport situations (Gill and Deeter, 1988). However, the SOQ-CA shows that competitiveness and goal orientations are highly correlated,

which leads us to question the influence of both goal and competitiveness orientation (Newby and Klein, 2014; Clancy et al., 2016). Monacis et al. (2013) indicate that there is, in fact, a mediating effect between goal and competition orientations.

The objective of the study :

1. To examine the competitiveness, win orientation, and goal orientation of athletes and non-athletes.
2. To compare competitiveness, win orientation, and goal orientation of athletes and non-athletes.

Hypothesis of the study :

H1 : There will be a significant difference between Sport Orientation i.e.

Competitiveness, Win Orientation, Goal Orientation, Athletes and Non-athletes.

H0 : There will be no significant difference between Sport Orientation i.e.

Competitiveness, Win Orientation, Goal Orientation, Athletes and Non-athletes.

Material and Method : The Descriptive survey method was used for this study.

Population and Sample : For this research, players from Pune Municipal Corporation and Pimpri Chinchwad Municipal Corporation area have been selected as population. A total of 168 players have been selected as sampling. In it, 84 athletes and 84 non-athletes have been selected. The players of Pune Athletics Club and M.H. Sports Club in the age group of 16 to 22 years in the Pune Municipal Corporation area who have participated at the District, State, and National level have been selected as athletes. Also, students studying at Mahatma Phule College in the Pimpri-Chinchwad Municipal Corporation area have been selected as non-athletes.

The tool of data collection : The sport orientation questionnaire (SOQ) developed by Gill and Dziewaltowski Deeter (1988) was used to investigate the Competitiveness, Win orientation, and Goal orientation of the subject. The SOQ consisted of 25 questions in which 13 statements were concerned with competitiveness, 6 were related to goal orientation and 6 were concerned with win orientation. The sport orientation questionnaire yielded three scores: competitiveness, win orientation, and goal orientation. Each item was scored from 1 to 5 (A=5, B= 4, C= 3, D = 2. E = 1).

Statistical tools : For these studies, Descriptive statistics, and Independent sample t-test used for the data analysis.

RESULT**Table 1 :** Group Statistics of Competitiveness, Win Orientation and Goal Orientation Athletes and Non-athletes

Sports Orientation	Group	N	Mean	Std. Deviation	Std. Error Mean
Competitiveness	Competitiveness Athletes	84	33.7	2.14	0.23
	Competitiveness Non-athletes	84	56.27	7.94	0.87
Win Orientation	Win Orientation Athletes	84	24.27	5.23	0.57
	Win Orientation Non-athletes	84	22.87	5.57	0.61
Goal Orientation	Goal Orientation Athletes	84	33.7	2.14	0.23
	Goal Orientation Non-athletes	84	41.29	10.5	1.15

Note : Competitiveness athlete Mean is 33.70 with S.D.is 2.14, SEM is 0.23 and Competitiveness of non-athlete Mean is 56.27 with S.D. is 7.94, SEM is 0.87. The mean of competitiveness Athletes lower than the mean of competitiveness Non-athletes.

Win Orientation athlete Mean is 24.27 with S.D.is 5.23, SEM is 0.57and, Win Orientation of non-athlete Mean is 22.87 with S.D. is 5.27, SEM is 0.57. The mean of Win Orientation Athletes are higher than the mean Win Orientation Non-athletes.

Goal Orientation athlete Mean is 33.7 with S.D.is 2.14, SEM is 0.23 and, Goal Orientation of non-athlete Mean is 41.29 with S.D. is 10.5, SEM is 1.15. The mean of Win Orientation Athletes are lower than the mean Win Orientation Non-athletes.

Table 2 : Independent Samples Test of Competitiveness, Win Orientation, Goal Orientation athletes and Non-athletes

SOQ	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Competitiveness									
Equal variances assumed	57.57	0.00	-25.17	166	0.00	-22.57	0.9	-24.34	-20.8
Equal variances not assumed			-25.17	95	0.00	-22.57	0.9	-24.35	-20.79
Win Orientation									
Equal variances assumed	0.44	0.51	1.69	166	0.094	1.4	0.83	-0.24	3.05
Equal variances not assumed			1.69	165.34	0.094	1.4	0.83	-0.24	3.05
Goal Orientation									
Equal variances assumed	120.57	0.00	-6.48	166	0.00	-7.58	1.17	-9.89	-5.28
Equal variances not assumed			-6.48	89.88	0.00	-7.58	1.17	-9.91	-5.26

Note : Competitiveness of the athlete and the non-athlete F-value is 57.57 which are significant as the p-value is .000 which is less than 0.05 levels. Thus the null hypothesis of equality of variance is rejected and it is concluded that the variance of the two groups is not equal. The value of the t-test is 25.17. Thus t-value is significant as the p-value is 0.000 which is less than 0.05. Thus the null hypothesis of equality of population means of two groups is rejected and it's conclude that the Competitiveness of Athletes and Non-athletes are different

Win orientation of athlete and Non-athlete F-value is 0.44 which is non-significant as the p-value is. 0.51 which is more than 0.05 levels. Thus the null hypothesis of equality of variance is accepted and it is concluded that the variance of the two groups is equal.

The value of the t-test is 1.69. Thus t-value is significant as the p-value is 0.094 which is higher than 0.05. Thus the null hypothesis of equality of population means two groups are accepted and may be concluded that the Win Orientation of Athletes and Non-athletes are not different.

Goal Orientation of athlete and Non-athlete F-value is 120.57 which is significant as the p-value is 0.000 which is less than 0.05 levels. Thus the null hypothesis of equality of variance is rejected and it is concluded that the variance of the two groups is not equal.

The value of the t-test is -6.48. Thus t-value is significant as the p-value 0.000 which is less than 0.05. Thus the null hypothesis of equality of population means two groups are rejected and it is concluded that the Goal Orientation of Athletes and Non-athletes are different.

- There was a significant difference in mean Competitiveness between athlete non-athletes (t-value is 25.17, $p < .005$).
- There was a no significant difference in mean Win Orientation between athlete non-athletes (t-value is = 1.69, $p > .005$).
- There was a significant difference in mean Goal Orientation between athlete non-athletes (t-value is = 6.48, $p < .005$).

DISCUSSIONS AND CONCLUSION

Athletes scored lower than non-athletes score on the subscales of Competitiveness, Win and Goal-orientation score higher than non-athletes of the Sport Orientation Questionnaire. Athletes appeared to enter into sports competitions to compete with their opponents and accomplish personal goals more than non-athletes. The study found that athletes are more likely to win and try to achieve their goals. But those who are not athletes only show a competitive attitude. Those with a goal orientation focus on achieving personal goals in sport and evaluate success in comparison with them. Individuals holding either a win or a goal orientation are interested in performing well; however, these two orientations indicate different bases for evaluating one's performance. In contrast to win and goal orientations, competitive orientation strongly influences one's selection to participate in competitive sports. Individuals who are strongly oriented toward competition are motivated to join and seek achievement in competitive sport.

Gill and Deeter (1988) reported that the three components of the Sport Orientation Questionnaire may contribute differently to sport-achievement behaviors, depending on the sample.

After the result we found that non-athletes competitiveness score higher compared to athletes. The athlete is more win and goal-oriented. There was a significant difference in mean Competitiveness and Goal Orientation between athletes and non-athletes. There was no significant difference in mean Goal Orientation between athlete non-athletes.

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A Comparative Study of Emotional Intelligence between Male and Female Students of Physical Education Colleges in Pune District

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ABSTRACT

In every field of our society not only Intelligence is important but Emotional Intelligence is also an important factor. This study was conducted to compare the Emotional intelligence between male and Female Students of Physical Education Colleges in Pune District. The researcher used a survey method for the study. In the present study, the data pertaining was collected on 119 male students and 81 female students of Physical Education colleges of different parts of the Pune district by using an emotional intelligence questionnaire by Hyde, Pethe and Dhar. The collected data were analyzed statistically through a T-test and the level of significance was observed at 0.05 level of confidence. On the basis of statistical findings, it was concluded that there was no significant difference in Emotional intelligence between male and Female Students of Physical Education College in Pune District.

Keywords : Emotional Intelligence, Education and Physical Education

INTRODUCTION

Emotional intelligence is one of the most widely discussed topics in Educational, Physical Education work and organizational psychology. After research has shown that 80% of human success is due to Emotional Intelligence and only 20% is due to intelligence. Teachers are considered as the main role in the education and physical education system. They are the moderators through which the knowledge can be transferred to the students who represent the foundation of society. In current years, the thought of emotional intelligence among teachers has been taken attention in educational institutions due to its countless importance. Emotional intelligence was well-defined as: The capacity to notice emotion, integrate emotion to facilitate thought, understand emotions, and regulate emotions to promote individual growth. The present research has employed the notion of Emotional intelligence which is based upon the conceptualization of Emotional intelligence as proposed by Goleman. Emotional intelligence is well-defined as “the compound set of capabilities that enable a person to manage himself/herself and others” (Goleman, 1995 & 1998). Emotional Intelligence is the skill to identify & categorised, evaluate and control the emotions of oneself, of others, and of group member.

This study is based on the idea to know the level of emotional intelligence among male student's teachers and female student's teachers of Physical Education College.

OBJECTIVE OF THE STUDY

To compare the Emotional Intelligence difference between male and Female students of B.P.Ed colleges.

MATERIAL AND METHODS

Design : The present study was conducted by framing a quantitative survey research design.

Method : In this research, the researcher used the survey method for the study.

Research tools : Emotional Intelligence Scale (EIS): Emotional intelligence Scale questionnaire was used by the researcher which was developed by Hyde, Pethe and Dhar.

Sample size and data collection : The sample size consists of 119 Male and 81 Female students from Physical Education Colleges in the area of Pune district were randomly selected. The student's age group was 18 to 28 years. The researcher distributed the emotional intelligence questionnaire to male and female students of Physical Education (B.P.Ed.) College in Pune district. Then, the filled questionnaires were collected by the researcher personally. After that, the questionnaire was scored according to the scoring method given in the manual. The total score was given the emotional intelligence score of the respondents.

STATISTICAL TOOL :

Collected data were analysed statistically through the mean value, SD and T-test and the level of significance were observed at 0.05 level of confidence.

RESULT :

Table 1: B.P.Ed. Male and Female students shows the mean, S.D. and 't' value of Emotional Intelligence.

Course Students (B.P.Ed)	N	Mean	S.D.	df	't' Value
Male Students	119	145.84	9.01	198	1.03
Female Students	81	147.19	9.04		

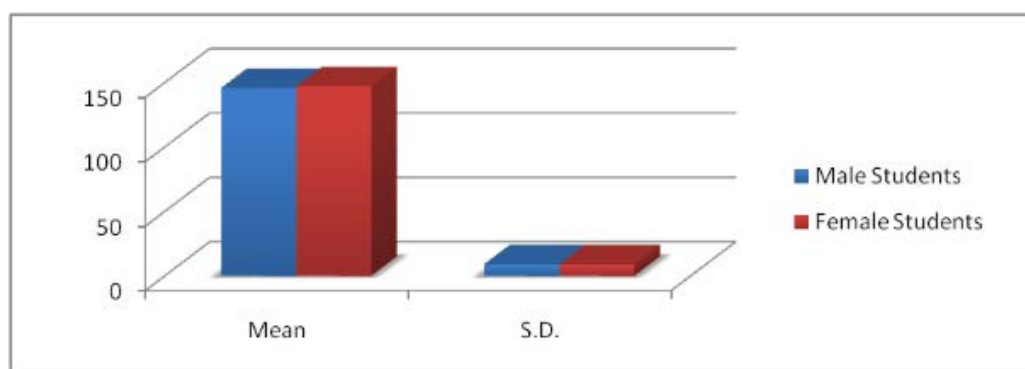


Fig. 1: Comparison of Emotional Intelligence between male and Female Students of Physical Education colleges in Pune District

DISCUSSION

The mean score of male and female students of Physical Education Colleges are 145.84 and 147.19 respectively. The SD score of the male and female students of Physical Education Colleges are 9.01 and 9.04 respectively. The mean and SD difference between the two groups is 1.35 and 0.03 respectively. The obtained 't' value is 1.03 and the critical 't' value is 1.97 is not significant at 0.05 level. This indicates that there was no significant difference in the Emotional Intelligence between male and female students of Physical Education colleges in the Pune district. Hence the hypothesis of "There will not be any significant difference in the Emotional Intelligence between Male and Female students of Physical Education College in Pune District." was accepted.

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Effect of Training Programme on Improvement of Novice Field Hockey Player Skills Acquisition and Performance

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ABSTRACT

The aim of study was to test the significant difference between effect on the improvement of physical fitness and skills acquisition variables total performance due to the training programme exercises for novice (10 to 12 years girls) novice field hockey players. A total sample size of N=30 data was compare with the test norms data clearly shows that obtained experimental group mean was 72.58 with standard deviation of 6.07 and F value 27.96 was significant at 0.05 levels as the table value 2.65 is less than the calculated F value with the degrees of freedom 3 and 116. As p-value<0.05 {1.71} the difference between effects was significant. The present study provides useful information to the coaches to develop their players achieving success at elite level of competitions to the best possible performance in field hockey.

Keywords : Novice Players, Skill Acquisition, Training Programme and Performance.

INTRODUCTION

Field hockey is popular and dynamic game played by both the sexes; It is a field invasive team game in which players are competes at the same field of action as their opponents; (Hughes and Barlett, 2002) field hockey was long history but now day's game playing surface and rules are change. A rule change means that all matches were played in four 15-minute quarters. Field hockey is a fast-paced game which nowadays is only played on artificial turf. The game rules were allowing unlimited substitutions. That's why modern field hockey demands that each player of the team be able to play in all positions. Field hockey game requires a high level of specific strength, speed, agility, flexibility, skill efficiency, accuracy, and perception.

Methodology : The experimental method was used for this study to test the sample performance. Subjects were added into one group; one was experimental. This research was based on Time series design. During the training program researcher has taken four tests. Implementation of every training phase researcher has taken a test of the experimental group.

Tools and Means : The specific field hockey test battery was used as tools for present experimental study. The specific field hockey physical fitness and skill test battery was made by SAI in 1992. This test battery is already standardized and available.

RESULTS

Descriptive Statistics of different training programme phases on the improvement of novice field hockey player skills acquisition and performance

Experimental Group Novice Field Hockey Players{EG-NFHP} N=30						95% Confidence Interval for Mean		Mini	Maxi
Phase	Sample	No. of Sample	Mean	Std. Dev.	Std. Error	Lower Bound	Upper Bound	Mum	Mum
I	EG-NFHP	30	40.90	5.31	1.06	39.51	40.68	38.5	42.25
II	EG-NFHP	30	56.01	5.53	1.10	55.51	56.53	53.00	58.51
III	EG-NFHP	30	79.51	6.24	1.12	78.93	80.10	76.00	82.00
IV	EG-NFHP	30	114.60	7.19	1.14	114.03	115.18	112.0	117.25
Total	120	72.58	6.07	4.42	71.99	73.08	69.88	75.00	

Analysis of variance repeated measures statistics of different training programme phases on the improvement of novice field hockey player skills acquisition and performance

ANOVA	Sum of Squares	Mean Square	Df	F	Sig.
Between Groups	1428.10	2040.37	3	F(2.65) = 27.96, p>0.05	1.71
Within Groups	169.28	4.56	116		
Total	1597.38		119		

Tables I and II show that there were 30 subjects in the experimental group. Experimental group mean was 72.58 with standard deviation of 6.07. Data clearly shows that obtained F ratio 27.96 was significant at 0.05 levels as the table value 2.65 is less than the calculated T ratios with value the degrees of freedom 3 and 116. As p value < 0.05 1.71 the difference between effect was significant on the improvement of skills acquisition and performance. After Testing of Hypothesis the Null hypothesis (H0) was rejected and Research Hypothesis (H1) was accepted.

DISCUSSION

Discussion from the results the study it that all physical fitness and skills variables total performance of novice field hockey player there is significance different between Mean of four different training phases of experimental group, because mean of I-Phase test is less than mean of II-Phase test, mean of II-Phase test is less than mean of III-Phase test, mean of III-Phase test is less than mean of IV-Phase test is to check the significant difference between four different training phases of experimental group the data of again analyzed by applying F-test. Before applying F-test, SD was calculated between I-Phase test, II-Phase test, III-Phase test where SD and IV-Phase test where SD there was let's significant different between four different training phases of experimental group because value of calculated "F" ratio which is greater than tabulated "t" at 0.05 level of confidence, which shows selected training program have let's effect on the improvement of physical fitness and skills acquisition variables total performance novice field hockey player.

CONCLUSION

The research was concluding present study to develop multi playing abilities of novice hockey players due to specific training programs. One of the means and methods to achieve this is scientific training through literature. Development of total performance of novice hockey players in competition was achieved through a training process to induce automation of motor-skills. The dynamics of training involves the manipulation of the training load through the variables like intensity, duration and frequency. In addition, sports activities are a combination of strength, speed, and endurance, executed in a coordinate.

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Effect of Mini Game Performance on Speed and Accuracy Among Hockey Players

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ABSTRACT

The study investigated the effect of mini games on hockey players as they have problems in speed and accuracy executing general hockey skills, ball control with players on the ball, as well as supporting player roles without the ball in 5 versus 5 mini game situations. The study was an experimental equivalent groups design whereby national level hockey players (14-17 years) randomly assigned in two groups experimental (n=15), and control group (n=15). The effectiveness of speed and accuracy variables was measured by Henry-Freidel-Field hockey test, and Game observation Instrument. T-test was used to analyze the data, followed with analysis if the test results yielded significant differences. The data clearly shows that the obtained T ratio -5.15 was significant at levels 0.05 as the table value 0.00 is less than the calculated T ratios with value the degrees of freedom 28. As p-value < 0.05 the difference between effect of mini game on speed and accuracy was significant.

Keywords : Mini Game, Performance, speed and accuracy, Hockey Player.

INTRODUCTION

Field hockey was a sport with a long history that has undergone quite rapid radical changes. The advent of synthetic coaching has changed the technical and tactical requirements of the game at all levels, but in particular at the nation level. To achieve the best possible performance, the training has to be formulated according to the principles of coaching (Bompa, -1999). It is well-documented that the greatest training benefits occur when the coaching stimulus simulates the movement patterns and demands of the sport. Based on this premise, coaches are increasingly using game based training activities (e.g., small-sided games) as a means of improving the skill levels of team sport players. The use of game-based activities as training drills allows the simulation movement patterns of team sports, while maintaining a competitive environment.

METHODOLOGY

The methodology that proposed in this research is experimental equivalent groups design T-test to determine the effect on speed and accuracy executing hockey general skills, as well as 5 versus 5 in game and performance in term of ball control, (passing, dribbling, shooting), The study was carried out over a period of 12 weeks.

TOOLS AND MEANS

The SAI field hockey test was used as tools for present experimental study. The specific field hockey test was made by SAI in 1992. This test is already standardized and available.

RESULTS

Table 1 : Descriptive Statistics of Speed and Accuracy Executing performance test score of Hockey Players

Players Groups	N	Mean	Std. Deviation	Std. Error Mean
Experimental Group	15	65.00	6.33	2.00
Control Group	15	78.90	5.96	1.89

Table 1 : T-Test Statistics of Speed and Accuracy Executing performance test score of Hockey Players

Players Groups		Paired Differences			
Experimental & Control Group (tailed)	Mean Difference	Std. Deviation	T	Df	Sig.-2
	-13.9	8.53	-5.15	28	.001

* Level of significance 0.05 Tabulated "p"0.05 (15)

Tables show that there were a total of 30 subjects in the group. Experimental group mean was 65.00 with SD of 6.33. Similarly, for the Control group the mean was 78.90 with SD 1.89. The data clearly shows that the obtained T ratio -5.15 was significant at levels 0.05 as the table value 0.00 is less than the calculated T ratios with value the degrees of freedom 28. As p-value<0.05 the difference between effect of mini game on speed and accuracy was significant.

CONCLUSION

From the results of the study it can be concluded that mini games help to improve a hockey player's speed and accuracy of performance, and it gives the optimum fitness to both speed and accuracy. Lastly a suggestion is given to the hockey Association authorities and coaches that regular practice of mini game the player's should be integrated into field hockey performance in every tournament, across the India for the improvement of the level speed and accuracy of performance

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Effect of Plyometric Training on Badminton Skill of Inter collegiate Badminton Players

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ABSTRACT

The aim of study was to test the significant difference between Effect of plyometric training on badminton skill of inter collegiate badminton players due to the plyometric training for (19 to 21 years) inter collegiate badminton players. A total sample size of N=50 randomly assigned to the experimental group (n= 25), and control group (n=25). The effectiveness of these two groups was measured by badminton tests. T-test was used to analyze the data, followed with analysis of data results yielded significant differences. The analysis data clearly shows that obtained means of gain in the experimental & control group were compared with independent t-test. The mean difference was 7.00 and 't' value was 4.52. With degree of freedom 48 which was statistically significant at 0.05 significance level (p=0.00). This indicates that there was significant effect of 12-weeks plyometric training improvement on badminton skill of inter collegiate badminton players

Keywords : Plyometric training, Badminton skill, Inter Collegiate Players

INTRODUCTION

Plyometrics is a method of developing explosive power, an important component of most athletic performances. As coaches and athletes have recognized the potential improvements which Plyometrics can bring about in performance, they have integrated it into the overall training programme in many sports and made it a significant factor in planning the scope of athletic development. Plyometrics is a new form of isotonic training which became popular during the late 1970s and early 1980s. Proposed to bridge the gap between speed and strength, plyometrics uses the stretch reflex to facilitate the recruitment of additional motor units and loads both the elastic and contractile components of muscle and hence, plyometrics has been referred to as bounce loading or rebound jumping. The word Plyometrics is derived from the Greek word *playo* meaning "to increase" sprinting, jumping and throwing.

METHODOLOGY

The experimental methods used for these study subjects were divided into two groups; one was an experimental group and second was a control group. This research was based on equivalent group design. The researcher was given treatment for 12 weeks only by the experimental group. After the implementation plyometric training researcher has taken tests of both groups i.e. experimental and control groups.

TOOLS AND MEANS

The Miller Wall Volley badminton skill test was used as tools for present experimental study. These skills tests are already standardized and available.

RESULTS AND DISCUSSION

Table 1 : Descriptive Statistics of effect of plyometric training on badminton skill of inter collegiate badminton players of Aurangabad.

Players Group	N	Mean	Std. Deviation	Std. Error Mean
Experimental	25	28.90	4.06	1.28
Control	25	21.90	2.72	0.86

Table 2 : T-Test Statistics of effect of plyometric training on badminton skill of inter collegiate badminton players of Aurangabad.

Levine's Test for Equality of Variances	t-test for Equality of Means					
	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference
Equal variances assumed	0.20	0.65	4.52	48	0.00	7.00
Equal variances not assumed			4.52	47.48	0.00	7.00

From Table-The leven's test for equality of variance when applied to the gain in French miller wall volley test for experimental group & control group The mean of gain in experimental & control group were compared with independent t-test. The mean difference was 7.00 and-'t' value was 4.52. With degree of freedom 48 which was statistically significant at 0.05 significance level ($p=0.00$). This indicates that there was a significant effect of a 12-weeks plyometric training program on the experimental group of miller wall volley tests.

CONCLUSION

Results from the study can be concluded that the effect of 12-weeks plyometric training in this study, helps to improve the badminton skill of inter collegiate badminton players, and also it is well known that plyometric training is beneficial for the who consume less time and more conveniently. Lastly a suggestion is given to players that regular plyometric training should be integrated into performance in every tournament.

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Finding the New Alternative Exercises for Young Hand Ball Player

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ABSTRACT

Change is a property of living things. Every living things needs the expected changes to keep itself established in the globe for a long time. Without specific certain changes they can't live. Humans are also the part of it, body movements are the symbols of human beings liveness. Sporting field is the bunch of human motion related activities. Today's sport field is changing his dimensions rapidly and it is needful for the success. Today's sport is not only for the extra curriculum activity or recreational activity but it converted in to the Industry of business. Today, sport field is one of the career oriented field for the new generation. So each and every participant of this field wants to become a successful, and success depends only upon the giving extraordinary performance at the time of competition. Performance is the demonstrative actions explosion and it is the cluster of player's master abilities like sporting skills, tactics & techniques he performing his all capabilities of the selected sport at time of the competition. Today's competitive success is depending upon something better than others and goal achieving, otherwise we can't get success. As per above parameters of success researcher think why not? We also found some other exercise tools and practicing patterns for our young handball player; mostly those are away from this developed urban areas and advance facilities. So they can't get advantages of advance practices on well infrastructure because of they are only belonging from the rural areas, but they have a real born talent and capabilities to get such kind of challenges. So as per that thinking I worked on it with the 45 handball player for 18 weeks in Ichakaranji city of Maharashtra.

Keywords : Alternative Exercises, Hand Ball Player

INTRODUCTION

Sport has always adopting new changes in rules and regulations of each & every game for growing its popularity and it becoming more popular than other sports & its best examples of football, lawn tennis, and cricket recently invented the IPL tournaments of different types of indigenous sports like Kabaddi, Kho-Kho, and Wrestling. Because the each and every type of games are re-introduced on basis of its glamour. So many event managing companies are work behind its glamorous success. All glamor's and funs are depending upon players extraordinary skill performance and it depending upon the players sporting skill demonstrative abilities in the high level competitions. So the player's ability of skill is more important for achieving the set and planed goals. Every contestant is practice hard before the competition for this success. That is way winning is everyone's goal. Therefore, the winner of the competition must be more skilled than others. That is why every player and all it supporters are trying to increase his ability by the different training methods, skill practicing &

exercising patterns they are introducing & using continuously for it. Such kind of experiments are continuously conducted by the sport expertise and they implement it after getting best result. Such kind of processes are conducted at primary level also but we can't get it seriously we all sport teachers are working for our players success and we every day practically working on it but we can't preserve it seriously for further things and we can't read and write such kind of important things in our daily diary but it is the need of today's growing sporting world because the data is more important for analysis and explanations of positive and negative things. It is beneficial for all related persons work analysis and it is not so difficult in these days because today we live in digital world and we all using the some electronic devices like android mobile , tablets, computers and laptops for our daily uses and the same tools we using easily for collecting our daily work data .

For this small research study I was conducting small exercise and practice program of 18 weeks at my nearest school and it located in Ichakaranji city. In this experiment I was introduced few exercise tools like ladder, mini hurdles & cones and all these tools are using in the long jump pit, for this study I get the 45 handball school going players from same school with the permission of school head master and the sport teacher.

In this study I experienced lot like the rural area players are very interested with practices with the new equipment's I see the players are come in time and they couldn't avoid any single session of this new practicing. And her this behavior are more impacting on my experiments result. In this practice schedule I feel some experiences with the sport teacher of secondary level they also want to adopt such kind of new facilities for their student but some technical & financial problems are their but they do their job very honestly with the available facilities. All conclusions and recommendations of this study are totally depended on the 18 week practice schedule and pre and posttest of physical performance of the involved three groups of 45 hand ball player physical abilities.

STATEMENT OF STUDY

“Finding the New Alternative Exercises for Young Hand Ball Player”

HYPOTHESIS OF THE STUDY

1. Ladder exercise on sandpit is benefited to the handball player's agility ability.
2. Mini hurdle jumping on sandpit exercise is improving vertical jumping ability of handball players.
3. Cone exercise on sandpit are beneficial for the zig zag running ability of hand ball player.

METHOD OF STUDY

For achieving set goal of any field the planning and practicing in the proper way is very important, without proper planning and applications we can't get the seat goals. Research also the systematic work plan as per plane the researchers are working those have a better plane for study they save the waste of time money and efforts.

There are so many systematic methods of research study as per my research problem I selected the experimental research method because I worked on the physical performance testing by the pre and posttest of physical fitness.

TOOLS OF DATA COLLECTIONS

Paper, pencil, pen, Attendance sheet ,Test wise charts , Meter tap , Stop watches, Calculators , Android Mobile phones , Laptop , essential test marking fields.

DATA ANALYZING TOOLS

Basic Statistic's Methods & formulas (Mean, Mode, Median, and 'T' Test) online software for statistical data analysis, log table for significant error 0.05 for 50 samples, graph software of excel.

SAMPLING METHOD

The researcher using random purposeful selecting method of sample method for this study.

STUDY PROGRAM

As per the plane researcher completed the formalities of the study by the related people. Before real study real plan conducted one face to face conference with the players and her teacher to provide the knowledge of this study and how it is beneficial for her game ability and how we doing all this things to disturbed their practice schedule and this program couldn't harmful for his body status and also for the plying skilling abilities of handball.

All above said things are confirmed by the teachers and the players we getting one meeting with the support of ICT tools of power point slides to acknowledged the players how we doing some different exercise in the sandpit with the Ladder, Mini Hurdles & cones and how it benefiting to you to betterment of your field agility, jumping capabilities & pivoting skills are improving after this schedule.

Before starting specific workout we create 3 group named group Sivaji, Sambhaji & Tanaji each group have a 15 students and it is befitted for conducting the fitness tests smoothly with the minimum supporting staff and keep in the time. In physical fitness test we select the agility 'T' test, stand and vertical jump & 10 cone zigzag shuttle run for 40 meter after tests we preserving all data in excel format on laptop for further use.

After said first test we start our real task of the program we scheduled our 18 week program in three phase each phase of three six week in next schedule we slightly adding the intensity of the exercise with excessing the numbers of repetitions and it work good for the every participant .

Our morning session is started from the 6.30am and it conclude in the 7.30am in this program we all discuss every day after the practice schedule and its new experiences of the teachers and players for scheduled program we created one paper plane for the one hour practice schedule & this covered all things starting from attendance of player to relaxing exercising with the discussing about today's workout this experience we get the powerful bounding with the involving people.

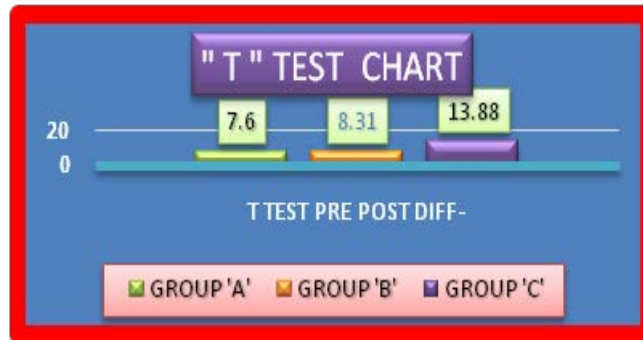
After we completed 18 week of our programed we conduct posttests of physical fitness and we comparing the performance of pre and posttest physical ability of the player and write the some conclusions and recommendations for the future study area of development of physical fitness by the selecting exercise.

HYPOTHESIS TESTING

Hypothesis testing is the more important for any research study because this is the temporary solutions selected by the researcher. And it depending the hypothetical logics.

For the exploring our explanations without in written mode the graph are very useful for attracting the readers to know the studies central idea so the many of people are first check the graphical analysis the read the whole.

Hypothesis 1 : Ladder exercise on sandpit is benefited to the handball player's agility ability.



The graph showing the improvement of all related A,B& C groups are improving in agility ability group 'C' is highest but other groups are also her ability in posttest than pretest.so the hypothesis no.1 is accepted at significant level of 0.05

Hypothesis 2 : Mini hurdle jumping on sandpit exercise is improving vertical jumping ability of handball players.



The graph showing the improvement of all related A,B& C groups are improving in vertical jumping ability group 'B' is highest but other groups are also her ability in posttest than pretest.so the hypothesis no.2 is accepted at significant level of 0.05

Hypothesis 3 : Cone exercise on sandpit are beneficial for the zig zag ability of handball player



The graph showing the improvement of all related A,B& C groups are improving in zig zag running ability group 'B' is highest but other groups are also her ability in posttest than pretest.so the hypothesis no.3 is accepted at significant level of 0.05

DISCUSSION

Alternative exercises are improving the interest of the players and him seriously attending & practicing the new workout schedule. Players are motivated by the new experts and its new patterns of the exercising.

Doing any exercise with tool and without tools its effects are different because the humans are interested in object and there is the sport psychology is working for motivating in the player to participate in exercise schedule with her whole and sole of the body and its result is better than the compulsions of the Exercising. This is the new experience getting by this study.

CONCLUSION

1. Nature of the sandpit surface is benefited to the hand ball player's leg muscle ability.
2. Ladder exercise in sandpit are improving handball player's agility.
3. Mini hurdles jumping exercise in sandpit are improving handball player's vertical jumping ability.
4. Cone exercise in the sandpit are improving the handball player's zig zag running ability.

RECOMMENDATION

1. Use the sandpits for the exercising sped games.
2. Exercising tools are made mandatory for the exercising practicing shedule.

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A Study On Health & Physical Education, Modern Trends And Challenges In Coaching & Training

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ABSTRACT

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity; it is a positive concept emphasizing social and personal resources, as well as physical capacities. This means that health is a resource to support an individual's function in wider society, rather than an end in itself. A healthful lifestyle provides the means to lead a full life with meaning and purpose the health triangle is a measure of the different aspects of health. The health triangle consists of Physical, Social and Mental Health.

Physical Education (PE) develops student's competence and confidence to take part in a range of physical activities that become a central part of their lives, both in and out of school. A high-quality Physical Education Curriculum enables all students to enjoy and succeed in many kinds of physical activity. Teaching Essential Body Management Skills, Promoting Physical Fitness as Fun, Developing Teamwork, Sportsmanship and Cooperation, Four objective of physical education are improved physical fitness, appreciation of physical activity, sportsmanship development and improved social skills. It helps students learn about their abilities, aptitudes, limitations and potential. It provides opportunities for students to develop creativity, positive attitudes toward physical activity, assume more personal and social responsibility and meet performance obligations as individuals and in groups.

Keywords : Health & Physical Education, Modern Trends and Challenges, Coaching, Training.

INTRODUCTION

It is the role of quality physical education programs to help students develop health-related fitness, physical competence in movement activities, cognitive understanding, and positive attitudes toward physical activity so that they can adopt healthy and physically active life styles. It would also focus on the current technological trends in training which includes YouTube; Social Media, Vision for meeting the challenges is a very important coach are needed in the workplace to accelerate learning and growth development as means to improve retention and engagement to be successful today, its workforce must be Diverse, Innovative, Insightful and Knowledge based.

This can be only achieved by Health & Physical Education by following modern trends and challenges in coaching and Training for better output. In this respect, the training is undergoing a huge transformation

which provides opportunity for learning and use it as a retention tool the large number of usage of the strategy of proper & effective training by increasing their training to retain and get quality of training helps them to accomplish these roles and responsibilities and groom them for the future as well. The transformation in training methods is primarily due to changes in technology, mainly the Computer/Internet this is a modest attempt to trace the evolution of training to present day. It would also focus on the current technological trends in training which includes this is a modest attempt to trace the evolution of training to present day.

MODERN TRENDS AND CHALLENGES IN COACHING

Its focus on the current technological trends in training which includes YouTube, Social Media, and Vision for meeting the challenges is very important coaches are needed in the workplace to accelerate learning and growth development as a means to improve retention and engagement. Have I built and continue to build a trusting relationship, Am I doing the heavy lifting, Does my coach want me to solve his problems for him and he knows all solutions.

Virtual coaching will continue to be in the top coaching trends the growing demand for measurable results greater accountability enhanced focus on positive coaching will become less than a luxury automation and delegation will become a must need,

- 1) Democratic coaching this method gives the team freedom and accountability, with the coach stepping in only when needed to keep the process going.
- 2) Authoritarian coaching in this approach, the coach decides what to do and when and how to do it.
- 3) Holistic Coaching is a trained professional where we can do integrative approach to both diet and lifestyle changes to improve their students health, Working as a guide toward an overall healthier life, they will look at their nutrition patterns, relationships, physical fitness, spirituality, and more.
- 4) Autocratic Coaching is rather than opening a dialogue between Coach and Student, this approach tells individuals what to do rather than asking, Autocratic coach is in control at all time and strives for perfectionism and excellence, while some may expect certain tasks to be one the same say every time. Vision Coaching is a style and empowers students by giving them clear direction and strategies for achieving objectives and encouraging focus on Vision coaching.

MODERN TRENDS AND CHALLENGES IN TRAINING

Training is an activity leading to skilled behavior, the process of teaching students the basic skills they need to perform their game. So, Training is a social and continuous process of increasing skills, knowledge, attitudes and efficiency for getting better performance in Sports and Games. There are a few Modern Trends which are going digital in Classroom training isn't a thing of the past. A bigger focus on the students experience the artificial intelligence revolution measuring the effectiveness of training programs the revolution will be videoed a few other modern training trends as below.

- 1) Artificial Intelligence Training
- 2) Personalized Training
- 3) Need-based Training
- 4) Virtual Reality, Google Drive, Zoom etc.,

CONCLUSION

My study says that the Health & Physical Education is very much important in today's world without that a student may feel stress and anxiety, Healthy Body is Health Mind, And where as a Modern Trends and Challenges in Coaching & Training which develops health benefits and latest trends which gives a way to understand and follow technology and mold according to the present generation as it changes we mold the students mind set for a better understanding of importance of Coaching and Training which improves the better performance of Sports and Games .

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In-House Physical Education Program In Goa

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ABSTRACT

The purpose of the Paper is to study and understand the In-house Physical Education program in the state of Goa in respect to the curriculum followed, the Physical Education teacher, and the infrastructure of physical education in schools of Goa. To collect information, ten Physical Education teachers from aided schools across the state of Goa were interviewed through semi-structured face to face interviews for the purpose of collecting data. Further the data was analysed and interpreted.

Keywords : In-house Physical Education, Physical Education curriculum, Physical Education teachers.

INTRODUCTION

Physical Education has become an important subject in today's education system, not only in terms of academics but also in one's health and overall development. The subject Physical Education in the past has been introduced with certain objectives, to achieve those objectives there are some factors which play an important role, the factors are as such; curriculum, stakeholders, support and infrastructure. While designing curriculum various factors should be considered and it has to be revised on a timely basis. The committee has to be set up to frame the curriculum. The committee shall consist of experts from the Physical Education field. The curriculum framed shall be revised after every 5 years and as per the demand occurs. On the other hand, to implement the curriculum, a Physical Education teacher shall be appointed. The appointment of a Physical Education teacher is based on the guidelines set by the NCTE. The Physical Education teacher shall be competent enough to implement the curriculum. Further availability of infrastructure is also very important to implement a framed curriculum. The Physical Education teacher shall be provided with adequate facilities and infrastructure in order to achieve various objectives of physical education. To achieve objectives of Physical Education, not only quality curriculum, good infra-structure or good Physical Education teacher is important but other stakeholders such as head of the institution, students and parents are also important part. A teacher's competitiveness is assessed on the basis of his organizing skills, managerial skills and most importantly the performance of the students in various games and sports organized by the Directorate of Youth and Sports Affairs and other associations from the state of Goa. It's the physical education teachers of the school who take the responsibility to bring healthy changes in the implementation of curriculum and also see that the policies and facilities made available by the government are availed by the school. Physical education teacher not

only acts as a teacher but he plays different roles such as a coach, a mentor, a manager, a discipline master, an instructor, an administrator and so on. To play these roles he shall be well motivated from within as well as from outside. The teacher's external motivation depends upon how the school's administration helps him in getting the facilities and the cooperation given during participation in tournaments.

Objectives of the Study

1. To study the In-house Physical Education Program in the state of Goa.
2. To study the role of Physical Education Teachers in Schools
3. To study the Physical education and sports infrastructure present in schools

METHODOLOGY

The present study is qualitative in nature. Semi-structured face to face interview was conducted to gather the data. The data was collected using purposive sampling technique from 10 Physical Education Teachers working in aided schools from Goa.

In-house Physical Education Program.

In-house Physical Education program was assessed on the selected areas which are discussed below.

Physical Education Curriculum in Schools of Goa

The physical education curriculum followed in schools is not specific. Every schools follow their own curriculum found appropriate by the respective physical education teachers in the school. It has been observed that many of the schools are unaware about the presence of specific Physical Education curriculum provided by the authority. Though the timely improvisation of the curriculum is needed, however, the same does not happen. The curriculum was last revised in the year 2005.

When the views of the physical education teachers were obtained towards the physical education curriculum carried out in schools, following opinions were obtained:

Participant 1 "I do not have any knowledge regarding presence of curriculum. During physical education classes students are mostly taught some games and yoga". He also added "We are a school of 600 students in the secondary level but we have only one Physical Education Teacher. I am not able to reach all the students when I have to take teams for competitions my regular classes are missed"

Participant 2 "I feel the Curriculum which is present is not in line with the latest trends in physical education, our views are also not taken into consideration while framing the curriculum and we are also not oriented for the same"

Participant 5 "Yes we try to follow the curriculum to some extent but when it comes to evaluation there is no seriousness towards the subject from students, other teachers and school Heads. Before examination most of our classes are taken by subject teachers to complete their portion"

The curriculum framing body in Goa that is State Council of Educational Research and Training (SCERT) should take maximum feedback from Physical Education Teachers while framing Curriculum. Council should update the curriculum from time to time and should conduct orientation sessions for the same as the teachers needs to be updated.

Participant 7 “The curriculum is framed by department but I feel they should take us in confidence while doing so. Many a times we are not aware of the changes done”

The number of classes as well as the number of teachers in the schools need to be increased as present number is inadequate to meet the needs of students.

Participant 9 “In our School we have on an average 2 classes per standard a week which I feel is less as I cannot focus on all the aspects in the allotted classes “

Physical Education Teacher

A physical Education teacher is the one who has to go through the various training phases. First of all, he shall have the knowledge of sports and games, he shall physically involve himself in sports and games. To be a Physical Education teacher one must possess degree in Physical Education.

Though the Physical Education Teacher is appointed to undertake Physical Education Program in the School, he/she has to perform many others duties in addition to conducting Physical Education Classes. In most of schools the PET is tasked with conducting coaching for various schools’ teams like Football, Basketball etc. The PET also acts as disciplinarian in many schools which consume his time in implementing the Physical Education Program in school. When PET were asked to give their views on other duties and administrative responsibilities, their views differ from person to person.

Participant 1 “Our day starts with training sessions in the morning with regular classes after that mostly we conduct coaching sessions after class so students do not miss on their portion”

Participant 4 “I conduct coaching for various games but few sessions are engaged by coaches from SAG. Coaching session mostly are conducted after classes”

Participant 6 “Sometimes the task of maintaining discipline, hygiene check is mostly left to PET. I feel its collective responsibility of all the teachers but most of the time it’s left only to us.”

Participant 9 “Many of our colleagues think of us as disciplinarian rather than regular teachers.”

Physical Education infrastructure

To have an effective Physical Education Program, infrastructure plays a significant role. A total of 10 PETs were interviewed only three were happy with the infrastructure at their disposal. The PETs from various schools were not happy with the level of infrastructure provided to them. Majority of the PETs are of the opinion that there is a need to upgrade infrastructure in their schools.

Participant 3 “In our school we do not have a dedicated playground to conduct Physical Education classes. We make use of the small open space available but it is not enough to engage classes.”

Participant 4 “We have a full-sized football field and turf has been laid last year which we use to conduct our classes, we also have an open hall which we make use to conduct yoga and other indoor classes.”

Participant 5 “We face lot of difficulties in conducting outdoor classes as we have small 20X10mtrs space for activities which is not enough to conduct classes for class strength of 50-60 students”

As Goa face rainfall during June to October we need indoor hall to conduct Physical Education classes. The majority of the schools do not have indoor facilities and mostly classes during this time teachers opt for

classroom teaching. Very few schools have sports equipment in proportion to students, this increases the waiting time during Physical Education class.

Participant 10 “We have basic sports equipment like balls, cones, etc. but feel that there is need to increase the number as the ratio is 50:5 which is not in line with the guidelines but we are in the process of upgrading it.”

At present every aided school is eligible to avail the facilities and schemes provided by the Government. The government provide grants and schemes to build infrastructure and purchase equipment.

CONCLUSION AND RESULTS

The objective of the study was to identify the in-house Physical Education program in aided schools of Goa. For this, the researcher interviewed the Physical Education teachers, the results are as follows.

The existing Physical Education curriculum needs to be updated in line with the modern trends. It has been observed that there is need for orientation/training to teachers for the same. The process of framing and improvisation should involve maximum experienced teachers. There is need to increase the number of physical education classes as the present classes are not enough to satisfy the needs of the students. The concerned authorities should have a mechanism in place to check the implementation of the curriculum. The infrastructure and the sports equipment available for the in-house Physical Education Program is also limited which needs to be updated. The role of Physical education teachers in the physical education program should be defined. The Physical Education should be viewed on par with other teachers and the notion of being a disciplinarian, hygiene master and Coach needs to be changed. The present Physical Education Program gives opportunity for sports competitions there is a need to increase the number of participants and games. The Goa state Sports Policy has been huge boost to sports in state. There is need for well-structured Physical Education Program in the state to keep up with the ever-changing world around.

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A Study On Sports Injuries And Sports Rehabilitation In Sports And Games

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ABSTRACT

Sports injuries can be acute or chronic. Acute sports injuries occur as a result of sudden impact or awkward movement. Sports injuries are injuries that occur when engaging in sports or exercise. Sports injuries can occur due to overtraining, lack of conditioning, and improper form or technique. Failing to warm up increases the risk of sports injuries. Gathering data on your athlete's health and treatments can help team come up with more effective treatment processes, and create proactive injury prevention. Epidemiological research is becoming ever more important in helping sports become safer.

Sports Rehabilitation is the process of deciding when an injured player may safely return to practice or completion. The main goal is to return an injured player to training or competition without putting the individual or others at undue risk of injury or re-injury. Rehabilitation is a process of helping a person who has suffered an illness or injury restore lost skills a so regain maximum self-sufficiency. For example, rehabilitation work after a stroke may help the patient walk and speak clearly again.

Sports are commonly defined as an athletic activity that involves a degree of competition, such as netball or basketball. Some game and many kinds of racing are called sports. A professional at a sport is called an athlete. Many people play sports with their friends. Mentally sports improve your mood and concentration, boosts your self confidence and can reduce depression and anxiety. For children, the benefits of sport are even greater. Start them young for a healthy life. Children learn vital skills when they play sport, particularly in a team for a club.

Keywords : Sports Injuries, Sports Rehabilitation, Sports & Games

INTRODUCTION

Physical Fitness - Sports and games play a major role in keeping a person fit and fine. Sports injury is also known as physical trauma to the body caused by external force. This may be caused by accidents, falls, hits and other causes, hurt, damage or loss sustained an act that damages or hurts violation of another's right for which the law allows an action to recover damages major trauma is injury that has the potential to cause prolonged disability.

Rehabilitation is an action of restoring someone to health or normal life through training and therapy after imprisonment, addiction or illness. The process of helping a person who has suffered an illness or injury restore

lost skills and so regain maximum self-sufficiency. For example, rehabilitation work after a stroke may help the patient walk and speak clearly again.

Furthermore, it increases the blood flow in the entire body. This makes the appearance of the body better and makes a person good-looking, Games like Chess which increases the mental health of a person. Sports are crucial part of students' growth and development.

MOST COMMON SPORTS INJURIES

- 1) Strains: Strains are by far the most common of all sports-related injuries simply because; Hamstring injury causes a sudden, sharp pain in the back of your thigh. You might also feel a “popping” or tearing sensation; Swelling and tenderness usually develop within a few hours. Calf Strain is an injury to the muscles in the back of your leg, below the knee. The calf is made up of 9 muscles it is possible to injure 1 or more of these muscles at the same time. Calf strains can occur when a person is performing high-speed motions like Running and Jumping.
- 2) Sprains : Sprains are to ligaments what strains are to muscles an act of straining or the condition of being strained such as a bodily injury from excessive tension, effort, or use heart strain especially one resulting from a wrench or twist and involving undue stretching of muscles or ligaments back strain excessive or difficult exertion. Sprain is an injury to a ligament caused by tearing of the ligament. The ligament can have a partial tear, or it can be completely torn apart, Ankle sprains are the most common type of sprain while playing Kabaddi.
- 3) Knee injuries: The most common knee injuries include fractures around the knee, dislocation, and sprains and tears of soft tissues, like ligaments. In many cases, injuries involve more than one structure in the knee. Pain and swelling are the most common signs of knee injury while playing Basketball.
- 4) Fractures: A fracture is a broken bone. It can range from a thin crack to complete break. Bone can fracture crosswise, lengthwise, in several places, or into many pieces. Most fractures happen when a bone is impacted by more force or pressure than it can support compression fracture, in which your bone collapses under pressure like while playing sports and games.
- 5) Back injuries/Back pain: Back injuries result from damage, wear or trauma to the bones, muscles or other tissues of the back common back injuries include sprains and strains, herniated discs, and fractured vertebrae. The lumbar spine is often the site of back pain.

SPORTS REHABILITATION AND ITS STAGES

- 1) Adequate protection and offloading are vital for a few reasons. Firstly, it protects the affected area from experiencing any more damage. Take the example of a fracture, muscle tear or ligament injury, all will require some level of protection to protect them in the initial phases.
- 2) Protected Reloading is a carefully managed of the affected area at this stage can not only seep recovery but also in improved resilience of the repair, Reconditioning is an individualized treatment program designed in order to allow an individual to return and possibly exceed their original level of strength, endurance, power, mobility and physical activity in general.
- 3) Sport Specific Strength is the muscular endurance of the energy system demands of the sport. It also includes the body control that goes into the skills of the sport. Every sport requires training for specific

physical demands that are different from the general training you in daily plan in ground. Conditioning and Skills is combines cardio and resistance work to an energetic beat to work out your whole body. With a range of exercise techniques that includes aerobics, floor work, weights, and resistance training.

- 4) Return to Sport is when an athlete is now fully participating in their sport, but not at their desired performance level like in 100 mtrs sprint an athlete is working towards higher performance goals, achieving and improved their performance to better levels than prior to the injury/illness.
- 5) Injury Prevention : Have a routine physical practice to improve rhythm and perfection, Get a personal trainer, Start slowly and increase gradually, Do Stretching Warm up , cool down properly, Don't work out on empty stomach, Dress for your sport, Listen to your body.

CONCLUSION

My Study says that how to avoid injuries in Sports and Games and regain back with a normal conditioning with the help of proper Rehabilitation. Sports Injuries is a occurrence or an accident which are common things in sports and games by which we need to follow the etiquette and dont play very aggressively to avoid loss or injury. Rehabilitation is necessary for any Sports & Games to come back with full energy and maintain a consistency in performance for better output by following few etiquettes in Sports & Games.

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Effect of Physical Activity Awareness Model on Flexibility and Coordination of Junior College Girls

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ABSTRACT

Exercise strengthens the muscles, speeds up the work and does not let you feel tired. It also increases the flexibility of the body. Daily exercising habits secrete good hormones. It boosts the immune system which helps us in tackling diseases. Everyone understands the importance of exercise, but despite the known benefits of regular physical activity, people are not ready to start the actual exercise. Physical inactivity is a major problem among Junior College girls caused due to an increase in sedentary behavior. Current physical inactivity is due to insufficient participation in physical activity during leisure time. Physical activity is avoided by Junior College girls on the grounds of laziness and lack of interest; therefore it is necessary to take measures to change their behavior towards exercise.

The purpose of this study was to see the effect of Physical Activity Awareness Model (PAAM) on flexibility and hand eye coordination of Junior College Girls. For this experimental study single group pre test-post test design was used. Total 119 girls having average age +17.4 years old, studying at St. Mira's College for Girls were selected purposively. The sit and reach test and performance of skipping test were employed on the subjects. The data was analyzed using Paired Sample 't' test to find out the effect of Physical Activity Awareness Model program.

The sit and reach analysis shows that the 't' value is -13.24 and the 'P' value is 0.00 which is significant at 0.05 level of Significance. The skipping test analysis shows that the 't' value is -1 the 't' value is -7.79 and the 'P' value is 0.00 which is significant at 0.05 level of Significance. From the analysis it is clear that the Physical Activity Awareness Model was effective to improve selected physical fitness factors i.e. flexibility which was tested through sit and reach text and hand-eye coordination tested through skipping.

Keywords : Physical Activity Awareness model, Flexibility, Sit and Reach, Skipping and coordination

INTRODUCTION

Physical activity is an excellent way to enrich, enhance and develop a better personality and a healthy physique. Exercise or physical activity is not only useful for young people to maintain body building, but also to boost

immunity. (Rao, 2014) Exercise strengthens muscles, increases work speed and does not let you feel tired. It increases the flexibility of the body which is used in daily life. Daily exercise habits secrete good hormones. It makes you feel happier and releases the stress. A good amount of sleep and a reduction in stress are some of the rewards of regular physical activity. It is also a prime factor in boosting the confidence. Sweating flushes out toxins from the body and keeps the blood circulation smooth. It increases the blood circulation and keeps the skin glowing.

Everyone understands the importance of exercise, but despite the known benefits of regular physical activity, people were not ready to start actual exercise. The reason given is usually lack of time to avoid exercise. Obesity increases the risk of various diseases, mainly heart disease, type 2 diabetes, cancer and osteoporosis. Obesity is caused by a excessive food intake and lack of physical activity.(Anurag Sachan, 2014)

Due to decreased physical activity and increased time spent in sedentary behaviors are associated with many health risks in women. (Maciej S. Buchowski, 2012) Now a days physical inactivity is a major problem among junior college girls because of an increase in sedentary behavior. This is because of the lack of physical activity as they are busy in college, tuitions, using of laptops, mobiles, watching television, overeating and their sedentary lifestyle. In order to form an effective effort to increase physical activity awareness in this Junior college girls population it is necessary to understand the factors that contribute to develop exercise behavior. Therefore, Researcher have prepared physical activity awareness model and to see its effect on the Junior college girls, the researcher has selected the cited problem.

Objective : The purpose of this study was to investigate the effects of Physical Activity Awareness Model (PAAM) on flexibility and coordination to create an awareness of physical activity in the society.

METHOD OF THE STUDY

For this experimental study single group pre-test-post test design was used. The study was conducted on 119 Junior College girls from St. Mira's College for girls, Pune having average age of +17.4 years old which were selected purposively (non-probable sampling method). The PAAM was taken for one academic year and its effects on Physical Fitness Factors and Physical Activity Awareness. For the collection of physical fitness data, from various physical fitness battery tests, researcher used the tests on the basis of flexibility- Sit and reach test and Skipping –Hand eye coordination.

RESULTS

Descriptive Statistics and Paired Sample 't' test techniques used to analyze the research data. The analysis is presented in table 2.

Table 1 : Descriptive Analysis of pre-test and post-test of Sit and Reach Test (N=119)

Test	Mean	Median	Std.Deviation	Std. Error Mean	Minimum	Maximum
Pre-Test	25	24	4.51	0.41	14.00	35.00
Post Test	27	27	4.41	0.40	17.00	38.00

The performance of Sit and Reach Test from 119 students through Pre-Test and Post Test were received. The descriptive analysis of the performance of Sit and reach test is given in table 1 shows that the Pre-test and Post-test mean is 25 and 27 respectively and the standard deviation is 4.51 and 4.41 respectively.

It is therefore interpreted that there has been an increase in the performance of sit and reach test due to the implementation of Physical Activity Awareness Model program which proves that the program was effective to increase flexibility.

Table 2 : Comparison of Pre-test and Post Test of Performance of Sit and Reach Test through Paired Sample 't' Test

Mean	Standard Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
-2.80	2.06	0.19	-13.24	118	0.00

The Paired Sample 't' test was employed and the analysis given in table 2 proves that the 't' value is -13.24 and the df is 118 and the 'P' value is 0.00 which is significant at 0.05 level of Significance.

It is therefore interpreted that after implementation of the Physical Activity Awareness Model there was significant change in the performance of sit and reach test, which shows that this model was effective for improvement of flexibility among the girls.

Table 3 : Descriptive Analysis of Pre-test and Post Test of Performance of Skipping Test (N=119)

Test	Mean	Median	Std. Deviation	Std. Error Mean	Minimum	Maximum
Pre-Test	76	75	24.72	2.27	11.00	125.00
Post Test	83	85	21.63	1.99	29.00	128.00

The performance of Skipping Test from 119 students through Pre-Test and Post Test were received. The descriptive analysis of the performance of skipping test is given in table 3 shows that the Pre-test and Post-test mean is 76 and 83 respectively and the standard deviation is 24.72 and 21.63 respectively.

It is therefore interpreted that there has been an increase in the performance of skipping test due to the implementation of Physical Activity Awareness Model which proves that the program was effective to increase eye hand coordination.

Table 4 : Comparison of Pre-test and Post Test of Performance of Skipping Test through Paired Sample 't' Test

Mean	Standard Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
-6.84	9.57	0.87	-7.79	118	0.00

The Paired Sample 't' test was employed and the analysis given in table 4 proves that the 't' value is -7.79 and the df is 118 and the 'P' value is 0.00 which is significant at 0.05 level of Significance.

It is therefore interpreted that after implementation of the Physical Activity Awareness Model, there was significant change in the performance of skipping test, which shows that this program was effective for improvement in eye hand coordination among the girls.

DISCUSSION

The results of this study reveals that though there was significant change in the performance of Flexibility and Coordination scores of Jr. college girls due to physical activity awareness model.

From the analysis it therefore interpreted that there was significant change in the performance of sit and reach and skipping test due to implementation of the Physical Activity Awareness Model. In the present study physical activity awareness model may have contributed to the increased performance in health related components.

CONCLUSION

It can be concluded that Physical Activity Awareness Model program had significant change in Flexibility and Coordination score of Junior College girls. This kind of Physical Activity Awareness program can be beneficial to develop other physical fitness components. More programs should be organized to improve the fitness of College going girls.

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The Periodization, A Basis of Training

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ABSTRACT

Periodization is most important key in the field of sports. Those set the more competition goals in a year and desire to achieve success of each of them so they must go through the periodization method. It offers a framework for planned and systematic variation of training parameters, in a way that direct physiological adaptations to the training goal required for the sports are achieved. The art of periodization uses progressive overload, general adaptation and recovery principles, bringing in an element of science and planning into exercise variation.

INTRODUCTION

Periodization is one way for the sports physical therapist to approach the design of resistance training programs. Periodization is defined as the planned manipulation of training variables (load, sets, and repetitions) in order to maximize training adaptations and to prevent the onset of overtraining condition. This concept is known as training periodization can help you train for multiple goal of cycling in a season without burning out or overtraining.

MAJOR TYPES OF PERIODIZATION

Periodization in training is changing the value, duration or intensity of workouts to increase the effectiveness of the training plan and for the development of the muscular and fitness system in your body. On its most basic level, training periodization means adjusting your workout type, load, and intensity over time. You can think of endurance training in four overlapping cycles.

To develop an effective training programme, it is important to understand the cycles of periodization. There are three cycles: Macrocycles, Mesocycles and Microcycles.

Macrocycle – This refers to an active training period where you are building toward a goal. A macrocycle is an annual plan that works towards peaking for the goal competition of the year. There are three phases in the macrocycle: preparation, competitive and transition, with pre-competition being optional.

Sample of a Year Training Plan for cyclist

The year is divided into three periods.

(a) June – August _____ Preparatory Phase

- (b) September – January----- Competition Phase
- (c) February -- May ----- Transition Phase
- a) The preparation phase is further broken up into general and specific preparation. An example of general preparation would be building an aerobic endurance for long distance cycling such as long distance cycling BR-I on road or trainer.
- b) The competitive phase can be several competitions, which lead to the main competition. The competitive phase ends with tapering for the competition.
- c) The transition phase is important for psychological reasons, a year dedicating time towards training means some time off is just as important. An amateur athlete may take a couple of months off (a few months during the off-season) while a professional athlete might take as little as two weeks off.

Mesocycle – Smaller phases within your training cycle that focus on a certain fitness objective. For example, you might build muscle strength early and shift to muscular endurance later.

Microcycle – A microcycle is the shortest training cycle. The weekly building blocks of your program. In order to get stronger over time, you need to balance working out with rest and recovery. Your microcycles are where you do your short-term planning for best results.

ANNUAL TRAINING PLAN

On a given day of the year, your training should look different depending on how close you are to your goal. Because if you trained all the time like you were about to climb a big mountain, your hips and knees would blow out and you'd probably lose your concentration. In general, your annual training plan will move through the following phases.

While it's helpful to think of your annual training plan as a circle that repeats every year, keep in mind that this is a bit oversimplified! It's normal to move back and forth between phases, especially when you're training for multiple goals during the year. If cyclist have numerous goal set in one year, cycle through several of the phases above multiple times.

Mostly, first macrocycle of the year will be the longest. During this cycle, cyclist will move through the base, build, taper, and recovery phases. What happens next depends a bit on the timing of your next goal set, and also how you're feeling after your previous goal. Similarly, you're training phases will not all be the same duration. For example, your taper probably won't last more than two weeks. Annual Training Plan involves the entire year of training, including your active training periods and off seasons.

So Here's a quick description of each annual training plan phase and its purpose.

OFF SEASON

During this time, you may be active, but not following any kind of designed training plan. Your goal during the off season is to maintain your baseline fitness while refreshing your mind and body.

BASE

This is the early part of your training season. Your goal during the base period is to build a solid foundation of sport-specific fitness. This period may be very short if you've been active through the off-season. If players build the larger base of fitness players achieve higher peak.



BUILD

The build phase is what most of us think of when we hear the word “training!” It’s the part of the season when you’re increasing your workout time and intensity each week as you work toward your goal. During the build phase, cyclists perform specific structured work to develop the various physical elements: lactate threshold, anaerobic threshold, leg speed, neuromuscular efficiency.

TAPER

After the Build phase the cyclist begins a taper mesocycle. During the taper phase, cyclists achieve their specific areas of fitness that are necessary in the cyclist’s particular event. The volume of work decreases, while the intensity of work remains the same or increases. Before all races, a mesocycle, taper phase is necessary in order to ensure that the cyclist is fresh for the rigorous event.

RECOVER

After your goal climb, you’ll probably be tired (and also busy unpacking). Take a week or two off training (or train lightly) to celebrate and give yourself a break.

MAINTAIN

If you have set another goal coming up in the next few weeks, you may be able to maintain your fitness peak by doing a low intensity workout of your build program.

CONCLUSION

Performing a training program to achieve excellent performance in sports requires. In this article, the coach should skillfully train the ratios of the elements—intensity, volume, frequency—to be given during each period of the training programme. It should be done in such a way that players will peak or be at their very best during the competition period and not before or after.

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Article contains only theoretical/conceptual information. It is suggested that the author should follow guidelines given by the organizers. Try to include the empirical information about periodization so that the discussion and conclusions can revolve around it.

Life Satisfaction of Physically Active and Non-Active People from Goa

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ABSTRACT

The purpose of this study was to examine the satisfaction with life of people from Goa and also to study the effects of daily physical activity on the level of life satisfaction. The online questionnaire-study was conducted on the sample of 199 individuals from Goa and the level of life satisfaction was identified using comparative study method. Data was collected using Diener et al.'s Life Satisfaction Scale. Convenient sampling technique was used. The sample size was 199 people, which consisted of 142 people doing regular physical activities and 57 people not doing any physical activities. Using Descriptive statistics, it was found that the life satisfaction levels of people who do regular physical activity is higher with a mean score of 24.49 than those who are not doing physical activities with a mean score of 22.39 ($p < .05$). The results also indicated that the level of life satisfaction of people who are doing regular physical activity defers based on the frequency of physical activity they do per week which shows that more the frequency, higher the level of satisfaction.

Keywords : Life Satisfaction; Physical Activity; Goa; Frequency of Physical Activities

INTRODUCTION

Physical activity is considered a valuable tool for enhancing life satisfaction. Life satisfaction is as a cognitive appraisal of the overall degree of satisfaction one has with his or her life (Hart, 1999). As such, life satisfaction is usually seen as a global measure of individual's assessment of the overall quality of life. (Lambert et al., 2009).

Life satisfaction is the magnitude at which the person emphatically measures the overall quality of life he/she is living in whole. It can be also said that how much one likes the routine in the life he is living (Veenhoven, 1996). Life satisfaction will also depend on the routine activities of the individual he does as per the interest. People always prefer to be happy in life and the happiness depends on the degree of life satisfaction. Happiness always leads to greater enjoyment in life and it also boosts the psychological attributes such as self-confidence, self-esteem and so on. As discussed by Donovan & Halpern (2002) "When people are happy, they tend to be more open minded and creative in nature which will make him more productive and on the other side people who are unhappy, stressed or dissatisfied with life choose to be of 'tunnel vision' and rigid thinking. Moreover, people who are satisfied with their lives tend to be healthier and life satisfaction is inversely related

to turnover intent (Donovan & Halpern, 2002; Lambert et al., 2009). We can also say that people who are happy with what they do and what they have are always satisfied in life. One of the important factors of being happy and enjoying life is to do regular physical activity (Gretchen Reynolds, 2018). Doing regular physical activity also keeps people healthy and healthy life leads to happiness with absence of physical and mental disorders (WHO, 2020). A person with overall health will always be satisfied with life whereas an unhealthy person will mostly have problems in life and will be less efficient. So, doing regular physical activity and being active with good health is very important in order to be satisfied with life. Medley (1976) defined that life satisfaction is a subjective feeling of happiness and contentment with life. Life satisfaction is also defined as the degree to which the experience of an individual's life satisfies his/her personal wants and needs, both physically and psychologically (Rice, 1984). A significant difference has been found between life satisfaction levels of the individuals participating and not participating in physical activity in Turkey and German societies (Bastug&Duman, 2010). The factors affecting individuals' life satisfaction are listed as in: taking pleasure in life, finding life meaningful, consistency at the matter of reaching goals, positive individual identity, feeling well physically, economical security and social relationships (Schmitter, 2003).

Hence, the researcher aimed to assess the life satisfaction of the people from Goa who are Physically active and non-active as there are many positive benefits of being happy and satisfied in life. People always feels good about themselves and the life they live which leads to overall well-being. Satisfied people are highly expected to tackle the problems and issues in any field effectively and efficiently. (Pasupuleti, et al., 2009).

METHODOLOGY

2.1 Participants and Procedure

In the present study 199 individuals, out of which 142 people doing regular physical activity and 57 people not doing any physical activity were selected as the sample using convenient sampling technique. The data was collected through google forms. Informed consent of the individuals was taken. The questionnaire also included demographic section, which asked about age, designation, playing sports professionally, frequency of physical activity per week

2.2 Tools

The level of Life Satisfaction was studied using The Satisfaction with Life Scale (Diener, et al., 1985). The SWLS is a short 5-item instrument designed to measure global cognitive judgments of satisfaction with one's life. Responses were rated on a 7-point Likert scale ranging from 1 "Strongly Disagree" to 7 "Strongly Agree".

2.3 Research Design and Statistical Analysis

A comparative study on level of satisfaction with life of the people who do regular physical activity and those who don't do any physical activity was done using descriptive statistics to compute mean and standard deviation.

Independent sample t-test was employed to identify the differences in level of life satisfaction between active and non-active people from Goa and One-way ANOVA were computed to assess differences in level of life satisfaction.

RESULTS (FINDINGS)

After calculations of the scores of life satisfaction of Physically active and non-active people, the data was analysed using SPSS version 20. An Independent sample t-test and One-way ANOVA were employed in order to identify the differences in level of Life Satisfaction based on regular physical activity and based on the

frequency of physical activities per week respectively. The sample size was 199, out of which 142 participants performed physical activities and 57 participants did not perform any physical activities. Significant difference in life satisfaction was seen between people who are active doing regular physical activities and those who don't do any physical activities. The life satisfaction scores of the participants who do physical activities ($M=24.49$, $SD=6.307$) were higher as compared to participants who do not perform any physical activities ($M= 22.39$, $SD=6.411$) with $t = 2.113$ which significant at 0.05 level ($p<0.05$). (Table 1).

Table 1 : Descriptive Statistics of Life Satisfaction of Physically Active and Non-Active People of Goa

Physical Activity	Mean	N	Std. Deviation	t	Sig (2- tailed)
YES	24.49	142	6.307	2.113*	.036
NO	22.39	57	6.411		
Total	23.88	199	6.392		

* $p<0.05$ level of significance

Secondly, with the aim of knowing the differences in life satisfaction based on the frequency of the physical activities practiced, the results showed a significant difference in life satisfaction varied according to the frequency of physical activity. Out of 199 participants, 142 reported yes on performing physical activity. Out of 142 participants, 50 performed physical activities 3 times a week, 55 performed 6 times a week and 37 performed more than 6 times a week. One-way ANOVA were employed and the difference in the mean scores of life satisfaction based on the frequency of physical activity were found to be significant with the value of 'F' as 27.43 ($p<0.01$). (Refer Table 2).

Table 2 : One-way ANOVA of Life Satisfaction by Frequency

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1587.34	2	793.67	27.43**	.000
Within Groups	4022.13	139	8.94		
Total	5609.47	141			

** $p< 0.01$ level of significance

As the mean differences were found to be significant Post-hoc analysis using Multiple comparisons were computed. This showed that the means differences between the possible combinations were found to be significant at 0.05 level of significance (Refer Table 3)

Mean and SD were computed for different frequencies of physical activity. According to results mean score of Life satisfaction of the participants who performed physical activity 3 times a week was 20.44 with $SD=5.588$, the mean score on Life satisfaction who performed physical activity 6 times a week was found to 25.15 with $SD=5.582$ and the mean score of participants who performed physical activity more than 6 times a week was found to be 28.97 with $SD=4.740$ (Refer Table 4)

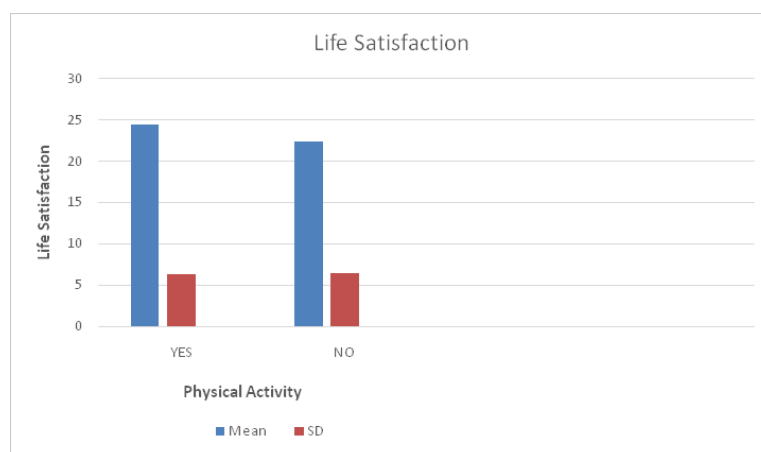
Table 3 : Post-Hoc Analysis Using Multiple Comparisons

Multiple Comparisons				
Dependent Variable: LIFESATISFACTION				
Tukey HSD				
(I) FREQUENCY	(J) FREQUENCY	Mean Difference (I-J)	Std. Error	Sig.
3 TIMES A WEEK	6 TIMES A WEEK	-4.705*	1.051	.000
	>6 TIMES A WEEK	-8.533*	1.167	.000
6 TIMES A WEEK	3 TIMES A WEEK	4.705*	1.051	.000
	>6 TIMES A WEEK	-3.828*	1.144	.003
>6 TIMES A WEEK	3 TIMES A WEEK	8.533*	1.167	.000
	6 TIMES A WEEK	3.828*	1.144	.003

*p < 0.05 level of significance

Table 4 : Comparative means for life satisfaction by frequency of physical activity

Frequency of Physical Activity	Mean	N	Standard Deviation
3 Times a Week	20.44	50	5.588
6 Times a Week	25.15	55	5.582
>6 Times a Week	28.97	37	4.740
Total	24.49	142	6.307

**Graph 1:** Comparison of Mean and SD of participants performing physical activity on Life satisfaction



Graph 2: Comparison of Mean and SD on Life satisfaction based on frequency of physical activity

DISCUSSION

The aim of the research was to determine the satisfaction with life in physically active and physically non-active groups. This study came to the conclusion that the level of life satisfaction among the people in Goa doing regular physical activity was higher than those who don't do any physical activity and live sedentary lifestyle. This can be supported with further researches. Secondly, the study also revealed that the life satisfaction also depends on the frequency of physical activity per week which shows that the life satisfaction is more if the frequency of physical activity per week is more.

In a similar study “Daily Physical activity and life satisfaction across adulthood” (Maher, J. et al, 2015), it was found that usual physical activity was positively associated with life satisfaction in middle and older adulthood; however, this association was not present in young adulthood. This study also reveals that on days when people were more physically active than was typical for them, they experienced greater life satisfaction. And this finally also gives accumulating evidence that daily fluctuations in physical activity have important implications for well-being regardless of age, and clarifies developmental differences in life satisfaction dynamics that can inform strategies for enhancing life satisfaction.

Life satisfaction is also depending on how much an individual living a happy life. Doing regular physical activity is also have been proven to result in daily happiness which ultimately can result in satisfaction with life. As we can see that in one of the studies titled “Systematic review of the relationship between physical activity and happiness” (Zhanjia, Z. and Chen, 2018), all the observational studies that were conducted reported positive relationship between physical activity and happiness. In a study it was found that people who live sedentary life with less or no regular physical activity can have lower happiness and satisfaction with life. In a study (Pengpid and Peltzer, 2019), it was found that higher sedentary behaviour was associated with poor life satisfaction and also lower happiness along with lower perceived health. In addition, study reported that moderate or higher physical activity increased the odds for higher life satisfaction, greater happiness and better perceived health. In a study titled “The mediating role of exercise behaviour on satisfaction with life, mental well-being and BMI among university employees” (Zayed N. K et.al, 2018) found that the participants who were more physically active, compared to those who were less active, experienced higher levels of mental well-being and were generally more satisfied with their lives.

This study showed the benefit in Life satisfaction in people can get from Physical activity and active lifestyle. Based on the finding of the study it is highly recommended that, this type of research should be conducted

frequently by the university, to promote life satisfaction through performing physical activities. Public awareness of the health concerns associated with low levels of physical activity and increased sedentary behaviour, and required health interventions aimed at changing lifestyle behaviours (Azza&Hashem, 2015).

Regarding future research, it would be interesting to know how life satisfaction is related to different levels of physical activities, as well as their relationships with other aspects of quality of life concerning health and well-being.

The study was limited to Participants from Goa. The questionnaire has its own limitations, and as such, any bias in the participants' responses could be considered a limitation of this study. Both the lifestyle of the participants and the variability of their dietary habits were beyond the scope of this study and could also be limitations.

CONCLUSION

In order to assess the life satisfaction of the active and non-active people of Goa, Satisfaction with Life scale (Diener, et al., 1985) was used. Findings of the study shows that there is significant difference in the life satisfaction of the people who are physically active and non-active.

From the study, researchers come to the conclusion that the people who are active with regular physical activities has greater life satisfaction than those who are not physically active with physical activities.

Researchers also further conclude that the frequency of physical activities per week also influences the life satisfaction of the people, as in this study the people whose frequency of doing regular physical activities is more are more satisfied than those people whose frequency is less.

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Cultivating Safe Space : Lessons For Sport-For-Development Projects And Events

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ABSTRACT

Safe space is conceptualized as a multidimensional process that involves physical, psychological/affective, sociocultural, political, and experimental dimensions. Drawing on empirical findings from Sri Lanka, Israel, and Brazil, the paper shows how these different dimensions of safe space operate and interact in practice, and identifies practical strategies that sport managers, policymakers, and practitioners can use to cultivate safe spaces in and through sports projects and e 2 (e.g., Kidd, 2008; Coater, 2007). The primacy of sociocultural effects in analyses of community sports events highlights the fact that event legacies cannot be reduced to their economic dimension, but ought to take seriously their social and cultural impacts, both positive and negative. From this perspective, the aim is to optimize the social benefits that accrue to local communities and support stakeholders that host or participate in the sports event. While the notion of sport as a catalyst for social change is widely established (United Nations, 2008), it is clear that sport does not automatically contribute to positive community outcomes (Coakley, 2011; Coalter, 2013). Herein lies a critical task for sport managers, policymakers, practitioners, and researchers. In this paper, We draw upon our own empirical research at sports events and projects in Sri Lanka, Israel, and Brazil to show that safe space is not simply an important outcome in its own right, 4 but critical within the process through which sports events and SFD projects seek to leverage broader social impacts. The paper proceeds as follows. In the next section we discuss the concept of safe space and its relevance to SFD. We then examine how the different dimensions of safe space are addressed in sports events and projects in Sri Lanka, Israel, and Brazil, as well as the challenges involved in cultivating safe spaces in those settings. The final section of the paper identifies practical strategies that sport managers, policymakers, and practitioners can use to create safe spaces in and through sport. Conceptualizing safe space The metaphor of safe space has its roots in educational and feminist thought.

Keywords : HRPF Health Related Physical Fitness, ORS Occupational Related Stress, Total cholesterol

INTRODUCTION

Tensions are created by time constraints, particular sociocultural exigencies, and the limitations of place; and creative risk may become a feature or failure of the attempt to cater for the diverse skills and capabilities of artists [in our case athletes] and community participants. Attention to how these risks are managed is therefore integral to the cultivation of safe space (however defined) and, by extension, to the “success” of various social

and artistic outcomes. We refer to this as the experimental dimension of safe space, which highlights the creative risk and tension that need to be maintained and negotiated to unleash the transformative potential of cultural practices such as sport. Safe space: its application to sport management. How, then, has this multidimensional understanding of safe space been applied to sport management, and in particular to sports events and SFD projects that seek to leverage broader social impacts? Overall, there has been very limited analysis of safe space in sport management and in sports studies more broadly. Where such analysis has been undertaken, it tends to offer a one-dimensional understanding of safe space rather than engaging with its multiple dimensions and their interrelationships. However, the few existing studies on the topic underline the relevance of safe space for thinking about and managing sport, even if their reference to safe space is often implicit. A key example is Wacquant's (2004) ethnography of African American boxers, which characterizes the boxing club as a sanctuary from the disorderly world of the urban ghetto. Central to this experience, Wacquant (2004) argues, are the sociability, mutual respect, horizontality, recognition, and courtesy that the boxing gym produces, qualities that are often absent on the streets of the ghetto. The most systematic application of the concept of safe space in SFD is Brady's (2005) work on the role that sport plays, or can play, in creating safe spaces and building social assets for young women in the developing world. Her research aligns with the aforementioned thinking about safe space as a way of acknowledging and relating to others. Brady is particularly concerned with the physical and psychological/affective dimensions of safe space. She argues that for young female sports participants in the developing world, a safe space would be: 9 ...one that would be considered culturally acceptable to parents and other gatekeepers on the one hand, yet free from parental pressures on the other. It would be a place that is conveniently located, known by potential program participants, yet not subject to intrusions by males and unwanted authority figures.

CONCEPTUALIZING SAFE SPACE

The metaphor of safe space has its roots in educational and feminist thought. It is often invoked as an objective toward which educators should strive in the pursuit of empowering and transformative education. Lepp and Zorn (2002), for example, argue that "safe space is essential for learning to occur and education to be empowered" (p. 383). However, the safe space metaphor does not offer a concrete educational method, but rather a way of thinking about education (Redmond, 2010; Boostrom, 1998). As a social science concept, safe space is contested and still under-developed in some respects. It is often used as a catch-all term that means different things to different people, and few scholars specify what they mean by safe space or how to create it (Holley & Steiner, 2005; Lepp & Zorn, 2002). This is limiting because the meaning of safe space is "not as clear-cut as might be supposed" (Boostrom, 1998, p. 398). The concept therefore requires more rigorous consideration for the purpose of this paper. A useful starting point for conceptualizing safe space is to imagine it not as a physical space, but as a figurative, psychosocial space constructed through social relations. Here "safe" refers not simply to the absence of trauma, excessive stress, violence and abuse, but also to emotional and psychological safety and opportunities for risk-taking (Hunter, 2008). We can thus start to appreciate the different dimensions and usages of safe space. Multidimensionality is a key feature of the concept of safe space as we envisage it, and indicates the complexity of cultivating safe space in practice. The different dimensions of safe space and their interrelationships are discussed below.

The physical dimension of safe space refers to a place that provides safety from physical harm and is accessible and accommodating. Strategies to create such a space include, for example, the provision of a secure and/or guarded environment, appropriate rules that protect participants during sporting competition (e.g. prohibitions on the use of excessive physical force), and adequate facilities and access for people with physical disabilities. The psychological/affective dimension of safe space refers to protection from psychological or emotional harm.

This dimension is typically concerned with the establishment of trust, a sense of engagement, and a common identity within the confines of an activity

METHODS

For an applied analysis of the different dimensions of safe space and how these might be cultivated, we draw upon our qualitative research conducted in three countries: Sri Lanka, Israel, and Brazil. Each of these countries has a distinct history of conflict, intergroup tensions, and social inequality which are briefly portrayed in this section; at the same time, the relevant SFD activities are explained and a brief description of data collection procedures is provided. For our qualitative data analysis we used the transcribed discussions from all three countries along with observational field notes which resulted in an extensive data base out of which grounded empirical and theoretical insights were garnered. The interrogation of our data was supported by the NVivo 8 software package, which facilitated the storing, integrating, indexing, and coding of the large amount of data collected.

SRI LANKA

Intergroup relations within multi-ethnic Sri Lanka have been fraught with difficulties for several decades. In particular, in the 1970s the Liberation Tigers of Tamil Eelam (LTTE or Tamil Tigers) were formed to fight for Tamil self-sovereignty in the northeastern regions of Sri Lanka, which are considered the areas of traditional Tamil settlement (Dunung, 1995). The LTTE's violent demands culminated in a double civil war with the Sinhalese-dominated Sri Lankan Government that lasted from 1983–2002 and 2008–2009; overall, the wars resulted in a terminal defeat of the Tamil Tigers and led to approximately 100,000 deaths on the island (Bilger, 2006; Witte, 2011). Intergroup relations within multi-ethnic Sri Lanka have been fraught with difficulties for several decades. In particular, in the 1970s the Liberation Tigers of Tamil Eelam (LTTE or Tamil Tigers) were formed to fight for Tamil self-sovereignty in the northeastern regions of Sri Lanka, which are considered the areas of traditional Tamil settlement (Dunung, 1995). The LTTE's violent demands culminated in a double civil war with the Sinhalese-dominated Sri Lankan Government that lasted from 1983–2002 and 2008–2009; overall, the wars resulted in a terminal defeat of the Tamil Tigers and led to approximately 100,000 deaths on the island (Bilger, 2006; Witte, 2011). Sri Lanka, which are considered the areas of traditional Tamil settlement (Dunung, 1995).

As an impartial change agent, the Asian-German Sport Exchange Programme (AGSEP) is an NGO that has been conducting sport-related reconciliation projects in Sri Lanka since 2002. In cooperation with local communities and international donors, the organization has focused mainly on youth integration projects in rural western Sri Lanka that are designed to make a modest contribution to overcoming intergroup rivalry and reducing ethnic distance on a community level

ISRAEL

The state of Israel was controversially created in 1948 in the long shadow of World War Two. While this can be seen as a major achievement for the hitherto nationless and persecuted Jewish people, in equal measure it can be viewed as a disaster for the Palestinians on whose land the fledgling state took shape. Perhaps rightly so, the situation of the Palestinians within Gaza and the West Bank (the "Occupied Territories") and the Israeli State's engagement with their Palestinian counterparts attract most global attention. However, often forgotten by the international community – and of central interest for the Football for Peace sport program discussed in this paper – are the relations between Jewish Israelis and "Palestinian-Arab-Israeli" communities that remained within the state of Israel after 1948.

BRAZIL

The Brazilian context is qualitatively different from the Sri Lankan and Israeli experiences described above. Brazil is recognized as a part of the BRIC group of emerging powers (i.e. Brazil, Russia, India, and China) and, at present, does not feature the types of political conflict or armed struggle that Sri Lanka and Israel have experienced in recent times. However, Brazil does have some of the world's highest rates of social and income inequality (Beghin, 2008). Abject poverty is concentrated in the rural Northeast of Brazil; yet, social and income inequality are also rife in the country's major cities. Extreme poverty directly alongside immense wealth distinguishes Rio de Janeiro as a socially divided city. Although Rio's favelas (shantytowns) are not necessarily the poorest neighborhoods, they are often faced with high levels of violent crime, drug trafficking, unemployment, human rights violations, and de facto exclusion from citizenship rights (Arias, 2006; Perlman, 2010). To date, more than 1,500 young people have participated in the programs. Program activities are coordinated by the local NGO Instituto Companheiros das Américas (a sister organization of Partners of the Americas) and supported and implemented by local NGO staff and volunteers.

PHYSICAL DIMENSION

The physical dimension of safe space relates to safety from physical harm and the provision of a secure, accessible and accommodating environment. During times of severe ethnic conflict and regular terrorist acts in Sri Lanka, sport organizers realized the need to provide safe and secure sporting grounds for their development activities. AGSEP, in cooperation with international funders and the local Nattandiya community, constructed the Peace Village, a multi-purpose sports facility that was supplemented with accommodation for up to 80 people. Importantly, the Peace Village was built on the outskirts of the community to provide a safe and protected physical space for children and youth. Reflecting on her experiences as an event volunteer at the purposefully designed site, a local Sinhalese woman confirmed:

Yes, it was a very safe event, because, I think, the location of the Peace Village is an excellent location. It's far away from a big city. And there is no one disturbing; it's a little bit away from other people, away from the villages, too. So the children can feel safe here. 16 The location of the Peace Village in rural Nattandiya assisted in achieving feelings of safety and an increase in people's comfort. At larger scale events that were staged away from the Peace Village, AGSEP had to assure physical safety in a different way; they managed to create a safe environment through the involvement of security staff, police personnel, and emergency services, as well as official approval from the Ministry of Defense, Ministry of Sport and the separate Tamil Sports Council.

EXPERIMENTAL DIMENSION

Around safe spaces with the purpose of balancing the need for physical, psychological and sociocultural safety with experiences of risk-taking and creative tension. There is a danger that by prioritizing the previous four dimensions of safe space, sport managers, policymakers, and practitioners erode its experimental dimension. For example, while policies and codes of conduct designed to stamp out discriminatory practices and expressions of intolerance are a key part of developing the psychological and sociocultural dimensions of safe space, they can also stifle critical thinking, creativity, and discovery. A safe space should not be viewed as an environment without conflict or risk, but rather as a space where tensions and conflict are maintained and managed (Holley & Steiner, 2005; Redmond, 2010). It is when safe spaces are contentious and risky, yet playful and pleasurable, that the greatest possibilities for social change and conflict transformation arise. This paper has described a number of strategies that have been successfully undertaken by sports projects and events in Brazil, Sri Lanka, and Israel to cultivate this experimental dimension of safe space while at the same

time managing the other dimensions of safe space. These strategies have encouraged participants to relate to and engage with others in inclusive, yet also novel and sometimes confronting ways.

CONCLUSION

This paper has considered the cultivation of safe space as a vital ingredient of SFD management and community event leverage. The significance of safe space was examined through a comparative analysis of sports events and projects organized in communities characterized by fragile coexistence. While our findings have applicability beyond these particular social settings, we recognize that there is no one-size-fits-all approach to the cultivation of safe space and that the nature of this task is inherently context-specific and requires intensive local knowledge, community partnerships, and outreach. As discussed, the way safe space is best facilitated in SFD projects with a conflict resolution objective may be different from how this is done in sports events or projects in qualitatively different social and political contexts.

Further research is necessary to ascertain the relevance and application of our conceptualization of safe space to large-scale and/or professional sports events. This could include in-depth exploration of how and in which conditions different dimensions of safe space might be applicable to and effectively cultivated in those settings. Future research could also investigate the role and impact of program stakeholders (e.g., sponsors, media, governments, celebrity athletes) in contributing to perceptions of safe space, and the opportunities of leveraging safe space for tourism and marketing purposes. Thus, the concept of safe space opens up new research agendas that extend current SFD debates and merit serious attention from sport management scholars, policymakers, and practitioners concerned with the use of sport as a vehicle for social change.

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Comparative Study of Selected Anthropometrical, Physiological & Physical Variables of Inter University Level Rowing and Kayaking Players

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ABSTRACT

Anthropometry, physiology & physical factors play the vital role in deciding the particular build of the body with various measurements of the segments of the body it has also its importance in the field of Rowing and Kayaking game. Somewhat or altogether the body height length of various levels and measurements of the various body segments, pulse rate, blood pressure, vital capacity and body composition have definite effects on the performance of these game players. The researcher in the present study made an effort to test this hunch to compare the difference between the various physiological, physical and anthropometric measurements of Rowing and Kayaking players. The present comparative study is related Rowing and Kayaking players in relation to anthropometry, physiological & physical variables. In the present study, 15 female Rowing and 15 female Kayaking players selected through simple random technique from Inter University Rowing & Kayaking players who participated in Inter University Tournament. To know the difference between Rowing and Kayaking players in relation to anthropometry, physiological & physical variables, Independent sample 't' test was applied.

From the results, it may be concluded that there is a significant difference in Standing Height, Sitting Height, Body Weight & Leg Length of Rowing and Kayaking players. But no significant difference was found in Hand Length, Heart Rate, Systolic blood pressure, Diastolic blood pressure, Inspiratory Rate and Body Mass Index.

Keywords : Rowing & Kayaking players, Anthropometry, Physiology & Physical factor.

INTRODUCTION

As a sport with physical fitness as a leading factor, rowing and kayaking is featured by aerobic endurance. Its forward relies on non-fulcrum paddle according to certain rules. Based on the number of athletes, canoeing can be divided into single kayak, double kayak and four-people kayak and the race is 200 meters, 500 m, 1000 m and 5000 m. The maximum strength (front 10-20 paddle), power speed (paddle power), rapid strength endurance. In Rowing water sports the ability to generate maximal strength levels in the shortest period of time has been considered as essential to obtain high sport performance levels. Moreover, strength training is part of rowing programs with a background of related benefits that improve sport performance, reduce injury rate, and provide higher motivation levels for the athletes. Two methods, resistance and plyometric training, are usually referred to in the literature as improving the most powerful strength characteristics and explosive strength in rowing players. Several investigations have demonstrated the positive effects that result from the application of these methods, reporting higher increases in the explosive strength indicators.

Physiological, Anthropometric measurement, physical and motor fitness variables play a vital role in almost all games and sports. One of the fundamentals of this approach is the study of human measurements or anthropometry. Anthropometry plays an important role in deciding the particular build of the body with various measurements of the body segments, suitable for a particular game and sports and essentially helpful to excel in that game. Physiology is defined by dictionaries as 'the science of the normal functions and phenomena of living things'. Involuntary, such as pulse rate, hemoglobin; blood pressure and vital capacity & physical fitness need to perform the activity.

Purpose

The purpose of the study was to find out the comparison of Rowing and Kayaking players participating in Inter University Competitions.

MATERIAL AND METHOD

Subjects

For this study total No. of 30 i.e. 15 Rowing and 15 Kayaking players mean age (22.04 ± 1.37) from Inter University competition participating players was selected as a sample of the study, using simple random sampling technique. This was further used for collecting and analyzing data.

Selection of Variable

The study was taken to pinpoint the Anthropometry, Physiology & Physical fitness variables. Therefore, based on literary evidence and scholars own understanding the following variable was selected for the purpose of this study.

Table 1 : Selection of variable Table

Test	Tools	Unit
Anthropometric Variables		
Standing Height	Stadiometer	Centimeter
Body Weight	Weighing scale	Kilogram
Hand Length	Meter tape	Centimeter
Leg Length	Meter tape	Centimeter
Physiological Variables		
Heart Rate	Stethoscope/stopwatch	Minute
Systolic blood pressure	Sphygmomanometer	High/Low
Diastolic blood pressure	Sphygmomanometer	High/Low
Vital Capacity	Peak flow meter	Lit/Minute
Physical Fitness Variables		
J.C.R Vertical Jump	Marking area & Meter tape	Centimeter
J.C.R Chin-Up	Chin Up Bar	No. of reps
J.C.R Shuttle Run	Ground & Marking Cone	Second

ANALYSIS AND RESULTS OF THE STUDY

For this research, a descriptive comparative method was used. Descriptive statistics (mean, Standard Deviation) and independent sample t test was used for the evaluation of the differences between both the groups, to test the hypothesis at 0.05 level of significance. The researcher explained details about the conducted test to selected players and then collected data and did scoring based on players performing the test. The mean, standard deviation (SD) was calculated and the scores were compared using Independent “t” test to find out the differences amongst canoeing and kayaking game players. The details of analysis is presented below

Table 2 : Rowing & kayaking players Descriptive statistics

Test	Players	No	Mean	SD
Standing Height	Rowing	15	173.9	4.5
	Kayaking	15	169.9	5.9
Body Weight	Rowing	15	61.8	7.2
	Kayaking	15	57.4	6.4
Hand Length	Rowing	15	71.8	15.4
	Kayaking	15	76.4	3.8
Leg Length	Rowing	15	92.3	3.5
	Kayaking	15	88.5	6.3
Heart Rate	Rowing	15	78.9	9.4
	Kayaking	15	81.6	12.2
Systolic Blood Pressure	Rowing	15	106.3	11.6
	Kayaking	15	104.2	11.9
Diastolic Blood Pressure	Rowing	15	62.4	13.5
	Kayaking	15	59.8	10.4
Vital Capacity	Rowing	15	460.0	73.1
	Kayaking	15	447.0	115.1
Vertical Jump	Rowing	15	15.35	1.51
	Kayaking	15	17.10	2.14
Chin-Up	Rowing	15	12.70	2.79
	Kayaking	15	10.04	3.98
Shuttle Run	Rowing	15	11.49	0.81
	Kayaking	15	10.91	0.62

Table 3 : Comparison between Rowing & Kayaking players using Independent sample Test

Levene's Test for Equality of Variances

t-test for Equality of Means

Test	Variance	F	Sig.	t	Df	Sig. (2-tailed)	MD
Standing Height	Equal variances assumed	1.17	0.28	2.36	28	0.02	3.95
	Equal variances not assumed			2.36	25.48	0.02	3.95
Weight	Equal variances assumed	0.12	0.96	2.03	28	0.04	4.40
	Equal variances not assumed			2.03	27.51	0.04	4.40
HandLength	Equal variances assumed	6.29	0.01	1.28	28	0.20	4.55
	Equal variances not assumed			1.28	25.39	0.20	4.55
Leg Length	Equal variances assumed	3.97	0.05	2.31	28	0.02	3.75
	Equal variances not assumed			2.31	22.03	0.02	3.75
Heart Rate	Equal variances assumed	0.57	0.45	0.76	28	0.44	2.65
	Equal variances not assumed			0.76	25.71	0.44	2.65
Systolic Blood Pressure	Equal variances assumed	0.10	0.74	0.57	28	0.56	2.15
	Equal variances not assumed			0.57	27.98	0.56	2.15
Diastolic Blood Pressure	Equal variances assumed	0.39	0.53	0.66	28	0.50	2.55
	Equal variances not assumed			0.66	25.63	0.50	2.55
Vital Capacity	Equal variances assumed	1.82	0.18	0.42	28	0.67	13.0
	Equal variances not assumed			0.42	22.18	0.67	13.0
Vertical Jump	Equal variances assumed	1.55	2.98	2.98	28	0.00	2.55
	Equal variances not assumed			2.98	27.98	0.00	2.55
Chin-up	Equal variances assumed	2.12	1.52	1.52	28	0.01	2.13
	Equal variances not assumed			1.52	25.63	0.01	2.13
Shuttle Run	Equal variances assumed	1.17	3.03	3.03	28	0.01	1.57
	Equal variances not assumed			3.03	22.18	0.01	1.57

DISCUSSION

The present study shows that there exists a significant difference between rowing & kayaking players which is similar to the study by Parvinder Singh (2012). In his study he has studied physiological and anthropometric variables of Kabaddi and Kho-Kho players and the purpose was to assess if both groups differ in each other. He at last concluded that there is a significant difference between standing height, body weight, leg length, and vertical jump, chin-up & shuttle run variables of canoeing and kayaking players. Hence the null hypothesis is rejected and the research hypothesis is accepted. But there was no significant difference found in hand length, heart rate, systolic blood pressure, diastolic blood pressure variables of rowing and kayaking players. Hence the research hypothesis is rejected and the null hypothesis is accepted.

CONCLUSION

On the basis of the result obtained in the study the researcher made the conclusion that significant differences exist between standing height, body weight, leg length, vertical jump, chin-up & shuttle run variables of rowing and kayaking players. It was further concluded that standing height, body weight, leg length, vertical jump, chin-up & shuttle run variables of rowing players is better than kayaking players. But no significant difference exists between hand length, heart rate, systolic blood pressure, diastolic blood pressure & vital capacity variables of rowing and kayaking players. It was further concluded that Hand Length, Heart Rate, Systolic blood pressure, Diastolic blood pressure & vital capacity variables of kayaking players is better than rowing players.

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Comparative Study on Pull-up among Volleyball, Basketball and Football Players of Delhi Public School in North East India

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ABSTRACT

The study was conducted to compare the physical fitness component on pull-up of boys of different group tournaments like Volleyball, Basketball and Football of Delhi Public School (DPS) in North East, India. For the purpose of study the subjects were 270 who had been played the state level student's players studied in class 9 to 12 std. in DPS. The subjects were selected from three events consisting of 30 each from DPS Duliajan, DPS Digboi and DPS Dimapur of the Group-1 was volleyball, Group-2 was basketball and Group-3 was football where the age range from 14 to 18 years. The data was analyzed by Descriptive statistics and one way (ANOVA), level of significant was set at 0.05. The studied concluded that there was no significant difference in the Pull-up of Volleyball, Basketball and Football players of Delhi Public School boys' in North East, India.

Keywords : Pull-up, Volleyball, Basketball and Football players

INTRODUCTION

In life, the most vital entity is physical fitness where physical fitness has develop less acute to our everyday presence, but no less important to exists that still governs the quality and the quantity of our time here in these physiques.

A flimsy man is not as glad as that similar man would be if he were sturdy who would like the knowledgeable or unworldly to yield primacy. Physical fitness plays a very imperative part in a normal specific as well as in an individual who is there contributing in some kind of sports events. For physical educationist it means the capacity to do the predictable effort without any fatigue or exertion and after doing his work he has also energy to do some more work and the recovery is quicker which more than the possession of strength and endurance is. To maintain good physical fitness with the capacity to do ones everyday task to engage in recreational pursuits and to meet emergencies, when they arise required by the individual with enthusiast with vigorous. Extensive evidence signifies that physical fitness levels in children and adolescents are indicators of their standard of living and their cardio-metabolic health status and are the predictors of the potential threat of chronic ailments such as obesity, cardio-metabolic problems, physiological and mental health.

METHODOLOGY

For the study of pull-up, 270 school boys who had state level players of Delhi Public Schools (DPS) in North east India were selected randomly from DPS Duliajan, DPS Digboi and DPS Dimapur consisting of 30 each of the games - Volleyball, Basketball and Football players studying in class- 9 to 12 standard of the age range from 14-18 years. The data was analyzed by Descriptive statistics and One way ANOVA. The level of significant was set as 0.05.

Results and Discussions of the findings

Table 1: Descriptive statistics on Pull-up of Volleyball, Basketball and Football players of each Delhi Public School boys' in North East, India

List of Schools	N	Volleyball	Basketball	Football
DPS Duliajan	90/3	13.16±8.51	16.06±4.49	17.1±5.04
DPS Digboi	90/3	15.33±4.15	12±2.22	10.8±3.24
DPS Dimapur	90/3	21.16±2.49	22.63±2.32	20.36±3.56

The Descriptive statistics (mean and standard deviation) values on selected physical fitness – Pull-up between Volleyball, Basketball and Football players of each Delhi Public School boys' in North East, India were highlighted on Table 1.

Table 2 : Descriptive statistics on Pull-up of Volleyball, Basketball and Football players of Delhi Public School boys' in North East, India

Groups	N	Mean ±Std. Dev	Std. Error
Volleyball	90	16.55±6.54	0.6899
Basketball	90	16.9±5.41	0.5713
Football	90	16.08±5.64	0.5945

The Descriptive statistics (mean and standard deviation) values on selected physical fitness – Pull-up between Volleyball, Basketball and Football players of Delhi Public School boys' in North East, India were highlighted on Table 2. The mean value of Pull-up between Volleyball, Basketball and Football players of Delhi Public School boys' in North East, India were 16.55±6.54, 16.9±5.41 and 16.08±5.64 respectively.

Table 3 : ANOVA results concerning to Pull-up of Volleyball, Basketball and Football players of Delhi Public School boys' in North East, India

Variables	Source of Variation	Sum of Squares	df	Squares Mean	F Value	P-Value
Pull-up	Between Groups	29.8291	2	14.9146	0.4302	0.6509
	Within Groups	9257.6311	267	34.6728		
	Total	9287.4602	269			

*significant level at 0.05

Table 3 showed that the obtained 'F' value 0.4302 which was lower than the table value indicating that it was not found significant at 0.05 level. It concluded that there was no significant difference in the Pull-up of Volleyball, Basketball and Football players of Delhi Public School boys' in North East, India. Hence the stated null hypothesis that was "there was no significant difference in the Pull-up of Volleyball, Basketball and Football players of Delhi Public School boys' in North East, India" was accepted.

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Comparative Study of Aggression in Rural & Urban Tug of War Players from Nashik District

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ABSTRACT

The purpose of this study to compare the Aggression behavior of Tug of war players in the light of their rural and urban intimacy. To conduct the 12 rural tug of war players as well as 12 urban tug of war players (Average age of 19 years) from the Nashik district were selected through the simple random technique as a sample for the present study. Seven dimensional aggression inventories namely, assault, indirect aggression, irritability, negativism, suspicion, verbal aggression and guilt prepared by Sultania (2006) were administered to the subject. Results showed that aggressive behavior in terms of negative aggression was not substantially different in rural and urban tug of war players.

Keywords : Aggression, Rural & Urban Tug of War Players.

INTRODUCTION

Sports player's aggression has been viewed as actions that are beyond the rules & regulations of those particular games. The pros & cons of aggression in games and in the match situation have been widely discussed and researched by psychologists. Studies have shown that a certain amount of aggression is required for an optional level of performance. In other words controlled aggression is beneficial in sports performance (Cox. 2002). On the contrary negative aggression i.e. verbal abuse, physical challenges, resentment to decision by referee are often termed as negative aggression. Studies conducted by researchers such as Grange & Kerr. 2010 concluded that aggressive behavior which is within the framework of competition is positively associated with sports activity & games. Hence aggression is a major psychological variable which determines optimum level of activities.

In Nashik district tug of war players have excelled at school & college level various competitions. So it would be interesting to know the negative aggression among players on the basis of their rural & urban area.

HYPOTHESIS

It was hypothesized that rural & urban tug of war players will be a significant difference in aggressive behavior.

MATERIAL AND METHOD

Sample

To obtain data for this study the researcher selected 12 rural tug of war players as well as 12 urban tug of war players (Average age of 19 years) from the Nashik district were selected as samples for the present study. The simple random sampling technique was used to select samples. All the subjects, after having been informed about the objective and protocol of the study, were given their consent and volunteered to participate in this study.

Selection of Tools

To evaluate aggression among selected rural & urban male tug of war players. Seven dimensional aggression inventories namely, assault, indirect aggression, irritability, negativism, suspicion, verbal aggression and guilt prepared by Sultania (2006) were used. Since the nature of this inventory was to assess the negative side of aggression. Higher score on this inventory means hostile aggression & lower scores denotes controlled aggression.

Procedure of Study

Seven dimensional aggression inventory (Sultania 2006) was administered to all 24 subjects in a field like condition and convenience of the subjects. Scoring of data has been carried out according to the authors manual, and an independent sample 't' test was used to compare aggression between rural & urban male tug of war players. The result is presented in table no.1.

Results of the study :

The results pertaining to significant differences between rural & urban male tug of war players were assessed using the Independent sample 't' test & the results are presented in table no. 1.

Table 1 : Comparison of Aggression between Rural & Urban Male Tug of War Players

Variable	Rural Male Tug of War Players (N=12)		Urban Male Tug of War Players (N=12)		t-value
	Mean	SD	Mean	SD	
Aggression	32.08	4.83	33.20	5.46	1.08

*Significant at 0.05 level

Table-1 indicates that the level of negative aggression of rural & urban male tug of war players was not found significantly from each other. The reported $t = 1.08$ which did not meet the statistical criterion for significance confirms above the result.

DISCUSSION OF THE STUDY

The result of present study was interpreted on this ground that both rural & urban male tug of war players perform at the same level. So the awareness of rules of game is similar in both the groups. In this study the effect of rural & urban male tug of war players was nullified because although aggression tendencies do differ from person to person, players have to abide by the rules of that particular game. Hence the level of aggression was almost the same in rural & urban male tug of war players.

CONCLUSION OF THE STUDY

It was concluded that negative aggression or hostile aggression was not influenced by rural & urban male tug of war players.

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Periodization : A Training Science

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ABSTRACT

Training variation is increasingly acknowledged as serving a key function in successful training prescription. It offers a framework for planned and systematic variation of training parameters, in a way that direct physiological adaptations to the training goal required for the sports are achieved. Accordingly, training studies typically find periodized training to elicit improved training responses in comparison to training groups employing constant load throughout the training period. It is an innovative way of preparing athletes for competitions. The art of periodization uses progressive overload, general adaptation and recovery principles, bringing in an element of science and planning into exercise variation. Periodized training offers development of strength, power, body composition and other performance variables. Most sport coaches do not understand how periodization works and its benefits, hence this study.

INTRODUCTION

Periodization was first used by ancient Greeks in their quest to do well in Olympic Games. It was further developed as training application in Russia-this was the foundational science behind Russian achievements in international competitions (Matveyev, 1969). It was later made scientific and more applicable to sport in East German, Canada and China. Today, periodization is widely accepted in developed world as a powerful tool in planning and enhancing player performance in sport (Roy and Azhar, 2008, Graham, 2003 and Dick, 1997). Gomes, (2008) cited that many football coaches in Europe now apply periodization principles in their training. He cited the coaches of Porto, Chelsea, Internazionale and Real Madrid as examples. Periodisation is being applied by prominent coaches from different countries of the world (Lyakh, Zajac, and Bujas, 2011 and Crespo, 2011).

The main principle of periodization states that all types of practices, teaching and methods teams use should be dependent on the style-organization-structure or game philosophy that the coach wants his/her team to adopt. Game philosophy, team behaviour or game model can be described as the way or manner a team approaches the games during competitions (Ajibua and Igbokwe, 2013)

It is crucial that a team has a play philosophy or behaviour. The game style has to be grounded in the principles that players must understand well and interpret appropriately no matter the opponent the team is playing against. Teams must have a game philosophy that is well known and effectively applied (Morinho cited by Oliveira, Amieiro, Resende and Barreto, 2006). The coach must bring into play, his experience, expertise and the knowledge of individual players in his team (Crespo, 2011).

According to Freeman (1994), periodization is an attempt to make the training process more objectively measurable, thus more accurately planned and evaluated along the way to a more reliable peak. It is a systematic approach that involves the long-term training of athletes. In addition, it is the structuring of training contents according to the law of adaptation, with the aim of developing athletic form (Thompson, Rrbeit, Arcelli, Dick, Rosenberg and Ritzdorf, 2008). It involves the division of the training year or available training time into blocks in order to allow training programme to be divided into more manageable units with the ultimate goal of peaking for major competitions (Ajiduah, 1998). Gerhard (1998) viewed periodization as shifting of training priority from non-sport-specific activities of high volume and low intensity to sport-specific activities of low volume and high intensity over a period of many weeks to prevent overtraining and enhance optimal performance. Periodization is thus devised in such a way that the coach can choose the training content he needs, taking into consideration variables such as climate, weather, training age, chronological age etc. The essence of periodizing training contents is to achieve peak performance. It applies progressive overload to training by systematically manipulating volume, intensity, exercise selection/exercise order, frequency of training, and rest/recovery. According to Gambella (1991), periodization allows one to:

- a) Identify problem;
- b) Separate the need to do from the one they do not want do;
- c) Prepare for optimal performance improvement;
- d) Ensure the long term development of the athlete; and
- e) Development of fitness base in athletes by advancing from general training to specific training.
- f) Individualise training.
- g) Introduction of variety of activities to create fun and enjoyment.
- h) Ensure that athletes are actively involved in the training.
- i) Have feedback on progress made.

Periodization must provide for clarity of objectives and goals. According to Thompson (1991), training improves when the athlete knows what is expected of him. Every macrocycle has a goal to achieve. For periodization to be effective, the coach (planner) must have the knowledge and experience of organizing periodization Secondly, he must have the time table of the event he is preparing for-this is the point from which periodization program starts. The coach must know the individual and team capacities. Furthermore, the coach must have an idea of available equipment and the financial position of his team. In sports, periodized programs are broken into three major cycles.

MACROCYCLE

1. Preparatory Period
2. Competition Period
3. Transition Period

The first macrocycle (Preparatory Period) :

This is the first macrocycle and the longest period of any training programme.

In this period the players move from very general to specific training. The objective of the period as the name suggest is to prepare the athletes for the competition period. It is basically to help them achieve cardiovascular endurance. This phase is divided into two- General and specific period.

General Preparation Phase: This phase is designed to build movement and fitness base. This is because all sports are movement and fitness based. In this phase, all aspects of fitness and skills related to specific sports are developed. In this phase athletes will develop hyper-trophy, strength, speed, power and endurance. It generally lasts from eight to sixteen weeks in a macrocycle. All round general fitness is developed by generally increasing the volume of training. This general fitness will allow the athletes to do the more demanding specific training that will follow without sustaining injuries

Special Preparation Phase: It is designed to ensure the fitness that was developed in general phase is applied directly to the specific sport. This is where sport specific training and drills really come into play. Volume is lower and intensity is increased.

Three months looks like the most ideal time for preparatory period but depends on the seasonal activities of Associations.

The Second Macrocycle (Competition Period).

This is where athletes are to be at their best peak. The competition period just like the preparatory period is divided in two phases. They are pre-event and event phase

During the pre-event phase, programmes are designed to ensure there is drastic reduction in volume while the intensity is high with full recovery. The training load should be medium volume with submaximal intensity. This is because the training load must be heavy enough to keep the athletes' fitness improved and light enough to keep the enthusiastic with high levels for competition. The performance capacity of athletes is stabilized and there focus on real completion need- technical and tactical.

The event phase is the day of your event when you are expected to put into action everything you have been practicing during the months of training. Training programme during this period is design towards competition. There is less emphasis on endurance as greater emphasis on work-out must be in line with competition situation. Training should be 95-100% of max with full recovery.

Less time is available for training in this phase due to the rigour of competition and working on the sport skills. This means that only the most important exercises should be included in this phase. Training intensity is very high in the phase often 80-100%. This phase last the entire season.

Model of 3rd macrocycle (Transition period)

The transition period comes at the end of a season and can be described as an "active rest". The main objective of the transition period is to afford the athletes the opportunity to recover from the training load of the preparation and competition periods. Here, they should be encouraged to try different types of low volume and low intensity activities to provide change and allow them to be refreshed and be eager to resume training the following season. It is also a period for the coach to evaluate what was achieved and make plans for the future. It is basically the period between the end of the season and the beginning of the new season.

Training in this phase allows athlete a chance to recover from the previous phase of training. According to Roy (2008) it provides athletes the opportunities for active rest, recovery and it is meant for rehabilitation and treatment if required. Training does not stop during transitional phase; however, it is altered in an attempt to use exercise to help athletes recover mentally and physically. Exercises during this period should be fun, new, and infrequent (2-3 times per week). It may last for three to six week depending on the number of peaks.

Designing Periodization Program

The first step in designing a long-term periodization programme for an individual or a team is to determine where that individual or team is weak. This is necessary so that the coach may identify what needs to be improvised. According Ajiduah (2003), Anugweje (2003) and Cissik (2005), to make this easier, periodized workout are organized into the following 4 temporal units.

PERIODIZATION

1. Macrocycle- Annual
2. Mesocycle- Period of 3 – 8 weeks
3. Microcycle- Weekly Plan

Myocycle- One training Plan

Macrocycle : Macrocycle is planned with the ultimate aim of successfully performing the major competitions or number of competitions which are grouped together, within reasonable short period of time, which is good to maintain top performance within it. In case major competitions of the season are scheduled with considerable gap in-between, such as soccer league , coaches might need to plan tow or even more macrocycles in a year, so that each macrocycle is dedicated to successful preparation to on major competition

Mesocycle : This is a portion of time where the character and structure of training concerning volume, intensity, and content are about the same in a macrcycle. Mesocycle are divided into microcycles

Microcycle : It is the smallest building block of periodization and it usually last a week. It is a period within the mesocycle in which the coach has to prepare the players in such a way that the team is on the highest possible performance level for the next match. The number of training in a microcycle will depend on the training age, experience, fitness and the capacity of the player for the work. The training load is varied by increasing intensity of the training session.

CONCLUSION

Executing training program to achieve excellent performance in sports requires what is referred to as Project document in Management (Alla & Ajibua , 2012). In this document, the coach should skilfully workout the percentages of the elements- intensity, volume, frequency- to be given during each period of training programme. It should be done in such a way that players will peak or be at their very best during the competition period and not before or after.

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A Survey on Fat-Related Dietary Habits of Fitness Centre Members' of Gwalior, M.P.

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ABSTRACT

The primary aim of the study was to check the consumption of Fat Related Diet Habits of Fitness Centre Members' of Gwalior, M.P. for the purpose of the study, a total of 15 (Fifteen) male and 15 (Fifteen) female each of Fitness Centre Members' were selected. The age group of selected members ranges between 30 – 55 years. To examine the Fat Related Diet Habits questionnaire by Dr. ALAN R. KRISTAL was administered and Descriptive Analyses i.e. percentile scale was used to analysed the data at 0.07 level of significance. The data reveals that there was high consumption of fats diet.

Keywords : Fat Related Diet Habit, Descriptive Analyses i.e. Percentile Scale, Fitness Centre Memebers, Gwalior.

PURPOSE OF THE STUDY

The purpose of the study is to measure the fat related dietary habits of fitness centre members' of Gwalior, M.P.

INTRODUCTION

The prevalence of obesity in people is increasing. Although treatment has been relatively successful, many treated people also regain weight. Given difficulties in changing established eating and exercise behaviors, research is needed to prevent obesity during development. Primary prevention may involve modifying intake and/or increasing expenditure, but the biggest effect on energy balance will come from modifying intake, because research suggests that obese and non-obese people have similar activity levels. Most dietary approaches for obesity treatment or prevention attempt to limit intake of high-fat, low-nutrient dense foods. This may be perceived as a dietary restriction by people who find these foods reinforcing. The perceived restriction can lead to increases in preference for these foods, thereby increasing the probability of relapsing to previous eating habits when structured interventions are removed. An alternative approach would be to teach people to increase intake of healthy high-nutrient dense foods, such as fruits and vegetables, which has been the target of large public health interventions. Components of programs to prevent obesity in at-risk people can include modifying environmental cues leading to positive energy balance, changing healthy eating habits, thereby providing healthy models for people to observe, and teaching new healthy lifestyle that reduce using food as a reward. Because obesity represents one of the major risk factors for people. The inclusion of people

behavior change as a target for obesity prevention programs may have benefits beyond prevention of obesity, because a change in the eating habits related to obesity may result in a reduction in obesity. If obese people reduce access to low-nutrient dense foods available in the shared family environment, model healthier eating and activity habits, and share positive food-related family experiences that reinforce eating high-nutrient dense foods, the parents may reduce the risk of people becoming obese as well as modify their own body weight. This study was designed to test a new approach for modifying eating behavior in at-risk people and their families. People were instructed to modify their behavior and the familial environment to reduce their obesity and were taught parenting skills for promoting and reinforcing behavior change in the at-risk people. The dietary changes suggested for the parents would also result in a secondary goal of reducing weight of at-risk people. People with obese were randomized to groups that targeted either a decrease in consumption of high-fat, high-sugar foods or an increase in consumption of fruits and vegetables. The targeted behavior was a change in the eating habits for people, leading to a decrease in weight for people and to stabilization of relative weight for themselves and for their families.

METHODOLOGY

15 (Fifteen) male and 15 (Fifteen) female each of Fitness Centre Members were chosen as subjects for this study. The data were obtained by administering Fat Related Dietary Habit Questionnaire by Dr. ALAN R. KRISTAL to the subjects which consist of 5(Five) items. The Questionnaire measure the consumption of Fat Related Diet. To find out Fat Related Dietary Habits Descriptive Analysis i.e. percentile scale was used.

RESULT

Q1. Did you eat chicken? How often was it fried?

	1 (%)	2 (%)	3 (%)	4 (%)	Total (%)
MEN	1	10	4	-	15
WOMEN	4	7	4	-	15
TOTAL	2.5	8.5	4	-	30

The percentage analysis of statement no. 1 of table 1 reveals that amongst MEN and WOMEN, the total percentages of fat related diet intake are:

1. Usually (2.5%)
2. Often (8.5%)
3. Sometime (4%),
4. Rarely or never (Nil).

2. Did you eat chicken? How often did you remove the skin?

	1 (%)	2 (%)	3 (%)	4 (%)	Total (%)
MEN	1	-	3	13	15
WOMEN	-	-	4	11	15
TOTAL	0.5	-	3.5	12	30

The percentage analysis of statement no. 2 of table 2 reveals that amongst MEN and WOMEN, the total percentages of fat related diet intake are

1. Usually (0.5%), 2. Often (Nil)
 3. Sometime (3.5%), 4. Rarely or never (12%).

3. Did you eat red meat such as beef, pork, or lamb?

How often did you trim all the visible fat?

	1 (%)	2 (%)	3 (%)	4 (%)	Total (%)
MEN	-	1	3	11	15
WOMEN	1	1	7	6	15
TOTAL	0.5	1	5	8	30

The percentage analysis of statement no. 3 of table 3 reveals that amongst MEN and WOMEN, the total percentages of fat related diet intake are

1. Usually (0.5%) 2. Often (1%)
 3. Sometime (5%) 4. Rarely or never (8%).

4. Did you eat ground meat? How often was it lean?

	1 (%)	2 (%)	3 (%)	4 (%)	Total
MEN	-	1	6	7	15
WOMEN	1	1	8	5	15
TOTAL	0.5	1	7	6	30

The percentage analysis of statement no. 4 of table 4 reveals that amongst MEN and WOMEN, the total percentages of fat related diet intake are

1. Usually (0.5%) 2. Often (1%)
 3. Sometime (7%), 4. Rarely or never (6%).

5. Did you fish? How often it was fried?

	1 (%)	2 (%)	3 (%)	4 (%)	Total (%)
MEN	9	3	3	-	15
WOMEN	7	7	1	-	15
TOTAL	8	5	2	-	30

The percentage analysis of statement no. 5 of table 5 reveals that amongst MEN and WOMEN, the total percentages of fat related diet intake are

1. Usually (8%) 2. Often (5%)
 3. Sometime (2%) 4. Rarely or never (Nil).

DISCUSSION AND FINDING:

The findings of the study point out that the subject's life style, health awareness, health practices, dietary habits, working efficiency etc. which have very clearly helped to understand the fact about health status of fitness centre of Gwalior.

First and foremost observation of the study was that an overwhelming majority of subjects of the study were not serious out their diet and nature of jobs. The extended duty hour, arm chair or desktop work and importantly absence of physical movement were regular features in their daily life.

The highlight of the findings was that the fitness centre members constantly consumed high fat diet that causes obesity. The prevalence of diet problems and interesting facts has been revealed from the survey, pertaining to attribution of health problem to possible causes. The majority of subjects from the entire three fitness centre attributed their health problems to idle life style, job stress, faulty diet habits, drinking alcohol and family demands.

This shows that health problems are a matter of concern and majorities were aware about it. This also signifies that their understanding about their problems and possible remedy. A significant percentage of subjects from the three fitness centre were affected by their uncontrolled dietary habits.

From all above revelations from opinions of the subjects, it can be inferred as that the fitness centre members should control their dietary habits and proper advice should be given to them by the fitness instructor so that they can live a healthy life style which may help to prevent them from various life style diseases namely, blood pressure, cardiac complications, depression, diabetes, overweight, and digestive disorder etc.

CONCLUSION

This study examined the fat consumption of gym members of Gwalior. Data were collected among 30 members from 15 male and 15 female in whom fat related diet habit was checked amongst the members of the fitness centre. Fat related diet habit questionnaire that consist of 5 questions that measures four factors i.e. Usually, Often, Sometime, and Rarely or never was used to evaluate their fat dietary habits. To reach the office most of the people used their own automatic vehicle or public transport system that widely affects their health status. All these facts are creating a very congenial environment for leading unhealthy life style of the members of fitness centre of Gwalior. Improper intake of diet may lead to Overweight, Cardiac Complications, Diabetes Hypertension, Digestive disorder, Depression etc. Percentile scale was applied for Statistical Analysis. The result indicates that the member of the entire three fitness centre showed high percentage dietary of fat intake.

The current findings may provide gym instructors and members a clear message that participation in physical activity or striving for physical fitness and proper intake of diet will lead to the bright sight of life. It may also lay emphasis to the fact that the instructors of the entire fitness centre should examine their clients more often as to attain healthy living environment. They should constantly monitor the diet intake of the client and modify their diet according to their needs and requirement, which is very essential for a fitness centre as machines and exercise are not the only criteria to decide the success or failure of a fitness centre. It also depend on the members of fitness centre that how much they are conscious and taking into consideration of the instructions given to them about their diet and exercise. All these evidences reinforced the message that physical fitness activity as well as proper intake of diet would only benefit to healthy living. This notion would be even more important when promoting active lifestyles to Indian families, which has long held wrong beliefs, traditions and customs. The clients need to be recommended the right kind of diet intake that will lead to better standard of

living as well as to be healthy. As a result, the dispute of physical activity participation along with proper diet will enhance their working ability and freedom from sickness.

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Positive Attitude : An Important Concept Among Youth

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ABSTRACT

In this paper, we will focus on the need for a positive attitude among youth and what are the factors responsible for not having a positive attitude. Positive attitude is a standard of living. Positivity is an important concept to be discussed and adopted in an individual's life. Without the positive attitude nothing can be achieved in our life. Importance of a positive attitude among youth is very important in today's world and it is discussed in this paper.

Keywords : Attitude, success, stress, physical fitness, positivity etc.

INTRODUCTION

Today, it is seen that crises are everywhere. Every person in this world has problems mainly related to mental issues. Youth, in today's world, is very frustrated and stressed and it is due to lack of good vibes in their life. What makes a person's life worth living? It is his positive attitude. And what makes a person's life unworthy? It is his negative attitude. We can see that attitude has a major role to play in an individual's life. Positive attitude is precious for all of us for leading a healthy and successful life. It is said that if you have full control over your thoughts, you will have the desired attitude. No one in this world has the power to change anyone's attitude. It is the person himself who is responsible for his behavior and attitude towards others. Your attitude will decide what you will be and what your position either in home or workspace is.

Aim of the study:

The aim of the study is to know

1. What is a positive attitude?
2. What is the need for a positive attitude among youth?
3. How does a positive attitude change the life of youth?

MEANING OF POSITIVE ATTITUDE

A positive attitude is seeing the glass half full. It means to keep a set of thoughts, ideas and values that tend to look for the good, to overcome problems, to find the opportunities in every situation, to look on the bright side of life, to face any kind of situation, etc. There are two faces of a coin similarly there are two faces of

every situation. One is positive and one is negative and positive attitude means seeing the positive side of that situation.

A positive attitude means a positive outlook for every problem that means when you encounter a problem you try to solve them instead of worrying about the problem. It will help you to improve yourself throughout life because every problem brings a new lesson to teach. We learn from our failures and move ahead to achieve success. It is known as a righteous attitude to live a life.

“Attitude is the little thing that makes a big difference”, quoted by Winston Churchill enhances the importance of perception. Your attitude makes you what you are. Your attitude is responsible for your behavior as well as character. If an individual has a negative attitude, he or she will be judgmental about everything. He or she will become irritated because he or she starts judging others according to his or her choice. He or she starts interfering in others’ lives. He or she feels jealous of others and spoils his own time in such kind of stupidities whereas if an individual has a positive attitude he or she will be happier, successful, motivated, encouraged, enthusiastic about everything, positive, surrounded by positive vibes etc. People with a positive outlook on life can accomplish just about anything. They don’t let doom and groomers take their dreams away.

NEED OF POSITIVE ATTITUDE AMONG YOUTH

Positive attitude is the standard of living and it increases the quality of life. In today’s world, quality of living will decide the quantity of living. This is not merely a line; it is the truth of today’s world. In this fast-paced and frantic world, quality of living plays an important role and quality of living is raised by positive attitude.

Most of the people have seen the youth in very aggressive and irritated conditions. This type of youth is considered as manner less. Most of the people usually speak that today’s youth is worthless and manner less. But the people do not know the real truth behind their aggression. The reason behind the aggression is their frustration. They see only the negative points in their society, surrounding etc and get disturbed. This disturbance creates a perturbation in their mind and they get mental problems such as anxiety, depression and panic attacks etc. Youth also get involved in drugs, start smoking and drinking, fight with others in a very aggressive way. All these things are done to make themselves feel satisfied for the time being. There arises an urgent need for a positive attitude among youth.

Positive attitude helps to depreciate the negativity present in the mind of youngsters. It helps them to see positively, speak positively, listen positively and think positively. Positive attitude is not the absence of negative cognition; it is related to mental well being of an individual. Youth who fail in one aspect of life either in personal aspect or professional aspect undergoes depression. Their mind is so weak that they cannot even bear this type of frustration and tension. Positive attitude helps them to be mentally strong. Positive attitude in today’s life is a need to have quality of living.

HOW POSITIVE ATTITUDE CHANGES THE LIFE OF YOUTH

Positive attitude helps to depreciate the negativity present in the mind of youngsters. It helps them to see positively, speak positively, listen positively and think positively. Positive attitude is not the absence of negative cognition; it is related to mental well being of an individual [Tata McGraw-Hill Education Pvt. Ltd., 1976]. Youth who fail in one aspect of life either in personal aspect or professional aspect undergoes depression. Their mind is so weak that they cannot even bear this type of frustration and tension. Positive attitude helps them to be mentally strong. Positive attitude in today’s life is a need to have quality of living.

Positive attitude helps an individual to see the bright side of the universe. As there are two faces of a coin, a positive attitude enhances the power to see the positive face of the coin and try to depreciate the power to see the negative face. Youth can get this positive attitude by participating in sports and games. Sports and games develop a sense to bear losses and failures. This helps an individual to deal with their real life problems and failures. By developing a positive attitude youth will be more creative and more energetic.

CONCLUSION

From the above discussion, it is concluded that a positive attitude is the only source to live a positive and healthy life. It raises the standard and quality of living. But now the question arises how we can achieve the positive attitude. Positive attitude can be achieved by eating a pure and balanced diet, by regular exercises, by participating in sports, games and extracurricular activities, by practicing yoga and meditation, by socialization, by proper personal hygiene and by performing the activities that releases and helps in managing the stress. A small change in an individual's routine can create a great impact towards positivity in his life. Every individual desires about the satisfaction of life and it can be achieved only through a positive attitude.

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A Comparative Study of Development of Balancing Ability In Normal And Deaf And Dumb Boys Between 8 To 14 Years

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ABSTRACT

A comparative study of development of Balancing Ability in normal and deaf and dumb boys between 8 to 14 years is administered on around 350 students of different schools who were taking formal education. Out of 350 students 175 were selected from normal category and 175 from physically challenged i.e., deaf and dumb category. In each age group 25 boys were selected (25 subjects in normal boys and in each age group i.e., 8, 9, 10, 11, 12, 13 & 14 years totaling to 175; 25 subjects in deaf and dumb in each age group i.e., 8, 9, 10, 11, 12, 13 & 14 years totaling to 175). These subjects were tested initially in Balancing Ability and the same subjects were exposed to the same tests after exactly one year without any formal sports training and the development in their Balancing Ability was noted. After the statistical treatment of data by utilizing t-test the following findings were noted: Balancing ability has been evaluated as the most uncertain ability as it has found a very low correlation among the same subjects when tested initially and finally. But can be developed at higher age groups.

INTRODUCTION

Motor development objectives are concerned with making physical movements, useful with as little expenditure of energy as possible. The term motor is derived from the relationship of a nerve or nerve fiber to the one that connects the Central Nervous System with muscles through their convections the movements' results. Effective motor movement can only result if there is harmonious working of the muscular and the nervous system. It helps in keeping a greater distance between fatigue and peak performance. The activities that involve hanging, jumping, dodging, leaping, kicking, bending, throwing will enable a person to perform his daily work much effectively without reaching a point of wearing out, so quickly.

A comprehensive list of components of motor ability for performance of various physical activities (including sports) include muscular strength, muscular endurance, muscular power, cardiovascular endurance (alternatively also known as cardiopulmonary endurance), agility, speed, balance, flexibility, reaction time, coordination (eye-foot coordination, eye-hand coordination, whole-body coordination). In addition, traits like simple motor response, reflexes, sensory input and awareness of space and tempo (characteristic speed and rhythm of movement) are also considered important in motor performance- ability especially during the early years of body development.

Balancing ability is the ability to maintain balance during whole body movements and to regain balance quickly after the disturbing movements. Balancing ability can be of two types: (a) Ability to maintain during

stationary position or slow movements (static balance). It depends primarily on kinesthetic, tactile and to some extent on vestibular sense organs. (b) Ability to maintain or regain balance during large range movements and during rapidly changing positions of the body. It depends primarily on the functional capacity of the vestibular sense organs.

The need today is to search for some extraordinary talent in an individual for the laurels in the international sports arena. In this case it becomes obvious that the search should not limit only with the normal. The qualities that an individual possess should be innate and may be nurtured with good scientific platform, deaf dumb being no exception to it. Hence the search to prove the innate qualities of the deaf and dumb and bring them to equal stature with normal is the basic aim of the researcher.

NEED OF THE STUDY

The population of the normal mass is comparatively more to the deaf dumb resulting the opportunities designed are more for normal mass. But at the same time there is a society always struggling to uplift the physically challenged and trying to give them the best and equal opportunities so that the handicapped ability should not be the hurdle in normal and natural unfolding of an individual.

Considering the inability, which has the opportunity to be converted into compensatory ability for excelling in the sports arena the researcher, felt high need to evaluate the development of Balancing Ability among the deaf dumb and compare with the normal, which is a performance prerequisite.

OBJECTIVES OF THE STUDY

1. To find out, access and analyze the developments taking in Balancing Ability among normal boys and that of deaf dumb at particular age group.
2. To understand if any higher or compensatory ability among deaf dumb children is noticed when compared to the normal children.
3. To understand various parameters of coordinate ability in a certain age group of certain physical abnormality.
4. To understand the scientific base for methods of training physically challenged children.
5. To understand how the society would help its weak counterpart.

SIGNIFICANCE OF THE STUDY

1. The study may reveal the physical and mental problems of deaf dumb children.
2. The study may also profound a training methodology and loading procedure in Balancing Ability training for physically challenged children in specific age groups.
3. Results may also be helped to enhance sports terminology communication skills with physically challenged children.
4. Evaluation of development of Balancing Ability may fetch platform for establishing training methodology for enhancing performance in specific sports.
5. The comparison of development of Balancing Ability will give clear picture of the positive and negative aspects of Balancing Ability, which in turn ensure the proper training.

METHODOLOGY

Sample :

The samples of this study is randomly selected from different schools in normal subjects (boys) and deaf dumb subjects (boys). The selected age groups of the subjects were from 8 to 14 years. In each group 30 subjects were selected initially with a margin of ± 5 . All the selected subjects were non-sportsman staying either in school hostels or at their residence to ensure the untrained development in motor abilities. In all 350 subjects were tested initially and the same 350 subjects were tested finally after one academic year (12 months). The tests were conducted for two days for four hours on each group of 25 subjects approximately. In all 350 subjects were considered for obtaining the difference between development is evaluated by subtracting the initial test from the final test score. Every subject was allotted with a code and a separate self contained form for test results. The tests were selected in the aspects of development of Balancing Ability. The tests are administered individually under standard conditions applicable for specific tests and the time period required between two tests is amply considered.

Tools And Means :

The research scholar has used some of the selected speed ability tests which are applicable to the selected age group and samples and are universally accepted and established standard tests for assessing development of motor abilities.

Balancing Ability test : (1) Stork Stand Test

PROCEDURE

The subjects were selected from different schools in normal category (boys) and deaf dumb schools (boys). In all 01 test was selected for evaluating the development of Balancing Ability of the subjects between 8 to 14 years. The test was administered with all specified and standard conditions. The conditions of the subjects were observed normal and motivated to take part in the tests. An introductory talk regarding the initial day's workout is assessed for confirmation of tirelessness and recovered state.

RESULTS AND DISCUSSIONS

Balancing ability has been evaluated as the most uncertain ability as if has found a very low correlation among the same subjects when tested initially and finally. But can be developed at higher age groups.

Results Of The Comparison Of The Development Of Balancing Ability Of Boys (Normal And Deaf-Dumb) Between 8 Years To 14

Normal boys :

1. The maximum mean of development of balancing ability in normal boys was found at the age of 11th year, which is 2.52 sec and the minimum at 12th year, which is 0.04 sec. The average mean of development of balancing ability normal boys between 8 to 14 years is found to be 0.58 sec.
2. The standard deviation of development of balancing ability in normal boys is found maximum at the age of 9th year, which is 3.41 and minimum at the age of 13th year, which is 1.55. The average standard deviation of development of balancing ability in normal boys between 8 to 14 years is found to be 2.30.

3. The correlation of development of balancing ability in normal boys between 8 years to 14 years of age groups is found as low as 0.37.

Deaf-dumb boys :

1. The maximum mean of development of balancing ability in deaf-dumb boys was found at the age of 14th year, which is 2.32 sec and the minimum at 10th year, which is -0.28 sec. The average mean of development of balancing ability in deaf-dumb boys between 8 to 14 years is found to be 0.03 sec.
2. The standard deviation of development of balancing ability in deaf-dumb boys is found maximum at the age of 14th year, which is 5.98 and minimum at the age of 9th year, which is 1.81. The average standard deviation of development of balancing ability in deaf-dumb boys between 8 to 14 years is found to be 2.53.
3. The correlation of development of balancing ability in deaf-dumb boys between 8 to 14 years of age groups is found as low as 0.10.

COMPARISON OF BOYS (NORMAL AND DEAF-DUMB):

The average mean of development of balancing ability of normal boys between 8 to 14 years is 0.58 sec, which is more to 0.03 sec that of the deaf-dumb boys between 8 to 14 years. The difference of mean of development of balancing ability between normal boys and that in the deaf-dumb boys is 0.55 sec, which is insignificant. The maximum mean of development of balancing ability in normal boys is found at the age of 11th year, which is 2.52 and that in the deaf-dumb boys it is at the age of 14th year, which is 2.32 sec.

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To Study The Effect of Body Weight Exercise Program On U-14 Wrestlers of M.m's Late Ramesh Damle Wrestling Center During Lockdown

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ABSTRACT

This Research was conducted "To study the effect of Body weight exercise program on Under-14 wrestlers of M.M's Late Ramesh Damle Wrestling Centre during Lockdown". The purpose of this study was to design and implement Body weight training program for wrestlers during Pandemic and study its effect. The population of the Study was from M.M's Late Ramesh Damle Wrestling Centre and non probable Convenient Sampling technique was used to select the subjects and 20 wrestlers were selected. Experimental research method was used for this research. The research was conducted in three phases; 1st phase pre-test, 2nd phase the implementation of training program, 3rd phase post-test. Descriptive statistics was used to find out Mean, median and Standard deviation. The paired sample 't' test was used to find out comparison between pre-test and post-test. The mean of pre-test 12 min run & walk was 1968 m and post test was 1674.50 m and t score 6.527 with 0.00 significance . The mean of pre-test Push-up test 23.70 and post test was 30.40 and t score -11.643 with 0.00 significance. The mean of pre-test Sit-up 38 and post test was 42.40 and t score -6.850 with 0.00 significance. Hence, there was a significant effect of Body weight exercise program on Muscular strength and muscular endurance of Under 14 wrestlers.

INTRODUCTION

To achieve excellence in any field like Political, Social, Educational or Sports, one needs to have proper planning and organisation. Considering Sports, it is essential to set training principles. If these principles are not taken into consideration there will be no progress in training which will result in low performance. Wrestling which dates back to ancient times, has long been considered one of the most difficult and demanding sports (Rob Decillis). Wrestling sport demands Muscular strength, Muscular endurance, power, speed, agility, balance, co-ordination and cardiovascular endurance, above which the most important factor are muscular strength and muscular endurance. Throughout the year, wrestlers have to undergo high intensity training in order to maintain their fitness to achieve optimum performance. On 24th March 2020, the Government of India ordered a nationwide lockdown for 21 days, limiting movement of the entire 1.38 population of India as a preventive measure against the COVID-19 pandemic in India (wikipedia). The COVID-19 pandemic in 2020 has resulted in widespread training disruption. Some athletes had access to facilities and equipment, while others had

limited or no access, severely limiting their training practices. The wrestlers training in Maharashtra's Late Ramesh Damle wrestling centre comes from humble background and are under privileged. They did not have any special place to train other than their home. Considering these factors, researcher had designed a body weight exercise programme for wrestlers to maintain their fitness during this pandemic.

PURPOSE

The researcher wants to study the effect of body weight exercise programme on U-14 wrestlers of M.M's Late Ramesh Damle wrestling centre.

METHODOLOGY

The study was conducted by Experimental research method. Pre-test post-test single group design was used for this study. The sample of 20 subjects was selected purposely (non-probable) from M.M's Late Ramesh Damle wrestling centre, Pune. All the subject were wrestlers. Data collection tools used for the study were 12 min run & walk for Cardio Vascular endurance, Push-up test for Shoulder strength and endurance and Sit-up test for abdominal strength and endurance. Descriptive statistics was used to find out the mean, median and standard deviation. The paired sample 't' test was applied compare pre-test and post-test.

RESULTS

Table 1 : Summary of 't' test for the comparison of 12 min Run & walk between Pre and post test

	Mean	SD	SEM	T	DF	Sig.
Pre-test	1968	408.587	91.363	6.527	19	0.00
Post-test	1674.50	467.597	104.558			

The table 1 shows descriptive statistics of 12 mins run and walk. 20 subjects were tested who had pre-test mean of 1968 m and standard deviation of 408.587, similarly for post-test mean was 1674.50 m and standard deviation was 467.597. Standard error of mean of pre-test was 91.363 and post-test was 104.558. It is seen that the mean of post-test is less than that of pre-test of 12 min run & walk.

The table 1 shows that the mean difference between pre-test and post-test is 293.500. The 't' value is found 6.527 which is significant at 0.00 level therefore it can be interpreted that there is a significant difference in the pre and post-test results.

Table 2 : Summary of 't' test for the comparison of Push-up test between Pre and post test

	Mean	SD	SEM	T	DF	Sig.
Pre-test	23.70	9.625	2.152	-11.643	19	0.00
Post-test	31.40	9.762	2.183			

The table 2 shows descriptive statistics of Push-up test. 20 subjects were tested who had pre-test mean of 23.70 and standard deviation of 9.625, similarly for post-test mean was 31.40 and standard deviation was 9.762. Standard error of mean of pre-test was 2.152 and post-test was 2.183. As compared to mean of pre-test there was improvement in post-test mean.

The table 2 shows that the mean difference between pre-test and post-test is -7.700, the 't' value is found -11.643 which is significant at 0.00 level therefore it can be interpreted that there is a significant difference in the pre and post-test results.

Table 3 : Summary of 't' test for the comparison of Sit-up test between Pre and post test

	Mean	SD	SEM	T	DF	Sig.
Pre-test	38	10.162	2.264	-6.850	19	0.00
Post-test	42.40	9.583	2.143			

The table 3 shows descriptive statistics of Sit-up. 25 subjects were tested who had pre-test mean of 38 and standard deviation of 10.162, similarly for post-test mean was 42.40 and standard deviation was 9.583. Standard error of mean of pre-test was 2.264 and post-test was 2.143. As compared to mean of pre-test there was improvement in post-test mean.

The table 3 shows that the mean difference between pre-test and post-test is -4.400, the 't' value is found -6.850 which is significant at 0 .00 level therefore it can be interpreted that there is a significant difference in the pre and post-test results.

CONCLUSION

From the above information it can be concluded that Muscular strength and muscular endurance of shoulder and abdominal muscles of wrestlers was improved. Whereas Cardio-vascular endurance was decreased.

DISCUSSION

During this pandemic the wrestlers must have used the body weight exercise program effectively which resulted in increase in muscular strength and Muscular endurance of Shoulder and abdominal muscles.

Also during Covid-19 pandemic there was lockdown all over the nation and there were restrictions to go out of the houses, as there was no access to ground it was seen that the cardio vascular endurance of wrestler was decreased.

RECOMMENDATIONS

In future if there is any pandemic or any wrestler have limitation for training in case of travelling or exam etc can use this body weight exercise program to maintain their fitness.

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“Identification of Performance profile of Women Kabaddi players in Maharashtra and participation-level wise difference in the profile”

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ABSTRACT

For anyone to participate in the game of Kabaddi at entry level or any player to get selected at higher performing level, one must understand this unique requirement and whether they possess the attributes. The present research is a profile study under descriptive research which aimed at identifying the traits peculiar to the performance of the women Kabaddi players in the state of Maharashtra and identifying profile of the player and compare the players at state and national levels. This survey included 148 players from various districts. Selected fitness and physiological parameters were measured using standard tests. The general performance profile for the variables of physical fitness in women Kabaddi players of was created using mean values: Sit Ups 26.88 (± 11.41), Modified Push Ups 21.82 (± 10.12), Sit & Reach 49.24cm (± 7.42), Grip Strength Right 24.98 (± 5.73), Grip Strength Left 23.08 (± 5.64), Standing Broad Jump 154.93cm (± 16.63), Shuttle Run 12.28sec (± 0.85), and Side Step 52.45 (± 11.99). The Kabaddi players were classified into two levels of participation to find out differences in the profile. The findings have shown that national level players outperform state level players in the variables like anaerobic capacity, strength endurance, flexibility & dynamic balance.

Keywords : Kabaddi Women players, Performance profile, physiological profile, fitness profile

INTRODUCTION

Kabaddi is rightly known as the “GAME OF THE MASSES” since it has become one of the most popular sports watched and then played in India. Another reason for its acceptance is the easy-to-understand rules & public demand. The game doesn’t require any sophisticated equipment except a mat nowadays. The game requires a robust combination of variety of fitness parameters and mental agility. The unique game in which a single player faces seven opponents simultaneously requires to possess a variety of performance attributes. The game of Kabaddi involves individual and group skills and strategies for the success in the game. Various offensive and defensive skills and strategies have to be executed by individual player in opponents’ court. The game calls for team and individual effort and also highly sophisticated strategies which help in earning points. The nature of the games thus calls for an athlete possessing unique combination of various performance factors.

For anyone to participate in the game of Kabaddi at entry level or any player to get selected at higher performing level, one must understand this unique requirement and whether they possess the attributes. In the earlier days, there was no such scientific approach neither at entry level nor elite level. But the modern advances in sports sciences have ensured that scientific processes be followed right from entry point in the sport. This ensures high and consistent performance and optimal use of the athletic potential. Arnot (1984) emphasizes that athletic talent is equally important as any other talent and must be recognized and utilized in the right place at right time. He also maintains that many times new talented athletes have gone out of the mainstream due to faulty selection processes. This therefore necessitates development of "Self-awareness" about physical, technical, social & ethical abilities as a sportsperson (Dick, 2002). When both the athlete and the coach know the level of the player against certain standard, they are able to undergo right preparation and performance enhancement. Dick maintains that episodic testing procedures at each level is critical for assessing athlete's status and recommends assessment of common parameters like anthropometric, physical, physiological, psychological variables and also technical, environmental factors.

Such assessment is helpful in quantifying probable performances, comparing performances with higher ones or norms if available. This gives a scientific basis to the growth of not only the athlete but coaching process and the value of the sport. Such profiling is a widely used in various sports for analysing and monitoring performance at high levels. Performance profiling follows certain steps; it includes identifying the nuances of an intricate outcome. It categorizes physical, psychological, technical indicators and rates them as per its involvement & importance in high performance. This process signifies the individual and/or combination of identified performance qualities. Such profile assessments over time helps the stakeholders to understand the strengths and weaknesses and helps in goal setting & designing appropriate training programs.

So far, there have been a number of studies which identified performance profiles of athletes of various games and sports at national & international levels. The studies have dealt with positional differences, level wise differences in various games and sports like basketball, volleyball, rugby, gymnastics, football, handball (Davis et al, 2004; Dennis et al, 1999, Meir, 2001; Stanley, 2005; Gabbett, 2006). There have been few studies in performance profiling by Indian authors and indigenous sports such as Kabaddi. Dasgupta et al (1985) surveyed University men kabaddi players for their anthropometric variables, and physiologic parameters and they compared the measures with the Indian players from other sports. This therefore does not give a clear picture of performance profile of a kabaddi player. In a study by Khanna et al (1996) on men kabaddi players, the researchers tried to identify physical and physiological profile and physiological demands of playing a match, it was also revealed that Kabaddi is an intermittent sport and the rest pause after the raid is enough for recovery and it therefore becomes an anaerobic sport. Another study in Kabaddi, done by Dey et al (1993) investigated the performance indicators of National Men Kabaddi players on parameters of physical & physiological characteristics. They found out that national kabaddi players were endomorphic-mesomorphic and identified profile indicators for back strength, oxygen uptake, anaerobic capacity. They suggested that the identified parameters could be used for the selection procedures. These profile studies were limited to only male kabaddi players and provided few guidelines regarding identifying profile for kabaddi performance.

The related literature did not include any profile studies done on women kabaddi players, and supported the need of identifying their performance profile. The researcher came across several testing protocols and methods of profiling athletes. But those methods and protocols could not be replicated for profiling the Kabaddi players on grass root level. Hence with adequate literary evidence for the testing protocol, methodology, this study was developed. The need to establish profile of women Kabaddi players and finding difference in the

profile of players with different levels of participation is justified. Hence the investigator has undertaken the study entitled

METHODS

The present research is a profile study under descriptive research which aimed at identifying the traits peculiar to the performance of the women Kabaddi players in the state of Maharashtra and identifying profile of the player and also gauge the strengths & weaknesses from a common scale for all traits. The design of this study was a survey design which considered the women Kabaddi participants at the 52nd State Kabaddi Championship, held at Biloli, Nanded, M.S., thereby ensuring involvement of entire percent population.

SAMPLE

This study was done to identify profile of the women Kabaddi players in the state of Maharashtra in general and specific to the positions of play. This purpose of creating profile of the state level was served as all the players participating in the state championship were involved in this study. Thus, in this study the sample was 100% population and the technique employed to select was purposive sampling. WKP who had represented their district Kabaddi team for at least two years were included in the study. A total of one hundred and forty-eight women Kabaddi players from thirteen districts were selected and tested in this study. In the state championship only thirteen women teams had participated. The average age of the players was 20.3 yrs.

TOOLS

Keeping in view, the previous researches, literature, and opinions of the experts, the researcher identified major factors contributing to Kabaddi performance by women players. The factors identified were strength, muscular endurance, agility, anaerobic capacity (fatigue index), power of legs, body composition. Selected fitness factors were assessed using 1-minute bent knee sit-ups, modified pushups Grip strength sit & reach standing broad jump, 4*10m shuttle run, side step test. Measurement of resting heart rate, peak expiratory flow rate was done using spirometer and fatigue index was measured using repeated sprint test.

For establishing the reliability of the test items, a pilot study was conducted on thirty women Kabaddi players from the district of Pune. While actually testing the players in the pilot study, the researcher came across certain difficulties. These difficulties were recorded and dealt with appropriate measures. Thus, the limitations in the actual data collection process were eliminated to establish a standard testing protocol.

RESULTS

The present study was conducted to create a general performance profile of women Kabaddi player in Maharashtra, and a profile based on the level of play. Data of 148 women Kabaddi players was analyzed for descriptive and inferential statistics. The measures used to analyze the data were mean, standard deviation, t-test and one-way ANOVA. The data was initially analyzed for descriptive statistics, the normality of the data was assessed and it was found to be near to normal. Hence use of parametric statistics was done further. Following is the detailed analysis of the data in this study. The tables contain following abbreviations for standard error of mean (SEM), standard deviation (SD), standard error of skewness (SE Skew), standard error of kurtosis (SE Kurt), between groups (bet groups) women Kabaddi players(WKP), Maharashtra(MH).

Table 1 : General Physical Fitness Profile of Women Kabaddi Players of Maharashtra

(N=148)	Sit Ups	Modified Push Ups	Sit & Reach	Grip Right	Grip Left	SBJ	Shuttle Run	Side Step
Mean	26.88	21.82	49.24	24.98	23.08	154.93	12.28	52.45
SEM	0.94	0.83	0.61	0.47	0.46	1.37	0.07	0.99
S D	11.41	10.12	7.42	5.73	5.64	16.63	.85	11.99
Skewness	-0.30	0.15	-0.39	-0.54	-0.51	-0.18	0.39	-0.48
S E Skew	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Kurtosis	-0.21	-0.66	-0.14	0.45	-0.30	-0.03	0.69	-0.49
S E Kurt	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40

(Grip/left right- Right/left hand Grip strength, SBJ- standing broad jump)

The general performance profile for the variables of physical fitness in women Kabaddi players of Maharashtra is shown in Table. The descriptive profile shows that the data is normal and hence can be used to create general performance profile. The mean values which are used to create the profile of Kabaddi players are as follows: Sit Ups 26.88 (± 11.41), Modified Push Ups 21.82 (± 10.12), Sit & Reach 49.24cm (± 7.42), Grip Strength Right 24.98 (± 5.73), Grip Strength Left 23.08 (± 5.64), Standing Broad Jump 154.93cm (± 16.63), Shuttle Run 12.28sec (± 0.85), and Side Step 52.45 (± 11.99). The skewness values for sit ups, sit & reach, grip strength, standing broad jump and side step are -0.30, -0.39, -0.54, -0.51, -0.18 and those of modified push-ups and shuttle run are 0.15 and 0.39 respectively. The data shows negative skewness in the factors viz. muscular endurance, trunk flexibility, strength, power and dynamic balance. The negative trend on performance of these factors means that a greater number of players exhibit higher performance on these parameters, thereby establishing dominance of these factors in the overall performance profile of women Kabaddi players in the state.

Table 2 : General Physiological Profile of Women Kabaddi Players of Maharashtra

(N=148)	RHR	PEFR	Fatigue Index
Mean	71.09	373.07	2.42
SEM	0.63	6.03	0.09
SD	7.62	73.36	1.09
Skewness	0.21	-0.52	0.40
Kurtosis	0.40	0.35	-0.58

(RHR- resting heart rate, PEFR- peak expiratory flow rate)

The general profile for the physiological variables is shown in Table 2. The mean value of resting heart rate, peak expiratory flow rate and the fatigue index is 71.09bpm (± 7.72), 373.07 (± 73.36), 2.42 (± 0.40) respectively. The skewness and kurtosis for the heart rate, peak expiratory flow rate and fatigue index are found to be 0.21, -0.52, 0.40 and 0.40, 0.35, -0.58 respectively. The descriptive analysis shows that the data is near to normal. The peak expiratory flow rate displays negative skewness which may be attributed to the difference in the

lung capacities of the players. The lung functions of a person are result of her general respiratory health and moreover the body height. It is seen that in this case, the trunk length of the athletes is higher which implies the lung size and volumes are greater than the average counterparts.

Table 3 : Physical Fitness Profile of Players on Different Levels of Participation

Variable	Level	N	Mean	SD	SEM
Sit ups	National	47	32.70	10.93	1.59
	State	101	24.17	10.64	1.06
Push ups	National	47	24.26	9.86	1.44
	State	101	20.69	10.08	1.00
Sit & Reach	National	47	50.20	6.85	1.00
	State	101	48.80	7.66	.76
Side Step	National	47	57.53	11.94	1.74
	State	101	50.08	11.31	1.13
Shuttle Run	National	47	12.01	.80	.12
	State	101	12.40	.84	.08
Grip Right	National	47	25.26	5.88	.86
	State	101	24.85	5.68	.56
Grip Left	National	47	23.43	6.20	.90
	State	101	22.92	5.39	.54
SBJ	National	47	158.06	16.28	2.37
	State	101	153.48	16.67	1.66

Table 4 : Physiological Profile of Players on Different Levels of Participation

	RHR		PEFR		Fatigue Index	
	National	State	National	State	National	State
Mean	70.38	71.43	378.62	370.5	2.16	2.54
SD	7.05	7.88	73.05	73.72	1.03	1.1
SEM	1.03	0.78	10.66	7.34	0.15	0.11

(RHR-resting heart rate, PEFR- peak expiratory flow rate)

Table 4 shows a marked difference on muscular endurance, dynamic balance, agility and power. These parameters are further analysed for significance of difference.

Table 5 : Inferential analysis showing difference in the Level Wise Performance Profile

Variable	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
RHR	-1.13	146	.26	-1.04	1.35
PEFR	-2.64*	146	.01	8.12	12.98
Fatigue index	3.67*	146	.00	-.38	.19
Sit ups	.63	146	.53	8.53	1.89
Push ups	-2.00	146	.05	3.56	1.77
Sit & reach	4.50*	146	.00	1.41	1.31
Grip right	.40	146	.69	.40	1.01
Grip Left	.51	146	.61	.50	1.00
Shuttle Run	1.07	146	.29	-.39	.15
SBJ	1.57	146	.12	4.59	2.92
Side step	2.02*	146	.05	7.45	2.03

*Difference is significant at 0.05 level of significance.

To assess the difference in the profile of the players at two levels, independent sample t-test was employed. Table 5 shows the difference between the state level and national level players on each variable. Significant difference in the fatigue index, push ups, sit & reach, and side step is seen in favour of national level players. The differences between the players of two levels, in the components like anaerobic capacity, strength endurance, flexibility, dynamic balance distinguish the players at a higher level.

Table displays a major difference between the fatigue index of the national players and the state level players. This forms the basis of difference in the sports performance between the two levels. The national level players are found to be better on anaerobic capacity.

DISCUSSION

Profiling the athlete on various parameters has been proved to be very important in different stages of athlete's life, right from the choice of sport, to the development of training program, and high level of performance. In this study, the players were profiled in general on the morphological, physiological, physical fitness and psychological variables. The profile can be compared to the profiles of other games and/or players at different levels. (Wassmer DJ&Mookerjee S 2002) With the purpose of determining the markers of performance in the game of Kabaddi, the variables selected proved to be apt with special reference to muscular endurance, agility & dynamic balance, and anaerobic capacity. While the physiological profiling may not prove to be the markers in the performance (Chatterjee & Das1995) height, chest circumference and fat free mass are the best predictors for FEV1, FVC, and PEFR (Mehotra, Verma, Tiwari 1998)and that major lung function measurements are possibly influenced more by genetic than environmental factors. The relation has not been in the purview of this research. While fatigue index conspicuously indicates the performance of the Kabaddi players as the nature of the test is similar to that of game of Kabaddi. The Kabaddi players were classified into two levels of participation to find out differences in the profile. The findings have shown that national level players outperform state level players in the variables like anaerobic capacity, strength endurance, flexibility

& dynamic balance. Apparently the difference seen may not be prominent as compared to the number of variables assessed. And the result is attributed to the experience of the players, motor abilities and training procedures. But the dominance in the selected parameters of fitness proves to be the best indicators of the performance in Kabaddi. These parameters could form the basis of selection criteria in the future along with the mastery of the skills in the game of Kabaddi.

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A Comparative Study on Special Training for Mallakhamb Players for Improving Tactile Ability

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ABSTRACT

The motivation behind this investigation was to inspect the effect of explicit exceptional preparing to improve Tactile capacity of Mallakhamb players. To accomplish the reason for this investigation 45 state level school Malkhamb players were chosen and arbitrarily appointed to test group I (specific core training), test group II (yoga preparing), and control gathering of fifteen each (n=15) in a third group. The preparation routine went on for twelve weeks for 6 days out of each week. The chose subordinate variable Tactile separation capacity was surveyed by directing Backward ball toss test, when the preparation routine. Examination of Covariance was utilized to decide the critical contrast existing among pretest and posttest on chose subordinate factors. The investigation of information uncovered that the Tactile separation capacity of Malkhamb players has altogether improved because of the impact of explicit center preparing (13.71%) and yoga preparing (7.60%) conventions.

Keywords : Specific core training, Yoga training and Tactile differentiation ability

INTRODUCTION

Mallakhamb is a game that requires a large number of athletic capacities, like speed, strength, force, adaptability, and strength in the center body, solid equilibrium and undeniable degrees of neuromuscular co-appointment, body mindfulness and endurance, the capacity to know where the body is, and having the option to move it, great adaptability to evade injury and right harmony between the quadriceps and hamstrings, just as strength irregular characteristics between the left and right leg. Along these lines, each mallakhamb entertainers ought to improve coordination, physical, physiological and mental factors to their presentation. Thus like any competitor, malkhamb entertainers likewise need to follow some particular molding programs. Alongside developing a decent base of fortitude and wellness, the mental abilities of the occasion ought to be chipped away at, to create a more significant level of execution. Albeit a few ordinary capacities and brandishing exercises request controlled utilization of the stomach and back muscles while working with the upper appendages, the movement of center muscles during dynamic activities has not been concentrated widely. Exploration has featured advantages of preparing these cycles for individuals with back torment and for doing ordinary exercises (Hibbs, 2008). Nonetheless, less exploration has been performed on the advantages of center preparing for competitors and how this preparation ought to be completed to enhance donning execution. Numerous first class competitors attempt center dependability and center strength preparing as a component of their preparation program, in

spite of opposing discoveries and ends concerning their adequacy. A further perplexing component is that on account of the contrasting requests on the center musculature during ordinary exercises (low burden, sluggish developments) and brandishing exercises (high burden, opposed, unique developments), research acted in the recovery area can't be applied to the wearing climate and, therefore, information with respect to center preparing programs and their adequacy on donning execution are lacking. Excellent execution in any games is administered by a few variables of actual wellness. The significant one might be referenced as speed, strength, endurance, flexibility, dependability and neuromuscular coordination. Albeit very few logical scientists have been done, the works and have shown sufficient proof about how yoga could be beneficially utilized in the advancement of fundamental wellness factors. Utilizing elaborate Fleishman Battery essential wellness test, Gharote (2011) has shown how even transient. Extending improves the presentation, all things considered. Present day training methods advocate the utilization of explicit center and yoga practices are fundamental parts in the conviction that this sort of activity will be more gainful to sports execution. Sadly there is little examination to help this. The significance of keeping up wellness among Mallakhamb entertainers is all around recorded and different preparing modalities have been suggested; notwithstanding, the adequacy of explicit center and yoga preparing has not been totally described. The point of this examination was to explore whether 12 weeks of explicit center and yoga preparing would actuate and support enhancements in Tactile sense contrasted with no activity control gathering.

METHODOLOGY

Subjects and Variables

The motivation behind the examination was to discover the impact of explicit exceptional preparing to improve Tactile movement capacity of state level Mallakhamb players. To accomplish the reason, a complete number of 45 state level school Malkhamb major parts in the age of 15 to 18 years were chosen and arbitrarily allotted to exploratory group I (explicit center preparing), group II (yoga preparing), and control gathering of fifteen each (n=15) in a group III. The chose subordinate variable Tactile separation capacity was surveyed by leading Backward ball toss test, when the preparation routine.

Training Protocol

Preparing program was controlled to the Mallakhamb players for twelve weeks with six preparing units each week. Trial group I went through explicit center preparing and trial group II went through yoga preparing. The particular center preparing bunch performed ten center related activities then again six days in seven days for twelve weeks. The preparation load was continuously expanded once in about fourteen days. The yoga preparing (trial group II) bunch performed asanas, six days in seven days for twelve weeks. It comprises of three stages to be specific asana (first stage), pranayama (second stage) and reflection (third stage). The span of preparing was 45 to one hour around including warm-up and warm-down.

Experimental Design and Statistical Technique

The trial configuration utilized in this investigation was irregular gathering configuration including 45 subjects, who were isolated aimlessly into three gatherings of fifteen subjects each. The information gathered from the exploratory and control bunches on chosen subordinate factors was genuinely broke down by matched 't' test to discover the critical contrasts if any between the pre and post test. Further, level of changes was determined to discover the odds in chose subordinate factors because of the effect of exploratory treatment. Further, the information gathered from the three gatherings preceding and post experimentation on chose subordinate variable was measurably broke down to discover the huge distinction assuming any, by applying

the investigation of covariance (ANCOVA). Since three gatherings were included, at whatever point the got 'F' proportion esteem was discovered to be critical for changed post test implies, the Scheffe's test was applied as post hoc test to decide the combined mean contrasts, assuming any. Altogether the cases the degree of certainty was fixed at 0.05 for importance.

RESULTS

The data (pre & post) collected from the two experimental and a control groups on Tactile Differentiation Ability were statistically analyzed by dependent T test and the outcomes are as in table number-I.

Table 1 : Analysis of covariance of the data on cardiovascular endurance of pre, post and adjusted post tests scores of experimental and control groups (in meters)

Test	YPG	MPG	CG	SOV	SS	df	MS	F-ratio
Pre-Test								
Mean	2143.25	2166.25	2159.56	B.M	3358.97	2	1679.48	0.92
SD(±)	33.04	45.63	47.60	W.G	59856.05	33	1813.82	
Post -Test								
Mean	2275.23	2415.36	2143.61	B.M	443243.79	2	221621.89	27.60*
SD(±)	144.58	40.63	39.14	W.G	264967.29	33	8029.31	
Adjusted Post-Test								
Mean	2279.11	2412.43	2142.66	B.S	434913.01	2	217456.50	26.79*
				W.S	259726.36	32	8116.44	

*significant at 0.05 level of confidence

(The table values required for significance at 0.05 level of confidence for 2 & 33 and 2 & 32 are 3.29 and 3.30 respectively).

YPG – Yogic Practice Group, **MPG** - Mallakhamb Practice Group, **CG**- Control Group, **SV** – Sum of Variance, **SS** - Sum of Squares, **df** – degrees of freedom, **MS** - Mean Square, **B.M** – Between Means, **W.G** – Within Groups, **B.S** – Between Sets, **W.S** – Within Sets

The table-I shows that the pre-test mean values on cardiovascular endurance of yogic practice group, mallakhamb practice group and control group are 2143.25, 2166.25 and 2159.56 respectively. The obtained 'F' ratio 0.92 for pre-test scores was less than the table value, 3.29 for df 2 and 33 required for significance at 0.05 level of confidence on cardiovascular endurance. The post-test mean values on cardiovascular endurance of yogic practice group, mallakhamb practice group and control group are 2275.23, 2415.36 and 2143.61 respectively. The obtained 'F' ratio 27.60 for post-test scores was greater than the table value 3.29 for df 2 and 33 required for significance at 0.05 level of confidence on cardiovascular endurance. The adjusted post-test means of yogic practice group, mallakhamb practice group and control group are 2279.11, 2412.43 and 2142.66. The obtained 'F' ratio of 26.79 for adjusted post -test means was greater than the table value of 3.30 for df 2 and 32 required for significance at 0.05 level of confidence on cardiovascular endurance. The results of the study indicated that there was a significant difference among the adjusted post-test means of yogic practice group, mallakhamb practice group and control group on cardiovascular endurance

Table II : Analysis of 'T' Test on Tactile Differentiation Ability of Chosen Groups

Group	Test	N	Mean	SD	DM	%	't'
Specific Core Training	Pre	15	11.66	1.11	1.60	13.71	3.65*
	Post	15	13.26	1.27			
Yoga Training	Pre	15	11.40	1.12	0.86	7.60	2.35*
	Post	15	12.26	0.88			
Control	Pre	15	11.26	0.96	0.06	0.59	0.17
	Post	15	11.20	1.14			

* Table value for df 14=2.15(0.05 level)

Table-II presents the pre (11.66 + 1.11; 11.40+ 1.12 & 11.26 + 0.96) and post test (13.26+ 1.27; 12.26+ 0.88 & 11.20+ 1.14) mean and standard deviation values on Tactile Differentiation Ability of specific core training, yoga training and control groups. As the obtained 't' value (3.65 & 2.35) on Tactile Differentiation Ability was higher than the required table value (2.15) for significant (0.05 level) with 14 degrees of freedom, it was decided that, significant level of differences be present between the pre and post test means of specific core training and yoga practice groups Tactile Differentiation Ability. More over insignificant level of difference found between the pre and post test mean value of control group. Specific core and yoga training produced 13.71% and 7.60% changes on upper extremity Tactile differentiation ability after 12 weeks of training

Table III :The scheffe's test for the difference between paired means on cardiovascular endurance

YPG	MPG	CG	MD	CI	
2279.11	2412.43	---	133.32*		
2279.11	---	2142.66	136.45*	118.10	
---	2412.43	2142.66	269.77*		

*Significant at 0.05 level of confidence.

The table III shows that the mean difference values between yogic practice group and mallakhamb practice group, yogic practice group and control group & mallakhamb practice group and control group are 133.32, 136.45 and 269.77 respectively, which are greater than the confidence interval value 118.10 at 0.05 level of confidence. The results of the study showed that there were a significant difference between yogic practice group and mallakhamb practice group, yogic practice group and control group & mallakhamb practice group and control group on cardiovascular endurance.

The means (Pre, Post & Adjusted) found on Tactile differentiation ability of all groups are illustrated in figure-I.

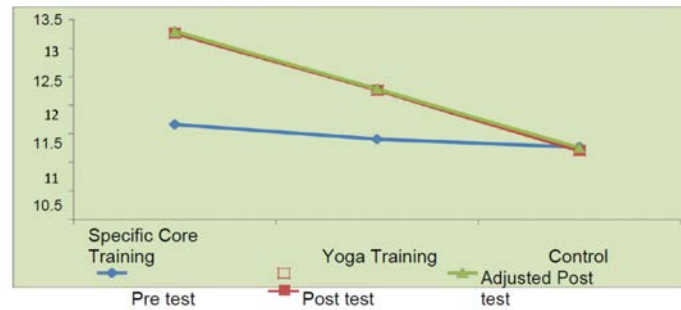


Fig. 1 : Graph Depicting the Means (Pre, Post & Adjusted) Values Found on Tactile Differentiation Ability of All Groups

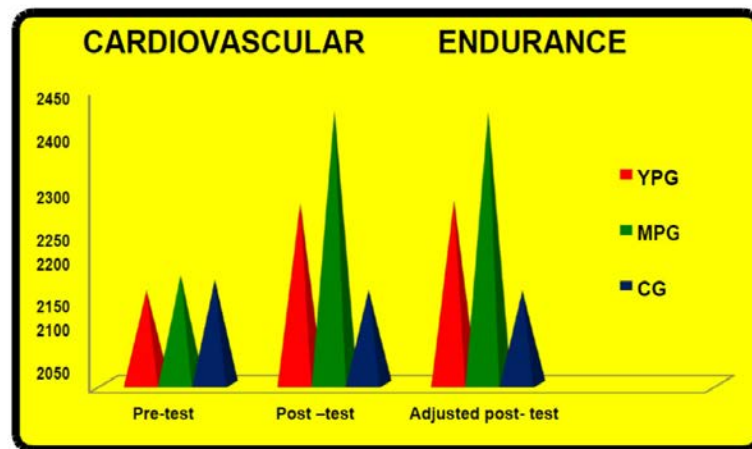


Fig. 2 : The Graphical representation of the pre, post and adjusted post-test means values of yogic practice group, Mallakhamb practice group and control group on cardiovascular endurance

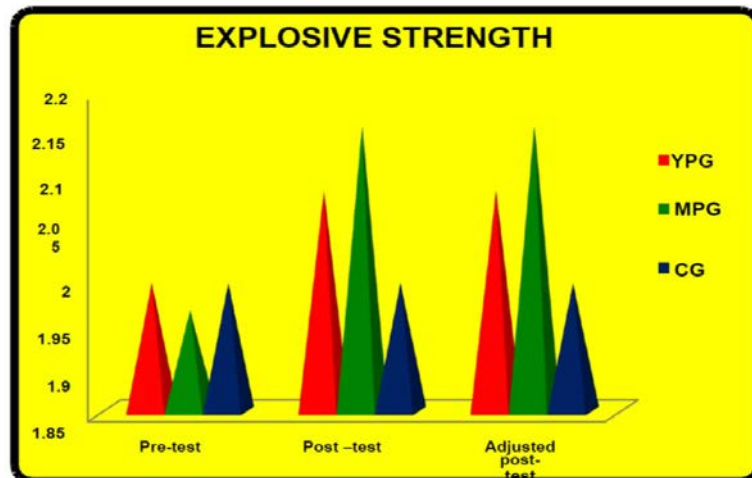


Fig. 3 : The Graphical Representation of the pre, post and adjusted post-test means values of yogic practice group, Mallakhamb practice group and control group on explosive strength

Table IV : Ancova output on Tactile differentiation ability of chosen groups

Adjusted means of Groups			S				
Specific Core Training	Yoga Training	Control	o	SS	df	MS	'F'
			V				
13.29	12.28	11.25	B	27.39	2	13.69	11.95*
			W	46.96	41	1.14	

(Table value for df2 & 41 = 3.23) *Significant (.05 level)

The Tactile differentiation ability (adjusted means) of specific core training, yoga training and control subject's (13.29, 12.28 & 11.25) vary considerably as the derived 'F' value (11.95) is more than the necessary value (df 2 & 41 = 3.23) for significance (0.05 level). As it is found significant the follow up test (Scheffe's) was utilized as in table-4.3, in order to discover the paired mean variations.

Table V : Scheffe's Test Results on Tactile Differentiation Ability (Upper Extremity) of Chosen Groups

Group's Adjusted Means				
			DM	CI
Specific Core Training	Yoga Training	Control		
13.29	12.28		1.01*	0.99
13.29		11.25	1.94*	0.99
	12.28	11.25	1.03*	0.99

*Significant

In response to specific core training (1.94) and yoga training (1.03) the Tactile differentiation ability was remarkably improved, although specific core training treatment was much better than yoga training in enhancing Tactile differentiation ability, as these mean differences (1.01) were found higher than CI value (0.99).

DISCUSSION

In the present study it was concluded that specific core and yoga training causes positive effect on the kinaesthetic differentiation ability. The result of the present study is supported by McMorris et al., (2005) who reported that exercise affects whole body task differently from purely cognitive task central factor are probably more important than peripheral factor. Systematic exercise is a safe and effective intervention to delay or even reverse the neuromotor decline. It has been claimed that vigorous physical activity has positive effects on mental health in both clinical and non clinical populations. Jones et al., (2007) in his study concluded that participation in exercise program was associated with decrease of frequency of challenging behaviors and increase in quality of life and alertness. To participate in a competitive sport, such as mallakhamb, one of the main aspects any coach should always keep in mind is that it is vital to achieve the best possible performance from the whole body – including the visual system (Wilson & Falkel, 2004). Accuracy, balance, concentration and co-ordination, are a few of the visually related abilities a player uses during sports event. In recent years, there has been a growing acceptance that perceptual skills precedes and determines skilful actions in sport and other contexts (Harris & Jenkin, 1998; Williams, Davids & Williams, 1999). Coordinative abilities

are important for all the activities and are optimally developed in childhood (Bos, 2001). Coordination can be defined as the ability of fast and exact control and regulation of movements, it denotes body mind relationship. Participation in physical activity is very important to increase the coordinative abilities. Coordination is often used as an indicator of objective motor behaviour, since it contributes strongly to the explanation of total motor performance (Mechling, 1999). Manoj and Yajuvendra (2015) observed significant relationship of reaction and differentiation abilities with the table tennis playing ability. Hence, it is suggested that training program with this kind of activity can help to improve coordinative abilities.

CONCLUSIONS

In response to specific core training and yoga training the Tactile differentiation ability was remarkably improved, although specific core training treatment was much better than yoga training, Due to specific core and yoga training 13.71% and 7.60% changes in Tactile differentiation ability was found.

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To Developed Kabaddi Rating Scale of Ankle Hold

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ABSTRACT

The purpose of the study was to develop Kabaddi rating scale of Ankle Hold to evaluate skill performance of the player. As the literature indicates that the rating scales have several limitations to clearly define the traits or characteristics (Best, 2008). To keep in this mind, Researcher initially focused on developing such a rating scale, which will provide a wider scope to the raters to rate the Ankle Hold Skill on the basis of the criteria mentioned in rating scale and expert's own experience from the field of Kabaddi. To get proper direction and guidance, researcher reviewed different literature which was adopted and implemented to establish the procedure of the study. It is a survey research adopted descriptive method of the study. In this research population of the study was Senior National Women Kabaddi Matches. Sample of the study was Knock out 11 matches of 63rd Senior National Women Kabaddi Competition held at Karnatak during 24/11/2015 to 29/11/2015. Following delimitations were decided for this research. This study was delimited to the Senior Level Women Kabaddi Players. Selected skill of Kabaddi that is Ankle Hold. In this research, experts in the field of Kabaddi, e.g. experienced Coaches, Referees, Players, etc. have considered the suggestions and developed the content for the rating scale. The researcher herself has observed the matches and considered the opinions suggested by the experts and has prepared the content for the rating scale. The content has been sent to a panel of three different Experts and their feedback has been considered to establish content Validity, Reliability and Objectivity of the rating scale. Test Retest method was used for Reliability The Rating Scale has highly correlation coefficient reliability (0.95), Objectivity(.92). The Rating scale developed in this study have adequate objectivity with statistical acceptability.

INTRODUCTION

Kabaddi is no more an Indian village sport. Now Kabaddi is a world class sport from India. This is a great sport which is inbuilt characteristics and strength. It is natural for modern sport to look Globalization. The game of Kabaddi calls for agility, good lungs capacity, muscular coordination, presence of mind and quick responses. Needs dare and an ability to concentrate and anticipate the opponent's moves. The game of Kabaddi is an Indian combative game. This game played with absolutely no equipment on a rectangular court either outdoor or indoor with seven players. Kabaddi is basically an outdoor indigenous team game. Which is the only combative sport in which offence is an individual effort whereas defense is group effort (Rao E. Prasad) Two fundamental skills are involved in the game. Kabaddi played with offensive and defensive skills. Skills are tools of the game. Ankle Hold is fundamental defensive skill of the game. This Skill is an important tool of

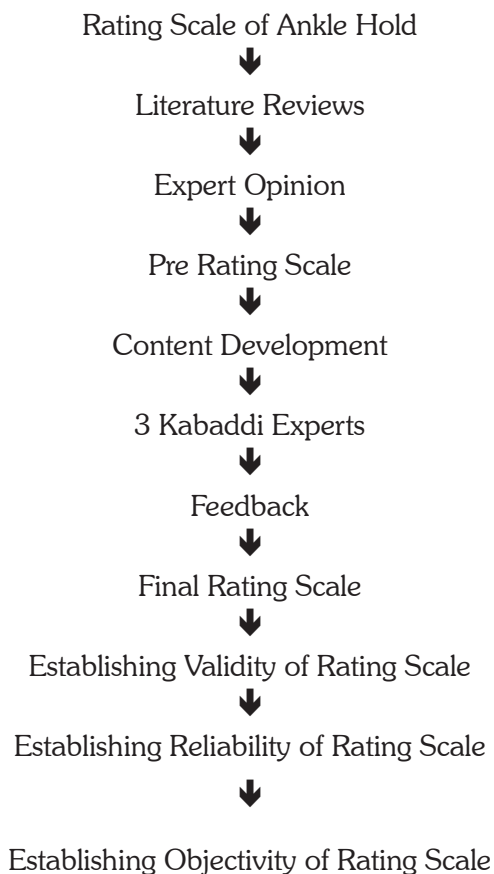
Kabaddi based on which Kabaddi is played. That is why a Kabaddi rating scale of Ankle Hold is developed to rate the players based on their skills.

OBJECTIVE

The objective of this research was to develop the content for the Kabaddi Rating Scale of Ankle Hold.

RESEARCH METHODOLOGY

The researcher has adopted a descriptive research method by reviewing the reference material. In this research, experts in the field of Kabaddi, e.g. experienced Coaches, Referees, Players, etc. have considered the suggestions and developed the content for the rating scale. The researcher herself has observed the matches and considered the opinions suggested by the experts and has prepared the content for the rating scale. The content has been sent to a panel of three different experts and their feedback has been considered to establish content validity, Reliability and objectivity of the rating scale. The Rating Scale content has been developed in the following stages.



Rating Scale divided into Five Points :

- A. Excellent** - Five points if the skill in Kabaddi is achieved by making neat and rhythmic movements without making any mistakes, effectively, accurately..
- B. Good** - Generally good effect of that skill, effective presentation of skill but a little less cleanliness. Four points if precise skills are presented.

- C. Average** - Presenting more or less skills. Three points if you get points even if you don't have balance, effectiveness and accuracy / cleanliness while presenting skills.
- D. Better** - There are a lot of mistakes in presenting skills and inconsistencies in the presentation of skills, no results, or two points if you get points by presenting skills with this way.
- E. Poor** - Inadequate skills, No accuracy No cleanliness. A score obtained by presenting skills in this way.

SUMMARY, DISCUSSION

Kabaddi is extremely popular game in India. Only skills is not enough proper physical fitness is also required for players for success otherwise player can not show his skills properly. (Rao,E.P. 1996:All India Kabaddi Congress, 2004.) The purpose of present study is to develop Kabaddi rating scale of Ankle Hold to evaluate skill performance of the player. As the literature indicates that the rating scales have several limitations to clearly define the traits or characteristics (Best, 2008). To keep in this mind, Researcher initially focused on developing such a rating scale, which will provide a wider scope to the raters to rate the Ankle Hold Skill on the basis of the criteria mentioned in rating scale and expert's own experience from the field of Kabaddi. In the present research, researcher established the validity, reliability and objectivity of the Kabaddi rating Scale of Ankle Hold. The skill of Ankle Hold can be used to determine the quality of player which one excellent, which one is good, which one is average, which one is better, and which one is the poor in the Ankle Hold Skill. The players can be rate . In the present research rating scale of Ankle Hold Point from A to G Out of 5 marks are to be given. This research will be more beneficial to the player and the coach to correct the mistakes in this skill. Players and coaches will know what the physical condition should be while doing this skill so that mistakes can be avoided. Practice will be done properly.

	Ankle Hold	1	2	3	4	5
A	Fielders eye on Raiders footwork					
B	Body balance slightly forward.					
C	Stand with feet apart (shoulder distance)					
D	Fielder should put his foot forward in the corner where the fielder is standing.					
E	Bending at the knees and waist					
F	Hold the ankle of raider tightly with both hands					
F-1	The thumbs of both hands are joined and the rest of the fingers are spread out					
F-2	One hand on the ankle, one hand under the ankle					
G-1	Hold the Ankle and lift it upwards.					
G-2	Holding the Ankle, pulling backwards in the opposite direction to the End line.					
G-3	Turn the Raider's shoulder towards the lobby					

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Effect of Different Packages of Training on Speed Among Male Basketball Players

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ABSTRACT

The purpose of this study was to find out the "effect of different packages of training on speed variables among male basketball players". To achieve the purpose of the study, thirty male basketball players were randomly selected as subjects from Kalinga University Raipur. The age of the subjects were ranged between 18 to 25 years. The study was formulated as pre and post test random group design, in which thirty subjects were divided into three equal groups. Experimental Group-I (n=10; PT Group) performed the Medicine ball training Group. The Experimental Group-II (n=10, SBRT group) performed swiss ball resistance training programme. Control group (n=10; CG) did not undergo any specific training programmed but there practiced the regular game. The analysis of covariance was used to analyze the significant difference on speed, if any among the groups. Since, three groups were compared, whenever the obtained 'F' ratio for adjusted post test was found to be significant, the Scheffe's test to find out the paired mean differences, if any. The 0.05 level of confidence was fixed as the level of significance to test the 'F' ratio obtained by the analysis of covariance, which was considered as an appropriate. The result of the study indicates due to training on speed has been improved significantly.

Keywords : Plyometric Training, Swiss ball resistance training, Speed , ANACOVA

INTRODUCTION

Swiss is one of the excellent core training exercises form, which develop core and gives the robust support system for back and leg, the body responds to the instability of the ball to remain balanced leading to greeted activation of core muscles. Rutherford and Jones (1896) suggest adaptations from Swiss ball training are likely to result in better coordination of synergistic and stabilizer muscles. However, while anecdotal evidence from training journals and the popular press suggests Swiss ball training is effective, there is little empirical data available to support the efficacy of Swiss ball training. Proponents of Swiss ball training argue that such training enhances neuromuscular pathways, leading to greater strength, proprioception, and balance. Behm (2002) and colleagues reported the effect of unstable conditions, as induced by sitting on Swiss ball on force production of the knee extenders. Robert examined the effect of Swiss ball exercises on core stability and stated that there is an improvement in core strength among the subjects.

Whereas different modes of resistance training such as weight machines and free weights have proven to be safe and effective for children, medicine balls have become very popular in schools, fitness centers, and sport training facilities Faigenbaum& Mediate, (2008). One of the most important benefits of medicine ball training is that it conditions the full body instead of separate parts. In general, 140 to 160 beats per minute is the average heart rate response to medicine ball training Faigenbaum&Mediate,(2008).

Statement Of The Problem

The study aimed to find out the effect of different packages of training on speed among male basketball players.

METHODOLOGY

Selection Of Subjects

Thirty male basketball players were selected from Kalinga University Raipur, who have represented at the various tournaments, were randomly selected as subjects for the study. This experimental study was administered to only two experimental groups and one control group of 10 subjects each. The age of subjects ranged from 18 to 25 years only.

Experimental Design

This experimental study was administered to only two experimental groups and one control group of 10 subjects each. For this purpose, Group-I underwent Plyometric training, Group-II underwent Swiss ball resistance training in three alternative days for twelve weeks. Group- III acted as a control group.

Table I : Plyometric Training Programme Design Medium Intensity Plyometric Training

Sr. No.	Details	Duration
1.	Number of weeks	12 Weeks
2	Number of sessions per Week	3
3.	Duration of Each session	1 hour and 30 minutes
4.	Total number of foot contact	80-200 No
5	Rest interval between Repetition	3 to 5 minutes
6	Rest Interval between Exercises	2 to 3 minutes
7	warm up and warm down	20 Minutes

Table II : Second Package Plyometric Training Programme Medium Intensity

Weeks	Exercises	Repetitions	Contacts
I & II weeks	1. Pike Jump	2	8
	2. Double Leg Tuck Jump	2	8
	3. Standing Triple Jump	2	8
	4. Medicine ball Sit up	2	8
	5. Back ward throw with jump to box	2	8
III & IV weeks	1. Pike Jump	2	10
	2. Double Leg Tuck Jump	2	10
	3. Standing Triple Jump	2	10
	4. Medicine ball Sit up	2	10
	5. Back ward throw with jump to box	2	10
V & VI weeks	1. Pike Jump	3	8
	2. Double Leg Tuck Jump	3	8
	3. Standing Triple Jump	3	8
	4. Medicine ball Sit up	3	8
	5. Back ward throw with jump to box.	3	8
VII & VIII weeks	1. Pike Jump	3	10
	2. Double Leg Tuck Jump	3	10
	3. Standing Triple Jump	3	10
	4. Medicine ball Sit up	3	10
	5. Back ward throw with jump to box	3	10
IX & X weeks	1. Pike Jump	4	8
	2. Double Leg Tuck Jump	4	8
	3. Standing Triple Jump	4	8
	4. Medicine ball Sit up	4	8
	5. Back ward throw with jump to box	4	8
XI & XII weeks	1. Pike Jump	4	10
	2. Double Leg Tuck Jump	4	10
	3. Standing Triple Jump	4	10
	4. Medicine ball Sit up	4	10
	5. Back ward throw with jump to box	4	10

Number of the Contacts = number set x Repetition

TRAINING PROGRAMME II

I Three weeks - Swiss ball Resistance Training

Sl. No	Name of the exercise	Repetition	Set	Intensity	Rest
1.	Bench press	6-8	3 set	60%	3 mins
2.	Half squad	6-8	3 set	60%	3 mins
3.	Leg press	6-8	3 set	60%	3 mins
4.	Leg curl	6-8	3 set	60%	3 mins
5.	Chest press	6-8	3 set	60%	3 mins

TRAINING PROGRAMME

II Three weeks - Swiss ball Resistance Training

Sl. No.	Name of the exercise	Repetition	Set	Intensity	Rest
1.	Bench press	6-8	4 set	70%	2 mins
2.	Half squad	6-8	4 set	70%	2 mins
3.	Leg press	6-8	4 set	70%	2 mins
4.	Leg curl	6-8	4 set	70%	2 mins
5.	Chest press	6-8	4 set	70%	2 mins

TRAINING PROGRAMME

III Three weeks - Resistance Training with Swiss ball

Sl. No .	Name of the exercise	Repetition	Set	Intensity	Rest
1.	Bench press	8-10	4 set	80%	2 mins
2.	Half squad	8-10	4 set	80%	2 mins
3.	Leg press	8-10	4 set	80%	2 mins
4.	Leg curl	8-10	4 set	80%	2 mins
5.	Chest press	8-10	4 set	80%	2 mins

TRAINING PROGRAMME

IV Three weeks - Resistance Training with Swiss ball

Sl. No.	Name of the exercise	Repetition	Set	Intensity	Rest
1.	Bench press	12-14	5 set	90%	2 mins
2.	Half squad	12-14	5 set	90%	2 mins
3.	Leg press	12-14	5 set	90%	2 mins
4.	Leg curl	12-14	5 set	90%	2 mins
5.	Chest press	12-14	5 set	90%	2 mins

STATISTICAL TECHNIQUE

The data was analysed by using ANCOVA to find out the significance of the mean difference between the groups. The repeated analysis of variance was used to determine the significance of the mean difference between the pre and post-test.

RESULTS

TABLE - 1

Table – I (a) :

Test	Ex Group I	Ex Group II	Control Group	Sources of Variance		Sum of Square	df	Mean of Square	Obtain F ratio
Pre Test Mean	7.53	7.53	7.55	Between		0.0040	2	0.0020	0.10
	Within		0.8440	42	0.0201				
Post Test Mean	7.25	7.33	7.52	Between		0.5924	2	0.2962	13.09*
	Within		0.9507	42	0.0226				
Adjusted Post Test Mean	7.25	7.33	7.51	Between		0.5016	2	0.2508	85.73*
				within		0.1199	41	0.0029	

Table II (a) : Scheffe's post hoc test mean differences on speed among three groups

Experimental Group I	Experimental Group II	Control Group	Mean Difference	Confidence Interval Value
7.25	7.33	-	0.08*	0.049
7.25	-	7.51	0.26*	0.049
-	7.33	7.51	0.18*	0.049

Table II (a) shows the Scheffe's post –hoc test result. The ordered adjusted final mean difference for Speed of experimental groups I, II and control group were tested for significant at 0.05 level of confidence against confidence interval value. The mean difference between experimental group I, experimental group II, I and control group were 0.08, 0.26 and 0.18 respectively and it was seen to be greater than the confidence interval value of 0.49. Hence the above comparisons were significant.

CONCLUSIONS

- The Plyometric training and Swiss ball resistance training have significantly improved on speed, more significant than control groups of college male basketball players.
- Speed was favoured to Plyometric training greater than Swiss ball resistance training and control group of college male basketball players.
- Control group did not produce any significant improvement on all criterion variables of college male basketball players

- In the present study, both Plyometric training and Swiss ball resistance training have significant improvement on the criterion variables among college male basketball players

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Study of Health-Related Physical Fitness and Non-Verbal Creativity of Women Teacher Trainer

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ABSTRACT

The purpose of this study was to identify the correlation between health-related physical fitness and non-verbal creativity of male teacher trainer. Total of B.Ed. college Teacher Trainees 432 women were selected from ten Colleges using stratified random sampling technique. The tools used for collecting data were 12 min Run/Walk test - Cardiovascular Endurance, Push Ups - Muscular Strength & Muscular endurance, Sit & Rich - Flexibility, Weight & Height - Body Composition. The lesson marks given by University of Pune were used to test the non-verbal creativity of subjects. The analysis was done using descriptive analysis Tools – Mean, Standard Deviation and for Correlation Pearson Correlation tool was used. From the analysis it is shows that there exists a positive relationship between Health-Related Physical Fitness and Non-verbal creativity.

Keywords : Health-Related Physical Fitness, Non-verbal creativity, Teacher Trainer

INTRODUCTION

Background of the Study

Fitness is defined as the quality or state of being fit. Around 1950, perhaps consistent with the Industrial Revolution and the treatise of World War II, the term “fitness” increased in western vernacular by a factor of ten. Modern definition of fitness describes either a person or machine’s ability to perform a specific function or a holistic definition of human adaptability to cope with various situations. This has led to an interrelation of human fitness and attractiveness which has mobilized global fitness and fitness equipment industries. Regarding specific function, fitness is attributed to personnel who possess significant aerobic or anaerobic ability, i.e. strength or endurance. A holistic definition of fitness is described by Greg Glassman in the CrossFit journal as an increased work capacity across broad times and modal domains; mastery of several attributes of fitness including strength, endurance, power, speed, balance and coordination and being able to improve the amount of work done in a given time with any of these domains. A well-rounded fitness program will improve a person in all aspects of fitness, rather than one, such as only cardio/respiratory endurance or only weight training.

Non-verbal creativity

To make educational system dynamic and creative force, teachers need to contribute to the advancement of the frontiers of knowledge and have to perform two main functions. Firstly, they have to play an important role in the transformation of the education system through active participation in the educational processes. Secondly,

they have to assist in the development of adaptable, rational, and creative individuals. Because today is the age of science and technology, and in this society, every individual is facing a huge number of problems in his daily life. Having understood, the importance of giving education to all the citizens of the country is very well addressed in the scenario of world education, increasing the quality and quantity of education at various levels are voiced by the administrators as well as the educators. The need of society changes from time to time and place to place. Our present system and its practices should suit the emerging needs of society.

Research methodology

The survey study was conducted to find the correlation between Health-Related Physical Fitness and non-verbal creativity of Women Teacher Trainees. A total of 300 male teacher trainees from ten B.Ed. college from Pune District aged from 22 to 35 years were selected using stratified random sampling technique.

Tools of Data Collection

The standard 'Health related Physical Fitness Test' by AAHPERD Youth Test. The tools used for collecting data were 12 min Run/Walk test - Cardiovascular Endurance, Push Ups - Muscular Strength & Muscular endurance, Sit & Rich - Flexibility, Weight & Height - Body Composition. The lesson marks given by University of Pune were used to test the Non-verbal creativity of subjects.

Statistical tools and Analysis

The researcher used following statistical techniques tools for collecting the data. Descriptive Statistics was done by calculating Mean, median, mode and Standard Deviation and for Correlation Pearson Correlation tool was used.

RESULTS

Table 1 : Statistical Analysis of Health-Related Physical Fitness and Non-verbal creativity of Women Teacher Trainer (n=432)

Variable	Mean	Median	Mode	S. D.
HRPF	128.29	123.35	112.92	29.55
NVCRE	150.46	149.00	156.00	19.42
N=432				

The table 1 illustrates the descriptive statistics of Health-Related Physical Fitness and non-verbal creativity of Women Teacher Trainer. Health-Related Physical Fitness Mean score 128.29, Median-123.35, Mode-112.92 and SD-29.55 Non-verbal creativity Mean score-150.46, Median-149.00, Mode-156.00 and SD-19.42.

Table 2 : Co-relation of variable of Health-Related Physical Fitness, Non-verbal Creativity of Male Teacher Trainer

Variable		Non-verbal creativity
HRPF	Pearson Correlation	.041
	Two tailed	.400

The table 2 illustrates the descriptive statistics of Health-Related Physical Fitness and non-verbal creativity of Women Teacher Trainer. Pearson Correlation is 0.041 and the significant score is 0.400 which shows that the score is significant at the 0.01 level of significance.

FINDINGS AND DISCUSSION

There exists a significant and positive correlation between Health-Related Physical Fitness and Non-verbal creativity Coefficient ($r = .041$) ($p = .000$) ($p > .01$). Thus, it is evidently obvious from the above discussion that Health related Physical Fitness is significantly associated with one's Non-verbal creativity. The study has been conducted to enlighten the relationship between Health-related Physical Fitness and Non-verbal creativity. It is also now definite that there occurs remarkable correlation.

SUGGESTION

This means that if you want to improve or maintain your creativity level, you need to keep your physical capacity good so that you can maintain your health-related physical fitness by exercising daily.

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Life Satisfaction of Physically Active and Non-Active People from Goa.

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Ms. Rupali Nawale

ABSTRACT

The purpose of this study was to examine the satisfaction with life of people of Goa and to also study the effects of daily physical activity on the level of life satisfaction. The online questionnaire-study was conducted on the sample of 199 individuals from Goa and the level of life satisfaction was identified using comparative study method. Data was collected using Diener et al.'s Life Satisfaction Scale. Convenient sampling technique was used. The sample size was 197 people, which consisted of 142 people doing regular physical activities and 57 people not doing any physical activities. Using Descriptive statistics, it was found that the life satisfaction levels of people who do regular physical activity is higher with a mean score of 24.49 than those who are not doing physical activities with a mean score of 22.39 ($p < .05$). The results also indicated that the level of life satisfaction of people who are doing regular physical activity defers based on the frequency of physical activity they do per week which shows that more the frequency, higher the level of satisfaction.

Keywords : Life Satisfaction; Physical Activity; Goa; Frequency of Physical Activities

INTRODUCTION

Physical activity is considered a valuable tool for enhancing life satisfaction. Life satisfaction is as a cognitive appraisal of the overall degree of satisfaction one has with his or her life (Hart, 1999). As such, life satisfaction is usually seen as a global measure of individual's assessment of the overall quality of life. (Lambert et al., 2009).

Life satisfaction is the magnitude at which the person emphatically measures the overall quality of life he/she is living in whole. It can be also said that how much one likes the routine in the life he is living (Veenhoven, 1996). Life satisfaction will also depend on the routine activities of the individual he does as per the interest. People always prefer to be happy in life and the happiness depends on the degree of life satisfaction. Happiness always leads to greater enjoyment in life and it also boosts the psychological attributes such as self-confidence, self-esteem and so on. As discussed by Donovan & Halpern (2002) "When people are happy, they tend to be more open minded and creative in nature which will make him more productive and on the other side people who are unhappy, stressed or dissatisfied with life choose to be of 'tunnel vision' and rigid thinking. Moreover, people who are satisfied with their lives tend to be healthier and life satisfaction is inversely related to turnover intent (Donovan & Halpern, 2002; Lambert et al., 2009). We can also say that people who are

happy with what they do and what they have are always satisfied in life. One of the important factors of being happy and enjoying life is to do regular physical activity (Gretchen Reynolds, 2018). Doing regular physical activity also keeps health and health life leads to happiness with absence of physical and mental disorders (WHO, 2020). A person with overall health will always be satisfied with life whereas an unhealthy person will mostly have problems in life and will be less efficient. So doing regular physical activity and being active with good health is very important in order to be satisfied with life. Medley (1976) defined that life satisfaction is a subjective feeling of happiness and contentment with life (Lee et al., 2004). Life satisfaction is also defined as the degree to which the experience of an individual's life satisfies his/her personal wants and needs, both physically and psychologically (Rice, 1984). A significant difference has been found between life satisfaction levels of the individuals participating and not participating in physical activity in Turkey and German societies (Bastug&Duman, 2010). The factors affecting individuals' life satisfaction are listed as in: taking pleasure in life, finding life meaningful, consistency at the matter of reaching goals, positive individual identity, feeling well physically, economical security and social relationships (Schmitter, 2003).

Hence, the researcher aimed to assess the life satisfaction of the people from Goa who are Physically active and non-active as there are many positive benefits of being happy and satisfied in life. People always feels good about themselves and the life they live which leads to overall well-being. Satisfied people are highly expected to tackle the problems and issues in any field effectively and efficiently. (Pasupuleti, et al., 2009).

METHODOLOGY

2.1 Participants and Procedure

In the present study 197 individuals, out of which 142 people doing regular physical activity and 57 people not doing any physical activity were selected as the sample using convenient sampling technique. The data was collected through google forms. Informed consent of the individuals was taken. The questionnaire also included demographic section, which asked about age, designation, playing sports professionally, frequency of physical activity per week

2.2 Tools

The level of Life Satisfaction was studied using The Satisfaction with Life Scale (Diener, et al., 1985). The SWLS is a short 5-item instrument designed to measure global cognitive judgments of satisfaction with one's life. Responses were rated on a 7-point Likert scale ranging from 1 "Strongly Disagree" to 7 "Strongly Agree".

2.3 Research design and Statistical Analysis

A comparative study on level of satisfaction with life of the people who do regular physical activity and those who don't do any physical activity was done using descriptive statistics to compute mean and standard deviation.

Independent sample t-test was employed to identify the differences in level of life satisfaction between active and non-active people from Goa and One-way ANOVA were computed to assess differences in level of life satisfaction.

RESULTS (FINDINGS)

After calculations of the scores of life satisfaction of Physically active and non-active people, the data was analysed using SPSS version 20. Independent sample t-test and One-way ANOVA were employed in order to identify the differences in level of Life Satisfaction based on regular physical activity and based on the frequency of physical activities per week respectively. The sample size was 199, out of which 142 participants

performed physical activities and 57 participants do not perform any physical activities. Significant difference in life satisfaction was seen between people who are active with regular physical activities and those who don't do any physical activities. The life satisfaction scores of the participants who do physical activities ($M=24.49$, $SD=6.307$) were higher as compared to participants who do not perform any physical activities ($M=22.39$, $SD=6.411$) with $t = 2.113$ which is significant at 0.05 level ($p < 0.05$). (Table 1).

Table 1 : Descriptive statistics of life satisfaction of Physically active and non-active people of Goa.

Lifesatisfaction					
Physicalactivity	Mean	N	Std. Deviation	t	Sig (2- tailed)
YES	24.49	142	6.307	2.113*	.036
NO	22.39	57	6.411		
Total	23.88	199	6.392		

* $p < 0.05$ level of significance

Secondly, with the aim of knowing the differences in life satisfaction based on the frequency of the physical activities practiced, the results showed a significant difference in life satisfaction varied according to the frequency of physical activity. Out of 199 participants, 142 reported yes on performing physical activity. Out of 142 participants, 50 performed physical activities 3 times a week, 55 performed 6 times a week and 37 performed more than 6 times a week. Mean and SD were computed for different frequencies of physical activity. According to the results the mean score of Life satisfaction of the participants who performed physical activity 3 times a week was 20.44 with SD of 5.588, the mean score on Life satisfaction who performed physical activity 6 times a week was found to be 25.15 with $SD=5.582$ and the mean score of the participants who performed physical activity more than 6 times a week was found to be 28.97 with $SD=4.740$ (Refer Table 2) The difference in the scores of life satisfaction based on the frequency of physical activity were found to be significant with the value of 'F' as 27.43 ($p < 0.01$). (Refer Table 3).

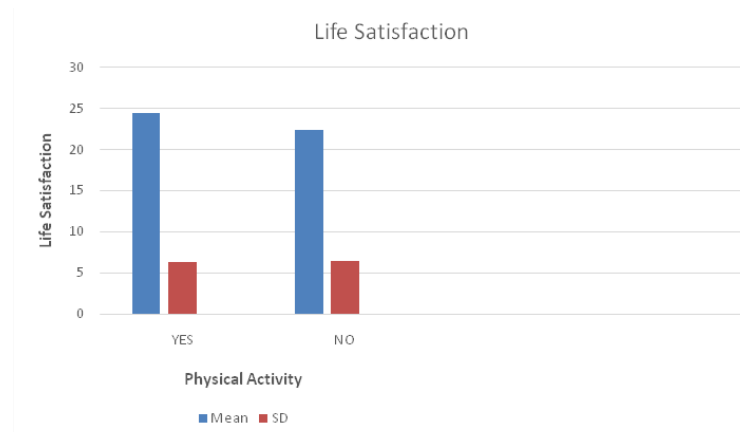
Table 2 : Comparative means for life satisfaction by frequency of physical activity

Lifesatisfaction			
Frequency Of Physical Activity	Mean	N	Std. Deviation
3 TIMES A WEEK	20.44	50	5.588
6 TIMES A WEEK	25.15	55	5.582
>6 TIMES A WEEK	28.97	37	4.740
Total	24.49	142	6.307

Table 3 : One-way ANOVA of Life Satisfaction by Frequency

Lifesatisfaction					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1587.342	2	793.671	27.428**	.000
Within Groups	4022.129	139	28.936		
Total	5609.472	141			

** p < 0.01 level of significance



Graph 1: Comparison of Mean and SD of participants performing physical activity on Life satisfaction



Graph 2 : Comparison of Mean and SD on Life satisfaction based on frequency of physical activity.

DISCUSSION

The aim of the research was to determine the satisfaction with life in physically active and physically non-active groups. This study came to the conclusion that the level of life satisfaction among the people in Goa doing regular physical activity was higher than those who don't do any physical activity and live sedentary lifestyle. This can be supported with further researches. Secondly, the study also revealed that the life satisfaction also depends on the frequency of physical activity per week which shows that the life satisfaction is more if the frequency of physical activity per week is more.

In a similar study "Daily Physical activity and life satisfaction across adulthood" (Maher, J. et al, 2015), it was found that usual physical activity was positively associated with life satisfaction in middle and older adulthood; however, this association was not present in young adulthood. This study also reveals that on days when

people were more physically active than was typical for them, they experienced greater life satisfaction. And this finally also gives accumulating evidence that daily fluctuations in physical activity have important implications for well-being regardless of age, and clarifies developmental differences in life satisfaction dynamics that can inform strategies for enhancing life satisfaction.

Life satisfaction is also depending on how much an individual living a happy life. Doing regular physical activity is also have been proven to result in daily happiness which ultimately can result in satisfaction with life. As we can see that in one of the study titled "Systematic review of the relationship between physical activity and happiness" (Zhanjia, Z. and Chen, 2018), all the observational studies that were conducted reported positive relationship between physical activity and happiness. In a study it was found that people who live sedentary life with less or no regular physical activity can have lower happiness and satisfaction with life. In a study (Pengpid and Peltzer, 2019), it was found that higher sedentary behaviour was associated with poor life satisfaction and also lower happiness along with lower perceived health. In addition, study reported that moderate or higher physical activity increased the odds for higher life satisfaction, greater happiness and better perceived health. In a study titled "The mediating role of exercise behaviour on satisfaction with life, mental well-being and BMI among university employees" (Zayed N. K et.al, 2018) found that the participants who were more physically active, compared to those who were less active, experienced higher levels of mental well-being and were generally more satisfied with their lives.

This study showed the benefit in Life satisfaction in people can get from Physical activity and active lifestyle. Based on the finding of the study it is highly recommended that, this type of research should be conducted frequently by the university, to promote life satisfaction through performing physical activities. Public awareness of the health concerns associated with low levels of physical activity and increased sedentary behaviour, and required health interventions aimed at changing lifestyle behaviours (Azza& Hashem, 2015).

Regarding future research, it would be interesting to know how life satisfaction is related to different levels of physical activities, as well as their relationships with other aspects of quality of life concerning health and well-being.

The study was limited to Participants from Goa. The questionnaire has its own limitations, and as such, any bias in the participants' responses could be considered a limitation of this study. Both the lifestyle of the participants and the variability of their dietary habits were beyond the scope of this study and could also be limitations.

CONCLUSION

In order to assess the life satisfaction of the active and non-active people of Goa, Satisfaction with Life scale (Diener, et al., 1985) was used. Findings of the study shows that there is significant difference in the life satisfaction of the people who are physically active and non-active.

From the study, researchers come to the conclusion that the people who are active with regular physical activities has greater life satisfaction than those who are not physically active with physical activities.

Researchers also further conclude that the frequency of physical activities per week also influences the life satisfaction of the people, as in this study the people whose frequency of doing regular physical activities is more are more satisfied than those people whose frequency is less.

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Implementing Sports Education Model : Teachers Perspective

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ABSTRACT

There are various curriculum models of physical education at the school level. Fitness Education Model, Multi Activity Model, LifeTime Physical Activity Model and Sports Education Model. Different curriculum models are implemented by the different boards. Sports education model is being implemented in some schools in Pune. How is this sports education model implemented? This is the main objective of this research paper. The researcher used an interview technique to collect information. Randomly selected three physical education teachers implementing a sports education model. A qualitative analysis of the information obtained revealed that in the sports education model, students are given the opportunity and choices to learn various sports in depth. The sports education model is implemented before or after school. The sports education model is implemented in such a manner for 90 minutes per day and a separate coach has been appointed in the school to implement the sports education model.

Key words : Curriculum models, Fitness Education Model, Multi Activity Model, LifeTime Physical Activity Model and Sports Education Model

INTRODUCTION

A historical review of the physical education curriculum reveals that the trends of different components is found in different periods. In the 1960's and 1970's, health was of paramount importance. In the twentieth century, the concept of wellness has become more important than health. Throughout this history various models of the physical education curriculum revolved, some as a direct extension of the dominant value at the time. Entire models for elements from different models can serve as a context for your own curriculum design. The models can help you make curriculum decisions because they represent a general set of beliefs.

Many beginning teachers have a tendency after reviewing a number of curriculum models to want their physical education curriculum to accomplish the goals of all of the models. Although this is understandable the reality is that only so much time can be devoted to physical education in the overall school curriculum.

The various physical education curriculum models differ on what they emphasize and hope to produce. These differences are based on what each model assumes is the primary purpose of physical education and the role of physical education should play in preparing individuals for life and their future role in society.

For the last few years, sports education model has been implemented in private schools in cities like Pune and Mumbai. The purpose of this research paper was to learn about the sports education model as students

basically like to play. Why is the sports education model implemented? How is it implemented? What are its good sides? What are its limitations? How do students respond to it? Is it possible to implement this model in all schools? Some such questions were in the mind of the researcher. This research paper seeks to answer the question of how this sports education model is implemented due to time constraints. The main objective of the presented research paper is to know the implementation of the sports education model. The SSC Board's physical education curriculum is based on the Multi-Activity Curriculum model. Similarly CBSE, ICSE Board's physical education curriculum are based on different curriculum models. The various curriculum models in physical education are as follows

Curriculum Models in Physical Education

1. Moment education model: Basic objectives of moment education model is to emphasize on exploring various movement skills in areas such as dance, games and gymnastics.
2. Fitness education model: The goal of Fitness education is to improve physical fitness and maintain it throughout life the objective of the fitness education model is the development of a healthy lifestyle. Increasingly children are inclined to sedentary lifestyles. Society and the environment make remaining active difficult. Physical fitness is essential to wellness an enhanced dimension of health.
3. Multi Activity model: This model is especially useful when designing secondary level curricula. The primary purpose of this model is to expose students to a variety of physical activity and sport.
4. Lifetime Physical Activity model: The goal of this model is to help students choose a physical activity of their choice to participate and stay active throughout their lives
5. Sport education model: Sydnantop designed the sports education model with the aim of making students sports literate. The main objective of the model is to inculcate in the students an attitude of honesty by teaching them various sports and physical activities and to develop not only good players but also sports enthusiasts.

In sports education learners are taught to be players in ways similar to athletic participation. Emphasis is placed on skills rules strategies appreciation for play in our society and ethical principles that define "good" sport. Sports education model may occur within individual classes across classes within a class period and during time outside of class previously used for drop in or intramurals.

The sport education model is commonly used in middle and high school classes and simulates regular athletic teams and seasons, emphasizing skill development, rules of the game, strategies, and ethical principles related to each sport.

The sport education model tends to increase both the tendency and ability of students to play sports, and it encourages the importance of discipline, skill mastery, and teamwork. One of its limitations, however, is that not all students are interested in or capable of playing all sports a teacher may want to include. In that case, it may be necessary to modify a sport to enable more students to participate. This approach also requires that the teacher be well-versed in all of the sports he or she wishes to cover because, in essence, they are acting as a coach.

METHODOLOGY

The researcher used the interview tool to gather information in this research paper. The schools implementing the sports education model are the population of this research paper. Out of these, three schools were randomly

selected for this research paper. In depth Telephone interviews of physical education teachers / coordinators in three schools were conducted. The interview asked questions regarding the implementation of the sports education model. It includes the total classes of the week, the total time in a day, the games or activities provided in the school, the response of the students, the literature and the student ratio, etc.

Analysis

The results of the qualitative analysis of the information obtained are as follows

- Sports education model is implemented in schools from class I to X.
- Class I and II are introduced to various sports.
- Specialization in one sport is given to the next classes from class III. For this, students are given various options like team sports, individual sports, combative sports etc.
- The sports education model is implemented before or after school, not during regular school hours.
- The sports education model is implemented daily from Monday to Saturday and the duration of one session is 90 minutes.
- A separate coach is appointed for each sport
- Each sports has an annual planning and session planning.
- The student can choose a different sport each year or choose the same sport each year. In this way the student is given freedom of choice.
- Students participate well in the sport as it gives them the freedom to choose their favorite sport.
- More students choose football and basketball than any other sport.
- High performance students are given some concessions in school for example more time is given for training, financial help is given if necessary, concessions are given in school attendance.
- Adequate training or learning equipment are made available to the students for better implementation of the sports education model. The teacher to equipment ratio is generally 1/5: 1 which is very good.
- A key feature of this sports education model is that students are given the freedom to choose different sports or activities.
- In addition to the sports education model in these schools, physical education classes are also taken in the school time table. Which includes yoga, fitness activities, Taekwondo etc.

CONCLUSION

Students have the option to learn different sports and have the freedom to choose from them and a separate coach for each sport is a feature of the Sports Education Model. It is concluded from this that the sports education model is implemented very effectively.

DISCUSSION

The different models of physical education curriculum have been around for the last several years. But the multi-activity model was being used more. But over the last few years, the sports education model has become more

and more used in private schools. Different schools have different strategies and policies when implementing the sports education model. Therefore, there is a need to research whether the main objective or philosophy of the sports education model is succeeding. Considering the level of physical activity of the students throughout the day, it was found that the sports education model is implemented very effectively. Because according to the UNESCO guidelines there should be at least 120 minutes a week for physical education and sports. But the fact that 450 minutes a week are devoted to physical education and sports is very good in the schools selected for the presented research paper. Also, according to World Health Organization guidelines, students between the ages of 5 and 17 should be at least 60 minutes of physical activity a day. And in schools implementing the sports education model, 90 minutes a day are devoted to sports, so the guidelines of the World Health Organization are also fulfilled. The student-teacher ratio, equipment and student ratio are also very good in schools implementing the sports education model.

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Role of Sports Psychology In Sports Performance

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ABSTRACT

Sport psychology is that the understanding of how the mind influences an athlete's performance in their chosen sport. Within the principles of sport psychology are various concepts like how do athletes like better to learn, what's their personality, how can they attain states of relaxation and concentration (narrow and broad focus), how does an athlete learn to see a successful performance, do they understand and overcome their limiting beliefs and the way does an athlete develop high levels of self-awareness. The importance of sport psychology has been realized for many years, however many coaches and athletes pay insufficient attention to how it can help them to realize high perform better. Many coaches and athletes still overly specialize in the physical aspect of sporting performance at the detriment of the non-physical. To conclude we will say that sports psychology plays an important role in enhancing the performance of the players.

Keywords : Sports psychology, sports performance.

INTRODUCTION

In the past, it was assumed that these skills were genetically based, or acquired early in life. Now, it is commonly accepted that athletes and coaches are capable of learning a broad range of psychological skills that can play a critical role in learning to achieve high performance.

1.2 Role of Sports Psychology

The importance of a sports psychologist as an integral member of the coaching and health care teams is widely known. Sports psychologists can teach skills to assist athletes enhance their learning process and motor skills, deal with competitive pressures, fine-tune the extent of awareness needed for optimal performance, and stay focused amid the various distractions of team travel and within the competitive environment. Psychological training should be an integral a part of an athlete's holistic training process, administered in conjunction with other training elements. This is best accomplished by a collaborative effort among the coach, the game psychologist, and therefore the athlete; however, a knowledgeable and interested coach can learn basic psychological skills and impart them to the athlete, especially during actual practice.

There is a strong force guiding athletes to those super performances. It is the subconscious mind. The athlete must allow their subconscious to become the dominant drive once they perform. When the athlete is in a position to regulate their subconscious, they become better at tapping their mental power to perform more

consistently at a high level. Only when tapping into your mind's power will your body be ready to operate pure instinct and more consistently under stress. The result's more opportunities to realize peak performances. Elite athletes are constantly looking to enhance their performance to accumulate a foothold on their competitors. No matter how physically prepared an athlete is, it's their mental preparedness that creates the difference when competing against one another. Conditioning the mind is simply as important as reconditioning the body. Think of your attitude because the ultimate secret weapon that provides you a foothold.

1.3 Sport Psychology enhances an athlete's mental game.

The essential goal is to establish a method and an approach that fuels success. At the center of this concept is strengthening an athlete's inner belief that they can achieve greatness. Achieving your goals begins at the subconscious level, where all of our memories, beliefs, and experiences are stored. Although there are many different methods and approaches to working with athletes, it is only when change is created at the subconscious level that real transformation occurs. When working on the subconscious level, athletes can effectively program their minds to achieve success by releasing old ideas that limit performance to experience positive and lasting results.

Sport Psychology can help you to :

- Anchor positive states for easy future access.
- Explore and examine the thoughts and beliefs that are creating the current experiences.
- Program effective auto suggestions for enhancing optimal states.
- Reverse and release limiting thoughts that are blocking you from achieving peak performance.

Preparing for Competition :

Psychological skills to help the athlete manage the competitive performance environment include:

1. Learning relaxation skills (e.g. progressive relaxation; slow, controlled, deep abdominal breathing; or autogenic training)
2. Mastering all of the attentional styles (types of concentration)
3. Imagery (both visualisation and kinesthetics)
4. Appropriate self-talk and
5. Developing a pre competition mental routine to be employed immediately prior to competition on game day (these routines are short [1-2 minutes] and use all of the mental skills just presented).

1.4 Conclusion :

Within the principles of sport psychology are various concepts like how do athletes like better to learn, what's their personality, how can they attain states of relaxation and concentration (narrow and broad focus), how does an athlete learn to see a successful performance, do they understand and overcome their limiting beliefs and the way does an athlete develop high levels of self-awareness. The importance of sport psychology has been realized for many years, however many coaches and athletes pay insufficient attention to how it can help them perform better. To conclude we will say that sports psychology plays an important role in enhancing the performance of the players.

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Effect of Eight Weeks Specific Exercise Training Program on Health & Skill Related Physical Fitness Components of Skating Players of Pune City

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ABSTRACT

The purpose of this study was to examine the effect of eight weeks specific exercise training programs on health related physical fitness and skill related physical fitness components of skating players of Pune city. It was an experimental study in which pre-test & post- test non equivalent groups design was used. 80 boys & girls skating players mean of age (13.17±2.15) were selected as samples by using simple random sampling technique and among that (n=40) boys & (n=40) girls from Ames skating club pune. They were equally divided into Experimental group (n=20) boys & (n=20) girls and Control group (n=20) boys & (n=20) girls. Sit & reach, Standing broad jump, Half squat jump, Shuttle run, 30 meter dash & Balance beam test was conducted on both the groups obtained data was analyzed by using Independent sample t-test. Result shows that data collected was analyzed by using Independent t-test to see if the change of specific exercise training program was useful to improve health & skill related physical fitness. Further data was analyzed by using Independent 't' test the experimental & control group of Sit & reach, Standing broad jump, Half squat jump, Shuttle run, 30 meter dash and Balance beam tests which shows the significant difference at 0.05 level thus researcher concludes that there was significant improvement of Sit & reach, Standing broad jump, Half squat jump, Shuttle run, 30 meter dash and Balance beam performance of experimental group as compared to control group due to the treatment given.

Keyword : Specific exercise training program, Sit & reach, Standing broad jump, Half squat jump, Shuttle run, 30 meter dash and Balance beam.

INTRODUCTION

The wealth of the nation resides on the health and vitality of its people. Every nation is becoming increasingly concerned about the physical fitness of its men, women and children; recognized physical fitness is fundamental and useful living in any capacity. A motor component is the basic of all activities in our society. A motor component is defined as an asset of attributes that people have or achieve that relates to the ability to perform physical activity skillfully. A motor component means different things to different sportsmen and may include Strength, explosive power and speed.

The sports of skating can be broken into three categories: roller skating, inline skating, and ice skating. Skating involves gliding over a smooth surface on roller skates which are specially designed boots with two wheels at the front and two at the heel. Skating enjoyed outdoor and indoor roller rinks. Skating games need health & skill related fitness to perform in cardio endurance, muscular strength, flexibility, agility, speed, balance and coordination include that all factors play vital role in skating performance must to develop in the base level of skaters.

MATERIAL AND METHOD

Method of the study

The present study was an experimental research which was conducted with a purpose to see the effect of eight weeks specific exercise training program on health related physical fitness and skill related physical fitness components of skating players of Pune city.

Research Design

Experimental design was used for this study to check the hypothesis; this research was based on pre-test & post- test non equivalent groups design.

Method of Sampling

For the present research whole population a total number of 80 boys & girls skating players mean of age (15.17 ± 2.15) were selected as sample by using simple random sampling technique and among that ($n=40$) boys & ($n=40$) girls from Aims skating club pune.

Selection of Variable

The study was taken to pinpoint the variables was flexibility, explosive strength, muscular endurance, agility, speed and balance. For that variable measures sit & reach, standing broad jump, half squat jump, shuttle run, 30 meter dash and balance beam tests used for collected data.

Procedure of the study

The researcher assembled all the subjects and given to them instruction about the need, importance description of the experiment and explanation of sit & reach, standing broad jump, half squat jump, shuttle run, 30 meter dash and balance beam tests and experimental group implement specific exercise training program selected a total number of 20 boys & 20 girls and control group 20 boys & 20 girls they doing regular activity skating players in the age group 12-15 years old with the help of simple random sampling technique. The selected subjects were pre-test by sit and reach, standing broad jump, half squat jump, shuttle run, 30 meter dash and balance beam tests experimental and control groups, after the implemented training program conducted post tests for data collection.

Statistical Tools

After data collection, data of pre-test and post-test of both the groups i.e, experimental and control group, by using analysis of covariance and interpretation were drawn. The level of significance was kept at 0.05 to test the hypothesis.

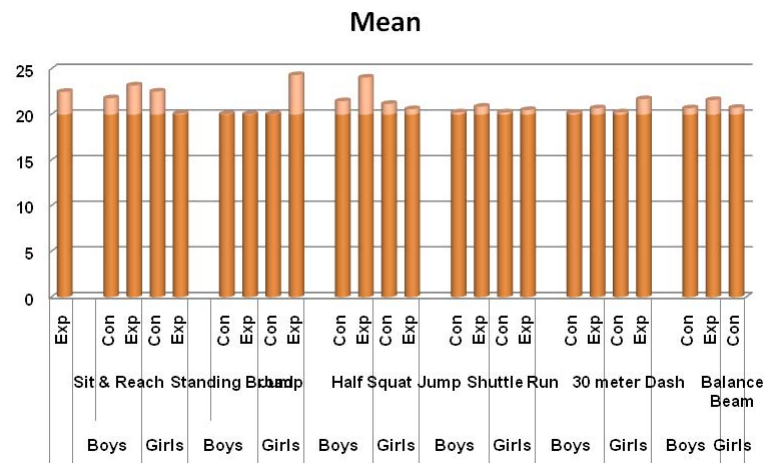
Results of the study

The obtained results are present in the following table which represents the results of descriptive analysis and independent sample t-test to compare the mean of the group's i.e, experimental and control group.

Table 1 : Descriptive statistics & comparison to gain the health & skill related physical fitness performance of boys & girls skating players of experimental and control group

Gender	Test	Group	N	Mean	Mean Diff	't'	df	Sig (2 tail)
Boys	Sit & Reach	Exp	20	2.50	0.24	0.94	38	0.03
		Con	20	1.80				
Girls		Exp	20	3.20	0.66	3.00	38	0.00
		Con	20	2.54				
Boys	Standing Broad Jump	Exp	20	0.10	0.03	2.65	38	0.00
		Con	20	0.06				
Girls		Exp	20	0.05	0.01	2.33	38	0.02
		Con	20	0.04				
Boys	Half Squat Jump	Exp	20	4.34	2.86	9.63	38	0.00
		Con	20	1.48				
Girls		Exp	20	4.06	2.88	7.19	38	0.00
		Con	20	1.18				
Boys	Shuttle Run	Exp	20	0.60	0.34	4.62	38	0.00
		Con	20	0.25				
Girls		Exp	20	0.88	0.63	8.72	38	0.00
		Con	20	0.24				
Boys	30 meter Dash	Exp	20	0.51	0.32	4.18	38	0.00
		Con	20	0.19				
Girls		Exp	20	0.70	0.45	7.47	38	0.00
		Con	20	0.25				
Boys	Balance Beam	Exp	20	1.70	1.00	10.80	38	0.00
		Con	20	0.70				
Girls		Exp	20	1.60	1.00	8.89	38	0.00
		Con	20	0.75				

Table 2 : comparison to gain the health & skill related physical fitness performance of boys & girls skating players of experimental and control group



The figure no. 1 shows that there was significant improvement in Health & Skill related physical fitness factors Skating players of experimental groups due to treatment.

DISCUSSION OF THE FINDINGS

Discussion on the results of Sit & reach, Standing broad jump, Half squat jump, Shuttle run, 30 meter dash and Balance beam tests performance; It was observed from the finding that the effect of specific exercise training program on health related physical fitness and skill related physical fitness components of skating players from table No. 1, shows that there was a significant difference between experimental group and control group of subjects regarding to the all test items. This indicates that specific exercise training programs had a positive effect on Sit & reach, Standing broad jump, Half squat jump, Shuttle run, 30 meter dash and Balance beam of experimental group. Therefore the set hypothesis that there will be significant effect of specific exercise training program on Sit & reach, Standing broad jump, Half squat jump, Shuttle run, 30 meter dash and Balance beam of skating players was accepted.

Sankaran (2000) conducted a study on the effect of weight training exercises on the performance of scooping in hockey on sixty hockey players of Sivagangai District. Six weeks weight training was given to the students. During the six weeks training period, the subjects of the experimental group were given weight training with the barbells. They were also asked to do the skill scooping. The result showed a highly significant improvement in the subjects of the experimental group after six weeks of training with specific weight training and exercises.

CONCLUSION

On the basis of the result obtained in the study the researcher made the concluded that eight weeks specific exercise training program was significantly effective to the Sit & reach, Standing broad jump, Half squat jump, Shuttle run, 30 meter dash and Balance beam of skating players which indicate the level of performance and also the findings of this study may be helpful to the skating players to doing regular practice of specific exercise training to improve Health and Skill related physical factor performance.

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To Prepare Grading System of Selected Fitness Variables of University Hockey Players

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ABSTRACT

The objective of the study was to prepare grading system of selected fitness variables of university Hockey players; the normative study was conducted under descriptive research. Standard procedures were followed to conduct this research project. The researcher followed step-wise methods of developing and establishing standard norms for university level, male Hockey players of Maharashtra state. The step-wise methods that include research design, administration of test items to a large sample of 100 players, establishing norm and grading system for selected fitness variables. Although the study has been restricted for university level hockey players, the same norms with possible modification could be applied for selecting players of other levels, as the results are promising.

Keywords : Fitness Variables, University hockey players, Grading System

INTRODUCTION

Hockey, we can say a soul of Indian sports however still somewhere we feel to increase the interest of Hockey among students. Hockey has a prominent history in India as we know it is an international & national game. This paper focuses on the preparation grading system of selected fitness variables of university Hockey players. Through this research, students will definitely understand the significance of hockey sport.

Objectives :

- To measure selected fitness variables in university level hockey players.
- To make percentile norms of selected fitness variables in university level hockey players.
- To make a grading system for selected fitness variables in university level hockey players.

Preparation Grading System of Selected Fitness Variables of University Hockey Players

The performance of the team depends greatly on the coordination, fitness and skill of players. The whole team needs to be fit in all aspects and it is the responsibility of the management to provide the coach with a perfect team. The availability of grading system for selection of Hockey players is essential for a team to exhibit consistently excellent performance in any competition. Further, if progress is to be achieved in any

sports, evaluation of sportsperson is a must. So preparing a grading system investigation in this direction has significant relevance.

Since the objective was to measure selected fitness variables of university hockey players and prepare grading system for Hockey players, the normative study was conducted under descriptive research. This study is delimited to the University Hockey game only. This study is delimited to the selected major physical fitness components variables necessary for the excellent performance in Hockey. This study is restricted for the male Hockey players only. The geographical area of the study is to be confined within the Maharashtra state only. A total of 100 subjects were chosen for the study. After going through various reviews, books, and articles certain variables were not included in the Final Test battery. The fitness variables for a hockey player are Cardiovascular Endurance, Muscular Endurance, Speed, Agility, Flexibility, Grip Strength, Explosive Power which were measured through 12 minute Run/Walk Test, Handgrip Strength Test, sit ups, sit and reach test, 50 meter dash, shuttle run and standing broad jump.

The descriptive statistics of the collected score was done. The mean, median and mode were calculated. To find out the normality of the scores the skewness and the kurtosis were found out. The Percentile method was used to create norms.

Table 1 : The Descriptive Statistics of 12 minute run/walk test, handgrip strength test, sit ups, sit and reach test, 50 meter dash, shuttle run and standing broad jump.

Statistics	12R/W	HG	SU	S&R	50MTS	SBR	SR
N Valid	100	100	100	100	100	100	100
Mean	1997.83	21.77	27.39	40.81	8.25	1.72	10.35
Median	2000	21	28	41	8.16	1.74	10.25
Mode	1850	18	30	44	8.70	1.75	11
Std. Deviation	207.55	5.35	4.22	5.58	0.40	0.17	0.98
Skewness	0.37	0.25	-0.40	-0.13	0.08	-0.06	0.04
Kurtosis	-0.28	0.44	-0.64	-0.86	-0.55	-0.34	-0.65

Results of the Norms:

- When the right hand grip strength of the hockey players is 14 then the player gets 5 points, whereas when the right hand grip strength is 21 then the player gets 50 points and when the player record a score of 36 points he gets 99 points.
- When the left hand grip strength of the hockey players is 13 then the player gets 5 points, whereas when the left hand grip strength is 23 then the player gets 50 points and when the player record a score of 37 points he gets 99 points.
- When the score for shuttle run of the hockey players is 12.24 then the player gets 5 points, whereas when the score for shuttle run is 10.40 then the player gets 50 points and when the player record a score of 8.73 points he gets 99 points.
- When the score for 50 meter Dash of the hockey players is 10.12 then the player gets 5 points, whereas when the score for 50 meter Dash is 8.20 then the player gets 50 points and when the player record a

score of 6.20 points he gets 99 points.

- When the score for sit and reach of the hockey players is 32 then the player gets 5 points, whereas when the score for sit and reach is 41 then the player gets 50 points and when the player record a score of 52 points he gets 99 points.
- When the score for standing broad jump of the hockey players is 1.42 then the player gets 5 points, whereas when the score for standing broad jump is 1.74 then the player gets 50 points and when the player record a score of 2.10 points he gets 99 points.
- When the score for 12 minute run walk of the hockey players is 1700 then the player gets 5 points, whereas when the score for 12 minute run walk is 2000 then the player gets 50 points and when the player record a score of 2425 points he gets 99 points.
- When the score for sit ups of the hockey players is 19 then the player gets 5 points, whereas when the score for sit ups is 28 then the player gets 50 points and when the player record a score of 36 points he gets 99 points.

GRADING

From the analysis and the raw score obtained a grading scale of the selected physical fitness tests conducted on the Hockey Players was also prepared. The grading scale prepared using Rank order method. It is presented below in detail. Using the scores which were divided into four groups of 25 % each and grading system was prepared, i.e. Excellent, Good, Average and Poor. The grading is mentioned in the table.

Table 2 : Grading Scale on Item-wise Performance for Selection of Hockey Players

Test-Items	Poor	Average	Good	Excellent
12 min Run & Walk (m)	Below 1850	1850 to 2000	2010 to 2150	Above 2155
R Grip Strength (kg)	Below 18	18 to 21	22 to 25	Above 25
L Grip Strength (kg)	Below 18	18 to 23	24 to 27	Above 27
Shuttle Run (sec)	Above 12.30	12.30 to 10.9	11 to 10	Below 10
50 m Run (sec)	Above 8.8	8.80 to 8.00	7.99 to 7.40	Below 7.40
Bent Knee Sit-Ups (Reps)	Below 24	24 to 28	29 to 30	Above 30
Sit and Reach (cm)	Below 36	36 to 41	42 to 46	Above 46
Standing Broad Jump (m)	Below 1.57	1.57 to 1.74	1.75 to 1.83	Above 1.83

The performance norms of each event (items) were graded as poor, fair, average, good, and excellent on the basis of Rank order method. Grading scale of the composite score was given to help in selection.

Within limitation, the results of the present study helped to warrant the following conclusion.

- The fitness variables for a hockey player are Cardiovascular Endurance, Muscular Endurance, Speed, Agility, Flexibility, Grip Strength, Explosive Power and that they are measurable.
- The Grading table prepared can be used but has to be updated time and again.

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Assessment of Sport Orientation Among Male and Female Non-athletes

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ABSTRACT

The objective of this study was to examine and compare the sports orientation among male and female non-athletes presently studying in higher education in Junnar tahashil. In order to do this study 400 non-athletes (200 Male and 200 female) male and female students of the Junnar Tahashil age between 18 to 25 years by using Random sampling and they filled Sport Orientation Questionnaire SOQ; developed by Gill and Deeter, 1988, which assesses competitiveness, win orientation and goal orientation. For Analysis of data Descriptive statistics Independent Sample t-test and Pearson Correlation were used. After analysis the Results it is concluded that non-athletes male scores of competitiveness [$t = (398, 2) 3.64, p < .0.01$] were higher as compared to female non-athletes. Win orientation scores [$t = (398, 2) 1.477, p < .0.0$] orientation scores higher compared to female non-athletes. Goal orientation scores of female [$t = (398, 2) -2.013, p < .0.05$] were higher as compared to male non-athletes. The female Non-athletes are more Goals oriented than the male non-athletes. Correlation was significant among competitiveness ($r = 0.885$), win orientation ($r = .755$) and goal orientation ($r = 0.711$) at 0.01 of male, also Correlation was significant among competitiveness ($r = .419$), win orientation ($r = .590$) and goal orientation ($r = 0.315$) at 0.01 of female total SOQ along with male and female correlation among Competitiveness ($r = 0.885$) Win orientation ($r = .755$) Goal Orientation ($r = 0.711$) is found significant at 0.01 levels.

Key words : Competitiveness, Win orientation, Goal orientation Non-Athletes

INTRODUCTION

The sports orientation is an important factor in sports achievement, success as well as for high performance, related to that it is also an important factor in student's successful life. An achievement in the student's life depends upon competitiveness, goals and winning awareness. Sports orientation is used commonly in various studies since 1988.

For example, the reliability and validity of Sports orientation questioner (SOQ) were tested in the various studies by (Sheikh, M., J. Afshari and H. Sheikh, 2011) he can be realized that the Sports orientation questioner (SOQ) in numerous populations has been worked properly for measuring vigorous trends. Sport Orientation Questionnaire (SOQ) developed by Gill and Deeter (Gill and Deeter, 1988), They defined that a classification of information-gathering and positive factor surveys discovered a reliable, valid three-factor structure across three

separate samples Alpha reliability coefficients and test-retest correlations indicated that the three subscales of competitiveness, win orientation and goal orientation were internally consistent and stable over time (Manouchehri and Tojari, 2013), they investigate the athletes participating at various sports competition levels are not similar in wining orientation also they agreed athletes competing at international level is more wining oriented. Sports orientation questionnaire assess individual differences in sports it is a significant questionnaire (Gill and Dzewaltowski, 1988; Bowker 2003). Sports orientation questionnaire (SOQ) of Gill and Deeter's assess different progresses of the individuals to judge capability as well as assess success. Those have win orientation they want to win and escape losing in they assess their success and matched with the other. Win or goal orient persons are interested in performing sound. Nevertheless, these two orientations specify different bases for assessing performance. In contrast to win and goal orientations, competitive orientation strongly influences on selection to participate in competitive sports. In competitive sports conditions, competitiveness orientation is influenced by individual differences and situational factors (Gill and Deeter, 1988; Martin and Gill, 1991). Meanwhile, the dimensions of goal orientation are constructed by recognizing the value of sports, goal-setting, working hard to win, and vibrancy in the activity. Compared to competitiveness orientation, goal orientation seems to be less affected by specific sport situations (Gill and Deeter, 1988). However, the SOQ-CA shows that competitiveness and goal orientations are highly correlated, which leads us to question the influence of both goal and competitiveness orientation (Newby and Klein, 2014; Clancy 2016).

Objective of the study :

1. The objective of the present study was to observe the competitiveness, win orientation and goal orientation of male and female non-athletes.
2. Compare sports orientation among Male and Female non-athletes.

RESEARCH DESIGN AND METHODOLOGY :

Hypothesis :

H0 : There is no difference between among male and female non-athletes towards competitiveness, win orientation and goal orientation.

H1 : There is significant difference among male and female non-athletes towards competitiveness, win orientation and goal orientation.

Research Area : The study was carried out on undergraduate and post graduate non-athletes student's age 18 to 25 year Pune.

Research Design : The study utilized a descriptive survey method of research. A survey research collects data about variables of subjects.

Sampling procedure and the sample :

For the present study consisting 400 (200 male and 200 female) non-athletes students within the age group 18 to 25 year have been selected. For the selection of sampling purposive sampling method is used. Well structure Sport Orientation Questionnaire use for the collection of relevant data.

RESEARCH TOOL

Sport Orientation Questionnaire SOQ; develop by Gill and Deeter, 1988, which assesses competitiveness, win orientation and goal orientation used for data collection. Sport Orientation Questionnaire SOQ contained

of 25 questions in which 13 statements (i.e.1,3,5,7,9,11,13,15,17,19,21 and 23) were concerned with competitiveness, 6 statements (i.e.2,6,10,14,18and 22) were related with goal orientation and 6 statements (i.e.4,8,12,16,20 and 21) were concerned with win orientation. The sport orientation (SOQ) questionnaire produced three scores: competitiveness, win orientation and goal orientation. Each item was scored from 1 to 5 (A=5, B= 4, C= 3, D = 2. E = 1). Reliability and validity of the questionnaire (.61 to .80, intra class=.94, test retest = .89) demonstrated by (Gill and Deeter,1988; Wakayama, Wantanabe & Inomata, 2002).

Data Analysis : Descriptive Statistic, Independent Sample t-test and Pearson Correlation used for the data analysis with the help of SPSS 26 Version has been used in the evaluation of the data and finding the values. For descriptive statistics Means, Standard Deviations were used. To test group differences and relation among variables Independent Sample t-test and Pearson Correlation applied.

RESULT :

Table 1 : Group Descriptive Statistics (Mean and SD) of SOQ, Competitiveness, Win orientation and Goal Orientation Non- Athletes (Male and Female)

Variables	TOTAL (400)	
	M	SD
SOQ Total	105.64	13.764
Competitiveness	55.48	7.816
Win Orientation	22.91	5.634
Goal Orientation	27.25	3.424

Sports orientation questioner (SOQ): Sports orientation questioner (SOQ) of Non- athletes male and female mean is 105.64, SD is 13.764 as well as Competitiveness mean is 55.48, SD is 7.816, Win Orientation mean is 22.91, SD is 5.634 and Goal Orientation mean is 27.25, SD is 3.424.

Table 2 : Statistics (Mean and SD) of SOQ, Competitiveness, Win orientation and Goal Orientation Non- Athletes (Male and Female)

Variables	Male (200)	Female (200)	M	SD
	M	SD		
SOQ Total	106.73	12.25	104.55	15.08
Competitiveness	56.89	6.781	54.08	8.519
Win Orientation	22.34	5.457	23.43	5.764
Goal Orientation	27.51	2.997	27	3.794

SOQ : Sports orientation questioner (SOQ) of Non- Athletes Male mean is 106.73 with SD is 12.25, as well as non-athlete female mean are 104.55 with SD is 15.08, mean of SOQ non- Athletes Male higher than the mean of non-athletes female.

Competitiveness : competitiveness of the non-athletes male is mean is 56.89 with SD is 6.781, as well as non-athlete female mean are 54.08 with SD is 8.519, mean of competitiveness non- Athletes Male higher than the mean of non-athletes female.

Win Orientation : Win Orientation of non-Athletes Male Mean 22.34 with S.D.is 5.457as well as non-athlete female mean is 23.43 with S.D. is 5.764 Win Orientation mean Non-athletes female is higher than the Non-athletes male.

Goal Orientation : Goal Orientation of Non- Athletes Male mean is 27.51, S.D is 2.997, as well as non-athlete female Mean is 27.00, S.D is 3.794, SEM is 0.27. Goal Orientation mean of Non-athletes male is higher than the mean Non-athletes female.

Table 3 : Indicate Independent Samples Test of Competiveness, Win orientation and Goal Orientation Non-Athletes (Male and Female)

Variables	Gender	Mean	SD	T	Sig. (2-tailed)
SOQ	Male	106.73	12.25	1.587	0.113
	Female	104.55	15.08		
Competitiveness	Male	56.89	6.781	3.643	0
	Female	54.08	8.519		
Win Orientation	Male	22.34	5.457	-2.013	0.045
	Female	23.47	5.764		
Goal Orientation	Male	27.51	2.997	1.477	0.14
	Female	27	3.794		

N = 400 (Male 200 and Female 200)

* = $p < 0.05$, ** = $p < 0.01$

From table 3 it was found that total SOQ of Non-athlete male and female value of the t-test is [t = (398,2) 1.59 $p < 0.05$], thus t-value was significant. Thus the null hypothesis of equality of population means of two groups was accepted and concludes that the SOQ of Non-athletes male and female is not different.

From table 3 it was found that Competitiveness of Non-athlete male and female value of the t-test is [t = (398, 2) 3.643 $p < 0.05$], thus t-value was significant. Thus the null hypothesis of equality of population means of two groups was rejected and concludes that the Competitiveness of Non-athletes male was found higher than the female.

From table 3 it was found that Win orientation of Non-athlete Male and female value of the t-test is [t = (398, 2) -2.013 $p < 0.05$], thus t-value was significant. Thus the null hypothesis of equality of population means of two groups was rejected and concludes that the Win orientation of Non-athletes female was found higher than the male.

From table 3 it was found that Goal Orientation of Non-athlete Male and female value of the t-test is [t = (398, 2) 1.477 $p < 0.05$], thus t-value was not significant. Thus the null hypothesis of equality of population means of two groups was rejected and concludes that the Goal Orientation of Non-athletes was not significant.

Table 4 : Indicate Pearson product moment correlation for male (upper diagonal) and for female (lower diagonal).

Variables	SOQ Total	Competitiveness	Win Orientation	Goal Orientation
SOQ Total	1	.885**	.755**	.711**
Competitiveness	.914**	1	.419**	.590**
Win Orientation	.781**	.528**	1	.315**
Goal Orientation	.735**	.586**	.399**	1

** . Correlation is significant at the 0.01 level (2-tailed).

From table 4 it is found that Competitiveness ($r=0.885$) Win orientation ($r=.755$) Goal Orientation ($r=.711$) is total SOQ at the 0.01 level of significant; similarly male non-athletes correlation among competitiveness and win orientation ($r=.419$) and with goal orientation ($r=.590$) were also found significant; Correlation between win orientation and goal orientation ($r=0.315$) was also found significant at 0.01 level. Correlation among female non-athletes competitiveness and win orientation ($r=.528$) and with goal orientation ($r=.586$) were also found significant; Correlation between win orientation and goal orientation ($r=0.399$) was also found significant at 0.01 level.

CONCLUSION

The purpose of this study was to observe the competitiveness, win orientation and goal orientation of male and female non-athletes and compare sports orientation among Male and Female non-athletes. The investigator found that sports orientation questioner (SOQ) female students scores are less than the male in addition to scores of competitiveness and goal orientation of male are higher than the female and win orientation of female is higher than the male. The study found that female students are more win oriented and attempt to achieve their goals. Male students are very competitive and goal oriented than female. After analysis it was found that the mean of SOQ Non- Athletes Male was higher than the mean of SOQ of Non-athletes female. There was a significant difference in mean [$t = (398, 2) 1.59 p < 0.05$] SOQ between non- athletes male and female, there was significant difference in mean competitiveness between [$t = (398, 2) 3.643 p < 0.05$], there was significant difference in mean Win orientation between [$t = (398, 2) 3.643 p < 0.05$], there was no significant difference in mean Goal orientation between [$t = (398, 2) 1.477 p < 0.05$]. Thus the null hypothesis of equality of population means of two groups is rejected and concludes that the SOQ of Non-athletes male was higher than female.

Competitiveness Non- Athletes Male higher than the mean of competitiveness Non-athletes female. The mean of Win Orientation of Non-athletes female was higher than Non-athletes male. The mean of Goal Orientation Non-athletes female was higher than the Non-athletes male. On the basis of the analysis there was a significant difference in win orientation among male and female non-athletes and no significant variance in competitiveness and the goal orientation among male and female non-athletes. In addition to Non- athletes male and female competitiveness, win orientation and goal orientation total SOQ is significant at 0.01 levels along with male and female correlation among competitiveness and goal orientation, competitiveness and win orientation, win orientation and goal orientation found significant at 0.01 levels. It is found that as like sports person Competitiveness, Win orientation, Goal Orientation also found in non-athletes.

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Development And Standardization of Measuring Tool For Bent Knee Sit Ups

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ABSTRACT

The purpose of the study is to develop and authenticate the bent knee sit ups counter to access the number of sit ups completed. The developmental research method was used for the study. Using sampling technique, the test was conducted on 62 subjects (male 31 & Female 31) from Pune city. To develop the tool, touch sensors, Oscillators, PIC16F877A, Display, Buzzer, USB, IC7805 & ICS were utilized. For establishing reliability, under test retest method, bent knee sit up test was conducted with counter on day 1 & same test was re-conducted on day 2. Under inter tester reliability method, as the subject was performing the test with counter; simultaneously, tester (Observer) was counting the number of sit ups completed. Descriptive statistics & Pearson coefficient of correlation was used to establish two types of the reliability i.e. test retest method reliability and inter tester reliability method. The mean & SD of test and retest method is (m-30.89, ± 9.17) & (m-32.00, ± 8.77) respectively and coefficient correlation is .926 whereas the mean & SD of inter-tester reliability is (m-32.68, ± 9.20) & (m-32.00, ± 8.77) respectively and coefficient correlation is .952. Hence the reliability of bent knee sit ups counter by using test retest method and Inter tester reliability method found highly acceptable.

Keywords : Bent knee sit ups, Touch Sensor and Authenticity

INTRODUCTION

Participation in physical activity has become vital for the holistic development of young people to nurture their physical, social and emotional health as well as intellectual side (Corrado, 2012). People, who do not engage in physical activity, will face various diseases or deformities. As well as people with more time on bed will have to face bone density in later stages (Welk, 2000). One will boost his mental, social, physical and intellectual life by being physically active. More the person involve in physical activity, the more healthier he will be.

According to World Health Organization (WHO), 1 in 4 in adult and 3 in 4 in youth do not meet the basic recommended guideline of physical activity throughout the world. Physical fitness is an individual's ability to perform any work by overcoming the fatigue. As physical activity is directly related to physical fitness, an individual need to be physically fit to carry out his day to day routine work as well as an athlete in his sports.

Muscular strength and muscular endurance are not only required in sports but also in our daily task to move our body, lift or carry the things and do day to day activities and these both components are measured in physical entrance tests also. Many tests such as 12 min run/walk test, push up test, sit & Reach test are conducted for the purpose of admission for educational courses and job vacancies.

Test is an instrument or process through which we get a measurement or score. To get an accurate score, the conducted test need to be authenticate, based on scientific principles, error free and feasible. Now days outdated and irrelevant testing procedures are still followed in India. The bent knee sit up test which is one of the AAPHERD test battery which measures a core muscular strength by counting a number of completed sit ups by the subject. In this, many a times partial sit ups are also taken into consideration. (Kansal, 2012) Sit ups have attained an impressive level of popularity in the Indian Scenario with respect to an exercise for an abdomen and 1 minute Bent knee sit up test which is conducted in physical entrance exams. (Tomchuk, 2011)

So the researcher in this study will develop a device based on sensors to measure the completed Bent knee sit ups and the score will be visualized on the digital display. Further the tool authenticity will also be measured.

MATERIAL & METHODS :

The study followed systematic method of developing the tool and tool authenticity. Hence developmental research method is used. It consist of two stages; Tool development for measuring bent knee sit ups and authenticating the same tool in which the sit ups test will be conducted on the subjects with the help of developed tool.

Stage 1: This stage comprise of development of the tool i.e. bent knee sit ups counter. In this, various components such as Touch Sensors, Switch, Beam Light, force platform, Infrared & Ultrasonic were taken into consideration. By reviewing various literatures various available sensor principles or the feature scope to develop the sensor based tool.

Stage 2 : This involve an authenticating the developed tool. Using purposive sampling technique and with the help of the bent knee sit ups counter, 62 (male 31 & female 31) students were tested on the developed tool of Chandrashekhar Agashe college of Physical Education, Pune.

Variable & Tool :

To develop the bent knee sit ups counter, various components such as Touch Sensors, Switch, Beam Light, force platform, Infrared & Ultrasonic were taken into consideration.

By reviewing various literatures & comparing the market value, touch sensors were much cheaper and feasible to design the counter and along with touch sensor, Oscillators, PIC16F877A, Display, Buzzer, USB, IC7805 & ICS were also used & the developed tool was named as bent knee sit ups counter.

PROCEDURE

The tool is fixed in the mat and one subject can perform test at a time. At the start, subject is told to lie on the mat in such a way that his back need to be touched on the marked rectangle [where the touch sensor (switch) is placed in the mat]. The adjustable knee strap is tied to the subject's knee and the display is placed on the floor beside the subject's hip. Once the test starts, the subject touches his/her back on marked rectangle; come up and touch his elbow at the knee strap, it is considered as count 1. At the end, the total score is displayed on the digital display placed aside.

For the purpose of assessing reliability, under test retest method, on day 1, bent knee sit up test was conducted with counter & same test was re-conducted on day 2. Further the scores were calculated and the reliability was established (see Table no. 2). For Inter tester reliability, while the subject was performing the test with counter; simultaneously, tester (Observer) was counting the number of sit ups completed and the scores of bent knee

sit up test was measured against the score displayed on the counter. Further the researcher analyzed the data and established the reliability (Table No. 4).

RESULTS & FINDINGS:

Test retest Method Reliability

The score of test and retest was recorded and the descriptive statistics and coefficient of correlation was calculated.

Table 1 : Descriptive Statistics for test & Retest

	Test	Retest
N	62	62
Mean	30.89	32.00
Std. Deviation	9.17	8.77

Table 2 : Pearson Product moment correlation coefficient of bent knee sit up test with retest (N=62)

Pearson Correlation	.926
Sig. (2-tailed)	.000

** . Correlation is significant at the 0.01 level (2-tailed).

Table No. 2 shows the Pearson correlation coefficient between two set of data found to be highly significant at 0.01 level of significance ($r=.926$). Hence it is interpreted that, bent knee sit ups counter has high reliability.

Inter tester Reliability

The scores of bent knee sit ups test with observer and counter was recorded and the descriptive statistics and coefficient of correlation was calculated.

Table 3 : Descriptive Statistics for bent knee sit ups test & bent knee sit ups test with counter

	Bent knee sit ups tests	Bent knee sit ups test with counter
N	62	62
Mean	32.68	32.00
Std. Deviation	9.20	8.77

Table 4 : Pearson Product moment correlation coefficient of bent knee sit up test with observer and counter (N=62)

Pearson Correlation	.952
Sig. (2-tailed)	.000

** . Correlation is significant at the 0.01 level (2-tailed)

Table No. 4 shows the Pearson correlation coefficient between two set of data was analyzed and found to be

highly significant at 0.01 level of significance ($r=.952$). Hence it is interpreted that, high inter-tester reliability has been found.

DISCUSSION

The present study emphasized on developing a sensor based tool for bent knee sit up test and authenticate the tool. The researcher compared the results from the developed tool against the scores of bent knee sit up test. The results showed that the developed tool is high reliable.

This study contrast a previous study which developed a similar devise, KTH kayak sensor system for kayaking athletes which measured kayak paddling performance and this was based on three sensor (also referred to as “nodes”) and one central data recording device. Two sensor units are attached to the paddle and measure the mechanical deviation in the paddle during a stroke for each side respectively.

In another study, the validity and reliability of Fitbit Flex against a direct observation for measuring direct steps in the laboratory and against the Actigraph for steps count in free living condition was examined for moderate and vigorous physical activity (MVPA) and activity energy expenditure (AEE) overall.

CONCLUSION

The bent knee sit ups counter was developed and the researcher found the high reliability under test retest method and inter-tester reliability method.

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A Comparative Study of Motion Examination of Forehand Overhead Clear Stroke And Relationship of Anthropometric Estimations At The Time of Contact Stage In Badminton

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ABSTRACT

The motivation behind the examination was to decide the relationship of joints points with the presentation of Forehand Overhead Clear stroke at the hour of contact stage in Badminton. Author additionally needs to decide the relationship of anthropometric estimation with the presentation of Forehand Overhead stroke for example clear, Smash and Drop in Badminton

Methodology : *for the current examination the example comprised of Ten Male Indian Badminton players (Rank under 50). The age went of the subjects ran Between 22 to 27 years. Point of the body estimated by kinovea in degree and execution assessed through emotional judgment by qualified authorities based on three adjudicators rating framework. For investigation of information connection (Pearson Correlation) test was utilized. The degree of importance was set at 0.05 levels..*

Conclusion : *by the help of study it is conclude that there is significant difference was found in right wrist angle with the performance of Forehand Overhead Clear at the time of contact phase in Badminton.*

Keywords : Kinematical, forehand, overhead, clear stroke

INTRODUCTION

The frequently prescribed system to acquire time to get back to focus court is the high profound clear. If all else fails, clear especially in singles play. The protective clear is an exceptional yield that has a direction like a heave in tennis. The unmistakable might be hit with an underhand or overhand to drive the rival the forehand or strike to compel the adversary profound into the backcourt. Plays utilize the unmistakable in mix with the drop shot to compel their rivals to run and protect each of the four corners of the court. Continuously attempt to hit the bird at the earliest opportunity so your adversary has less an ideal opportunity to get to their shot. Hit overhead and underhand returns at the most noteworthy conceivable contact point. As you move into position to hit the reasonable toss your racket upward gathering the van with a level racket with your elbow broadening. Since the van should go high and profound swing your racket forward and up with your hand driving. At that point your finish completes toward the bird's flight. The essential estimation of the unmistakable during

come request is to get the bus far from your rival and to make the person in question move rapidly. On the off chance that you can get the bird behind your adversary or make the person in question move more quickly than the individual might want, your rival will have less time and will turn out to be more exhausted. On the off chance that you clear effectively, your rival should rush to execute their profits precisely and successfully. The hostile clear is a compliment, quicker clear, which is valuable in getting the bus behind your rival and conceivably making the person in question hit frail returns. The protective clear has a high and profound direction.(GriceT.2008)[6].

OBJECTIVE OF THE STUDY

The purpose of the study was to determine the relationship of joints angles with the performance of Forehand Overhead Clear at the time of contact phase in Badminton and to determine the relation of Anthropometric measurement with the performance of Overhead stroke i.e. clear, Smash and Drop in Badminton players

METHODOLOGY

For the present study the sample consisted of Ten Male Indian Badminton players (Rank under 50). The age ranged of the subjects ranged Between 22 to 27 years. The study was confined to right handed shuttlers only, Forehand Overhead Clear at the time of contact phase in Badminton.

Selection of Variable : Anthropometric measurements of all the selected players were selected as an independent variable, Forehand Overhead stroke performance was selected as an dependent variables of the present study.

Dependent Variable : Forehand Overhead stroke performance was evaluated through subjective judgment by qualified officials on the basis of three judges rating system.

Independent Variables : All the selected Independent variables like; age in year, weight in kg, height, upper arm, lower arm, palm, upper leg, lower leg, foot length was measured in centimeter by the help of Anthropometric kit (caliper, protector, meter scale etc.,).

PROCEDURE OF DATA COLLECTION

According to availability of two Casio EX-F1 high speed cameras were used, which have frequency from 60 to 300 frames per second (f/s). The data were recorded from sagittal plane and frontal plane. The data was analyzed by kinovea motion analysis software.

STATISTICAL TECHNIQUE

The statistical analysis of data pertaining to the study were collected on 10 male Badminton players. To compute the analysis of data the correlation (Pearson correlation) test was used. The level of significance to check the relationship obtained by correlation (Pearson correlation) was set .05 level. All statistical functions were performed with the SPSS (v.20)software.

FINDING AND RESULTS

Result was made on the basis of the finding of the present study. The researcher reached at the result of this empirical investigation which is presented by the respective Table-1, table-2, and figure-1.

Table 1: Descriptive Statistics of Male Badminton players in Relation to Angular Kinematical Variables of Clear Stroke in Badminton.

Variable	Mean	Std. Deviation	Minimum	Maximum	Sum
Right Wrist Angle in degree	203.9	11.541	181	218	2039
Left Wrist Angle in degree	203.3	18.061	169	226	2033
Right Elbow Angle in degree	157	4.876	150	164	1570
Left Elbow Angle in degree	83.5	17.933	57	111	835
Right shoulder Angle in degree	134.1	4.605	126	139	1341
Left shoulder Angle in degree	48.6	28.457	13	115	486
Right Hip Angle in degree	182.5	5.082	176	192	1825
Left Hip Angle in degree	196.5	5.778	190	206	1965
Right Knee Angle in degree	150.3	10.594	138	171	1503
Left Knee Angle in degree	169.9	9.097	152	180	1699
Right Ankle Angle in degree	116	9.660	102	130	1160
Left Ankle Angle in degree	94.5	7.691	86	108	945

It is evident from table 1 that mean, standard deviation, scores of Angular kinematics variable in degree during clear stroke in badminton have been found as follow: Right wrist angle 203.9 (Std.11.541), Left wrist angle 203.3 (Std.18.061), Right elbow angle 157 (Std.4.876), Left elbow angle 83.5 (Std.17.933), Right shoulder angle 134.1 (Std.4.605), Left Shoulder angle 48.6 (Std.28.457), Right hip angle 182.5 (Std.5.082), Left Hip angle 196.5 (Std.5.778), Right knee angle 150.3 (Std.10.594), Left knee angle 169.9 (Std.9.097), Right ankle angle 116 (Std.9.660), Left ankle angle 94.5 (Std.7.671) respectively.

Table 2 : Descriptive Statistic of male Badminton player in relation to anthropometrical variables of Forehand Overhead stroke in Badminton

Variable	Mean	Std. Deviation	Minimum	Maximum	Sum
Age in year	24.6	1.646	22	27	246
Height in meter	171.42	4.371	166	181.1	1714.2
Weight in kg	62.3	2.869	58	68	623
Upper arm in cm	32.46	3.164	30.1	41	324.6
Lower arm in cm	27.45	1.827	25	31.5	274.5
Palm in cm	19.94	1.199	18	21.3	199.4
Upper leg in cm	47.76	2.820	44	54	477.6
Lower leg in cm	42.07	3.205	38	48	420.7
Foot in cm	23.59	1.505	22	27.1	235.9

overhead stroke in badminton have been found as follow: Age in year 24.6 (Std. 1.646), Height in cm 171.42 (Std. 4.371), Weight in kg 62.3 (Std. 2.89), Upper arm in cm 32.46 (Std.3.164), Lower arm in cm 27.45 (Std. 1.827), Palm in cm 19.94 (Std. 1.199), Upper leg in cm 47.76 (Std. 2.820), Lower leg in cm 42.07 (Std.3.205), and Foot in cm 23.59 (Std. 1.505) respectively

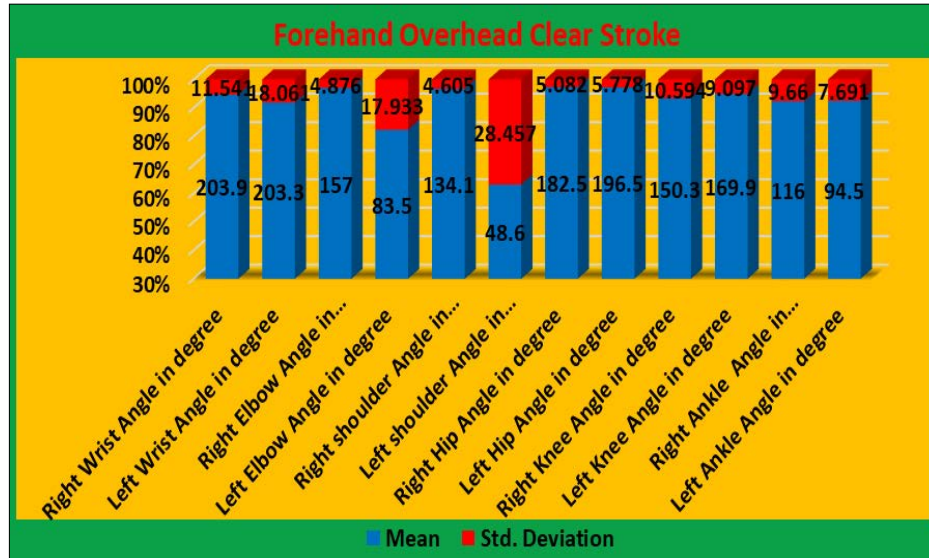


Fig 1: Graphical Representation of male Badminton player in relation to Angular Kinematical variables of Clear stroke in Badminton

Table 3: Relationship of Angular Kinematical Variables with the Performance of clear Stroke in Badminton.

Angular Kinematical Variable	Pearson correlation												
	Performance	Wrist R	Wrist L	Elbow R	Elbow L	Shoulder R	Shoulder L	Hip R	Hip L	Knee R	Knee L	Ankle R	Ankle L
Performance	1												
Wrist R	0.949*	1											
Wrist L	-0.122	-0.267	1										
Elbow R	-0.472	-0.621*	0.640*	1									
Elbow L	-0.144	-0.199	0.001	-0.085	1								
Shoulder R	0.075	0.131	0.314	0.089	-0.719*	1							
Shoulder L	0.290	0.222	0.112	-0.139	0.578*	-0.375	1						
Hip R	-0.343	-0.411	-0.305	0.138	-0.092	0.016	0.077	1					
Hip L	0.312	0.332	-0.218	-0.354	-0.040	-0.031	-0.274	-0.145	1				
Knee R	0.356	0.392	-0.305	-0.524	0.270	0.006	0.686*	0.314	0.091	1			
Knee L	-0.298	-0.296	-0.206	-0.005	-0.095	-0.092	-0.117	0.462	-0.303	-0.260	1		
Ankle R	-0.225	-0.332	0.583*	0.382	-0.089	-0.122	0.009	-0.233	-0.310	-0.476	0.035	1	
Ankle L	-0.501	-0.612	-0.053	0.239	0.352	-0.183	0.324	0.788*	-0.383	0.363	0.181	-0.031	1

*Significant at 0.05 level

Coefficient of correlation required to be significant at 8 degree of freedom = (.549)

Table-3 uncovers that in the event of wrist right acquired estimation of (.949) is more noteworthy than arranged estimation of (.549) hence it shows huge relationship of this autonomous variable with clear stroke execution. Though, in the event of wrist left, elbow right, elbow left, shoulder right, shoulder left, hip right, hip left, knee right, knee left, lower leg right, lower leg left the acquired qualities (- .122), (- .472), (- .144), (.075), (.290), (- .343), (.312), (.356), (- .298), (- .225), and (- .501) are lower than classified estimation of (.549) hence it shows unimportant relationship of these free factors with execution of clear stroke in badminton. Since the huge relationship was found between point of left wrist and point of right elbow among free factors as determined 'r' (.640) is discovered more prominent than the necessary organized estimation of (.549) at 0.05 degree of importance. Since the huge relationship was found between point of left shoulder and point of right knee among autonomous factors as determined 'r' (.686) is discovered more noteworthy than the necessary arranged estimation of (.549) at 0.05 degree of importance. It tends to be seen the huge relationship was found between point of left Elbow and point of right shoulder among free factors as determined 'r' (.578) is discovered more prominent than the necessary classified estimation of (.719) at 0.05 degree of importance. It tends to be seen the critical relationship was found between point of left Elbow and point of left shoulder among free factors as determined 'r' (.578) is discovered more noteworthy than the necessary arranged estimation of (.549) at 0.05 degree of importance. Additionally, the critical relationship was found between point of left wrist and point of right lower leg among free factor factors as determined 'r' (.583) is discovered more prominent than the necessary classified estimation of (.549) at 0.05 degree of importance. At long last, the critical relationship was found between point of right hip and point of left lower leg among free factor factors as determined 'r' (.788) is discovered more prominent than the necessary organized estimation of (.549) at 0.05 degree of importance.

Table 4 : Relationship of Anthropometrical Variables with the Performance of clear, smash, drop Stroke in Badminton.

Anthropometrical Variable	Performance		
	Clear	Smash	Drop
Age	.154	0.523	-0.163
Height	.191	0.308	0.319
Weight	.077	0.231	0.303
Upper Arm	.249	0.270	0.252
Lower Arm	.182	0.229	0.338
Palm	.151	0.297	0.030
Upper Leg	.151	0.212	0.318
Lower Leg	.328	0.316	0.115
Foot Length	.269	0.199	0.313

*Significant at 0.05 level

Coefficient of correlation required to be significant at 8 degree of freedom = (.549)

Table 4 reveals that in case of Anthropometric variable i.e. age, height, weight, upper arm, lower arm, palm, upper leg, lower leg, foot length. Obtained values (.154),(.191),(.077),(.249), (.182), (.151), (.151), (.328), (.269),is less than Tabulated value (.549) therefore it have shown insignificant relationship with performance

of clear stroke. Table-3 reveals that in case of Anthropometric variable i.e. age, height, weight, upper arm, lower arm, palm, upper leg, lower leg, foot length. Obtained (.523), (.308), (.231), (.270), (.229), (.297), (.212), (.316), (.199), value is less than Tabulated value (.549) therefore it has shown insignificant relationship with performance of smash stroke. Table 3 reveals that in case of Anthropometric variable i.e. age, height, weight, upper arm, lower arm, palm, upper leg, lower leg, foot length. Obtained value (-.163), (.319), (.303), (.252), (.338), (.030), (.318), (.115), (.313), is less than Tabulated value (.549) therefore it has shown insignificant relationship with performance of drop stroke. The correlation (Pearson correlation) technique was applied to determine the relationship of Anthropometrical variable with the performance of Forehand Overhead stroke i.e. clear, smash and Drop in Badminton. In case of Clear, Anthropometric variable i.e. age, height, weight, upper arm, lower arm, palm, upper leg, lower leg, foot length. Obtained values (.154), (.191), (.077), (.249), (.182), (.151), (.151), (.328), (.269), is less than Tabulated value (.549) therefore it shown insignificant relationship with performance of clear stroke, in case of Smash, Anthropometric variable i.e. age, height, weight, upper arm, lower arm, palm, upper leg, lower leg, foot length. Obtained (.523), (.308), (.231), (.270), (.229), (.297), (.212), (.316), (.199), value is less than Tabulated value (.549) therefore it has shown insignificant relationship with performance of smash stroke and in case of Drop, Anthropometric variable i.e. age, height, weight, upper arm, lower arm, palm, upper leg, lower leg, foot length. Obtained value (-.163), (.319), (.303), (.252), (.338), (.030), (.318), (.115), (.313), is less than Tabulated value (.549) therefore it has shown insignificant relationship with performance of drop stroke.

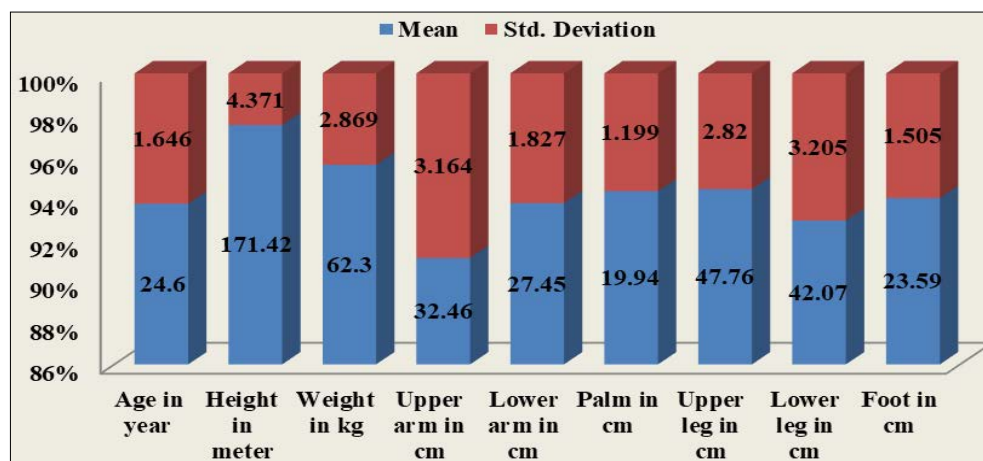


Fig 2 : Graphical Representation of male Badminton player in relation to anthropometrical variables of Forehand Overhead stroke in Badminton

DISCUSSION OF THE STUDY

According to the goal of the investigation was to decide the relationship of joints points with the presentation of Forehand Overhead Clear stroke at the hour of contact stage in Badminton. Through this investigation, we found that there was huge contrast found between right wrist point at the hour of contact period of Forehand Overhead Clear Stroke execution in Badminton players. This might be credited to reality that; the Forehand Overhead Clear Stroke is the Defensive stroke in badminton. It most regularly utilized for sent the bus to the adversary's back limit line. Wrist joint is the vital joint of hitting hand at the hour of contact period of Forehand Overhead Clear Stroke in badminton, it is regularly prescribed system to acquire time to get back to focus court is the Forehand Overhead Clear. The hitting hand should have a long back swing with lock wrist and flexed elbow for an amazing clear.

CONCLUSION

On the basis of the obtained results from the present study the following conclusion were drawn: -

1. There was significant difference found among right wrist at the time of contact phase of Forehand Overhead Clear performance of badminton players.
2. The finding also suggests that, the right wrist is the key joint at the time of contact phase of Forehand Overhead Clear.
3. Insignificant correlation was found between age, height, weight, upper arm, lower arm, palm, upper leg, lower leg and foot length of Badminton players with the performance of Forehand Overhead stroke i.e. clear, Smash and Drop in relation to the Anthropometrical variable.

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Anthropometric Variables As Predictors For State Level Weightlifters

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ABSTRACT

Weightlifting is one of the popular sports in India. The performance of weightlifting depends on morphological, physiological and psychological characteristics of an athlete. Several studies have shown that anthropometric characteristics are advantageous to express maximal strength. There is a need to study several aspects of anthropometric characteristics which might play an important role in the performance of Indian weightlifters. This has formed a basis of undertaking the present investigation. The objective of the study was to identify and measure selected Anthropometric, factors that may predict the performance of weightlifters. The population for this study was male weightlifters from Maharashtra State participating in state level weight lifting competition and representing light weight category. The sample (n=70), age ranged from 18-25 yrs, was the state level male weightlifter of 55Kg. Anthropometric Variables Height, Weight, Arm length, Upper arm girth, Leg length, Thigh girth, Shoulder width & Hip breadth were selected , test conducted and data were collected from the male weightlifters participating in state level weight lifting competition. It was concluded that predicting factors of anthropometric dimension are Thigh girth, shoulder width and hip breadth.

Keywords : Weightlifting, Anthropometric Variables

INTRODUCTION

Success in sport requires a whole range of factors to come together and interact in the right way. Psychological factors, anthropometric measurement and physiological factors seem to be essential. The present study has been focused on anthropometric factors for the state level Indian weightlifters. Since, time immemorial, competition between people concerning who can lift the heaviest weight has been recorded in diverse and ancient civilizations as early as the earliest known recordings of such human events, including those found in Egypt, China and in ancient Greece.

Weightlifting is one of the popular sports in India. The performance of weightlifting depends on morphological, physiological and psychological characteristics of an athlete. Several studies have shown that anthropometric characteristics are advantageous to express maximal strength (Brechue& Abe, 2002; Keogh et al., 2002; Gross et al., 2000; Tappen, 1950). Further, Cleather (2006) explored body mass and power lifting performance for both male and female. The investigators used data from the International Power lifting Federation World Championships during 1995-2004. The results of this study showed significant relationship between power

lifting and body mass. In line with theory of geometric similarity, the lifting performance in both power lifting and weightlifting scale with body mass and there are allometric relationship between lifting performance and body size (Markovic & Sekulic, 2006). Anthropometric dimensions across various competitive body weights were examined in a study conducted by Keogh, Hume, Pearson and Mellow (2007). The weight categories for this experiment were light weight, middleweight and heavy weight. Total fifty-four male competitive power lifters participated in the present investigation. All the subjects were assessed for thirty-seven anthropometric dimensions and it was observed that most of them were highly mesomorphic and had large girths and bony breadths. Further, the results showed that heavyweight power lifters were more endo-mesomorphic as compared to light weight lifters. Similar segment lengths were observed across all the participants. The findings of this study suggest that coaches may use anthropometric characteristics for talent identification. Similar findings were evident wherein majority of significant differences found in muscle mass and muscular girths and these differences contribute towards superior performance in heavy lifters (Keogh, Hume, Pearson & Mellow, 2009). Not only, highly mesomorphic is associated with muscular strength but also muscle mass and skeletal proportions influence strength performance (Huygens et al., 2002). In fact, heavy skeletal structure is required to accumulate sufficiently large amount of muscle mass (da Silva, de Souza, & de Rose, 2003; Marchocka, & Smuk, 1984; Ross, & Marfell-Jones, 1991).

STATEMENT OF PROBLEM

Prediction of performance in weight lifting depends on various factors and various models have been postulated during earlier investigations. Further, numerous studies have extensively documented the anthropometric characteristics of male weightlifters (Stone et al., 2006; Carter & Lindsay, 1984). Additionally, it has been seen that body fat percentage of female weightlifters is double that of male weightlifters of similar total body mass (Haffet al., 2008; Stoesslelet al., 1991). Similarly, there is a need to study several aspects of anthropometric characteristics which might play an important role in the performance of Indian weightlifters. This has formed a basis of undertaking the present investigation.

OBJECTIVE AND POPULATION

The objective of the study was to identify and measure selected Anthropometric, factors that may predict the performance of weightlifters. This study has been delimited to the male weightlifters, who represented Maharashtra state, in 55 Kg. As present study is an analytical survey study, data were collected from the male weightlifters participating in state level weight lifting competition.

The population for this study was male weightlifters from Maharashtra State participating in state level weight lifting competition and representing light weight category. The sample (n=70), age ranged from 18-25 yrs, was the state level male weightlifter of 55Kg. Before selecting sample, the researcher contacted physical director/coaches of universities and colleges and obtained permission and consent to conduct the study.

On the basis of several research reports, available so far, Anthropometric Variables Height, Weight, Arm length, Upper arm girth, Leg length, Thigh girth, Shoulder width & Hip breadth have been selected:: (Siahkoughian, & Hedayatneja, 2010; Zaras et al., 2020; The, & Ploutz-Snyder, 2003; Ford, Dettlerline, Ho, & Cao, 2000; Markovic & Sekulic, 2006).

RELIABILITY OF DATA & TESTERS' RELIABILITY

Test-retest reliability coefficient of samples on the test-items of the anthropometric variables was 0.78 to 0.84. The testers' reliability coefficients were determined statistically, which were ranged from 0.84 to 0.92.

STATISTICAL ANALYSIS

Primarily, the data were processed for descriptive statistics and further following statistical procedures were considered for further data analysis:

- Pearson's Product Moment Coefficient of Correlation was employed to find out the relationship between the selected predictors towards weightlifting performance of different weight categories. Further correlation matrix were calculated to discard the common predictors.
- Centroid factor matrix and Tucker's phi analysis was administered followed by Humphey's rule and Coomb's criterion with a view to identify the best predictors. Centroid loading of the predictors was done for authenticity of the predictors.
- Multiple step up regression analysis was employed to what extent the predictors can predict performance in weightlifting.

MAJOR FINDINGS

i) Results of anthropometric factors & weight lifting performance:

In 55 Kg category weightlifting performance is significantly related to the anthropometric factors viz., upper arm girth ($r=0.74$, $p<0.01$), thigh girth ($r=0.78$, $p<0.01$), and shoulder width ($r=0.76$, $p<0.01$), whereas other anthropometric factors were not significant.

Table 1 : Values of correlation matrix between weightlifting performances in relation to weightlifter of 55 Kg weight category

Anthropometric Variables correlated	55 Kg Coefficient of correlation
Weight	0.09
Height	0.02
Arm length	-0.10
Upper arm girth	0.74**
Leg length	0.01
Thigh girth	0.78**
Shoulder width	0.76**
Hip breadth	-0.05

Thus, on the basis of the above coefficients of correlation, the selected anthropometric cannot predict the performance ability of the selected weightlifters. Therefore, there is a need for factor analysis to discriminate the best predictive factors for the weightlifters.

RESULTS ON FACTOR ANALYSIS

For factor analysis, as a first step, it is necessary to calculate the residual correlation matrix of the test items.

Since the matrix values of all other predictive factors are still significantly higher, these data were, therefore, processed for Centroid Factor Matrix for identifying the authentic factors which are to be retained or discarded.

The result on Tucker's Phi (T.Phi) values, Humphey's Rule (Hum.Rule) values and Coombs' Criterion (C.Critn) values revealed that –

- The 3 factors viz., thigh girth (T.Phi=0.53, Hum.Rule=0.15&C.Critn=21), shoulder width (T.Phi=0.46, Hum.Rule=0.19 &C.Critn=4), and hip breadth (T.Phi=0.52, Hum.Rule=0.12 &C.Critn=24) were retained finally, which may have high predictive values.

Results on Multiple Step Up Regression Analysis

- 1) Results on prediction of Weightlifters abilities based on the scores of Anthropometric dimension
 - The residual value of average level of Thigh girth was 0.0012, where the adjusted R² value was 0.578 which was significant statistically even at 0.01 level. This result indicates that average level of Thigh girth can predict weightlifting performance.
 - The residual value of higher Shoulder width was 0.0019, where the adjusted R² value was 0.593 which was significant statistically even at 0.01 level. This result indicates that higher Shoulder width can predict weightlifting performance.
 - The residual value of low Hip breadth was 0.0013, where the adjusted R² value was 0.631 which was significant statistically even at 0.01 level. This result indicates that low hip breadth can predict weightlifting performance.

CONCLUSION

Predicting factors of anthropometric dimension are Thigh girth, shoulder width and hip breadth.

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Why Youth Drop Out of Sports

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ABSTRACT

The purpose of this study was to find out the drop out causes of youth in sports. To describe the drop out causes of youth in sports descriptive survey method was used. 30 youth players who pursued their education in kridaprabodhinibalewadi, pune from the academic year of 2004-05 to 2010-11 were selected using purposive sampling technique. A closed ended questionnaire was used to gather the data. The collected data was analyzed using percentile method. After interpreting the data it was found out that the athletes mostly left the sport because they had other responsibilities, while slightly less than maximum athletes believed that there was no well-defined path for sports people after a certain point, while quite a few athletes left the sport because of financial problems. It was recommended that the sports institutes in the country and the government must provide financial support (job-scholarship-sponsorship) to the player and a well-defined path for sports people after a certain point to choose sport as a career.

Keyword : Krida prabodhini, Drop out.

INTRODUCTION

India is a developing country; compared to India's huge population its competitive performance at international level is still very disappointing. One can learn many things by looking at the achievements of small countries like Ethiopia, Somalia, Kenya and Jamaica. (Ajmer Singh, Jagdish bains). Famous American swimmer Micheal Phelps alone has won more medals than India as a country in Olympics counting from 19 th century up to 2016 Rio Olympics.

Today Sports is not taken seriously and considered secondary to the education. Other responsibilities are given more importance than the sports, which leads to drop out of very able and hardworking player from sports. (Ajmer Singh, Jagdish bains). There still exist many restrictions on women, even in today's society she needs to fight for her safety and basic rights. Sakshi Malick from Haryana fought hard against all odds and won bronze medal in the Olympics. Though there was lack of standard infrastructure, Deepa karmakar India's first woman gymnast, not only participated but performed to achieve fourth position in women's vault event at the Rio Olympics 2016. 1998 Asian gold medallist Dhanraj Pillai used to practice with broken hockey stick. Gagan Narang's father had to sell his property to buy a proper rifle. Krishna Punai, Vijender Singh, Sardar Singh, Saina Nehwal had to take loan to afford all the standard quality instruments and facilities. Shiva Keshwan didn't

even have basic facilities to prepare for the winter Olympics. He won two Asian game gold medals without proper training, assistance and funding to name a few. (A. Pillalamarri)

Krida Prabodhini founded a new government institute, completely devoted to create national and international level competing sportspersons. A different institute for an overall development of students in sports as well as in education. Guided in 15 sports including Judo, Gymnastics, Hockey, Shooting, Football, Swimming, Diving, Athletics, Wrestling, Badminton, Archery, Handball, Table Tennis, Weightlifting and Boxing. Balewadi is well equipped with sports instruments, experienced coaches. It has classes starting from fifth to tenth standard. Students are admitted every year after assessing them through various physical tests. Krida Prabodhini trains students in all international sports. Has given many state, national and international level players in various sports.

OBJECTIVE

Youth player means as the 15 to 24 year age group, who has won medals in individual or team event at state, national or international level. Many youth players go through some rough patches and problems which lead to an untimely drop out from sports. Researcher has chosen this topic to analyse the reasons behind such untimely drop out.

MATERIALS & METHODS

In this research, a descriptive survey method has been used to study the reasons behind the drop out of the youth players of Krida Prabodhini, Pune. For research, the youth players those who have taken drop out from sports, 30 such players from academic year 2004-05 to 2010-11 have been selected for the purposive sampling technique. Researchers have been using closed ended questionnaires to study the reasons behind the drop out of youth players, in this case the financial, social, psychological, family and individual elements of the player have been considered. In this questionnaire five point likert scale method were used. Researcher built a closed ended questionnaire to investigate the reasons behind drop out from the sports and it was implemented on selected 30 players. Required data gathered through the questionnaire and for statistical analysis percentile method has been used.

RESULT

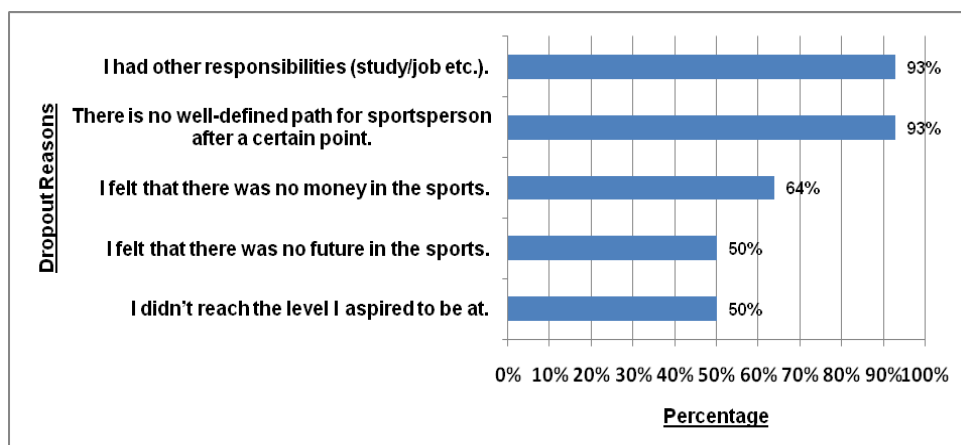
To find out the reasons behind the youth player drop out from the sports, questionnaire designed to draw out exact reason among the financial, psychological, social, and personal factors. The statistical analysis percentage of the questions in the researcher's built-in questionnaire has been shown in the following table.

Table 1: Main reasons behind the drop out.

Sr No.	Dropout Reasons	Percentage
1	I had other responsibilities (study/job etc.).	93%
2	There is no well-defined path for sportsperson after a certain point.	93%
3	I felt that there was no money in the sports.	64%
4	I felt that there was no future in the sports.	50%
5	I didn't reach the level I aspired to be at.	50%

The reasons of drop out cause of youth players in percentage form are shown below. I had other responsibilities,

There is no well-defined path for sportsperson after a certain point, I felt that there was no money in the sports, I felt that there was no future in the sports and I didn't reach the level I aspired to be at, the percentage of these causes are respectively 93%, 93%, 64%, 50%, 50% was found. (Table number 1 & Graph No. 1)



Graf. 1 : Main reasons behind the drop out.

DISCUSSION

In this research, Researcher found that youth players drop out due to other important responsibilities, facing uncertainty at some stage, Low earnings from game, Non-sporting future, Not reaching the desired level are major reasons. The "Identification of dropout causes in young competitive swimmers", A. Salguero, r & Gonzalez-boto, c has found major reasons for lack of interest in sports. Do not like the teacher's teaching method and other responsibilities on the players. Similarly, in Sandra Kay Volkert's "Reasons for discontinuing involvement in the teenage female 'soccer programs'", the main reason are The job, Teammates no longer played the sport, other responsibilities, consistent team failure and financial problems were found.

CONCLUSIONS

In this research financial component, social component, psychological component, coaching component and personal components were found 41.5%, 24.8%, 23.5%, 13.2% and 42.2% respectively. Because of the financial and personal factors, youth players take more drops out from the game. youth players should get adequate financial assistance from the government and the private body (scholarship, honorarium), guaranteed job as well as support from teammates also plays crucial role. The government, sports federations and sports institutes need to do the right planning to retain players in active participation and will help players to choose sports as a career option in future.

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Finding the New Alternative Exercises for Young Hand Ball Player

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ABSTRACT

Change is a property of living things. Every living thing needs the expected changes to keep itself established in the globe for a long time. Without specific changes they can't live. Humans are also the part of it, body movements are the symbols of human beings' liveness.

Sporting field is a bunch of human motion related activities. Today's sports field is changing rapidly and it is necessary for success. Today's sport is not only for the extracurricular activity or recreational activity but it has been converted into the Industry of business. Today, the sports field is one of the career oriented fields for the new generation. So each and every participant of this field wants to become successful, and success depends only upon giving extraordinary performance at the time of competition.

Performance is the demonstrative actions explosion and it is the cluster of player's master abilities like sporting skills, tactics & techniques he performs all capabilities of the selected sport at time of the competition. Today's competitive success is depending upon something better than others and goal achieving, otherwise we can't get success.

As per above parameters of success researchers think why not? We also found some other exercise tools and practicing patterns for our young handball players; mostly those are away from this developed urban areas and advanced facilities. So they can't get advantages of advanced practices on well infrastructure because they are only belonging from the rural areas, but they have a real born talent and capabilities to get such kind of challenges.

So as per that thinking I worked on it with the 45 handball players for 18 weeks in Ichalkaranji city of Maharashtra.

Keywords : Alternative Exercises, Handball Player

INTRODUCTION

Sport has always adopting new changes in rules and regulations of each & every game for growing its popularity and it becoming more popular than other sports & its best examples of football, lawn tennis, and cricket recently invented the IPL tournaments of different types of indigenous sports like Kabaddi, Kho-Kho, and Wrestling. Because the each and every type of games are re-introduced on basis of its glamour. So many event managing companies are work behind its glamorous success. All glamor and fun are depending upon

players extraordinary skill performance and it depends upon the players sporting skill demonstrative abilities in the high level competitions.

So the player's ability is more important for achieving the set and planned goals. Every contestant practices hard before the competition for this success. That is why winning is everyone's goal. Therefore, the winner of the competition must be more skilled than others. That is why every player and all its supporters are trying to increase his ability by the different training methods, skill practicing & exercising patterns they are introducing & using continuously for it.

Such kinds of experiments are continuously conducted by the sport expertise and they implement it after getting the best result. Such kind of processes are conducted at primary level also but we can't get it seriously we all sport teachers are working for our players success and we every day practically working on it but we can't preserve it seriously for further things and we can't read and write such kind of important things in our daily diary but it is the need of today's growing sporting world because the data is more important for analysis and explanations of positive and negative things. It is beneficial for all related persons work analysis and it is not so difficult these days because today we live in a digital world and we all use some electronic devices like android mobile, tablets, computers and laptops for our daily uses and the same tools we use easily for collecting our daily work data.

For this small research study I was conducting a small exercise and practice program of 18 weeks at my nearest school and it is located in Ichalkaranji city. In this experiment I was introduced to a few exercise tools like ladder, mini hurdles & cones and all these tools are used in the long jump pit, for this study I get the 45 handball school going players from the same school with the permission of school head master and the sport teacher.

In this study I experienced a lot like the rural area players are very interested in practices with the new equipment. I see the players come in time and they couldn't avoid any single session of this new practice. And her behavior is more impactful on my experiments. In this practice schedule I feel some experiences with the sport teacher of secondary level. They also want to adopt such new facilities for their students but some technical & financial problems are there but they do their job very honestly with the available facilities. All conclusions and recommendations of this study are totally dependent on the 18 week practice schedule and pre and posttest of physical performance of the involved three groups of 45 handball player physical abilities.

Statement of study :

“Finding the New Alternative Exercises for Young Handball Player”

Need & Importance of study :

Handball is the fast reflections speed game all players doing her skill in their restricted play field 20 x 40 with the ball. Players are creating some moves for goals and it's depending on their practice schedules technique. Every team conducts their new moves to misguide the opponents and create a free space for her goal shooters. Alternative move also created by the players at time of the critical situations in the playing match. As per match situations some special tips given by the coaches to in players and they are applying it practically on the play field.

As per said statements we all have new resources, formulas & moves for the match winning performance and it depends upon the players skill ability which they have different from opponent. As per this purpose each and every top merited teams are working more on new moves of play and at the same time they observed and

analyses the her strong opponents strong and weak points as per this analysis they work on new moves and strategies for dominating her opponent.

Continuing the success is more difficult in the today's growing sporting world so we need the special abilities and its implications for ween. The expertise and the supporting staff of team has work 24x7 hours on it and those are succeed in this stage they get the test of the match wins.

So the alternative and its capabilities also matter for the team success and the speed game move are depending on mostly the abilities of the player's lower limb actions and reactions and I hope this study is useful for all stages of handball players.

Method of Study:

For achieving a set goal of any field, planning and practicing in the proper way is very important, without proper planning and applications we can't get the seat goals. Research also the systematic work plan as per the plan the researchers are working on. Those who have a better plan for study they save the waste of time, money and efforts.

There are so many systematic methods of research study as per my research problem I selected the experimental research method because I worked on the physical performance testing by the pre and posttest of physical fitness.

Hypothesis of the study :

1. Ladder exercise on sandpit is beneficial to the handball player's agility ability.
2. Mini hurdle jumping on sandpit exercise is improving the vertical jumping ability of handball players.
3. Cone exercises on sandpit are beneficial for the zig zag running ability of handball players.

Tools of data collections :

Paper, pencil, pen, Attendance sheet ,Test wise charts , Meter tap , Stop watches, Calculators , Android Mobile phones , Laptop , essential test marking fields.

Data analyzing tools :

Basic Statistic's Methods & formulas (Mean, Mode, Median, and 'T' Test) online software for statistical data analysis, log table for significant error 0.05 for 50 samples, graph software of excel.

Sampling Method :

The researcher used a random purposeful selecting method of sample method for this study.

Because the researchers have a better control of the study and conclude at the right time of period.

Study program:

As per the plane researcher completed the formalities of the study by the related people. Before real study real plan conducted one face to face conference with the players and her teacher to provide the knowledge of this study and how it is beneficial for her game ability and how we doing all this things to disturbed their practice schedule and this program couldn't harmful for his body status and also for the plying skilling abilities of handball.

All above said things are confirmed by the teachers and the players we getting one meeting with the support of ICT tools of powerpoint slides to acknowledge the players how we doing some different exercise in the sandpit with the Ladder, Mini Hurdles & cones and how it benefiting to you to betterment of your field agility, jumping capabilities & pivoting skills are improving after this schedule.

Before starting a specific workout we create 3 groups named group Sivaji, Sambhaji & Tanaji each group have 15 students and it is befitted for conducting the fitness tests smoothly with the minimum supporting staff and keep in the time. In the physical fitness test we selected the agility 'T' test, stand and vertical jump & 10 cone zigzag shuttle run for 40 meter after tests we preserved all data in excel format on laptop for further use.

After the first test we start our real task of the program. We scheduled our 18 week program in three phases each phase of three six week in the next schedule we slightly added the intensity of the exercise with excessing the numbers of repetitions and it worked well for every participant .

Our morning session is started from the 6.30am and it conclude in the 7.30am in this program we all discuss every day after the practice schedule and its new experiences of the teachers and players for scheduled program we created one paper plane for the one hour practice schedule & this covered all things starting from attendance of player to relaxing exercising with the discussing about today's workout this experience we get the powerful bounding with the involving people.

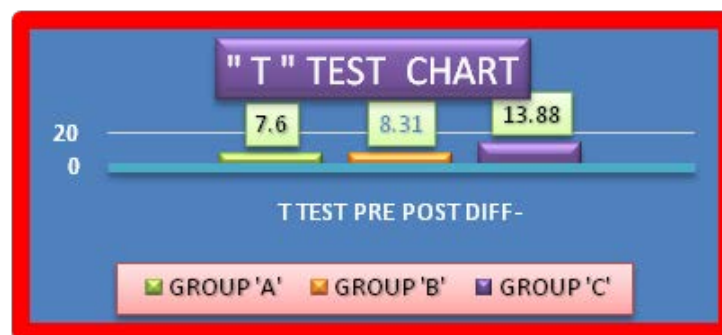
After we completed 18 week of our programme we conduct posttests of physical fitness and we compare the performance of pre and posttest physical ability of the player and write some conclusions and recommendations for the future study area of development of physical fitness by the selecting exercise.

HYPOTHESIS TESTING

Hypothesis testing is the most important for any research study because this is the temporary solution selected by the researcher. And it depends on the hypothetical logic.

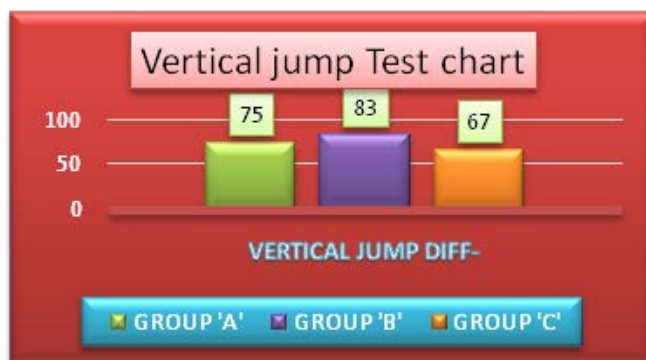
For exploring our explanations without in written mode the graphs are very useful for attracting the readers to know the studies central idea so many people first check the graphical analysis the read the whole.

Hypothesis 1 :Ladder exercise on sandpit is benefited to the handball player's agility ability.



The graph showing the improvement of all related A,B & C groups are improving in agility ability group 'C' is highest but other groups are also her ability in posttest than pretest.so the hypothesis no.1 is accepted at significant level of 0.05

Hypothesis 2 : Mini hurdle jumping on sandpit exercise is improving vertical jumping ability of handball players.



The graph showing the improvement of all related A,B & C groups are improving in vertical jumping ability group 'B' is highest but other groups are also her ability in posttest than pretest.so the hypothesis no.2 is accepted at significant level of 0.05

Hypothesis 3 : Cone exercise on sandpit are beneficial for the zig zag ability of handball player



The graph showing the improvement of all related A,B & C groups are improving in zig zag running ability group 'B' is highest but other groups are also her ability in posttest than pretest.so the hypothesis no.3 is accepted at significant level of 0.05

DISCUSSION

Alternative exercises are improving the interest of the players and him seriously attending & practicing the new workout schedule. Players are motivated by the new experts and its new patterns of exercising.

Doing any exercise with tools and without tools, its effects are different because the humans are interested in objects and there is the sport psychology is working for motivating the player to participate in an exercise schedule with her whole and sole of the body and its result is better than the compulsions of the Exercising. This is the new experience getting by this study.

CONCLUSION

1. Nature of the sandpit surface is benefited to the hand ball player's leg muscle ability.
2. Ladder exercise in sandpit are improving handball player's agility.

3. Mini hurdles jumping exercise in sandpit are improving handball player's vertical jumping ability.
4. Cone exercise in the sandpit are improving the handball player's zig zag running ability.

RECOMMENDATION

1. Use the sandpits for the exercising sped games.
2. Exercising tools are made mandatory for the exercising practicing schedule.

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Speed & Agility – Practical session Led by John Mc Elholm

<https://overtimeathletes.com/speeddsy>.

Correlation between the Prediction Equations for Estimating 1-RM Performance in Squat

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ABSTRACT

This study was done to determine the accuracy of two equations for predicting a 1-RM from repetition to fatigue for the Squat press. Selected 20 Subjects from KBH college gymnasium students from Malegaon Taluka, who were enrolled in weight training session, participated in first 30 min practice session. To learn proper lifting technique and determine amount of weight to lift for the 1-RM test. All correlation coefficient between predicted & achieved 1-RM lifts were high ($p > 0.05$) for the squat press. However the average differences between achieved & predicted weight were significant different of all two equations for the squat despite high correlation.

Keywords : Strength Prediction, Muscular Endurance and 1RM Performance.

INTRODUCTION

Gym & Health club personal trainer, Coaches, conditioning trainers, rehabilitation specialists, and health and fitness professionals routinely use measurement of maximal strength as a guide to quantify the level of strength, assess the severity of injury or strength imbalance, and evaluate the effectiveness of a training or rehabilitation program. The 1-RM test is the most frequently used strength procedure to evaluate the maximum weight an individual can lift once through the complete movement of an exercise. However, attempting the 1-RM lift requires intense mental focus and physical readiness in the trainee. Novice lifters and weight trainers may find the 1-RM test difficult because of an unaccustomed insecurity while handling heavy loads, inadequate spotting assistance, and fear of failure with the lift.

To measure of the 1-RM can be of concern to weight training instruction and practicing lifters because of the time need to prepare for and perform the 1-RM & the risk of handling heavy weights. A simple safe & accurate procedure for estimating 1-RM would be benefits to strength & conditioning specialist sports medicine physicians, athletic trainers, weight trainer, weight & powerlifter, etc two equations have been reported for predicting 1-RM using weight lifted & repetitions fatigue the basic of the formulas is the strong association between 1-RM & number of repetition (10 or fewer) need to reach fatigue. The present study examines the accuracy of the predicting formula using repetition to fatigue in estimating the 1-RM for the squat using a common data set.

METHOD & MATERIAL

Subjects were 20 selected boy's under the KBH college gymnasium students from Malegaon Taluka, Gym trainee each subject signed informed consent after all the risks & benefits of the study were explained During the first 30 minute class sessions, the subject were given instruction as to the proper lifting techniques for each lift. As they became familiar with the techniques they selected a weight to lift for the 1-RM attempt they performed several warm up repetitions with a light weight for the 1-RM test if the subject was successful 2.5 to 5 kg was added for the next attempt. This step was repeated until the subject could not lift the weight, thus the maximum weight lifted. Successfully was recorded as the 1-RM this procedure was achieved in 3 to 6 attempts, with 3 to 5 min rest between attempts.

Table 1 : Prediction Equations for 1-RM

Author	Equation
O, conner et al	$1\text{-RM} = \text{rep wt} (1 + .025.\text{reps})$
Epley	$1\text{-RM} = (1 + .0333.\text{reps}).\text{rep wt}$

The 1-RM test for squat lifts was performed accordingly to guidelines established by the Indian powerlifting federation (IPF). The repetition to fatigue for each lift were performed in the same manner as the 1-RM test. In the during the squat the thighs had to be parallel to the floor each time. Subject were randomly assigned in one group were tested 1-RM for a given lift & then allowed 10 min rest before testing for repetition to fatigue, two formulas were used to predict 1-RM in each lift (Table 1) in some cases the formula were % of 1-RM but for ease of comparison all were converted to predicting 1-RM.

STATISTICAL ANALYSIS

For each model & each type of lift, a paired t-test was to determine whether the difference between the achieved & predicted 1-RM was significantly different from zero. Since several t-test were employed, a significance level of 0.05 was used for individual comparisons to keep the overall type I error rate down. The Pearson product movement correlation was used to compare linear relationship between the values achieved & those predicted by the model significance level of the standard test of the hypothesis of correlation were obtained from SPSS statistical software.

RESULT OF THE STUDY

Table no. 2 compares repetitions to fatigue & scores in each lift. all correlation coefficients performance were significant & exceeded $p = 0.00$ when evaluating the formulas for predicting squat performance the Epley & O, Conner et al. formulas predicted 1RM values & significantly the achieved 1-RM values. The different formulas significantly under predicted 1-RM performance in the squat despite high correlation between predicted & achieved 1-RM performance.

Table 2 : Correlations between the predictions Equation for estimating 1RM

		Test	Epley	O'Conner
Test	Pearson Correlation	1	0.99	0.99
	Sig. (2-tailed)		0.00	0.00
	N	10	10	10
Epley	Pearson Correlation	0.99	1	1.00
	Sig. (2-tailed)	0.00		0.00
	N	10	10	10
O'Conner	Pearson Correlation	0.99	1.00	1
	Sig. (2-tailed)	0.00	0.00	
	N	10	10	10

In the Table no. 2 shows a there is high correlation ($P= 0.00$) between 1-RM performance & fatigue repetition 1-RM formula performance score of 1RM test. Correlation between repetition to fatigue score & 1RM performance tests in $n=10$ $r>0.05$; $p = 0.00$.

DISCUSSION

The result shown that all correlation coefficients between predicted & achieved 1-RM lift were high ($p= 0.00$) all equations significantly underestimated the squat despite high correlation. The result of the present study agreed with findings concerning a subject Epley & O, Conner et al equation were better prediction of squat. This study supported by prediction equations were developed for use on non-strength trained individuals. Studies have revealed that prediction equations are not applicable to strength-trained individuals (6,18) and that proper lifting technique does not necessarily alter maximal and submaximal lifting performance. Prediction equations are specific to the training status of the individuals and resistance training has been found to alter the relationship between maximal and submaximal strength. However, prediction equations will tend to be most accurate for those individuals who are closest to the mean for the group. For individuals who are capable of lifting heavy weights, the prediction equations will tend to under-predict their 1-RM strength. Typically, a strength-trained individual can complete more repetitions with any given percentage of their 1-RM than an individual who is not strength-trained.

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Modern Trends and Challenges in Physical Education and Sports Sciences

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ABSTRACT

The aim of this paper is to identify the current trends and challenges in physical education and sports and based on these current challenges, future trends and challenges would be discussed. There are various factors which are diminishing the interest of students in physical education activities. Although the physical education is being taught as a part of curriculum in all the schools but lack of adequate time and trained teachers, good facilities are responsible for little interest in this field. The future challenges to make this field interesting involves an adequate curriculum, sufficient funds allotment for holding various competitions and role of technology to create awareness about the importance of physical activities and sports in our daily life. All these issues have been discussed in the present study.

INTRODUCTION

The importance of physical education has never been emphasized more than it is today. It is widely recognized that physical education and sports is relevant and important in developing an active and healthy lifestyle and the solution to rising obesity rates worldwide. Although in most countries, physical education is part of the school curriculum, lessons are not given, thus leading to a reduced experience of physical activity for children and youth. The practice of a physically active lifestyle in combination with healthy nutrition, however, needs to be started in early childhood. Therefore, ensuring that all children engage in regular physical activity is crucial, and the schools are the only place where all children can be reached. Quality Physical Education is the most effective and inclusive means of providing all children, whatever their ability/disability, sex, age, cultural, race/ethnicity, religious or social background, with the skills, attitudes, values, knowledge and understanding for lifelong participation in physical activity and sport and is the only school subject whose primary focus is on the body, physical activity, physical development and health. The present study will identify the current trends, issues and challenges in PE and sports based on which future challenges will be addressed.

CURRENT TRENDS IN SCHOOL PHYSICAL EDUCATION AND SPORTS:

Physical education trends have developed recently to incorporate a greater variety of activities besides typical sports. Introducing students to activities like bowling, walking or hiking, or Frisbee at an early age can help students develop good activity habits that will carry over into adulthood. Some teachers have even begun to incorporate stress-reduction techniques such as yoga, deep-breathing and tai chi. Tai chi, an ancient martial arts form focused on slow meditative movements is a relaxation activity with many benefits for students. Studies have shown that tai chi enhances muscular strength and endurance, cardiovascular endurance, and provides many other physical benefits. It also provides psychological benefits such as improving general

mental health, concentration, awareness and positive mood. It can be taught to any age student with little or no equipment making it ideal for mixed ability and age classes. Tai chi can easily be incorporated into a holistic learning body and mind unit. Teaching non-traditional sports to students may also provide the necessary motivation for students to increase their activity, and can help students learn about different cultures. For example, while teaching a unit about lacrosse in, for example, the South western United States, students can also learn about the Native American cultures of the North eastern United States and Eastern Canada, where lacrosse originated. Teaching non-traditional (or non-native) sports provides a great opportunity to integrate academic concepts from other subjects as well (social studies from the example above), which may now be required of many P.E. teachers. The four aspects of P.E. are physical, mental, social, and emotional. Another trend is the incorporation of health and nutrition to the physical education curriculum. The Child Nutrition and WIC Reauthorization Act of 2004 required that all school districts with a federally funded school meal program develop wellness policies that address nutrition and physical activity. While teaching students sports and movement skills, P.E. teachers are now incorporating short health and nutrition lessons into the curriculum. This is more prevalent at the elementary school level, where students do not have a specific Health class. Recently most elementary schools have specific health classes for students as well as physical education class. With the recent outbreaks of diseases such as swine flu, school districts are making it mandatory for students to learn about practicing good hygiene along with other health topics. Today many states require Physical Education teachers to be certified to teach Health courses. Many colleges and Universities offer both Physical Education and Health as one certification. This push towards health education is beginning in the intermediate level, including lessons on bullying, self-esteem and stress and anger management.

ROLE OF TECHNOLOGY:

Children born in the early part of this millennium are known as the “iGeneration” (Rosen, 2010, 2011). This group of individuals has access to forms of technology unheard of just two decades ago. They have never known life without wireless high-speed internet connections, cellular phones with data connections, texting or video gaming consoles. Most of them are very familiar with technology interfaces, using apps and social media on a regular basis. The implications of such dramatic changes in access to technology among children and youth should be self-evident in all learning areas. Applications in health and physical education pedagogy are available and can be applied to enrich and enhance curricular offerings in most school settings. Numerous technological applications focused on promoting physical activity and fitness are available and easily accessible. However, application of various technologies will require new student and teacher competencies and practices. Students will be required to demonstrate competency in basic motor skills and also competence in using technology. In addition, such technology will enable individuals to learn in a studentcentered self directed fashion; students will be required to gain greater time management skills in order to enable appropriate time on a task. Teachers will also be required to gain knowledge of contemporary, technology-based instructional strategies. Furthermore, teachers will need to gain a greater awareness of teaching strategies that support anytime, anywhere learning and leverage technological applications. Technology holds promise for the way that students learn and also for the way in which teachers teach. Physical and health educators are challenged to become more responsive to a technology-driven environment that provides enhanced opportunities for learners well beyond the walls of the traditional classroom setting. Technology thus can play vital role in generating the interest in physical education and sports activities.

FUTURE FOR PHYSICAL EDUCATION:

Physical education should be individualized. One size does not fit all. This is extremely challenging, but with creative tools like Physical Best, Fitness for Life, and Fitness gram, physical educators are becoming more like personal trainers than coaches. We should focus on activity and nutrition leading to good health and wellness. If we can't do everything, we need to at least do this. Therefore, while playing age appropriate games is important, our emphasis needs to be on building lifelong skills and attitudes. Being active and eating well is vital at any age, but it becomes a matter of life or death as we get older. We can't put fitness in the bank and use it later; we have to keep active and eating well to maintain the benefits. We also need to emphasize participation and stop the trend toward becoming a nation of spectators, with a few highly skilled athletes playing and everyone else watching. All students should be provided opportunities to both cooperate and compete in physical activities. Both are important life skills, and both can be fun. Our students should graduate with an understanding of the key principles of fitness and nutrition. They should be informed consumers of activity, nutrition, and wellness and be ready to assume self-responsibility for their own health through prevention.

CONCLUSION :

The current practices and present curriculum needs to be modified to generate interest of students in physical education and sports activities. The future challenges will mainly be the appropriate curriculum to be made and followed and to make available adequate funds from various organisations in order to support the needy but intelligent children so that they can only focus on their game without worrying about the funds. The technology will also play an important role in expanding and creating the interest in physical activities. The importance of physical education and sports activities are being identified in today's world and efforts are being made to improve the situations so that more and more talent can be recognized .

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Study of Achievement Motivation Among Inter Collegiate Players

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ABSTRACT

Study investigated the effect of level of achievement motivation among intercollegiate of Aurangabad. A total sample for the study consists size of N= 50. Inter collegiate badminton players (19-21yearsold) randomly assigned to experimental group (n= 25), and control group (n=25). The effectiveness of these two groups was measured by basketball free throw test. T-test was used to analyze the data, followed with analysis of data results yielded significant difference. Analysis data clearly shows that obtained T ratio 5.20 was significant at 0.05 levels as the table value 3.10 is less than the calculated T ratios with value the degrees of freedom 48. Results indicated that there were significant difference between experimental group and control group score on T-test.

Keywords : Achievement Motivation, Hockey, inter collegiate players.

INTRODUCTION

Achievement motivation is affect in connection with evaluated performance in which competition with a standard of excellence was paramount (McClelland, Atkinson, Clark, & Lowell, 1953, pp.76-77). Theory of achievement motivation is a miniature system applied to a specific context, the domain of achievement-oriented activities, which is characterized by the fact that the individual is responsible for the outcome (success or failure), he anticipates unambiguous knowledge of results, and there is some degree of uncertainty or risk (McClelland, 1961). Yet it is our belief that the type of theory that views the strength of an individual's goal-directed tendency as jointly determined by his motives, by his expectations about the consequences of his actions, and by the incentive values of expected consequences will have wider utility when these concepts are applied toward other goals. (Atkinson & Feather, 1966, p. 5)

Purpose of the study: The purpose of this study was to find out the effect on level achievement motivation performance of inter collegiate of Aurangabad.

METHODOLOGY

The experimental method used for these study subjects was divided into two groups; one was an experimental group and second was a control group. This research was based on equivalent group design. The researcher

was given treatment for six weeks only by the experimental group. After the implementation skill exercise researcher has taken tests of both groups i.e. experimental and control groups.

RESULTS AND DISCUSSION

Descriptive Statistics of achievement motivation performance of inter collegiate players of Aurangabad.

Players Group	N	Mean	Std. Deviation	Std. Error Mean
Experimental	25	18.70	4.37	1.38
Control	25	13.50	2.99	0.94

T-Test Statistics of achievement motivation performance of inter collegiate players of Aurangabad.

Levine's Test for Equality of Variances			t-test for Equality of Means			
	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference
Equal variances assumed	1.95	0.17	3.10	48	0.00	5.20
Equal variances not assumed	3.10	47.96	0.00	5.20		

From Table-The leven's test for equality of variance when applied to the gain in Basketball free throw Test for experimental group & control group the mean of gain in experimental and control group were compared with independent t-test. The mean difference was 5.20 and-'t' value was 3.10 with degree of freedom 48 which was statistically significant at 0.05 significance level ($p=0.00$). This indicates that there was a significant effect of six weeks skill exercise training on the experimental group of basketball free throw tests.

CONCLUSION

The from the results of the study it can be concluded that skill exercise in this study, help to improve inter collegiate players mental fitness performance, and also it is well known that skill exercise is beneficial for the which consume less time and more convenient and comfortable to our life style and it gives the optimum mental fitness to both achievement motivation and mental health. Lastly a suggestion is given to players that regular practice of skill exercise should be integrated into performance in every tournament across the improvement of the level achievement motivation and performance.

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Psychological Effect of Injury on the Athlete

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ABSTRACT

At one time or any other for the duration of their sporting or aggressive activities, many athletes may also suffer a harm that continues them from participating throughout their recovery. If you've got been fortunate sufficient to educate without sizeable harm, it's miles nonetheless in all likelihood which you realize a person who has had an harm that calls for a few length of expert rehabilitation before they could educate usually again. Athletes who've suffered extreme harm can in all likelihood relate to the mental results mentioned in this newsletter and might have benefitted from receiving a mental intervention, which include purpose setting, imagery, or mindful self-compassion following their harm. In addition to re-harm anxiety, athletes can enjoy depressive signs following harm. The severity of the depressive signs can vary primarily based totally at the harm, limits to mobility, duration of rehabilitation, and put off in the athlete returning to game or bodily activity. These extreme accidents and rehabilitation are frequently observed with the aid of using lingering mental results which can impact the athletes' wellbeing in addition to their chance of returning to game. Athletes' willingness to decide to rehabilitation, in addition to the fee they deliver to the rehabilitation process, impacts their cognitive, emotional, and behavioral reactions to harm rehabilitation. Thus, the manner athletes understand their harm in preference to the reality that the harm passed off has a vital function in know-how athletes' emotional responses, which include depression, repeated injury anxiety, and unhappiness.

At one time or any other for the duration of their sporting or aggressive activities, many athletes may also suffer a harm that continues them from participating throughout their recovery. If you've got been fortunate sufficient to educate with out sizeable harm, it's miles nonetheless in all likelihood which you realize a person who has had an harm that calls for a few length of expert rehabilitation before they could educate usually again. Athletes who've suffered extreme harm can in all likelihood relate to the mental results mentioned in this newsletter and might have benefitted from receiving a mental intervention, which include purpose setting, imagery, or mindful self-compassion following their harm. In addition to re-harm anxiety, athletes can enjoy depressive signs following harm. The severity of the depressive signs can vary primarily based totally at the harm, limits to mobility, duration of rehabilitation, and put off in the athlete returning to game or bodily activity. These extreme accidents and rehabilitation are frequently observed with the aid of using lingering mental results which can impact the athletes' wellbeing in addition to their chance of returning to game. Athletes' willingness to decide to rehabilitation, in addition to the fee they deliver to the rehabilitation process, impacts their cognitive, emotional, and behavioral reactions to harm rehabilitation. Thus, the manner athletes understand their harm in preference to the reality that the harm passed off has a vital function in know-how athletes' emotional responses, which include depression, repeated injury anxiety, and grief.

Keywords : Psychological Effect, Injury, Rehabilitation, Psychological Interventions

INTRODUCTION

When athletes are injured they enjoy a variety of feelings that are regularly greater debilitating after they require longer rehabilitation. For instance, Marcus Lattimore, a record-setting freshman of the 12 months tailback and Heisman contender for University of South Carolina suffered a chain of game accidents consisting of a torn Anterior Cruciate Ligament (ACL), dislocated kneecap, torn ligaments and nerve damage. Despite limitless surgical procedures and rehabilitation he turned into selected within side the fourth spherical with the aid of using the San Francisco 49ers. However, after just a few days of exercise he determined to surrender soccer because of ache and shortage of self belief in his knees capacity to characteristic on the identical degree he had previously. There are many athletes ranging from amateur to expert degree and throughout a extensive variety of sports activities and leisure activities, who've suffered profession finishing accidents and can relate to experiencing psychological misery consisting of re-harm anxiety , depressive symptoms , and loss of athletic identity lengthy after they're bodily recovered. In this quick article, I will study not unusual place psychosocial responses to harm and describe numerous empirically supported psychological interventions that have efficiently decreased emotional misery, as nicely as stepped forward bodily and intellectual results for injured athletes.

IMPACT ON REHABILITATION

Athletes' willingness to dedicate to rehabilitation, in addition to the cost they supply to the rehabilitation system, affects their cognitive, emotional, and behavioral reactions to damage rehabilitation. Thus, the manner athletes understand their damage in preference to the truth that the damage befell has a important position in know-how athletes' emotional responses, along with depression, repeated injury anxiety, and grief. Johnston and Carroll discovered that athletes who suggested a excessive worry of repeated injury additionally had sure behavioral responses, along with however now no longer restrained to being hesitant, now no longer giving 100 fort, and being cautious of damage-scary situations (e.g., all through rehabilitation and in wearing contexts). They additionally discovered that athletes who definitely appraised their damage rehabilitation (e.g., regarded their damage as manageable) suggested feeling happiness and relief, which fostered elevated adherence to rehabilitation. In contrast, athletes who negatively appraised their damage rehabilitation (e.g., regarded their damage as inflicting stress) suggested feeling frustration, which brought about hesitancy and cautiousness closer to completing sporting events of their rehabilitation program. Further, in 2008, Carson and Polman discovered that in rehabilitation injured athletes tended to are searching for greater emotional help from the workforce in rate of rehabilitation in place of own circle of relatives. Injured athletes can also additionally locate that emotional and informational help from athletic trainers, physicians, or professionals acquainted with the rehabilitation system is greater beneficial for coping with stress related to their damage as compared to what is obtainable with the aid of using own circle of relatives and massive others .

RECOMMENDED PSYCHOLOGICAL INTERVENTIONS

Few scientific specialists are aware about the mental interventions that have helped athletes address the mental results of harm, together with placing and adjusting desires all through the rehabilitation method and imagery paired with diaphragmatic respiration intended to set off rest. Goals may be described as accomplishing a particular stage or skill ability on a task, typically inside a targeted time period. The majority of a hit aim placing interventions covered placing desires that provide structure, steps, and motivation for reaching unique milestones in injured athletes' rehabilitation, and customizing the desires to match the individual's needs . Additionally, a few researchers have started exploring the effect of mindfulness, a kind of meditation focusing at the breath, being within side the present moment, and final non-judgmental of any thoughts,

or emotions that stand up all through the route of the meditation, on assisting athletes with ache, strain and tension management, and awareness . Additionally, integrating self-compassion sporting events holds promise in assisting athletes deal with self-crucial thoughts, strain and tension, in addition to problems with awareness and ache which generally tend to stand up following harm. Further, imagery is a psychotherapeutic intervention described as growing sensory wealthy images inside one's mind . Within scientific contexts, researchers have conducted interventions wherein rest imagery (e.g., imagining a non violent place) and motivational imagery (e.g., imagining a scientific system or remedy being a hit) is frequently paired with diaphragmatic respiration to help people address cancer , fibromyalgia , and anxiety brought about headaches .Within recreation, motivational imagery paired with diaphragmatic respiration is regularly utilized by athletes, coaches, and recreation psychologists to decorate talent acquisition and currently cognitive unique imagery (e.g., imagining oneself effectively appearing in game conditions and within side the scenario wherein that they'd formerly been injured) has proven to be powerful in lowering injured athletes re-harm tension, enjoy of ache, and enhancing pace of bodily healing . For instance, Evans et al. interviewed 3 rugby gamers of their mid-twenties who had gone through surgical treatment to restore a recreation-associated harm (i.e., dislocated shoulder, fractured fibula and tibia, or torn ACL).

CONCLUSIONS

For many continued existence athletes getting wounded is a usual part of the activity which may need a few weeks of operational with a physical therapist or at most a short break from contribution. However, when the damage is more serious and requires surgical procedure it can rapidly become an upsetting setback, an event often appraised as obstruct development toward desired goals and for some ending their athletic career. Athletes who have experience serious injury can likely relate to the psychosomatic cost, such as goal setting, imagery, or mindful self-compassion following their injury. Athletes with prior psychological health concerns, as well as athletes need surgical procedure and a greater absence from contribution in sport or physical activity.

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Current Status and Effect of Physical Education Scheme of SPPU, Pune on Physical Fitness of Under graduate College Boys students from Pratibha College of Commerce and Computer Studies, Chinchwad, Pune

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ABSTRACT

This study was aimed at studying the current status of physical fitness and effect of Physical Education scheme of Savitribai Phule Pune University (SPPU), Pune on physical fitness of under graduate boys' students from Pratibha College of Commerce and Computer Studies, Chinchwad. To assess the current status of physical fitness of college going Boys, researcher used an experimental method of pre- test and post-test analysis. Physical education scheme was designed as per SPPU, Pune norms and implemented it on the chosen sample. Sample was three hundred under graduate college going Boys from Pratibha College of Commerce and Computer Studies, Chinchwad. This study revealed that physical fitness improved after careful application of this program in the college. Also, for boy's students, it was helpful to improve overall health.

Keywords : Physical Education Scheme, Physical fitness

INTRODUCTION

In today's competitive scenario the inactivity or sedentary lifestyle is a common problem in all age group, especially the young generation. It is very necessary to do some kinds of physical activity in our day to day life. The benefits of regular, consistent physical activity are well documented. Physical activity plays an important role in the prevention of chronic diseases and conditions including cardiovascular disease, certain types of cancer, type II diabetes, and obesity. (Physical Activity and Health: A Report of the Surgeon General., 1996). It has been recommended that every day the school age children and the teenagers should accumulate at least 60 minutes of moderate to vigorous intensity physical activity to ensure healthy development (L. H. Williams, T.J.Hall and J.E. Rink, 2010) Hatona (1993, 1997) has proposed in the public health recommendation, to accumulate 10,000 steps per day to confer health benefit or to be an inactive, which has been taken with the help of pedometer. (Tukor- Locke C, Bassett, 2004). Regular participation in physical activities is associated with a longer and better quality of life, reduced risks of a variety of diseases and many psychological and emotional benefits. As we look towards the college students usually, they have very busy schedules and often place exercise at the bottom of their list of priorities. They are spending their entire day in sitting in the classes, meetings, studying in the library and completing assignments using a computer. Some students are doing jobs

and family commitments on the top of our educational responsibilities. And remaining time they are spending with their friends and family so very less time they are giving for physical activity (Thomas & Kotecki, 2007). There is evidence that in college level students, Boys are more active than Girls. (Kim Miller).

While performing physical activities students were facing lots of barriers such as lack of time and place, suitable facilities, lack of knowledge, enjoyment, self-motivation, self management skills i.e. set personal goals, monitor progress or rewards progress towards such goals, lack of encouragement, supports as well as attitude towards physical activity etc. Many of them feel uncomfortable or shy to go in GYM, fitness classes or on the ground for physical fitness. (L. H. Williams, T.J.Hall and J.E. Rink, 2010). So, it is very necessary to work on these kinds of barriers.

The Sedentary persons can increase the Physical Activities in many ways. The Traditional, Structured approach described by the ACSM and others the specific recommendations regarding type, frequency, intensity and duration of activity. Recommended activities typically included fast walking, jogging, cycling, swimming, fitness classes, yoga, playing any game on ground, climbing stairs rather than taking the elevators etc. But looking towards the barriers Suryanamaskar is the best solution for the individuals in which we do not need any kind of equipment, very less time and place is required as we as no need to go out of our home. (Physical Activity and Health- A report of the Surgeon General, 2002)

STATEMENT OF PROBLEM AND SIGNIFICANCE OF THE STUDY

Now a days it is very necessary to do some kind of Physical Activity to be fit or healthy and stay away from various kind of diseases but because of today's competitive atmosphere in each and every field, the young generation is lacking in Physical Fitness as well as they are facing many kinds of health problems. They are not able to give enough time for any kinds of Physical activities. So, it is very necessary to motivate the young generation for any kind of Physical Activities such as Suryanamaskar. Suryanamaskar is an Activity which is very helpful for all round development of the individual. (Chavhan) This kind of program, they can live healthy lifestyle and became Physically, Psychologically and Socially Fit.

In Government Policy for Sports 2012, it was expected to improve the physical efficiency of the youth those who are admitted to higher education system in Maharashtra State and should undergo the physical training programs for enhancement of the physical efficiency. (Dr Deepak Mane, 2015) SPPU, Pune framed and implemented the Physical Education Scheme from Academic Year 2015. Aim of this scheme was to make Physical Education as an integral part of educational system and promote physical activity among sedentary students.

As the researcher is working in Pratibha College of Commerce and Computer Studies (PCCCS), Chinchwad he found that the Boys from PCCCS, College were not Physically fit as well as inactive, so the researcher wanted to see are they become Active or not? So, the researcher selected cited problem. "Current Status and Effect of Physical Education Scheme on Physical fitness of Under Graduate Boys students from Pratibha College of Commerce and Computer Studies, Chinchwad"

OBJECTIVES

- a. To examine the current Physical Fitness level of Boys from Pratibha College of Commerce and Computer Studies, Chinchwad.
- b. To execute physical education scheme on Under Graduate students of PCCCS, College.

- c. To measure and evaluate the effect of physical education scheme on the Physical Fitness of college Boys from Pratibha College of Commerce and Computer Studies, Chinchwad.

HYPOTHESIS

H0: There will be no significant effect of physical education scheme on Physical Fitness Components of Boys from PCCCS, College.

REVIEWS FROM RELATED LITERATURE

Physical activity has long been acknowledged as an important part of a healthy lifestyle, and recent scientific evidence has linked regular physical activity to a wide range of physical and mental health benefits. Research has demonstrated protective effects of varying strength between physical activity and risk for several chronic diseases, including coronary heart disease, hypertension, non-insulin-dependent diabetes mellitus, osteoporosis, and colon cancer. (Gutin, 2004) In fact, investigators suggest that 12% of the total number of annual deaths in the United States is attributable to a lack of regular physical activity. (Malina, 1991)

Physical activity is typically defined as any bodily movement produced by skeletal muscles that result in energy expenditure above the basal level. (R. Bailey). Physical activity can be categorized in various ways, including type, intensity, and purpose or context. Physical activity is the broad and organizing concept around which more specific activities can be arranged. Physical activity, performed as sport and exercise, can also be understood within the context of leisure, recreation and active living. (Bouchard, 1990)

METHOD OF THE STUDY

To study the effect of physical education scheme, researchers adopted Experimental research method. An experimental design was a blue print of the procedure that enables the researcher to test hypothesis.

Design of the Study

Researcher used Single group Pre test-Post test non equivalent group design for the present study.

O1	X	O2
Pre test	Experimental Group	Post test

VARIABLES FOR THE STUDY

Independent Variable : Physical education program. This program consisted of creating environment for Physical fitness, and testing of physical fitness with duration of 12 months.

Dependent Variable : Physical Fitness Components. Physical Fitness was a composite score of Endurance, Strength, and Flexibility.

POPULATION AND SAMPLE OF THE STUDY

Population of the study was All First Year Under Graduate College Boys students from Pratibha College, Chinchwad, i.e. N= 284. Sample for this Study was all present (87) First Year B.Com. College Boys students from PCCCS College, Chinchwad. (31 % of population)

Tools of data Collections

Physical Fitness test- Flexibility measured by sit and reach test, Endurance measured by 12 min run and walk test, Strength measured by sit ups test.

METHOD OF ANALYSIS

Quantitative data

Mean - Mean is the arithmetic average of a Physical Fitness scores,

Standard deviation - The standard deviation is the square root of the variance of Physical Fitness score.

t test- The Paired Samples t Test compares two means that are from the same individual, object, or related units. (Pre test- post test).

Procedure of the Study:

Preparing Physical Education program

Creating an Environment

Lecture

Seminar /Conference

Exhibition

Competitions

It is an experimental research which will be conducted with the purpose to evaluate the effect of twelve months (once in a week) physical education program on Boys from PCCCS College. The researcher conducted the pre-test on whole sample; this was followed by the implementation of twelve months physical education program. After the completion of physical education program, the post-test was conducted. The researcher took pre-test - post test non equivalent group design which includes Physical Fitness test. After collecting the data, it was analysed statistically to see the effect of twelve months physical education program on Boys from PCCCS College, Chinchwad.

DATA ANALYSIS

Table 1 : Fitness test data of the year 2015-16

	Sit/ Reach	Marks	VJ	Marks	Sit ups	Marks
Avg.	23	11	33	20	25	8
SD	24.94		4.21		2.77	

N=87

Table no. 1 showed fitness test data for the year 2015-16 of all first year Boys' students. (N=87). Sit and reach mean was 23 inch having SD= 24.95. Average marks of this sample were 11 out of 20. This denoted that flexibility of all students were average. Vertical Jump test mean was 33 cm having SD= 4.21. Average marks of this test were 20 Out of 20. This denoted that leg power was outstanding. Sit ups test mean was 25 having SD= 2.77. Average marks for this was 8 Out of 20. This denoted that strength of core was below average.

Table 2 : Fitness test data of the year 2016-17

	Sit/ Reach	Marks	Sit ups	Marks	12 min r/w	Marks
Avg.	18.54	17	33	12	1914	4
SD	3.50		8.25		1840	

N=70

Table no. 2 showed fitness test data for the year 2016-17 of all first year Boys' students. (N=70). Sit and reach mean was 18.54 cm having SD=3.5. Average marks of this sample were 17 Out of 20. This denoted that flexibility of all students were Excellent. 12 minutes run and walk test mean was 1914 meters having SD=1840. Average marks of this test were 4 Out of 20. This denoted that endurance was poor. Sit ups test mean was 33 having SD=8.25. Average marks for this was 12 Out of 20. This denoted that strength of core was average.

Table 3 : Composite Score of Fitness test

Year	2015-16	2016-17	t
N	87	70	1.69
Avg. (Out of 100)	57.72	55.19	
SD	8.43	10.33	
Avg. Grade	C	C	p < .05

The t-value is 1.69. The p-value is .045906.

The result is significant at $p < .05$

HYPOTHESIS TESTING

Null Hypothesis, $H_0: u_1 - u_2 = 0$,

Null hypothesis was rejected and thus physical education scheme for under graduate students of PCCCS, college was significant effect on Physical Fitness components.

CONCLUSION

This study revealed that physical fitness improved after careful application of physical education scheme in the college. Also, for boy's students, it was helpful to improve overall health. The current study revealed that Physical Fitness status of under graduate students was average level i.e. C grade. Researcher suggested that physical fitness level should be increased more with regular sessions in the time table of the college.

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Modern Methodic Power Cardio Training In Students' Physical Education

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ABSTRACT

Significant increase of students' physical condition and health level at the account of application of modern power cardio training methodic. Participated in the research. The age of the tested was 19 years. The research took one year. We used methodic of power and functional impact on trainees' organism. Such methodic is some system of physical exercises with weights to be fulfilled under accompaniment of specially selected music. We showed control tests showed experimental group students achieved confidently higher physical indicators. Boys demonstrated increase of physical strength and general endurance. Increase of control group students' body mass can be explained by students' insufficient physical activity at trainings, conducted as per traditional program.

Keywords : health, physical condition, students, physical education, power-cardio training.

INTRODUCTION

Recent years there has been observed negative tendency to noticeable worsening of modern young people: students' and pupils' physical condition and health. K. Hardman in his works expresses serious trouble about significant falling of students' physical health standards and growth of obesity in developed European countries and developing countries of Africa and Asia. It was found that young people's excessive involvement in internet activity and computer games was a serious threat to their physical and psychic health. For correction of this negative situation scientists note that physical functioning level of most of young people does not correspond to optimal parameters. As per the data of D. Basset most of USA youth do not realize the recommended 60 minutes a day of physical functioning. It is also noted that youth of Russian Federation has insufficient level of motor.

The key to this problem's solution can be changes in physical education programs for students. Besides, it is necessary to raise the quality of young people's training. Rather important are modern training methodic, permitting for teachers to use new effective forms and methods of physical education in educational process. Scientists throughout the world discuss new styles of teaching in higher educational establishments. The authors note that new styles of teaching permit for a student to actively participate in educational process and achieve the set targets with high effectiveness.

Specialists also note the absence of students' right for choosing the most favorable training programs in many higher educational establishments. General orientation of physical education programs in higher educational

establishments of Russian Federation, built on strict regulation of academic material is very serious pedagogic problem. Such orientation of physical education means and forms seriously restricts development of students' personal physical culture. It does not facilitate formation of their active interest to regular practicing physical culture and sports.

The purpose of the research: is significant increase of students' physical condition and health level at the account of application of modern power cardio training methodic.

MATERIAL AND METHODS

Organization of the research: the researches were conducted in 2014-2015. The researches lasted one year. In training of experimental groups the author used methodic of power-cardio training on the base of HOT IRON program. The trainings were conducted by qualified instructors, who were trained in specialized HOT IRON centers. This fact guaranteed high quality of students' trainings. At the beginning of the research all students passed medical examination in university polyclinic and were admitted for physical trainings without any limitations. After it the tested were divided into 2 control groups and 2 experimental groups.

Control groups were trained on the base of sport and outdoor games. They were trained in gym. Experimental groups were trained as per HOT IRON programs under accompaniment of special music at the beginning and at the end of the researches all students passed a number of control tests for assessment their physical condition and physical fitness. Strength was estimated by quantity of chin ups on horizontal bar and quantity of pressing ups in lying position (for girls). Endurance was assessed by Cooper's test – running the most possible distance for 12 minutes. Flexibility was assessed by forward bending from position standing on pedestal on which there were marks for measurements. Students fulfilled forward bent with straightened legs, touching the pedestal by hands fingers. 100 meters run was used for assessment quickness.

Statistical analysis: was fulfilled with the help of SPSS program. Difference between mean values was found with Student's t-criterion.

RESULTS

At the beginning of the research test results did not show any confident differences between experimental and control groups' students. At the end of experiment boys of experimental group were confidently far ahead of his peers from control group in strength and endurance. Besides, difference in body mass values was also found. Body mass of experimental groups' students practically did not change. Body weight of control groups' students confidently increased. Results of boys' control tests are given in table 1.

Table 1: Physical condition and physical fitness indicators of the tested boys

Physical qualities	Before experiment Control group	Experimental Group	After experiment Control Group	Experimental Group
Strength (chin ups, q-ty of times)	9+3	8+4	10+3	15+2**
Flexibility (forward bents, cm)	4+2	5+2	5+2	6+2
Quickness (100 meters' run, sec.)	13+4	14+4	13+2	12+4
Endurance (Cooper's test, km)	2.3+0.4	2.2+0.3	2.2+0.2	2.5+0.4*
Body mass, kg	72+4	73+3	77+4*	72+4

At the end of experiment girls of experimental group were confidently far ahead of his peers from control group in strength ($P < 0.01$), flexibility ($P < 0.01$), and endurance ($P < 0.05$). Body mass of experimental group's girls confidently reduced ($P < 0.05$). In control group the girls' body weight increased ($P < 0.05$). The girls' control tests results are given in table 2.

Table 2 : Physical condition and physical fitness indicators of the tested girls

Physical qualities	Before experiment Control group	Experimental Group	After experiment Control Group	Experimental Group
Strength (chin ups, q-ty of times)	12+2	11+2	14+2	24+3**
Flexibility (forward bents, cm)	9+3	10+2	10+3	15+4**
Quickness (100 meters' run, sec.)	16+2	17+3	15+3	2.3+0.4*
Endurance 9Cooper's test, km0	1.8+0.4	1.9+0.4	2.0+0.3	2.3+0.4*
Body mass, kg	55+3	56+2	58+3*	53+2*

DISCUSSION

The received data are interesting because they permit to objectively assess different programs of students' physical education. The results of the experiment coincide with the data of other studies. The trainings by HOT IRON methodic demonstrate significant increment of students' physical strength and endurance. Increment of these indicators took place both in girls and boys. It permits to recommend such methodic for mixed contingent of trainees. Trainings based on traditional physical education programs (general physical training, sport and mobile games) do not permit to achieve significant results in training of physical qualities.

We registered disturbing tendency of body mass increase in control groups' students. The increase was in average from 3 to 4 kg. This tendency permits for the authors to agree with specialists' conclusions about insufficient effectiveness of the existing standard physical education programs for students. At classes conducted by HOT IRON methodic demonstrate preservation of body mass at previous level or its reeducation within body figure correction. It permits for the authors to agree with statements of other specialists about advantages of power-cardio and fitness training in students' health protection and obesity liquidation. Students' body mass increase in control groups can be explained by insufficient physical functioning of young people on physical culture trainings, conducted by traditional program.

Specialists note that students' technical fitness in sport games is insufficient. Teachers have to spend a lot of time for training of the simplest technical elements instead of sport perfection and increase of trainees' game experience. That is why motor density of such trainings remains to be low and students' motor functioning – insufficient.

CONCLUSIONS

The research permits to make the following conclusion:

1. Analysis of scientific data witnesses about substantial decrease of physical, physical fitness and health of most of modern young people. The sharpest threat, as considered by specialists, is deficit, is deficit of youth's everyday motor functioning. The reasons of low physical functioning are: deficit of youth's

motivation for regular practicing of physical exercises and absence of interest to acting in HEEs physical education programs.

2. For substantial increase of students' motivation of regular physical culture trainings at HEEs specialists recommend to apply new, effective forms and methods of physical education. Such methods can include students' physical culture trainings, based on power-cardio training. Successfulness of different fitness programs' application in students' health improvement is proved by domestic and foreign specialists.
3. For solution the problem of students' bad physical condition and health the author recommends to use HOT IRON exercises system at physical culture lessons in HEEs.

CONFLICT OF INTERESTS

The author declares that there is no conflict of interests.

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Effectiveness of FMS Corrective exercise intervention on Functional Movement Screen Test Scores in Semi-professional Freestyle Swimmers

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ABSTRACT

25 Freestyle Swimmers were selected by simple random sampling (chit) method. Participants were selected according to inclusion (age 15-25yrs, male players and training for more than 3yrs) and exclusion criteria (any major illness) of the study and were given a complete a corrective exercise program 4 times per week, for 8 weeks, this quantity has previously been successful at improving FMS scores 11. Participants were given 10-15 mins of general warm up consisting of light jogging and joint mobility exercises before the corrective exercises. Informed consent was taken and procedure explained. Their FMS scores weremeasured before, during, and after an 8-week intervention. All participants were asked to continue their standard training routines with low intensity and avoid the functional movements which have low scores. After statistically analysing, significant improvements in FMS scores were seen post 8 week intervention but the difference between the improvements after 4th week was more significant. The clinical implications of this study suggest that significant improvements in FMS scores were observed post FMS corrective exercise training more after 4 weeks than after 8 weeks of FMS training.

INTRODUCTION

Task specific training for sports is crucial for improving sports performance. 1 Strength and Conditioning programs also look at improving the sports performance through task specific training. 2 Numerous studies have documented that anterior and posterior muscle imbalances could increase the risk of injuries in sports. 3,4,5Sahrmann stated that repeated movements or prolonged postures may cause a change in movement patterns through tissue adaptation, consequently altering motor control. 6Studies suggest that swimmers develop forward head posture and rounded shoulders due to task specificity which is a risk factor for future injury. 7

Cook et al.8 established that numerous strength and conditioning programs often failed to take into consideration the quality of the client's basic fundamental movements; pre-activity movement screening would be advantageous to establish competency without compensation. Moreover, individuals who continue to train using unsatisfactory movement patterns would be more susceptible to injury, thus adding "fitness on movement dysfunction" 9. The functional movement screen (FMS) is an assessment tool developed to investigate the fundamental movement patterns of individuals 10,11. The FMS consists of 7 fundamental

movement pattern assessments and 3 clearing tests requiring mobility, stability, and balance; each test is scored on a scale of 0–3 with a maximum value of 21 for the 7 tests. Normative FMS values of general active males have been reported to be 15.8 ± 1.8 . Kiesel et al. 11 and Kiesel et al. 13 stated that the FMS had the ability to predict athletes at risk of injury and established athletes who scored ≤ 14 on the FMS were 11 times more likely to become injured throughout the season. Corrective exercises have been developed to retrain dysfunctional movement patterns, establish symmetrical movement, and balance posture.

Total 5 intervention studies have been done till date. Of these studies three studies do not have a control group. The results revealed that the intervention significantly improved FMS scores to above the injury factor of 14. Conversely, Frost et al. 14 reported no significant increase in FMS scores when comparisons were made against a control group during an intervention program. However, the study appeared to portray confounding factors that could have impacted the outcome. Although the decision regarding FMS exercise selection was made by coaches based on the initial screening results, the programs were instructed by strength and conditioning professionals who were unaware of the results. Furthermore, the study does not specify if the professionals assigned to implementing the intervention had any prior experience or certification regarding corrective exercises; skill to oversee corrective exercise could vary significantly between individuals. Finally, there was a high priority placed on strength, power, and aerobic development for the intervention group. However, if the program was generic for all participants, particular exercises could have been contraindicated depending on limitations and weakest links identified from the initial screening, therefore, could have negated the corrective exercise focus. The intervention study by Bodden, 2015 stated improved results in mixed martial artists though the participants continued their training at peak intensities. There is still a need of further studies to investigate the results of corrective interventions on FMS scores.

The purpose of this study will be to find effectiveness of intervention corrective exercises on FMS scores in semiprofessional freestyle swimmers.

METHODOLOGY

25 Freestyle Swimmers were selected by simple random sampling method by chit method. Informed consent was taken and procedure explained. Their FMS scores were measured before, at 4 weeks, and after an 8-week intervention.

Participants were given 10-15 mins of general warm up consisting of light jogging and joint mobility exercises. They were required to complete a corrective exercise program 4 times per week; this quantity has previously been successful at improving FMS scores. All participants were asked to continue their standard training routines with low intensity and avoid the functional movements which have low scores.

Method of random allocation : The players were selected by random chit method. Chits of names of players were kept in the box. The coach was asked to pick 25 chits randomly. The chits with player's names were selected for the study from the academies.

All procedure was thoroughly explained to the players and an informed consent was obtained from each of them. The consenting players agreed to be checked and trained for functional movement corrections.

PROCEDURE

Material and methods :

- Study Design: Intervention

- Study set up: Nearby Sport Academies approved by DeenanathMangeshkar Hospital
- Sampling method: Simple Random Sampling
- Target Population: Male freestyle swimmers training for more than 3yrs

Inclusion Criteria :

- Age 15-25yrs
- Male players
- Training for more than 3yrs

Exclusion Criteria :

- History of any Musculoskeletal disorder within 6 months
- History of any cardiovascular disorder
- History of any neurological disorder
- History of any surgery or medical disorder

Materials Required :

- 2 by 6 box
- 4 foot dowel
- Resistance bands
- Adequate space for testing

Outcome Measure :

- Functional Movement Screen 8,9

RESULT

Mean standard deviation and standard error was carried out for all the groups in this study. Within the group analysis was done by paired t test and Pearson correlation tests.

Table 1: Score comparison between

	FMS Pre-training	FMS at 4 Weeks	FMS at 8 weeks
Mean	13.72	16.72	17.48

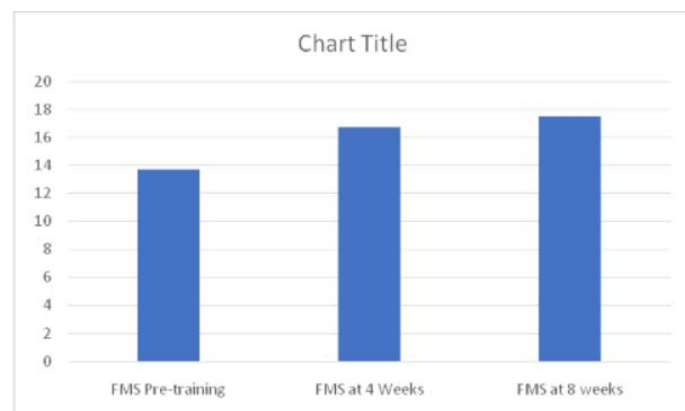
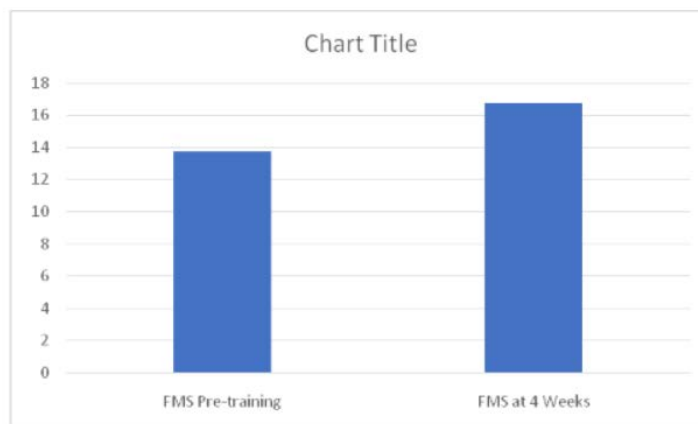


Table 2 :

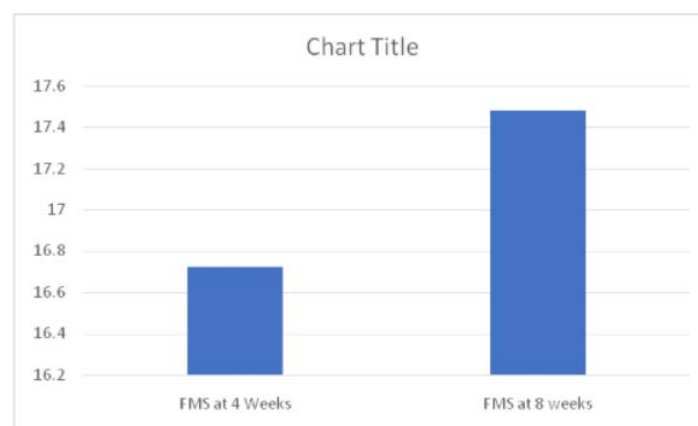
	Mean
FMS Pre-training	13.72
FMS at 4 Weeks	16.72



By applying paired T test, significant value was ($p < 0.05$) was observed in FMS group after 4 weeks of intervention

Table 3:

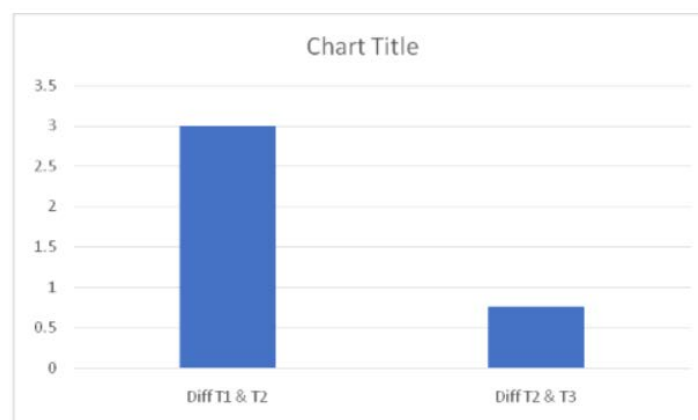
	Mean
FMS at 4 Weeks	16.72
FMS at 8 weeks	17.48



By applying paired T test, significant value was ($p < 0.05$) was observed in FMS group after 8 weeks of intervention

Table 4 : Score comparison between

	Mean Difference
Diff T1 & T2	3
Diff T2 & T3	0.76



By applying paired T test and Pearson correlation test, significant value was ($p < 0.05$) was observed in FMS group after 4 weeks of intervention than in 8 weeks of intervention.

DISCUSSION

The basic twelve fundamental movement skills required to play a sport are balancing, running, jumping, catching, hopping, throwing, galloping, skipping, leaping and kicking. These being the basic locomotor and stabilising skills, they require specific movement of body parts in correct biomechanical way. This is a part

of normal developmental process. These fundamental movements are voluntary movements and are reflex directed and the pattern in which the movements are performed is called the movement pattern.

To play a sport, an athlete requires higher motor skills and advanced movement patterns. Thus the fundamental movements form a base to play any kind of sport from beginner level to the elite level. Control of these movements by our nervous system depends on the sensory information received which will then help recruit the muscles to carry out a goal or movement function. If there are some changes in the sensory information, the movement execution will be changed accordingly. That is, if wrong signals are given, there will be a wrong functional movement pattern. Wrong sensory information can be due to fatigue or stresses on the body. This can alter the movement pattern or biomechanics of the movement, which if wrong, can be injurious to the body.

Hence the Functional Movement Screen (FMS) was introduced to evaluate the functional movements in players. The tests place the individual in extreme positions where weaknesses and imbalances become noticeable if appropriate stability and mobility is not utilized. It has been observed that many individuals who perform at very high levels during activities, are unable to perform these simple movements. These individuals should be considered to be utilizing compensatory movement patterns during their activities, sacrificing efficient movements for inefficient ones in order to perform at high levels. If these compensations continue, then poor movement patterns will be reinforced leading to poor biomechanics.

In this study, we evaluated 25 swimmers for FMS scores pre-training, after 4 weeks of training and after 8 weeks of training. The training comprised of functional movement corrective exercises 4 times per week. It was found that FMS scores showed maximum improvement in first 4 weeks of training. Post 4 weeks to 8 weeks there was little improvement. This suggests that the movement pattern improves after functional movement corrective exercises and maximum improvement is seen in first 4 weeks of training. This can be due to neuronal response of motor learning which later leads to long term adaptation in the motor response.¹⁵

Thus clinical implication of this study thus suggests that movement pattern can be improved in swimmers to increase sports performance and the corrective training can be given for 4 weeks and then progressed to strength training for purpose of injury prevention as FMS score predicts the injury risk score too.

CONCLUSION

The clinical implications of this study suggest that significant improvements in FMS scores were observed post FMS corrective exercise training. Also, the improvements observed after 4 weeks post functional movement training were larger than after 8 weeks of FMS training.

Scope of further study : Further studies can be done to know for how long does the new improved score is maintained.

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Study of development of Strength Endurance of Mentally Challenged Children.

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INTRODUCTION

Each child must be helped to achieve his own potential in movement. A child should be helped to achieve his own potential in movement. A child should be helped to 'feel at home' in his own body, no matter how imperfect that body may be. Children who are mentally challenged have even more difficulties in play. Not only, as we shall see, are they likely to have problems of coordination, but they may not understand the rules of play.

Oliver and Keog (1967) showed that even amongst educationally subnormal children there is a significant relationship between physical abilities, social acceptance and behaviour patterns many physically awkward children are withdrawn and have difficulty in relating to others; some rejected at play become defensive or aggressive.

The answer to this problem is not, of course, to withdraw children from play and so protect them from possible failure and rejection. Teachers, parents and others must do their best to improve children's skills so that they are able to join in group play. There is evidence, as we shall see later; that the physical fitness and motor skills of both mentally challenged and physically challenged children can be improved. Evidence will also be presented that those whose skills are so improved can improve, in social relationships and in behaviour.

Objective of the Study :

1. To find out the degree of mental deformity among the selected subjects.
2. To organize the Pre & Post test of Strength endurance - static strength of lower extremities among mentally challenged boys & girls of 8-10 years of age group.
3. To find out the development of Strength endurance through post-test among the mentally challenged subjects.
4. To suggest and recommend few exercises and to continue with the same adapted physical education and therapeutic exercises for the development in Strength endurance among the mentally challenged subjects.

HYPOTHESIS

The research scholar hypothesizes that there will be significant difference in the Development of Strength Endurance of Mentally Challenged Children

DELIMITATIONS

1. The study is delimited to the mentally challenged subjects with moderately Intellectual Quotient.
2. The study is delimited to age 8-10 years of boys and girls only.
3. The study is delimited to the subjects selected from different schools in the vicinity of Aurangabad city of Maharashtra
4. The post test is conducted after 6 months after imparting adapted physical education and therapeutic exercises.

LIMITATIONS

1. The study is with the school subjects and hence the regularity of the subjects was the limitation.
2. The involvement of the subject during the training and tests are the limitation of the study
3. Food, daily routine other than schooling hours, rest, recovery, environment at home, health were few limitations of the study, which are beyond the control of the researcher.

METHODOLOGY**Population:**

The population is the mentally challenged boys and girls school children with definite age group ranging between 8 to 10 years of Aurangabad city.

Sample:

The samples of this study are randomly selected from different schools in mentally challenged subjects –Boys & Girls. The selected age groups of the subjects are from 8 to 10 years.

VARIABLE**Independent Variables :**

1. Standard Tests to Evaluate development of strength endurance

Interweaving Variables :

1. Sex: Boys & Girls
2. Age: 8 to 10 years.
3. Criteria: Degree of Mentally Challenged
4. Times: Initial and Final

Dependent Variables :

1. Results of strength endurance

COLLECTION OF DATA

The subjects were selected from different schools in mentally challenged school children (Boys & Girls). In all testes were selected for evaluating development of strength endurance of the subjects between 8 to 10 years.

Table 1: The table is depicting the mean, standard deviation and t-test of development of Strength endurance of Legs static strength, of Mentally Challenged Boys between 08 to 10 years of age

CODE (MCB 08-10)	Lower Extremity Static Strength - I	Lower Extremity Static Strength - F
Mean	26.8	34.5
S. D.	8.08	7.9
T – test	0.029	Df= 16

MCB: Mentally challenged boys, MCG: mentally challenged girls

Static strength I: Initial, Static strength F: Final

* Significant at .05 level

Graph 1: The graph is depicting the mean, standard deviation of Static strength of lower extremity of Mentally Challenged Boys between 08 to 10 years of age

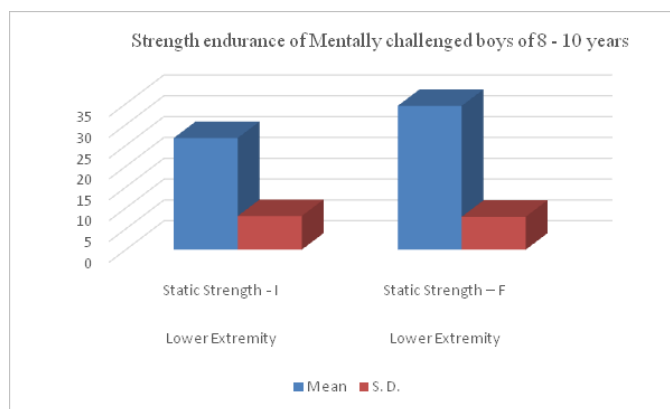


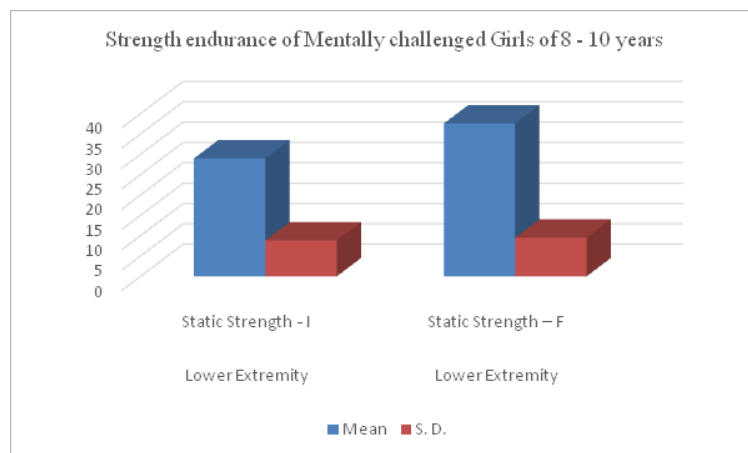
Table 2 : The table is depicting the mean, standard deviation and t-test of development of Strength endurance of Legs static strength, of Mentally Challenged Girls between 08 to 10 years of age.

CODE (MCG 08-10)	L Ext Stat Stg - I	L Ext Stat Stg - F
Mean	29	37.57
S. D.	8.85	9.51
T – test	0.053	Df=12

MCG: mentally challenged girls

Static strength I: Initial, Static strength F: Final

Graph 2 : The graph is depicting the mean, standard deviation of Static strength of lower extremity of Mentally Challenged girls between 08 to 10 years of age



DISCUSSION

The table:1 and the graphs:1 state that the mean of initial Static Leg Strength of Mentally Challenged boys between age group of 08 to 10 years is 26.8 Sec. (SD = 8.08) and the mean of final Static Leg Strength taken after six months is 34.5 Sec. (SD = 7.9) the calculated value of the t-test is 0.029 at .05 level of significance and the table value is 1.746 at the Df=16, hence it can be stated that there is insignificant difference appeared in the development in Static Leg Strength after adapted physical education exercises. Hence Hypothesis is rejected.

The table and the graphs state that the mean of initial Static Leg Strength of Mentally Challenged girls between the age group of 08 to 10 years is 29 Sec. (SD = 8.85) and the mean of final Static Leg Strength taken after six months is 37.57 Sec. (SD = 9.51) the calculated value of the t-test is 0.053 at .05 level of significance and the table value is 1.782 at the Df=12, hence it can be stated that there is insignificant difference appeared in the development in Static Leg Strength after adapted physical education exercises hence hypothesis is rejected.

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Effect of Relaxation Techniques on the Stress Management of Air Pistol Shooters.

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ABSTRACT

The main purpose of this study was to determine the effect of Relaxation Techniques on the stress management of 10 meter Air Pistol Shooters. For this study 40 male intercollegiate level 10 meter Air Pistol Shooters between 18-24 were selected as the subjects of the study and their pretest was conducted through the questionnaire. After the pre-test six weeks relaxation training program was manipulated. Training was given for one hour in the evening on a daily basis. Relaxation training program includes Autogenic training. After the six weeks relaxation training post-test was conducted through the same questionnaire. The collected data was analyzed by using a paired sample 't' test. Results showed that coefficient of correlation between pretest and post-test of stress was 0.00832, which was statistically significant at 0.05 ($p=0.000$) significance level and the calculated value of 't' was 3.892 which was statistically significant at 0.05 level ($p=0.001$). From the above results it can be concluded that a six weeks relaxation training program was effective to reduce the stress level of the subjects.

Keywords : Relaxation techniques, Stressors of Air Pistol Shooters.

INTRODUCTION

Shooting is an Olympic sport, with different categories. Standing Air Rifle and Pistol Shooting are among the most technical of these, with both disciplines requiring extreme precision for success. To successfully compete in this demanding sport, an intensive training of the correct technique is necessary. Once each part of the correct technique is learned and can be properly executed by the shooter, all these elements are to be used in a coordinated and systematic way, otherwise there will be no expected and wished output. The sport of target shooting involves three factors-heart rates, breathing, and calm nerves are of paramount importance in all shooting sports. To obtain correct sight alignment, it is necessary for the shooter to hold the pistol in a relaxed grip and that trigger pressure is applied straight to the rear. This ensures that the delicate balance of sight alignment and minimum arc of movement is not disturbed. Shooters must be in control of him, not only the pistol. So as to prepare the shooter to easily tackle the competition pressure shooters will undergo through a well planned physical and psychological training.

The ability to steady hand and mind to deliver a sequence of shots requires well-developed powers of physical, concentration and emotional control. Shooting Sports is heavily reliant on mental skills. Shooters refer to their sports as “Sport of the Mind”. Mental make-up would play a very large role in determining the success or failure of a shooter. Shooters are preselected by virtue of their personality for different kinds of shooting sports. Shooters differ in the way they react to stress, and measurement of the coping abilities of shooters show the prediction rate of a shooter’s potential success or failure at various competitive levels.

Stress is a psycho-somatic ailment; it is a feeling of emotional or physical tension that results in frustrated, angry or nervous behavior. Stress in the context of being psycho- somatic relates to mind and body as a unit. Stress is basically a pressure that impinges on an individual and makes him suffer. It is a state to which the natural body equilibrium i.e. Homeostasis is disturbed because of any threat to the organism. Stress has been defined as the adoptive physiological response of the human organism to internal and external force and events which disturb the homeostatic balance of the individual. Physical symptoms of stress include low energy, headache, upset stomach, chest pain, rapid heartbeat, insomnia, loss of desires, infections etc. The various causes of stress are being under lots of pressure, facing big challenges, worrying about something, times of uncertainty and having responsibilities due to which one finds overwhelming. Stress can cause severe health problems and, in extreme cases, death. Stress management techniques have a positive effect on reducing stress. Different people handle stress differently, in different situations one handles stress better if you’re confident in your abilities. Stress impacts our ability to do our work effectively, and it affects how we work with other people. This can have a serious impact on our careers, our general well-being, our relationships and sports performance.

Progressive Muscle Relaxation (PMR) therapy involves sequential tensing and relaxation of major skeletal muscle groups and aims to reduce feelings of tension, to lower perceived stress, and to induce relaxation. PMR is purported to decrease the arousal of the autonomic and central nervous system and to increase parasympathetic activity. Progressive Muscle Relaxation teaches how to relax muscles through a two step process. First, systematically tense particular muscle groups in the body, such as neck and shoulders. Next, release the tension and notice how muscles feel when they relax them. This exercise will help to lower overall tension and stress levels, and relax when one feels anxious. It can also help reduce physical problems such as stomachaches and headaches, as well as improves the mental health. Edmund Jacobson, an American physician, drew on studies in psychology and physiology, to develop his own understanding of the mind-body relationship and its role in health, and a method of stress reduction that he described in his book *Progressive Relaxation*, published in 1938. He stated that the mind and voluntary muscles work together in an integrated way. Keeping the mind calm allows muscles to relax, and freeing the body of tension reduces sympathetic activity and anxiety. He initially developed PMR to induce relaxation by promoting awareness of tension in skeletal muscles. Bernstein and Borkovec later developed a shortened, modified procedure that is now the most frequently used form of PMR.

METHODOLOGY

In the present study researcher wants to study the effect of relaxation techniques on the stress management of Air Pistol shooters, so the study was conducted by an experimental method in which a single group pretest, post-test design was used. For this study 40 male intercollegiate level air pistol shooters of age between 18-24 were selected as the samples for this study through purposive sampling. The pretest of the subjects was conducted through the questionnaire. After the pre-test six weeks relaxation training program was manipulated. Training was given for one hour in the evening on a daily basis. Relaxation training program was the combination of Yogic activities and Autogenic training. After the six weeks relaxation training post-test was conducted through

the same questionnaire. In this study the stress scale constructed and standardized by Everly and Girdano was used to measure the stress level of the subjects. The collected data was analyzed by paired sample 't' test through spss software version 21.

RESULTS AND DISCUSSION

To find out the effect of the training program on the subjects the data collected before and after the six weeks training program were compared with paired sample 't' tests.

Table 1 : Descriptive statistics of pre and post test of stress level

Test	Mean	N	Std. Deviation	Std. Error Mean
Pre-test	22.5333	40	4.83331	0.88244
Post-test	21.3667	40	4.67925	0.85431

There were 40 subjects. The mean of stress in pre-test was 22.5333 with standard deviation of 4.83331 and the mean of stress in post test was 21.3667 with standard deviation 4.67925.

Table 2 : Paired Samples Correlations Pretest and posttest of stress.

	N	Correlation	Sig.
Pretest and Posttest	40	0.941	0.000

Coefficient of correlation between pretest and posttest of stress was 0.0941, which was statistically significant at 0.05($p=0.000$) significance level.

Table 3. Paired Samples Test of stress level.

t	df	Sig. (2-tailed)	Mean difference	Std. Error
3.892	39	0.001	1.16667	0.29974

In the table no. 3 mean difference for stress of pretest and posttest of subjects was 1.1667. This difference when tested by Paired Samples Test 't' value was found 3.892. Which was statistically significant at 0.05 ($p=0.001$) significance level for 39 degrees of freedom. This shows that there was a significant decrease in the stress of subjects due to relaxation techniques.

DISCUSSION OF FINDINGS

From the table no 1-3 It was observed from the findings that the effect of relaxation techniques on stress management. There was a significant difference in pretest and posttest of subjects regarding stress. This indicated that the treatment program had a positive effect on stress management.

CONCLUSION

From the results of the study, it can be concluded that six weeks relaxation training was effective to reduce the stress level of the subjects. From the results of the study it can be concluded that relaxation techniques are very important to create peace, modification of mind and to develop mental peace.

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Effect of Yoga on Anxiety Levels in College Students

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ABSTRACT

In this modern era stress has become an integral part of human life. Stress is considered to be any condition which results in perturbation of the body's homeostasis. Today, students are constantly under stress to balance between home and college place. Yoga aims at an integrated and harmonious development of all the potentialities of man. However, to put yoga on a firm scientific pedestal, we planned to undertake a study of effect of yoga on anxiety score before and after yoga training in apparently healthy college students. The study was carried out in 40 apparently healthy college students aged between 19-21 years who attended three months of yoga training. State and trait anxiety scale was used to evaluate anxiety levels before and after yoga training. Our study showed a statistically significant difference in total anxiety score before and after yoga training by applying paired 't' test. We concluded that regular practice of yoga in day to day life reduces anxiety levels and improves subjective feeling of wellbeing. Our study thus helps to popularize yoga among college students.

Keywords : Stress, yoga, anxiety scale

INTRODUCTION

Today college students are constantly under stress to maintain balance between home and college place. This stress affects their physical and mental health; but Stress is necessary for life. We need stress for creativity, learning and for survival. Stress is only harmful when it becomes overwhelming and interrupts the healthy state of equilibrium. Stress jacks up the nervous system, overburdens the adrenal glands and lowers immunity. Yoga is considered to be one of the most important, effective and valuable tools available for man to overcome various physical and psychological problems [7]. Many studies have proved efficacy of yoga in reducing anxiety. Studies conducted by Vincente Pedro (1978) and Bheeshan (1998) found significant reduction in state and trait anxiety score in subjects due to regular practice of yoga. In another study Malathi et al (1998) conducted a Yoga intervention study on engineering students and tested them before and after the examination and found anxiety reduction in the student at the time of examination [8]. Spielberger (1966) has placed anxiety into two categories, i.e. state anxiety and trait anxiety. State anxiety is situational, which develops on account of severe demanding situation and this does not last long, whereas trait anxiety has deeper roots and it refers to inherent anxiety proneness developed due to defective socialization [7]. Hence, the present study was undertaken to see effect of yoga on state and trait anxiety before and after yoga training in healthy students.

METHODOLOGY

The study was conducted on 40 healthy Students subjects aged between 19 -21 years who attended three months of yoga training. All the subjects had never undergone any kind of yoga training earlier. The informed consent was obtained from all the participants. The yoga training was given one hour per day for three months which included;

- a) Prayer-1min.
- b) Sthihpragnyasana- 2min.
- c) Asanas-25min.
- d) Anuloma, Ujjayi, Bhramari-5min.
- e) Yognidra with visualization-20min.
- f) Meditation on Onkar & Tratak-5min.
- g) Prayer &Sthithpragnyasana-2min

Spielberger's state and trait anxiety inventory was used to evaluate anxiety levels before and after yoga training. Spielberger state-trait anxiety inventory (STAI) is a forty item Likert-type questionnaire designed to assess individual differences in the experience of anxiety. The trait form of the inventory assesses an individual's general anxiety level ,and the state form of the inventory assesses the individual's anxiety specific to the time of completion of the survey. Each form consists of twenty items with total scores that range from a minimum of twenty to a maximum of eighty. Statistical analysis was done by applying paired 't' test .

RESULTS

Our study showed statistically significant difference ($p < 0.05$) in total anxiety score before and after yoga training by applying paired 't' test.

Table 1 : Change in state anxiety score

State Anxiety score Before yoga training (Mean±S.D)	State Anxiety score After yoga training (Mean±S.D)	't' value	'p' value	Significance
52 52.94±10.05	34.23±8.630	10.75	<0.0001	Significant

Table 2 : Change in trait anxiety score

Trait Anxiety score Before yoga training (Mean±S.D)	Trait Anxiety score After yoga training (Mean±S.D)	't' value	'p' value	Significance
45.26±10.05	34.69±7.157	7.210	<0.0001	Significant

Table 3 : Change in total anxiety score

Total Anxiety score Before yoga training (Mean±S.D)	Total Anxiety score After yoga training (Mean±S.D)	't' value	'p' value	Significance
97.91±17.14	69.20±13.87	t=10.82	< 0.0001	Significant

DISCUSSION

The tables 1, 2, 3 show significant reductions in Spielberger's state, trait and total anxiety score after practicing yoga in. This demonstrates the beneficial effects of yoga for reducing stress. Stress affects students health in many ways. Stress is known to modulate activity of autonomic nervous system as well as central nervous system. In stressful states, there will be preponderance of sympathetic activity. This shift towards sympathetic may be the reason of anxiety (Srinivasan et al, 2006) [1]. Some common physical and emotional symptoms of stress are: Fatigue; Head, back, neck and shoulder aches; Stomach problems; Change in menstrual cycles; Feeling anxious; Feeling isolated; Frustration; Irritability and Difficulty in concentrating. Subtle discriminations at workplaces, family pressures and societal demands add to these stresses in them [2].

Yogic practices bring about stable autonomic nervous system with a tendency towards parasympathetic nervous system dominance. Some mechanisms have been proposed to explain how yoga reduces the anxiety level. Yogabreathing exercises decrease arousal, which calms and focuses the mind, relaxes the body, oxygenates the blood, soothes anxiety, and promotes clear thinking. The intense concentration and body control involved in breathing exercises help free the mind from mental distractions, worries, and fatigue [1].

- a) During meditation there is decrease in plasma phenylalanine; that is associated with altered mental activity and also decrease in plasma cortisol which is an important mediator of stress [13].
- b) Different yoga poses show an increase in the levels of central inhibitory neurotransmitters GABA (Gamma amino butyric acid). Low GABA levels are associated with higher anxiety [11].
- c) In yoga, the hypothalamus interacts with the thalamic nuclei to facilitate specific alpha-wave frequencies in cortex [13]. High alpha index in EEG may be considered as underlying mechanism for calmness in yogic persons [14].

Thus, a), b) and c) explains reduction of anxiety and calming effect of yoga. By improving circulation in the endocrine glands, a consistent yoga practice enhances the functions of hormones that play a primary role in the physiology of depression. This results in a reduction in depression and improved overall mood [1]. The yoga practices stimulate and balance all systems of the body. The end result is increased mental clarity, emotional stability and a greater sense of wellbeing [12].

CONCLUSION

Our study concludes that regular practice of yoga reduces anxiety levels and improves subjective feeling of wellbeing. Thus, our study helps to popularize yoga among college students.

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Analytical Study of Physical Fitness Of College Female Athlete From Different Ball Games With Respect To Body Composition And Cardio- Vascular Endurance

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ABSTRACT

The purpose of the study was to analyse Physical Fitness of College female Athlete from different ball games with respect to their body composition and Cardio-Vascular (CV) Endurance. Total thirty-four female Athletes from threeball games namely Football, Handball and Basketball of age between 18 to 21 years old of St. Mira's College for Girls, Pune was selected purposively. This study used tools for data collection as the 12 mins run / walk test and Body Mass Index (BMI) score, which were used for assessing CV Endurance and Body Composition of all the players respectively. The collected data was analysed by using descriptive statistics and ANOVA test and Correlation test. The result of the study reveals that there was no significant difference in BMI and CV Endurance of female athletes between all the three games namely Football, Handball & Basketball girls fitness score. There was negative coefficient of correlation between the CV Endurance and body weight of all three ball games and only in basketball players performance the coefficient of correlation was found significant.

Key words : Physical Fitness, Body Composition and CV Endurance

Physical Fitness is very necessary for participating in any games and sports. Without fitness we can't give our best performance. Physical Fitness of an individual depends on body composition, age, sex, training and nutrition status and environmental factor. The human fitness may influence from the born and it will change by their heredity, living environment, lifestyle and so on. Physical fitness is defined as the capacity to perform daily activity with vitality and sharpness, without undue fatigue while being able to appreciate recreation time interests and to meet the unpredicted emergencies (Singh K, 2017). It is the combination of health and skill related aspects of physical fitness which is imperative in shaping individuals in sports or games. Endurance Training leads to healthier and stronger muscles and bones, it also helps to perform everyday task with ease. Endurance training and body composition is interlinked with each other when we practice for Endurance training automatically our Body Mass Index (BMI) is maintained.

Football, Basketball and Handball are competitive sports, which demands high degree of physical fitness from their players for easy and efficient execution of technical and tactical skills mastered by the players. These all three games are very aggressive and fast in nature and totally depends on the fitness level of the athletes. These all games required more CV Endurance and speed, both. So, athletes should be properly trained on the physical fitness specially with endurance, speed and strength. While practicing for different ball games, we can observe

that there is a specific effect seen on the Body Composition and Cardio Vascular Endurance of the athletes. The body composition is different for different sports e.g., Kabaddi players body composition is different than the Football Players. According to the type of game or sports event, the body composition changes. And the CV endurance is also very necessary in all games, without it, athlete can't play for a long duration of time.

The researcher has selected female athletes from St. Mira's college for girls, Pune. All the athletes were doing practice from last one year for their respective games. As we all know Regular practice improves the fitness level, especially Endurance, Speed, Strength. So, the researcher wanted to see the comparison of CV Endurance performance and BMI score of female Athletes from three different ball games namely Football, Handball & Basketball. And also want to analysed the correlation between the CV Endurance and the body weight of the athlete's game wise.

OBJECTIVE

The purpose of the study was to analyse physical fitness of athletes from three different ball games namely Football, Handball & Basketball.

METHODOLOGY

In this study total thirty-four female Athletes from three different ball games namely Football, Handball & Basketball of age between 18 to 21 years old of St. Mira's College for Girls, Pune was selected purposively. This study followed a Descriptive Comparative Research Method. The tools used for data collection was 12 mins run / walk test and BMI score for assessing CV Endurance and Body Composition of all the athletes respectively.

PROCEDURE

The female Athletes from three different ball games of Football, Handball & Basketball were selected for the study. All the female athlete were participated in district level competition and were doing regular practice in their respective games. The 12 mins run / walk test and height and weight test were measures of all thirty-four girls. The collected data was analysed using descriptive statistics, ANOVA and Correlation coefficient was calculated with SPSS software.

RESULTS

Table 1 : Frequency table of Body Mass Index

	Under Weight	Normal Range of Weight	Overweight
Games	Below 18	18.1 -24.9	25 and above
Football	5	6	1
Basketball	2	6	2
Handball	2	10	

According to Table No. 1, out of twelve players of football, five players were Under Weight, six were in Normal Range and one player was Overweight; out of ten players of basketball, two players were Under Weight, six were in Normal Range and two players were Overweight and out of twelve players of Handball, two players were Under Weight and ten players were in Normal Range.

Table 2 : Game wise Descriptive statistics of 12mins run/ walk and BMI (n= 34)

	Football (n=12)		Basketball (n=10)		Handball (n=12)	
	12mins	BMI	12mins	BMI	12mins	BMI
Mean	1705.8	19.3	1627.0	22.4	1805.0	20.0
Standard Deviation	190.28	2.98	184.45	4.39	362.45	3.02
Variance	36208.3	8.9	34023.3	19.3	131372.7	9.1

According to Table No. 2, for the athletes from football, the mean score of 12mins run/walk and BMI was 1705.8 and 19.3 respectively, In Basketball event the mean score of 12mins run/ walk and BMI was 1627.8 and 22.4 respectively and In Handball event the mean score of 12mins run and walk and BMI was 1805.8 and 20.0 respectively. It shows that the handball players have maximum CV endurance than the other two event games players. And It has been also seen that their maximum players lie under the normal category of BMI.

Table 3 : ANOVA of 12mins run/walk test scores with respect to all 3 ball games

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	175410.10	2.00	87705.05	1.26	0.30	3.30
Within Groups	2149601.67	31.00	69341.99			
Total	2325011.76	33.00				

The Table No. 3 displayed that the sum of Square between groups was 175410.10 and within groups was 2149601 at degree of freedom 2. The P value is 0.30 and the F value was 1.26; which was less than the critical Value 3.30 this shows that there was no significant difference in within the groups of CV endurance.

Table 4 : ANOVA of BMI scores with respect to all 3 ball games

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	56.88	2.00	28.44	2.37	0.11	3.30
Within Groups	371.95	31.00	12.00			
Total	428.83	33.00				

The Table No.4 revealed that the sum of Square between groups was 56.88 and within groups was 371.95 at degree of freedom 2. The P value was 0.11 and the F value was 2.37 which was less than the critical value 3.30. This showed that there was no significant difference found within the groups of BMI score.

Table 5 : The Coefficient of Correlation among CV Endurance, and body weight of the athletes from threeball games.

	Coefficient of Correlation
Football	-0.38
Basketball	-0.73
Handball	-0.12

Correlation was significant at the 0.05 level (2-tailed).

Table No. 5 showed that coefficient of correlation between the CV Endurance test performance, and Body

weight of the all the 3 games Football, Basketball and Handball was 0.38, 0.73 and 0.12 respectively. It showed that coefficient of correlation of football and handball players was very low level of correlation. And for basketball players there was significant correlation between the CV Endurance test performance, and Body weight. It was, therefore interpreted that as weight increases cv endurance decreases. (As coefficient of correlation was negative)

DISCUSSION

The results of this study revealed that there was no significant difference found in CV Endurance performance and in BMI Score of all three games football, basketball and handball players. Football, Basketball and Handball, all three games required same level of cardio-vascular fitness. All the players were practicing from last one year in their respective games which means that they all were beginners, so we have not found the significant difference in both the fitness test scores. As the mean score of CV Endurance test showed that there was difference in the performance of all three games athletes, but it was very small, it was showing no significant difference in ANOVA test of CV Endurance and Body Composition score of all three games athletes. In coefficient of correlation, for football and handball players was very low level of correlation and for basketball players there was high level of correlation between the CV Endurance test performance, and Body weight. All basketball players weight was less, so this result can be taking place.

In another study by Dharmendra, S. & Rajendra, R. (2015) they have seen that there was significant difference in the Body Mass Index- in relation to the volleyball and football players. The football players group was having more BMI showing greater body mass than the volleyball players group. And the significant difference was found in the 12 minutes Run/Walk test of cardiovascular endurance in relation to the volleyball and football players. The football players group had better cardiovascular endurance, showing greater heart and lungs capacity than the volleyball players group. There was not found any significant difference in relation to body weight. Karthi S.R, Krishnakanthan (2012) had conducted the similar study on analysis of selected physical variables among football, hockey and basketball players. They found that basketball players had better speed compare to football and hockey players. And CV Endurance of football players had better compare to the basketball and hockey players.

CONCLUSION

The result of the study revealed that there was no significant difference in BMI score and CV Endurance of female athletes between all three games (Football, Handball & Basketball). And there was negative correlation between the CV Endurance and body weight of all three ball games. The coefficient of correlation of football and handball players was very low-level correlation. And for basketball players there was significant correlation between the CV Endurance test performance, and body weight.

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Comparative Study of the Emotional Intelligence of Sports Person and Non Sports Person Male Students from Sanjivani College of Engineering, Ahmadnagar Maharashtra

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ABSTRACT

The purpose of this study is to compare the Emotional Intelligence of Sports Person and Non Sports Person Students from Sanjivani College of Engineering, Ahmadnagar Maharashtra. The total 70 subjects (35 sports person and 35 non sports person students) the age groups Between 18 to 22 were taken by simple random sampling for this study. 5 Point likert Scale Emotional Intelligence Questionnaire (Hyde et al., 2001) was employed in this study to collect the data with the help of Google Form. Independent sample t test was used for the data analysis. The level of significance was set at 0.05. The analysis of data revealed that mean score of Sports person group in categories of Self-awareness, Empathy, Self- Motivation, Emotional stability, Managing Relations, Integrity, Self- development, Value orientation, Commitment, Altruistic Behavior is greater than those of the Non Sports Person group. According to the results, there is a significant difference between mean scores of Sports person group and Non Sports person group in the categories of Self Awareness, Self Motivation, Integrity and Value Orientation. There is no significant difference between mean scores of Empathy, Emotional stability, Managing Relations, Self- development, Commitment, Altruistic Behavior of Sports Person and Non Sports Person Students. There is no significant difference between mean scores of emotional intelligence of Sports Person and Non Sports Person Students from Sanjivani College of Engineering, Ahmadnagar Maharashtra.

Keyword : Emotional Intelligence, Sports Person, Non Sports Person, Students

INTRODUCTION

Goleman's theory (1995) suggests that emotional intelligence includes knowing and managing personal emotions, sympathizing with others, and manipulation of communications in order to be satisfied with them. It covers abilities like recognizing, understanding, and regulating emotions which are important for students to establish positive relationships with people. In several studies it was seen that successful management, social competence, and good leadership are depends on sound emotional intelligence of a person (Muhammad Akram Uzzaman, 2017) also it is part of your and others emotions and feelings, including the capability to monitor, differentiate and use this information to direct thinking and action. Emotional Intelligence is a set of qualities that captures a broad collection of individual skills and dispositions, usually referred to as soft skills or inter and intra-personal skills, that are outside the traditional areas of specific knowledge, general intelligence, and technical or professional skills. Inability to express one's emotional skills can threaten people's

mental, physical and psychological health and challenge an individual's adaptability in interaction with others. (Roghayeh Sohrabia et.al., 2011, Chauhan Aarti, 2019 & Sachin Gupta, 2014)

Engaging in regular physical activity is one of the best ways to improve general health, including physical, psychological, and emotional health. Physical activity has become the prime health indicator; it plays an essential role in enhancing physical fitness and health-related behavior, prolonging life, improving health-related quality of life, enhancing weight management, and lowering the risk of morbidity and mortality from diseases, and has a positive influence on various medical disorders (Gladys Shuk-Fong Li, Frank J.H. Lu & Amy Hsiu-Hua Wang, 2009)

Emotional Intelligence can be defined as the ability to recognize and adjust our emotions that generate our responses with certain situations or people. Through Emotional Intelligence individuals can learn how to gain control over our responses and actively participate in forming our social skills. It consists of five factors: Knowing one's emotions, managing emotions, motivating one, recognizing emotions in others, and handling relationships. Emotional intelligence has a greater impact on performance of employees. Emotionally intelligent organization is based on an organizational strategy to improve business performance. (Chauhan Aarti, 2019 & Sachin Gupta, 2014)

So in future all technical educationalists become employees in various organisations. That's why researchers want to study the Emotional Intelligence of Sports Person and Non Sports Person Students from Sanjivani College of Engineering, Ahmadnagar Maharashtra.

METHODOLOGY

From the entire population (N=3500) Total Seventy (N= 70) technical background students aged between 18 to 22 from Sanjivani College of Engineering were taken for the sample of this study by Simple Random sampling technique. From the sample thirty five (N=35) students are sports person and 35 non sports person students.

For testing the Emotional Intelligence Scale was used with the help of Google Form. This scale is developed and standardized by Anukool Hyde, Sanjyot Pethe and Upinder Dhar (2001). The 34 items are rated on a five point scale. The subjects were required to respond to each item in terms of "Strongly agree, Agree, Undecided, Disagree, Strongly disagree." The test meant for knowing the difference between individuals. The 10 subscales are i.e. 1) Self-awareness, 2) Empathy, 3) Self-Motivation, 4) Emotional stability, 5) Managing Relations, 6) Integrity, 7) Self-development, 8) Value orientation, 9) Commitment, 10) Altruistic Behavior. This is a well known test having high reliability (split-half reliability 0.88) and high validity (0.93). For the data analysis Independent sample t test was used. The level of significance was set at 0.05.

RESULTS

The analysis of data interpretation and results are reported.

Table 1 : Statistical analysis of Self-awareness

Self Awareness	Emotional Intelligence	N	Mean	Std. Deviation	F	Sig.	t	df	Sig. (2-tailed)
	Non Sports Person	35	3.9143	.58769	.182	.671	-2.513	68	.014
	Sports Person	35	4.2714	.60138			-2.513	67.964	.014

Observation of table 1 indicated that the mean value of both classified groups seems to differ from each other on Self-awareness. The mean and SD value obtained by the Non Sports Person 3.91, SD 0.58, and Sports Person was 4.2, SD 0.60 and 'F' ratio was 0.182 at a glance those Sports Person shows a higher score than Non Sports Person. The mean value shows Sports Person Having higher Self Awareness than Non Sports Person. In the present study "There is a significant difference between Sports Person and Non Sports Person Students with dimension Emotional Intelligence on self-awareness was found ($P=.014$) at 0.05 levels.

Table 2: Statistical analysis of Empathy

Empathy	Emotional Intelligence	N	Mean	Std. Deviation	F	Sig.	t	df	Sig. (2-tailed)
	Non Sports Person	35	4.0057	.54769	.023	.881	-1.658	68	.102
	Sports Person	35	4.2229	.54831			-1.658	68.000	.102

Observation of table 2 indicated that the mean value of both classified groups seems to differ from each other on Empathy. The mean and SD value obtained by the Non Sports Person 4.00, SD 0.54, and Sports Person was 4.22, SD 0.54 and 'F' ratio was 0.023 at a glance those Sports Person shows a higher score than Non Sports Person. The mean value shows Sports Person Having higher Empathy than Non Sports Person. In the present study "There is no significant difference between Sports Person and Non Sports Person Students with dimension Empathy was found ($P=.102$) at 0.05 levels.

Table 3 : Statistical analysis of Self Motivation

Self Motivation	Emotional Intelligence	N	Mean	Std. Deviation	F	Sig.	t	df	Sig. (2-tailed)
	Non Sports Person	35	4.0429	.54883	.189	.665	-2.002	68	.049
	Sports Person	35	4.2952	.50502			-2.002	67.535	.049

Observation of table 3 indicated that the mean value of both classified groups seems to differ from each other on Self Motivation. The mean and SD value obtained by the Non Sports Person 4.04, SD 0.54, and Sports Person was 4.29, SD 0.50 and 'F' ratio was 0.189 at a glance those Sports Person shows a higher score than Non Sports Person. The mean value shows Sports Person Having higher Self Motivation than Non Sports Person. In the present study "There is a significant difference between Sports Person and Non Sports Person Students with dimension Self Motivation was found ($P=.049$) at 0.05 levels.

Table 4 : Statistical analysis of Emotional Stability

Emotional Stability	Emotional Intelligence	N	Mean	Std. Deviation	F	Sig.	T	df	Sig. (2-tailed)
	Non Sports Person	35	4.3357	.61818	.412	.523	-.848	68	.399
	Sports Person	35	4.4500	.50293			-.848	65.297	.399

Observation of table 4 indicated that the mean value of both classified groups seems to differ from each other on Emotional Stability. The mean and SD value obtained by the Non Sports Person 4.33, SD 0.61, and Sports Person was 4.45, SD 0.50 and 'F' ratio was 0.412 at a glance those Sports Person shows a higher score than Non Sports Person. The mean value shows Sports Person Having higher Emotional Stability than Non Sports

Person. In the present study “There is no significant difference between Sports Person and Non Sports Person Students with dimension Emotional Stability was found ($P=.399$) at 0.05 levels.

Table 5 : Statistical analysis of Managing Relations

Managing Relations	Emotional Intelligence	N	Mean	Std. Deviation	F	Sig.	T	df	Sig. (2-tailed)
	Non Sports Person	35	4.0571	.60660	1.649	.204	-1.766	68	.082
	Sports Person	35	4.2929	.50543			-1.766	65.855	.082

Observation of table 5 indicated that the mean value of both classified groups seems to differ from each other on Managing Relations. The mean and SD value obtained by the Non Sports Person 4.05, SD 0.60, and Sports Person was 4.29, SD 0.50 and ‘F’ ratio was 1.649 at a glance those Sports Person shows a higher score than Non Sports Person. The mean value shows Sports Person Having greater ability of Managing Relations than Non Sports Person. In the present study “There is no significant difference between Sports Person and Non Sports Person Students with dimension Managing Relations was found ($P=.082$) at 0.05 levels.

Table 6 : Statistical analysis of Integrity

Integrity	Emotional Intelligence	N	Mean	Std. Deviation	F	Sig.	T	df	Sig. (2-tailed)
	Non Sports Person	35	4.0381	.77448	1.471	.229	-2.234	68	.029
	Sports Person	35	4.4000	.56476			-2.234	62.189	.029

Observation of table 6 indicated that the mean value of both classified groups seems to differ from each other on Integrity. The mean and SD value obtained by the Non Sports Person 4.03, SD 0.77, and Sports Person was 4.40, SD 0.56 and ‘F’ ratio was 1.471 at a glance those Sports Person shows a higher score than Non Sports Person. The mean value shows Sports Person Having higher Integrity than Non Sports Person. In the present study “There is a significant difference between Sports Person and Non Sports Person Students with dimension Integrity was found ($P=.029$) at 0.05 levels.

Table 7 : Statistical analysis of Self Development

Self Development	Emotional Intelligence	N	Mean	Std. Deviation	F	Sig.	T	df	Sig. (2-tailed)
	Non Sports Person	35	4.0429	.83465	.583	.448	-1.833	68	.071
	Sports Person	35	4.3571	.57614			-1.833	60.406	.072

Observation of table 7 indicated that the mean value of both classified groups seems to differ from each other on Self Development. The mean and SD value obtained by the Non Sports Person 4.04, SD 0.83, and Sports Person was 4.35, SD 0.57 and ‘F’ ratio was 0.583 at a glance those Sports Person shows a higher score than Non Sports Person. The mean value shows Sports Person Having higher Self Development than Non Sports Person. In the present study “There is no significant difference between Sports Person and Non Sports Person Students with dimension Self Development was found ($P=.071$) at 0.05 levels.

Table 8 : Statistical analysis of Value Orientation

Value Orientation	Emotional Intelligence	N	Mean	Std. Deviation	F	Sig.	T	df	Sig. (2-tailed)
Non Sports Person		35	3.9714	.69603	.198	.658	-2.045	68	.045
Sports Person		35	4.2857	.58518			-2.045	66.052	.045

Observation of table.8 indicated that the mean value of both classified groups seems to differ from each other on Value Orientation. The mean and SD value obtained by the Non Sports Person 3.97, SD 0.69, and Sports Person was 4.28, SD 0.58 and 'F' ratio was 0.198 at a glance those Sports Person shows a higher score than Non Sports Person. The mean value shows Sports Person having higher Value Orientation than Non Sports Person. In the present study "There is a significant difference between Sports Person and Non Sports Person Students with dimension Value Orientation was found ($P=.045$) at 0.05 levels.

Table 9 : Statistical analysis of Commitment

Commitment	Emotional Intelligence	N	Mean	Std. Deviation	F	Sig.	T	Df	Sig. (2-tailed)
Non Sports Person		35	3.9857	.73250	.001	.980	-1.546	68	.127
Sports Person		35	4.2429	.65722			-1.546	67.216	.127

Observation of table 9 indicated that the mean value of both classified groups seems to differ from each other on Commitment. The mean and SD value obtained by the Non Sports Person 3.98, SD 0.73, and Sports Person was 4.24, SD 0.65 and 'F' ratio was 0.001 at a glance those Sports Person shows a higher score than Non Sports Person. The mean value shows a Sports Person having higher Commitment than a Non Sports Person. In the present study "There is no significant difference between Sports Person and Non Sports Person Students with dimension Commitment was found ($P=.127$) at 0.05 levels.

Table 10 : Statistical analysis of Altruistic Behavior

Altruistic Behavior	Emotional Intelligence	N	Mean	Std. Deviation	F	Sig.	T	df	Sig. (2-tailed)
Non Sports Person		35	4.2429	.89419	7.587	.008	-1.639	68	.106
Sports Person		35	4.5286	.51368			-1.639	54.237	.107

Observation of the table 10 indicated that the mean value of both classified groups seems to differ from each other on Altruistic Behavior. The mean and SD value obtained by the Non Sports Person 4.24, SD 0.89, and Sports Person was 4.52, SD 0.51 and 'F' ratio was 7.58 at a glance those Sports Person shows a higher score than Non Sports Person. The mean value shows a Sports Person having higher Altruistic Behavior than Non Sports Person. In the present study "There is no significant difference between Sports Person and Non Sports Person Students with dimension Altruistic Behavior was found ($P=.107$) at 0.05 levels.

DISCUSSION

Research's findings show that mean score of Sports person group in categories of Self-awareness, Empathy, Self- Motivation, Emotional stability, Managing Relations, Integrity, Self- development, Value orientation, Commitment, Altruistic Behavior is greater than those of the Non Sports Person group. According to the results,

there is a significant difference between mean scores of Sports person group and Non Sports person group in the categories of Self Awareness, Self Motivation, Integrity and Value Orientation. There is no significant difference between mean scores of Empathy, Emotional stability, Managing Relations, Self- development, Commitment, Altruistic Behavior of Sports Person and Non Sports Person Students. There is no significant difference between mean scores of emotional intelligence of Sports Person and Non Sports Person Students. Results of present research are inconsistent with research results of (Roghayeh Sohrabia, 2011) and (Gladys Shuk-Fong Li, et.al 2009)

(Baljinder singh bal et.al, 2011) said that emotional intelligence can enhance leadership performance, team cohesion, and coping with pressure. (Mrs.R.Kayatry Sabitha1) proved the positive relationship between emotional intelligence and the performance of organizations. (Gladys Shuk-Fong Li, et.al 2009) concluded that participation in physical activity might be an effective way to improve the physical, psychological, as well as emotional health of college students.

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Survey of Junior Handball Players In Selected Motor Skills

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ABSTRACT

Successful performance in handball requires the ability to generate explosive strength combined with other motor parameters and precise skills. To achieve desired objective researchers showed that playing ability and fitness components are inter-related. The purpose of this study was to determine the survey of motor fitness components with playing ability of hand ballers. The present study was conducted on 60 Junior level handball players from Eklavya club of age range 10 to 17 years, selected randomly as subject. Three handball game skill tests are 1) Jump shoot 2) Accuracy throw 3) Obstacle Dribble were evaluated of each subject. Conclusion for this study was The performance of handball players was Good for all three tests (73%)

Keywords : Handball, Motor Skills, Performance

INTRODUCTION

Handball, the second most popular team sport in Europe after football. It is an exciting, fast paced, high scoring game. As an Olympic sport, Handball is set to draw huge crowds this summer in London. It is a sport which is rapidly gaining more and more popularity and this is inevitable. Team handball, combining aspects of basketball, soccer, rugby and water polo. It is one of the most popular sport in the world. The game is unique, with a rapid and physical yet simultaneously skillful and strategic style of play.

In his classic book, AEROBICS Dr. Kenneth Cooper states: "The best conditioning exercises are running, swimming, cycling, walking, HAND-BALL, basketball and squash, and in just about that order." Note that the top GAME mentioned is HANDBALL! In a survey by the President's Council on Physical Fitness and Sports, fourteen popular sports and exercises were rated by seven fitness experts. Using the criteria of cardio-respiratory endurance, muscular endurance, muscular strength, flexibility and balance, HANDBALL WAS RANKED NUMBER ONE! It is a very strenuous body-contact Olympic sport (Gorostiaga, et al., 2006) that is also played professionally in Europe (Cardoso & González-Badillo, 2006). This sport requires a high level of physical condition in the relevant actions of the game like jumping, diving, blocking, running, sprint, and throwing (Wallace & Cardinale, 1997). Rowland (1970) stated that "Handball requires that the performer is able to run, jump, throw and catch all natural and specific skills."

From the literary review it is evident that there is a clear demand of research in this specific area of game. In Indian context this study helps the coaches to identify and selection of talented handball players. It is the reason

for which the authors show's a big interest in the selection of this problem.

The methodology used for this research is survey method for which sample data was collected by performing test on 60 students from Pune's Handball Club(Eklavya sports club). 1) Jump shoot 2) Accuracy throw 3) Obstacle Dribble were the test constructed by Dr. Yogesh Bodke whose results were used as Reference for this survey to build sample data

Statistical Analyses

Table 1 : Jump Shoot Test

	Nos	Percentage
Below Average	4	7
Average	12	20
Good	8	13
Very Good	12	20
Excellent	24	40

Above table shows that for Jump Shoot test 4 (7%) Players from Junior Handball team out of 60 are in below average category. 12 (20%) players are in Average category, 8 (13%) players are in Good category, 12 (20%) players are in Very Good category and 24 (40%) players are Excellent category.

Table 2 : Accuracy Throw Test

	Nos	Percentage
Below Average	6	10
Average	10	17
Good	14	23
Very Good	20	33
Excellent	10	17

Above table shows that for Accuracy throw test 6 (10%) Players from Junior Handball team out of 60 are in below average category, 10 (17%) players are in Average category. 14 (23%) players are in Good category. 20 (33%) players are in Very Good and 10 (17%) players are in Excellent category.

Table 3 : Obstacle Dribble

	Nos	Percentage
Below Average	8	13
Average	8	13
Good	20	33
Very Good	22	37
Excellent	2	3

Above table shows that for Obstacle Dribble test 8(13%) Players from Junior Handball team out of 60 are in below average category. 8 (13%) players are in Average category, 20 (33%) players are in Good category, 22 (37%) players are in Very Good category and 2 (3%) players are in Excellent category.

CONCLUSIONS

1. The performance of Eklavya Handball Club handball players for handball Jump Shoot found at Good Level.
2. The performance of Eklavya Handball Club handball players for handball Accuracy Throw found at Good Level.
3. The performance of Eklavya Handball Club handball players for handball Obstacle Dribble found at Good Level.

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Life Satisfaction of Physically Active and Non-Active People from Goa

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ABSTRACT

The purpose of this study was to examine the satisfaction with life of people from Goa and also to study the effects of daily physical activity on the level of life satisfaction. The online questionnaire-study was conducted on the sample of 199 individuals from Goa and the level of life satisfaction was identified using comparative study method. Data was collected using Diener et al.'s Life Satisfaction Scale. Convenient sampling technique was used. The sample size was 199 people, which consisted of 142 people doing regular physical activities and 57 people not doing any physical activities. Using Descriptive statistics, it was found that the life satisfaction levels of people who do regular physical activity is higher with a mean score of 24.49 than those who are not doing physical activities with a mean score of 22.39 ($p < .05$). The results also indicated that the level of life satisfaction of people who are doing regular physical activity defers based on the frequency of physical activity they do per week which shows that more the frequency, higher the level of satisfaction.

Keywords : Life Satisfaction; Physical Activity; Goa; Frequency of Physical Activities

INTRODUCTION

Physical activity is considered a valuable tool for enhancing life satisfaction. Life satisfaction is as a cognitive appraisal of the overall degree of satisfaction one has with his or her life (Hart, 1999). As such, life satisfaction is usually seen as a global measure of individual's assessment of the overall quality of life. (Lambert et al., 2009).

Life satisfaction is the magnitude at which the person emphatically measures the overall quality of life he/she is living in whole. It can be also said that how much one likes the routine in the life he is living (Veenhoven, 1996). Life satisfaction will also depend on the routine activities of the individual he does as per the interest. People always prefer to be happy in life and the happiness depends on the degree of life satisfaction. Happiness always leads to greater enjoyment in life and it also boosts the psychological attributes such as self-confidence, self-esteem and so on. As discussed by Donovan & Halpern (2002) "When people are happy, they tend to be more open minded and creative in nature which will make him more productive and on the other side people who are unhappy, stressed or dissatisfied with life choose to be of 'tunnel vision' and rigid thinking. Moreover, people who are satisfied with their lives tend to be healthier and life satisfaction is inversely related to turnover intent (Donovan & Halpern, 2002; Lambert et al., 2009). We can also say that people who are happy with

what they do and what they have are always satisfied in life. One of the important factors of being happy and enjoying life is to do regular physical activity (Gretchen Reynolds, 2018). Doing regular physical activity also keeps people healthy and healthy life leads to happiness with absence of physical and mental disorders (WHO, 2020). A person with overall health will always be satisfied with life whereas an unhealthy person will mostly have problems in life and will be less efficient. So, doing regular physical activity and being active with good health is very important in order to be satisfied with life. Medley (1976) defined that life satisfaction is a subjective feeling of happiness and contentment with life. Life satisfaction is also defined as the degree to which the experience of an individual's life satisfies his/her personal wants and needs, both physically and psychologically (Rice, 1984). A significant difference has been found between life satisfaction levels of the individuals participating and not participating in physical activity in Turkey and German societies (Bastug & Duman, 2010). The factors affecting individuals' life satisfaction are listed as in: taking pleasure in life, finding life meaningful, consistency at the matter of reaching goals, positive individual identity, feeling well physically, economical security and social relationships (Schmitter, 2003).

Hence, the researcher aimed to assess the life satisfaction of the people from Goa who are Physically active and non-active as there are many positive benefits of being happy and satisfied in life. People always feels good about themselves and the life they live which leads to overall well-being. Satisfied people are highly expected to tackle the problems and issues in any field effectively and efficiently. (Pasupuleti, et al., 2009).

METHODOLOGY

1 Participants and Procedure

In the present study 199 individuals, out of which 142 people doing regular physical activity and 57 people not doing any physical activity were selected as the sample using convenient sampling technique. The data was collected through google forms. Informed consent of the individuals was taken. The questionnaire also included demographic section, which asked about age, designation, playing sports professionally, frequency of physical activity per week

2 Tools

The level of Life Satisfaction was studied using The Satisfaction with Life Scale (Diener, et al., 1985). The SWLS is a short 5-item instrument designed to measure global cognitive judgments of satisfaction with one's life. Responses were rated on a 7-point Likert scale ranging from 1 "Strongly Disagree" to 7 "Strongly Agree".

3 Research Design and Statistical Analysis

A comparative study on the level of satisfaction with life of the people who do regular physical activity and those who don't do any physical activity was done using descriptive statistics to compute mean and standard deviation.

Independent sample t-test was employed to identify the differences in level of life satisfaction between active and non-active people from Goa and One-way ANOVA were computed to assess differences in level of life satisfaction.

RESULTS (FINDINGS)

After calculations of the scores of life satisfaction of Physically active and non-active people, the data was analysed using SPSS version 20. An Independent sample t-test and One-way ANOVA were employed in order to identify the differences in level of Life Satisfaction based on regular physical activity and based on the frequency of physical activities per week respectively. The sample size was 199, out of which 142 participants performed physical activities and 57 participants did not perform any physical activities. Significant difference in life satisfaction was seen between people who are active doing regular physical activities and those who don't do any physical activities. The life satisfaction scores of the participants who do physical activities (M= 24.49, SD= 6.307) were higher as compared to participants who do not perform any physical activities (M= 22.39, SD=6.411) with 't' = 2.113 which significant at 0.05 level ($p < 0.05$). (Table 1).

Table 1: Descriptive statistics of life satisfaction of Physically active and non-active people of Goa

Physical Activity	Mean	N	Std. Deviation	t	Sig (2- tailed)
YES	24.49	142	6.307	2.113*	.036
NO	22.39	57	6.411		
Total	23.88	199	6.392		

* $p < 0.05$ level of significance

Secondly, with the aim of knowing the differences in life satisfaction based on the frequency of the physical activities practiced, the results showed a significant difference in life satisfaction varied according to the frequency of physical activity. Out of 199 participants, 142 reported yes on performing physical activity. Out of 142 participants, 50 performed physical activities 3 times a week, 55 performed 6 times a

week and 37 performed more than 6 times a week. One-way ANOVA were employed and the difference in the mean scores of life satisfaction based on the frequency of physical activity were found to be significant with the value of 'F' as 27.43 ($p < 0.01$). (Refer Table No. 2).

Table 2 : One-way ANOVA of Life Satisfaction by Frequency

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1587.34	2	793.67	27.43**	.000
Within Groups	4022.13	139	8.94		
Total	5609.47	141			

** $p < 0.01$ level of significance

As the mean differences were found to be significant Post-hoc analysis using Multiple comparisons were computed. This showed that the means differences between the possible combinations were found to be significant at 0.05 level of significance (Refer Table No. 3)

Mean and SD were computed for different frequencies of physical activity. According to the results the mean score of Life satisfaction of the participants who performed physical activity 3 times a week was 20.44 with SD of 5.588, the mean score on Life satisfaction who performed physical activity 6 times a week was found to be 25.15 with SD=5.582 and the mean score of the participants who performed physical activity more than 6

times a week was found to be 28.97 with SD=4.740 (Refer Table 4)

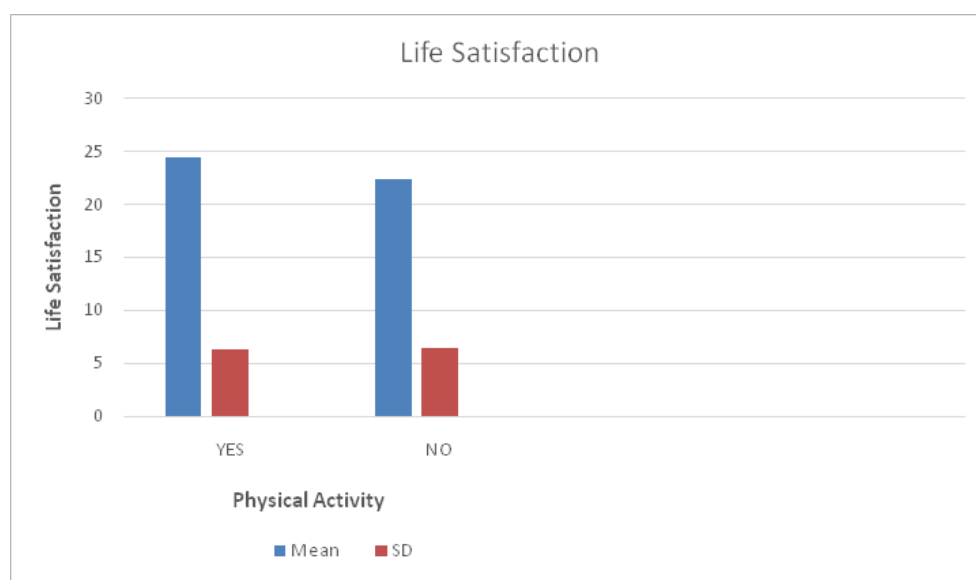
Table 3 : Post hoc Analysis using (Multiple Comparisons)

Multiple Comparisons				
Dependent Variable: LIFE SATISFACTION				
Tukey HSD				
(I) FREQUENCY	(J) FREQUENCY	Mean Difference (I-J)	Std. Error	Sig.
3 TIMES A WEEK	6 TIMES A WEEK	-4.705*	1.051	.000
	>6 TIMES A WEEK	-8.533*	1.167	.000
6 TIMES A WEEK	3 TIMES A WEEK	4.705*	1.051	.000
	>6 TIMES A WEEK	-3.828*	1.144	.003
>6 TIMES A WEEK	3 TIMES A WEEK	8.533*	1.167	.000
	6 TIMES A WEEK	3.828*	1.144	.003

*p< 0.05 level of significance

Table 4 : Comparative means for life satisfaction by frequency of physical activity

Frequency of Physical Activity	Mean	N	Standard Deviation
3 Times a Week	20.44	50	5.588
6 Times a Week	25.15	55	5.582
>6 Times a Week	28.97	37	4.740
Total	24.49	142	6.307



Graph 1 :**Graph 2 :** Comparison of Mean and SD on Life satisfaction based on frequency of physical activity

DISCUSSION

The aim of the research was to determine the satisfaction with life in physically active and physically non-active groups. This study came to the conclusion that the level of life satisfaction among the people in Goa doing regular physical activity was higher than those who don't do any physical activity and live sedentary lifestyle. This can be supported with further researches. Secondly, the study also revealed that the life satisfaction also depends on the frequency of physical activity per week which shows that the life satisfaction is more if the frequency of physical activity per week is more.

In a similar study "Daily Physical activity and life satisfaction across adulthood" (Maher, J. et al, 2015), it was found that usual physical activity was positively associated with life satisfaction in middle and older adulthood; however, this association was not present in young adulthood. This study also reveals that on days when people were more physically active than was typical for them, they experienced greater life satisfaction. And this finally also gives accumulating evidence that daily fluctuations in physical activity have important implications for well-being regardless of age, and clarifies developmental differences in life satisfaction dynamics that can inform strategies for enhancing life satisfaction.

Life satisfaction is also depending on how much an individual is living a happy life. Doing regular physical activity has also been proven to result in daily happiness which ultimately can result in satisfaction with life. As we can see in one of the studies titled "Systematic review of the relationship between physical activity and happiness" (Zhanjia, Z. and Chen, 2018), all the observational studies that were conducted reported a positive relationship between physical activity and happiness. In a study it was found that people who live sedentary life with less or no regular physical activity can have lower happiness and satisfaction with life. In a study (Pengpid and Peltzer, 2019), it was found that higher sedentary behaviour was associated with poor life satisfaction and also lower happiness along with lower perceived health. In addition, study reported that moderate or higher physical activity increased the odds for higher life satisfaction, greater happiness and better perceived health. In a study titled "The mediating role of exercise behaviour on satisfaction with life, mental well-being and BMI among university employees" (Zayed N. K et.al, 2018) found that the participants who were more physically active, compared to those who were less active, experienced higher levels of mental well-being and were

generally more satisfied with their lives.

This study showed the benefit in Life satisfaction people can get from Physical activity and active lifestyle. Based on the finding of the study it is highly recommended that this type of research should be conducted frequently by the university, to promote life satisfaction through performing physical activities. Public awareness of the health concerns associated with low levels of physical activity and increased sedentary behaviour, and required health interventions aimed at changing lifestyle behaviours (Azza & Hashem, 2015).

Regarding future research, it would be interesting to know how life satisfaction is related to different levels of physical activities, as well as their relationships with other aspects of quality of life concerning health and well-being.

The study was limited to Participants from Goa. The questionnaire has its own limitations, and as such, any bias in the participants' responses could be considered a limitation of this study. Both the lifestyle of the participants and the variability of their dietary habits were beyond the scope of this study and could also be limitations.

CONCLUSION

In order to assess the life satisfaction of the active and non-active people of Goa, Satisfaction with Life scale (Diener, et al., 1985) was used. Findings of the study shows that there is significant difference in the life satisfaction of the people who are physically active and non-active.

From the study, researchers come to the conclusion that the people who are active with regular physical activities has greater life satisfaction than those who are not physically active with physical activities.

Researchers also further conclude that the frequency of physical activities per week also influences the life satisfaction of the people, as in this study the people whose frequency of doing regular physical activities is more are more satisfied than those people whose frequency is less.

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A Brief Study on Specific Training given to Increase Breath Holding Time and Resting Heart Rate among Kabaddi Players

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ABSTRACT

The point of this investigation was to discover the impact of game explicit preparation on breath holding time and resting heart rate among kabaddi players. To accomplish the reason for this examination, twenty four male kabaddi players were chosen arbitrarily from Zonal and State kabaddi teams. Their age went from 15 to 17 years. The chosen members were arbitrarily isolated into two gatherings like Group 'I' went through game explicit preparation (n=12) and Group 'II' went about as control gathering (n=12). Gathering 'I' went through the game explicitly preparing for a substitute three days and one meeting each day and every meeting went on for an hour for multi week time frames. Gathering 'II' was not presented to a particular preparing yet they were taken part in normal exercises. The information on chosen rule factors on breath holding time was estimated by nose cut strategy (seconds) and resting pulse was estimated by spiral heartbeat technique (tallies). The pre and post-tests information were gathered on chosen rule factors before and following the game explicitly. The pre and post-tests scores were genuinely inspected by the needy 't' test and Analysis of Covariance (ANCOVA) for every single chosen factor independently. It was presumed that the game explicit preparing bunch were improved standard factors on breath holding time and resting pulse when contrasted with the benchmark group. Anyway the benchmark group had not shown any huge enhancement for chosen standard factors.

Keywords : Game Specific Training, Breath Holding Time, Resting Heart Rate, Kabaddi Players

INTRODUCTION

Kabaddi is basically an Indian game, which orders gigantic prominence in India just as its hinterland. In India, kabaddi is mainstream in various names. In the southern pieces of the game is alluded to as chedugudu or Hu-Tu-Tu. In eastern India, it is affectionately called Ha-du-du (for men) and Kit-Kit (for ladies). The game is known as kabaddi in northern India. breath control, assault, evading and development of hand and feet are the essential abilities that one needs to obtain, to play kabaddi. The player needs to procure control and master both hostile and protective abilities to dominate in the game, which consolidates the qualities of rugby and wrestling. Physical wellness is a condition of wellbeing and prosperity and, all the more explicitly, the capacity to perform parts of sports, occupations and day by day exercises. Actual wellness is for the most part accomplished through appropriate sustenance, moderate enthusiastic actual exercise, and adequate rest. Before the modern unrest wellness was characterized as the ability to complete the day's exercises without unjustifiable weakness.

In any case, with robotization and changes in ways of life actual wellness is currently viewed as a proportion of the body's capacity to work productively and viably in work and relaxation exercises, to be solid, to oppose hypo motor sicknesses, and to meet crisis circumstances. Wellness is characterized as the quality or condition fit.. Creating research has exhibited that a large number of the advantages of activity are intervened through the part of skeletal muscle as an endocrine organ. That is, contracting muscles discharge different substances known as myosin's which advance the development of new tissue, tissue fix, and different calming capacities, which thusly diminish the danger of creating different incendiary diseases.[1] The preparation burden ought to be expanded to improve the presentation load should be expanded every now and then for development of the constant exhibition. Preparing burden can be expanded steadily or bit by bit to bring about solid and quicker transformation interaction and more successful response from the organic entity. Bit by bit of increment of burden offers time to the organic entity to adjust to the expanded requests. Starting with a lesser burden is more noteworthy improvement however last higher burden is important to deliver even a little expansion in execution [3].The Specificity Principle basically expresses that preparation should go from exceptionally broad preparation to profoundly explicit preparation. The rule of Specificity additionally suggests that to turn out to be better at a specific exercise or expertise, you should play out that activity or ability. To be a decent cyclist, you should cycle. The highlight remove is that a sprinter should prepare by running [4]. Kabaddi is an aggressive group game, played with positively no hardware, in a rectangular court, either out entryways or inside with seven players on the ground on each side. Each side takes substitute risks at offense and guard. The essential thought of the game is to score focuses by striking into the rivals' court and contacting whatever number safeguard players as could reasonably be expected without getting captured on a solitary breath [5]. Kabaddi is a finished aggregate donning methodology, described by the lot and assortment in its developments, ball controls and collaboration with different competitors. Searching for a superior dynamic and objectivity, Kabaddi went through a few developmental cycles that, thus, began to request from the competitor's bigger physiological variations and different qualities[6].

PURPOSE OF THE STUDY

The purpose of this study was to find out the effect of game specific training on breath holding time and resting heart rate among Kabaddi players

METHODOLOGY

The motivation behind this examination 24 male school Kabaddi players were chosen as members at haphazardly chosen from zonal and state kabaddi teams and the member's age were gone from 15 to 17 years. Just the individuals who addressed their particular bury regions Kabaddi competition were taken as subjects and they were partitioned into two gatherings and each gathering twelve number of members. Gathering I in particular trial gathering and gathering II as control gathering. Trial bunch were partaken the game explicitly preparing for a time of about a month and a half. The benchmark group was not uncovered, a particular preparation separated from their customary educational plan. The test configuration utilized in this examination was pre and post test irregular gathering configuration including 24 members who were isolated aimlessly into two gatherings of twelve each. No endeavor was made to liken the gatherings in any way. Henceforth, to adapt for distinction in the underlying methods and to test the changed post test implies for critical contrasts among the gatherings, the investigation of covariance (ANCOVA) was utilized. On the whole the case's 0.05 level was fixed as critical level.

RESULT AND DISCUSSIONS

1 Breath Holding Time

The analysis of dependent 't' test on the data obtained for breath holding time of the pre- test and post-test means of experimental and control groups have been analyzed and presented in Table1.

Table 1 : Computation of 't' - Ratio between Pre and Post Test Means of Experimental and Control Groups on Breath Holding Time (Seconds)

Tests		Pre Test	Post Test	't' - Value
Experimental Group	Mean	32.51	40.86	10.66*
	SD	3.24	2.03	
Control Group	Mean	31.86	33.29	0.94
	SD	4.12	4.08	

*Significant at 0.05 level. The table value required for 0.05 level of significance with df 11 is 2.20.

The table 1 shows that the pre-test mean values of experimental and control groups are

32.51 and 31.86 respectively and the post test means are 40.86 and 33.29 respectively. The obtained dependent t-ratio values between the pre and post test means of experimental and control groups are 10.66 and 0.94 respectively. The table value required for significant difference with df 11 at 0.05 level is 2.20. Since, the obtained 't' ratio value of the experimental group was greater than the table value, it was understood that the experimental group had significantly improved on breath holding time. However, the control group has not improved significantly. The 'obtained t' value is less than the table value, as they did not participate in any specific training. The analysis of covariance on breath holding time of experimental and control groups have been analyzed and presented in Table2.

Table 2 : Analysis of Covariance on Breath Holding Time of Experimental and Control Groups

Adjusted Post Test Means		Source of variance	Sum of squares	df	Mean square	F-ratio
Experimental Group	Control Group	Between	46.73	1	46.73	16.93*
41.09	33.61	Within	57.96	21	2.76	

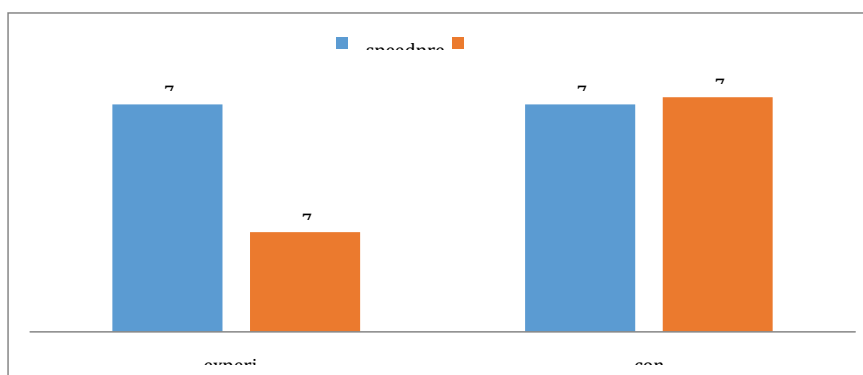
* Significant at 0.05 level. Table value for df 1, 21 was 4.32

Table 2 shows that the adjusted post test means values on breath holding time. The obtained f- ratio of 16.93 for adjusted post test mean is greater than the table value 4.32 with df 1 and 21 required for significance at 0.05 level of confidence. The results of the study indicate that there was a significant mean difference between the adjusted post test means of experimental and control groups on breath holding time. The pre, post and adjusted post test means values of experimental and control group on breath holding time were graphically represented in the figure 1.

Table 3 : Analysis Of 'T' Ratio For The Pre And Post Test Of Control And Experimental Group On Speed

Variable	Groups	Mean		SD		Sd Error	Mean difference	't' ratio
		Pre	Post	Pre	Post			
Speed	Experimental	7.74	7.64	0.27	0.18	0.04	0.10	2.26*
	Control	7.82	7.83	0.20	0.22	0.02	0.01	0.47

Table 3 reveals the computation of 't' ratio between mean of pre and post test on Breath holding time of inter college level men kabaddi players. The mean values of the pre and post test of the experimental group were 7.74 and 7.64 respectively. In the Control group pre and post-test mean value was 7.82, 7.83 respectively. The experimental group, the obtained 't' ratio 2.26 was higher than the required table value 2.15, it was found to be statistically significant for the degree of freedom 1 and 14 at 0.05 level of confidence. The results clearly indicated that the breath holding time of the experimental group improved due to the game specific training on Kabaddi players.

**Figure 1:** Bar Diagram Shows The Pre And Post Test Mean Values Of Control And Experimental Group On Speed**Table 4 :** Analysis Of 'T' Ratio Of The Pre And Post Test For Control And Experimental Group On Breath Holding Time

Variable	Group	Mean		SD		Sd Error	Mean difference	't' ratio
		Pre	Post	Pre	Post			
Breath holding time	Experimental	26.30	26.45	0.59	0.60	0.06	0.15	2.78*
	Control	26.28	26.32	0.78	0.99	0.22	0.04	0.20

Table 4 reveals the computation of 't' ratio between mean of pre and post test on Breath holding time of inter college level men kabaddi players. The mean values of the pre and post test of the experimental group were 26.30 and 26.45 respectively. In the Control group pre and post-test mean value was 26.28, 26.32 respectively. The experimental group, the obtained 't' ratio 2.78 was higher than the required table value 2.15, it was found to be statistically significant for the degree of freedom 1 and 14 at 0.05 level of confidence. The results clearly indicated that the breath holding time of the experimental group improved due to the game specific training on Kabaddi players.

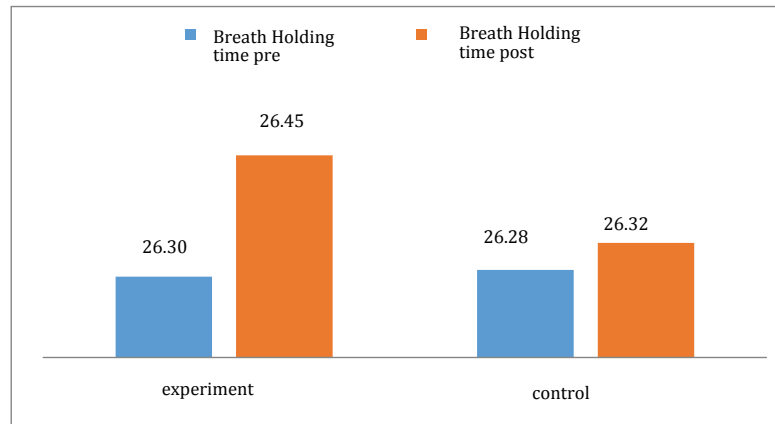


Figure 2 : Bar diagram shows the pre and post test mean values of and control and experimental group on breath holding time
4.2 Resting Heart Rate

The analysis of dependent ‘t’ test on the data obtained for resting heart rate of the pre-test and post-test means of experimental and control groups have been analyzed and presented in Table 3.

Table 5 : Computation of ‘T’ - Ratio between Pre and Post Test Means of Experimental and Control Groups on Resting Heart Rate (Counts)

Tests		PreTest	Post Test	‘t’ - Value
Experimental Group	Mean	70.31	68.23	5.89*
	SD	1.86	1.20	
Control Group	Mean	70.29	70.11	0.60
	SD	1.62	1.72	

*Significant at 0.05 level. The table value required for 0.05 level of significance with df 11 is 2.20.

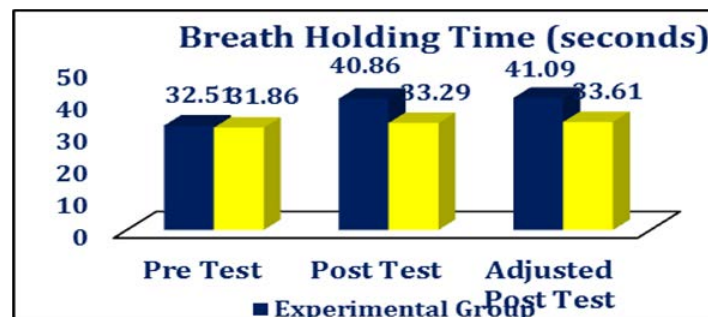


Figure 3 : Pre, Post and Adjusted Post Test Means Values of Experimental and Control Group on Breath Holding Time

The table 5 shows that the pre-test mean values of experimental and control groups are 70.31 and 70.29 respectively and the post test means are 68.23 and 70.11 respectively. The obtained dependent t-ratio values between the pre and post test means of experimental and control groups are 5.89 and 0.60 respectively. The table value required for significant difference with df 11 at 0.05 level is 2.20. Since, the obtained ‘t’ ratio value of the experimental group was greater than the table value, it was understood that the experimental group had significantly improved on resting heart rate. However, the control group has not improved significantly. The

'obtained t' value is less than the table value, as they did not participate in any specific training.

The analysis of covariance on resting heart rate of experimental and control groups have been analyzed and presented in Table 5.

Table 6 : Analysis of Covariance on Resting Heart Rate of Experimental and Control Groups

Adjusted Post Test Means		Source of variance	Sum of squares	df	Mean square	F-ratio
Experimental Group	Control Group	Between	65.66	1	65.66	13.94*
68.21	70.12	Within	98.91	21	4.71	

* Significant at 0.05 level. Table value for df 1, 21 was 4.32

Table 6 shows that the adjusted post-test means values on resting heart rate. The obtained f- ratio of 13.94 for adjusted post-test mean is greater than the table value 4.32 with df 1 and 21 required for significance at 0.05 level of confidence. The results of the study indicate that there was a significant mean difference between the adjusted post-test means of experimental and control groups on resting heart rate.

The pre, post and adjusted post-test means values of experimental and control groups on resting heart rate were graphically represented in the figure 2.

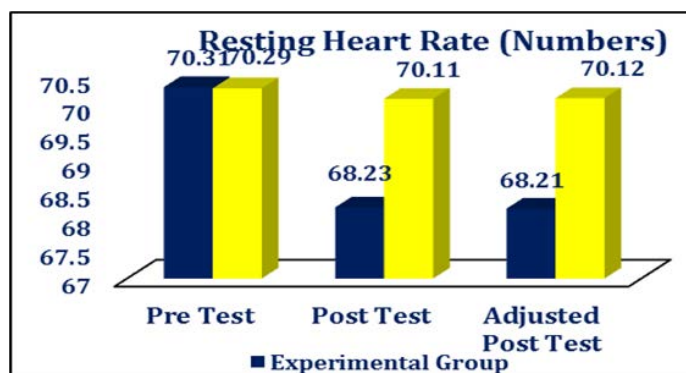


Figure 2 : Pre, Post and Adjusted Post Test Means Values of Experimental and Control Group on Resting Heart Rate

DISCUSSION ON FINDINGS

The results of the study indicates that the game specific training had registered significant level improvement in breath holding time and resting heart rate when compared to control group among the kabaddi players. The following studies are supported to the result of this investigation such as Sivakumar, &Logeswaran, (2017), Bhowmik, (2018), Raman, &Nageswaran, (2013), Gururaj, S & Arumugam, S. (2017), Arumugam, S (2013) and Gabbett, Jenkins & Abernethy, (2009).

CONCLUSIONS

The current investigation uncovered that critical contrast was found in the mean of chosen breath holding time and resting pulse among trial and control gatherings. There was huge enhancement for breath holding time and resting pulse because of the impact of game explicit preparation among kabaddi players. Anyway the benchmark group had not shown any huge enhancement for breath holding time and resting pulse.

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Sports Achievement Motivation Among Team And Individual Sports - A Comparative Study

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ABSTRACT

Achievement motivation is an effective arousal state which enables an individual to direct his or her behavior resulting into an achievement oriented activity which can be cognitively appraised and psychologically satisfying. The purpose of the study was to analyze the sports achievement among team and individual sports. To achieve the purpose the study consisted of 80 players which were selected randomly from team and individual sports. The 40 individual players and 40 team players were selected from the study and age of subjects was ranged from 18 to 30 years. The Achievement motivation was measured by using a questionnaire developed by Dr. M.L. Kamlash (1990). The findings of the present study demonstrated that efforts made by individual players to achieve excellence is greater than team players. There is a significant difference between team and individual sports.

Keywords : Achievement motivation, individual athletes, Team athletes..

INTRODUCTION

Motivation is one of the most popular research topics in sport psychology, and the reason for this may be that it has been continually reported as an important factor in affecting people's well-being and performance in sport (Roberts, Treasure, & Conroy, 2007; Vallerand, 2007). The achievement motivation is often defined as a devotion to stand out compared to others, but also in comparison to oneself, through own accomplishments on performance (Franceško, Mihić, & Bala, 2002). Motivation represents an inner strength that forces us in a certain direction, and we can anticipate it from indicators in our behaviour, knowledge, and emotional experiences (Goetz & Hall, 2013).

According to Arslanogluna (2005) "motive is one of the factors prompting a person to take an action or to choose one of the many action options and perform relative continuous." It is one of the most important factors associated with ambition of a person. Achievement motivation is related to efforts and perseverance towards desired goals when an individual knows that his/her performance will be assessed in the light some set standards. This behavior is known as achievement oriented. The basis of achievement motivations is achievement motive i.e., a desire and motive to achieve a goal. Motivation is the basic drive for all of our actions. Motivation refers to the dynamics of our behavior, which involves our needs, desires, and ambitions in life. Achievement motivation is based on reaching success and achieving all of our aspirations in life. Achievement

goals can affect the way a person performs a task and represent a desire to show competence (Harackiewicz, Barron, Carter, Lehto, & Elliot, 1997). Motivation is an essential element of human personality. It directs a person's activity and makes it more or less dynamic. Without the desire to succeed other psychological features and abilities do not provide nearly so much influence on performance. Achievement motivation influences other factors affecting performance in sport like: physical preparation, technique, tactics and even lifestyle (Zamirullah Khan, et al. 2011).

To become an elite athlete in any sport requires hours upon hours of training. Often this training is rigorous, painful, or injurious. However, the athletes who have reached the pinnacle of their sport have more than likely put in their time to achieve that high level of success. To do this, these athletes must have something that motivates them to continually push their bodies and come back from whatever struggles or setbacks they may experience along the way (Kamlesh, 2004).

PURPOSE

The purpose of the present study was to compare the sports achievement motivation among team and individual sports.

METHODOLOGY

In the light of objectives above the researcher adopted a descriptive method for the present study.

SAMPLE

For the present study 80 players were selected randomly from team and individual sports from Srinagar district of Jammu and Kashmir and Gwalior district of Madhya Pradesh during inter college competitions at Kashmir University in Srinagar and at Jiwaji University in Gwalior by using simple random sampling technique. The effective sample consisted of 80 subjects, out of which 40 subjects were individual players and 40 subjects were team players. The 20 individual players and 20 team players were selected from Srinagar district of Jammu and Kashmir and 20 individual players and 20 team players were selected from Gwalior district of Madhya Pradesh. The age of subjects ranged from 18 to 30 years.

TOOLS USED

For achieve the objective of the study Sports Achievement Motivation questionnaire (SAMT) prepared and standardized by Dr. M. L. Kamlesh (1990) was used. In the Sports Achievement Motivation Test questionnaire, there are twenty test items. Among them, for questions 1, 3, 4, 9, 10 11, 12, 13, 15, 16, 17 and 20, the expected answer is 'a'. For the questions 7, 14, 18 and 19, the expected answer 'b' for correct statement two marks and for incorrect statement zero marks are awarded.

ANALYSIS AND INTERPRETATION OF DATA

To analyze the data collected and to interpret it, the researcher did calculations using various statistical measures such Mean, Standard Deviation and t-value.

Table 1: Comparison of "Sports Achievement motivation" among Individual and Team Players

GROUPS	N	Mean	SD	t-value	Significance Level
Individual Players	40	27.9	5.02	2.076	Significant
Team Players	40	25.6	4.88		

*df = (78) critical value = 1.990 Level of Significance=0.05

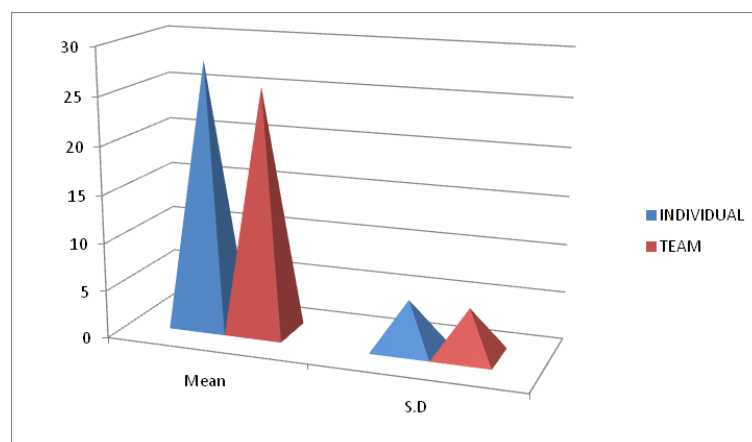


Figure 1 : Graphical representation of Sports Achievement Motivation among individual players and Team players

The analysis of data in Table-1 reveals the comparison of Sports achievement motivation between individual and team players. Table shows that there is a significant difference in achievement motivation among individual and team players. The mean of individual and team players were 27.9 and 25.6 and standard deviation 5.02 and 4.88 respectively. 't' test was applied and t-value is 2.076 which is more than tabulated value at 0.05 level of significance. The mean values and SD of sports achievement motivation score for individual and team players were graphically presented in fig. 1

DISCUSSION

After analysis and interpretation of data the result of the present study reveals that the individual players give more efforts towards goals as compared to team players means that individual players had higher levels of achievement motivation in comparison to team players. Further there are some studies which directly support my present study. Kumar, (2018) Assessment of achievement motivation for individual and team game players with optimistic and pessimistic attitude. It reveals that significant difference has been found among individual and team game players. Kumar, (2015) reveals in his study that individual players are having noteworthy differences in motivation than team players because individual players require necessary motivation to excel in sports than the team players is a group exertion.

CONCLUSION

On the basis of the interpretation a researcher finds out that there is a significant difference of achievement motivation among individual and team players. The individual players were significantly more achievement motivated than team players.

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Comparison of the Fat Percentage and Lung Capacity of Student Between the Age of 13-15 with Respect to their Mode of Transport for School

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ABSTRACT

Present research study compared the fat percentage and lung capacity of students aged between 13 to 15 years with respect to their mode of transport for school. For this 206 students were purposely selected. Mode of transport was restricted to cycling, motor vehicles and walking. Fat percent and lung capacity was measured with the help of OMRON Fat monitor and Peak Flow Meter respectively. Collected data was analysed statistically using the SPSS version 17.00. Out of 206 students 44 students commuted through cycle, 117 students through Motor vehicles and 45 through walk. Comparison of lung capacity and mode of transportation using One-Way ANOVA test showed a mean square of 2720.80 and calculated F value within the group were at 1.22 at significant value of 0.295 which is not significant at 0.05 level of significance. Comparison of fat percentage and mode of transportation showed no significant difference within the groups.

Keywords : Fat percentage, Lung capacity, Mode of Transport

INTRODUCTION

The high prevalence of childhood and adolescent obesity is the major problem all over the world. And the reason behind this is deterioration in the physical activity and could be the modernization or industrialization which is not only helping us to save time energy and cost but along with that people are becoming inactive and this is leading to many diseases like hypertension, excessive fat accumulation in the body then inefficiency of the lungs to work and this is all about unhealthy lifestyle which is affecting school going children as well due to which in small age itself they are getting health problems like obesity and inefficiency of the lungs. Today's world is full of gadgets or we can say machines. Due to which people are deteriorating in physical activity, here we can say that at least school going children were doing some sought of physical activity but now a days, due to modernisation or due to excessive use of machines children are using more of vehicles instead of cycle and walking while commuting to school even if it is walking distance, due to which most of the girls are found obese and got less lung capacity as compared to body because of this the researcher has thought of taking the below stated problem.

“A comparative study of the fat% & lung capacity of the students with respect to their mode of transportation”.

MATERIAL AND METHOD

The study was a descriptive (comparative) survey. In this study the researcher compared the fat percentage and lung capacity of the subject with respect to their mode of transportation. All the girl students aged between 13-15 years of M.M's Seth Dagaduram Kataria High School was the population of the students. Total 206 girl students from M.M's Seth Dagaduram Kataria High School were selected purposively as sample of the study. Girls who were walking or cycling to school for minimum 20 minutes were considered for study. Omron body fat monitor and Peak flow meter were used to measure body fat percentage and lung capacity respectively. Data collection and testing place was carefully planned and questionnaire was circulated in advance with the view that all the selected subjects participated in all the test and before that researcher had a interaction with the subjects,

STATISTICAL ANALYSIS

Descriptive statistics was used for interpretation of data and one-way ANOVA and chi square for interpretation of fat percentage) was used to draw the conclusion

Table 1 : Descriptive Statistics of Lung Capacity

Mode of Transportation	N	Mean	Std. Deviation
Cycling	44	351.36	42.895
Motor Vehicles	117	338.38	49.895
Walking	45	340.76	43.267

Table 2 : Comparison of lung capacity and mode of transportation ONE-WAY ANOVA test (lung capacity and mode of transportation)

	Df	Mean Square	f	Sig
Between the groups	2	2720.84	1.227	.295
Within group	204	2218.13		

Table no. 2 shows the difference in lung capacity between three modes of transportation. Which has a mean square of 2720.80 at the degree of freedom 2 and calculated F value within the group were 1.22 at significant value of 0.295 which is not significant at 0.05 level of significance.

Table 3 : Descriptive statistics of fat present and mode of transport

Fat %	Categories	Walking	Motor Vehicle	Cycling	Total
<15%	Underweight	14	18	7	39
15-25%	Normal	27	58	29	114
25-30%	Overweight	3	26	5	34
>30%	Obese	1	15	3	19
Total		45	117	44	206

Table 4 : Comparison of fat percent and mode transportation Chi-square Test

	Value	Df	Assump. Sig.(2-tailed)
Pearson Chi-Square	258.805	256	0.439
Likelihood	274.257	256	0.207
No, of valid cases	206		

Table no. 4 The above chi-square table shows the interpretation of fat percentage where the Pearson chi-square value was 258.85 at the degree of freedom 256 at the value of significant 0.439 which does not show any significant at 0.05 level.

CONCLUSION

According to the fat percent and lung capacity subjects were then categorized in walking motor vehicle and cycling which didn't show any significance in their fat percent and lung capacity. There is no effect of transportation on the fat percent and lung capacity on the girls' students.

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Current Trends of Physical Education And Its Future Prospects In Relation To Individual's Health

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ABSTRACT

The aim of this paper is to identify the current trends of physical education and to find out its future prospects in relation to individual health. As we all know, physical education plays the most significant role in school and college curriculum but less emphasis is given. In the 21st century, physical education is no longer physical training, sports coaching or merely indulging in play activities or physical fitness alone. It has emerged as a multi-dimensional discipline. Early period, only recreation and competitive sports were given prime importance in the physical education curriculum in school and colleges. The modern programme of physical education gives emphasis on health, physical fitness and wellness, competitive and recreational sports, recreation, interpersonal skills and lifestyle skills. Physical education is being taught as a part of curriculum in all the schools but lack adequate time and trained teachers, good facilities are responsible for little interest in this field. The future challenges to make this field interesting involve a proper curriculum, sufficient funds allotment for holding various competitions and the role of technology to create awareness about the importance of physical activities and sports in our daily life. So, this type of curriculum will definitely help the physical education professional to motivate their students to participate in various types of physical activities so that they can adopt and maintain a lifelong involvement in physical activity, health and wellbeing. All educational institutions should take necessary steps to introducing various physical activities for their students so that the hypo-kinetic diseases like type II diabetes, hypertension, back pain, knee pain, cervical spondylolysis etc., can be controlled.

Keywords : Health, hypo kinetic diseases, physical activities, physical education curriculum

INTRODUCTION

In the Present World of Space age and automation era, all human beings appear to be living a more and more inactive life. They ride instead of walk, sit instead of stand and watch instead of participants. Such type of inactivity or sedentary life is detrimental to mental and physical health. Due to this lethargic and inactivity lifestyle habits, individuals are suffering from hypo-kinetic diseases like diabetes, cervical and lumbar spondylitis, back pain, knee pain, obesity and cardiovascular diseases. Thus, there is great need for physical education as a part of balanced living. Physical education trends have developed recently to incorporate a greater variety of activities and are not only confined to officiating, coaching and organizing competitive sports activities in school and colleges. The physical education professional has to introduce various types of physical

activities like walking, jogging, running, swimming, gym, hiking, aerobics, yoga and playing recreational games in their school and college for all the students. These activities can help students to develop good habits that will carry over into adulthood and old age. Some Physical education teachers have even begun to incorporate stress-reduction techniques such as yoga and deep-breathing to their students. It is the sole responsibility of the physical education professional to motivate the students about the importance of physical education so that students can understand and appreciate the physical education program better. More and more students would take interest to participate in various types of physical activities to keep their body fit. In the past, only a few students were interested in participating in the inter college or inter university sports competition. So, they like to go to the playground and participate to improve their performance. Nowadays, most of the school and college students do not go to the playground to play other games anymore. This is due to the emergence of the computers and video games that became the best pastime of school students. Even though many colleges are there they do not have physical education professionals to run the course curriculum. The importance of physical education must be taught in school and colleges, so that they can know that through physical education, they can learn how to work as a team with a positive attitude. Colleges, boards and University administrators should do something about the problems involving the unfortunate and unhealthy trend today. If the colleges continue to ignore the importance of physical education, students will be at risk of obesity, hypertension and other health-related problems.

Objective

- to identify the current trends of physical education
- to find out the future prospects of physical education

PHYSICAL EDUCATION PROGRAMME IN HIGH SCHOOL AND SECONDARY SCHOOL

In our country, the majority of the schools have Physical Education teachers at the secondary level (Classes 6-10) and physical education is not taught at the primary level whereas Sport and Play is one of the most distinctive features of early childhood. Some fitness experts say, physical education has not lived up to its name in school curriculum. Our traditional physical education classes provide too little activity for few students only to participate and it offers little or no guidance for maintaining a healthful lifestyle. Only Two HPER (Health Physical Education and Recreation) periods in a week are not sufficient for the high school and senior secondary school students. Rather, every day thirty minutes moderate physical activities with two days high intensity activities programmes should be introduced in both high school and senior secondary school. The amount of physical activity for the children and students has declined in and out of school in recent years. The school students have become more overweight and less fit. To help reverse that trend, physical education classes should be revamped so there is less emphasis on team sports and more on lifelong fitness activities. Physical education programs like fitness, health awareness, and lifelong exercise habits should be emphasized in their course curriculum apart from competitive sports programmes. Physical education not only contributes to creating a healthy individual but also a healthy society. Sports culture can best contribute to the nation building process. Compared to other countries, India still has a long way to go in physical education and sports so far as infrastructures facilities and curriculum are concerned.

PHYSICAL EDUCATION PROGRAMME IN UNIVERSITY COLLEGES

Today, many universities in western countries require physical education teachers to be certified to teach health also. Many colleges and universities offer both physical education and health as one certification. Stress and Anger management is also introduced in physical education as future prospects. The students

will practically learn it and participate in various physical activities apart from competitive sports. It is all due to the health problems that are very commonly seen in every individual. The physical education programs for a new generation of college students that stress lifelong fitness activities, such as walking, biking, in-line skating, indoor outdoor games, and aerobics. Further it should educate the students about healthful diets; and teach students how to monitor their heart rates and pulses. Many colleges do not seem to realise the value of physical education in the curriculum. One main challenge is changing the mindset of the curriculum developers, changing the mindset of the education department that equal importance should be given to Physical education and sports. Every university and college in our country must have a department of Physical education and sports headed by a Professor not the director of physical education. It should be a teaching post not an administrative post like director who only organizes sports. The department of physical education should be well equipped with sophisticated research equipment in the field of sports biomechanics, exercise physiology, kinesiology, sports psychology, physiotherapy and advance fitness center.

HEALTH PROBLEM

The whole universe is facing health problems that day by day the percentages of human ailments like cardiac, thoracic, cancer, obesity, diabetes and hypertension diseases increases rapidly. The most important thing is active participation in physical activity and positive lifestyle habits will definitely reduce these problems. Research studies show that physical active people are less likely to develop coronary artery disease, high blood pressure and stroke than those who are active. The people who are physically inactive have an increased risk of colon and breast cancer. The anxiety and depression are also very common due to less involvement in physical activity. The Physical activities help a person to maintain a sense of emotional well-being. The overweight or obese people significantly reduced their risk for disease with regular physical activity. The people who get regular physical activities have a more efficient immune system. Physical inactivity is now the fourth leading cause of death worldwide. WHO declares, globally, around 31% of adults aged 15 and over were insufficiently active. Approximately 3.2 million deaths each year are attributable to insufficient physical activity. Physical inactivity is a key risk factor for non-communicable diseases (NCDs) such as cardiovascular diseases, cancer and diabetes.

RECOMMENDATIONS

- All the schools, colleges and universities authorities should encourage physical education and they should also provide exclusive programme for health, fitness, recreation and wellness.
- All the physical education teachers working in the school, college and universities must be encouraged and awarded for their excellent job.
- Qualified physical education teachers and coaches should be appointed in the education institutes and more programs on fitness and health should be promoted apart from coaching and training.
- The National Physical Efficiency Scheme which was prevalent during 1958 to 1978 should be revived and introduced for boys, girls, men and women of all different ages.
- Latest infrastructure and clear cut plans should be introduced in schools to popularise physical education and sports activities among children.
- The government needs to play an important role by allocating appropriate budget for physical education and sports in India and proper implementation of it.

- A monitoring council is required consisting of Physical education and sports professionals to monitor the physical education programme of every school.
- The mindsets of the people also need to change, so that physical education classes are not considered as a burden on children but rather a way out to perform well in the academics and an important component for the all round development of children.
- Every school should conduct a seminar for all the parents on the topic of the importance of health, fitness and wellness programmes. So that the parents will realize the importance of physical activity and fitness. Then only they will send their son and daughter to the ground and encourage participating in various physical activities.
- The Children belonging to the backward areas and rural schools should also be encouraged and provided better facilities for physical education, sports and health.

CONCLUSION

The current practices and present curriculum needs to be modified to generate interest of students in physical education and sports activities. The future challenges will mainly be the appropriate curriculum to be made and followed and to make available adequate funds from various organizations. The technology will also play an important role in expanding and creating the interest in physical activities. The importance of physical education and sports activities are being identified in today's world and efforts are being made to improve the situations so that more and more physical activities can be organised for the benefits of the students. Students today are different from the students of yesterday. The education of yesterday will not meet the needs of the students of today, and yesterday's health and physical education curricula in particular will not meet those changing needs. What do we need today? Today, we need a strong discussion at a higher level in the matter of the major trends and issues facing health and physical education in our country. After designing the course curriculum, their implementation part is more important in our schools, colleges and university. It should be collective efforts from both government and private sectors and from the top authority of educational institutions.

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Psychological Effect of Injury on The Athlete

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ABSTRACT

At one time or another during their sporting or competitive activities, many athletes may suffer an injury that keeps them from participating for the duration of their recovery. If you have been lucky enough to train without significant injury, it is still likely that you know someone who has had an injury that requires some duration of professional rehabilitation before they can train normally again. Athletes who have suffered serious injury can likely relate to the psychological consequences discussed in this article and would have benefitted from receiving a psychological intervention, such as goal setting, imagery, or mindful self-compassion following their injury. In addition to re-injury anxiety, athletes can experience depressive symptoms following injury. The severity of the depressive symptoms can vary based on the injury, limits to mobility, length of rehabilitation, and delay in the athlete returning to sport or physical activity. These serious injuries and rehabilitation are often accompanied by lingering psychological consequences which can impact the athletes' well-being as well as their likelihood of returning to sport. Athletes' willingness to commit to rehabilitation, as well as the value they give to the rehabilitation process, influences their cognitive, emotional, and behavioral reactions to injury rehabilitation. Thus, the way athletes perceive their injury rather than the fact that the injury occurred has a critical role in understanding athletes' emotional responses, such as depression, reinjury anxiety, and grief.

Keywords : Psychological Effect, Injury, Rehabilitation, Psychological Interventions

INTRODUCTION

When athletes are injured they experience a range of emotions which are frequently more debilitating when they require longer rehabilitation. For instance, Marcus Lattimore, a record-setting freshman of the year tailback and Heisman contender for University of South Carolina suffered a series of sport injuries including a torn Anterior Cruciate Ligament (ACL), dislocated kneecap, torn ligaments and nerve damage. Despite countless surgeries and rehabilitation he was chosen in the fourth round by the San Francisco 49ers. However, after only a few days of practice he decided to give up football due to pain and lack of confidence in his knees ability to function at the same level he had previously. There are many athletes ranging from novice to professional level and across a wide range of sports and recreational activities, who have suffered career ending injuries and can relate to experiencing psychological distress including re-injury anxiety, depressive symptoms, and loss of athletic identity long after they're physically recovered. In this brief article, I will examine common psychosocial responses to injury and describe several empirically supported psychological interventions which

have effectively reduced emotional distress, as well as improved physical and mental outcomes for injured athletes.

REINJURY ANXIETY

Re-injury anxiety is one of the most common psychological reactions experienced by injured athletes, as well as the most commonly cited reason presented by athletes for not returning to sport post ACL surgery. Reinjury anxiety or fear of re-injury, both used synonymously within the sport injury literature, is defined as an irrational and debilitating fear or anxiety that physical movements will result in painful reinjury. Reinjury anxiety is associated with psychological changes including diminished concentration and self-confidence, as well as increase in distractibility and pain awareness. In addition, reinjury anxiety may also cause physiological changes including over arousal evident through increased heart rate, generalized muscular tension, and guarding the injured site. Thus, an athlete who fears reinjury tends to develop a lack of trust in the injured site which can produce hesitance in performance during rehabilitation and when returning to training and competition. Athletes' awareness of their substandard performance can then lead to decrease in coordination, muscle tension, and bracing or splinting which are suggested to increase actual re injury occurrence. Overall, both psychological and physiological responses to reinjury anxiety contribute to athletes falling into a cycle of inactivity that may lead to reductions in body strength and flexibility, and can result in athletes experiencing greater pain when active, thereby reinforcing the reinjury anxiety that perpetuates continued avoidance.

PSYCHOLOGICAL DISTRESS

In addition to re-injury anxiety, athletes can experience depressive symptoms following injury. The severity of the depressive symptoms can vary based on the injury, limits to mobility, length of rehabilitation, and delay in the athlete returning to sport or physical activity. Depressive symptoms can arise soon after the injury which could be associated with frustrations due to immobility, difficulties participating in everyday activities, and feelings of injustice and shock associated with the injury. Depressive symptoms can also have a delayed onset and could be associated with feeling socially isolated, loss of skills or opportunities, and overall absence from participating in training or competition which can contribute to loss of athletic identity. Thus, an athlete who requires surgery following sport injury may be more vulnerable to depressed mood than an athlete who has less severe sport injuries because of the delay in returning to play.

Additionally, athletes who report experiencing somatic symptoms (e.g., physical aches and pains associated with psychological distress) prior to injury could impact the length of their recovery time. For instance, it took 20 days for 80% of patients with somatic symptoms to recover from a concussion; whereas it took 10 days for 80% of patients without prior physical symptoms. This research highlights that healthier minds tend to recover quicker from concussions therefore addressing mental health concerns, such as depressive symptoms, prior to injury could impact the recovery time required following a serious injury. Although research has not explicitly examined depressive symptoms prior to or following injuries commonly experienced by endurance athletes, such as pulled muscles, sprains, or shoulder injuries, one could predict that endurance athletes are also at increased risk for developing mental health concerns, such as depressive and anxiety symptoms, following injury especially a career ending injury.

IMPACT ON REHABILITATION

Athletes' willingness to commit to rehabilitation, as well as the value they give to the rehabilitation process, influences their cognitive, emotional, and behavioral reactions to injury rehabilitation. Thus, the way athletes perceive their injury rather than the fact that the injury occurred has a critical role in understanding athletes'

emotional responses, such as depression, reinjury anxiety, and grief. Johnston and Carroll observed that athletes who reported a high fear of reinjury also had certain behavioral responses, including but not limited to being hesitant, not giving 100% effort, and being wary of injury-provoking situations (e.g., during rehabilitation and in sporting contexts). They also found that athletes who positively appraised their injury rehabilitation (e.g., viewed their injury as manageable) reported feeling happiness and relief, which fostered increased adherence to rehabilitation. In contrast, athletes who negatively appraised their injury rehabilitation (e.g., viewed their injury as causing stress) reported feeling frustration, which led to hesitancy and cautiousness toward completing exercises in their rehabilitation program. Further, in 2008, Carson and Polman found that during rehabilitation injured athletes tended to seek more emotional support from the staff in charge of rehabilitation as opposed to family. Injured athletes may find that emotional and informational support from athletic trainers, physicians, or professionals familiar with the rehabilitation process is more helpful for managing stress associated with their injury compared to what is offered by family and significant others .

RECOMMENDED PSYCHOLOGICAL INTERVENTIONS

Few medical professionals are aware of the psychological interventions which have helped athletes cope with the mental consequences of injury, including setting and adjusting goals during the rehabilitation process and imagery paired with diaphragmatic breathing intended to induce relaxation . Goals can be defined as attaining a specific level of proficiency on a task, usually within a specified time period . The majority of successful goal setting interventions included setting goals that provide structure, steps, and motivation for achieving specific milestones in injured athletes' rehabilitation, and customizing the goals to fit the individual's needs . Additionally, some researchers have begun exploring the impact of mindfulness, a type of meditation focusing on the breath, being in the present moment, and remaining non-judgmental of any thoughts, or feelings that arise during the course of the meditation, on helping athletes with pain, stress and anxiety management, and focus . Additionally, integrating self-compassion exercises holds promise in helping athletes address self-critical thoughts, stress and anxiety, as well as difficulties with focus and pain which tend to arise following injury. Further, imagery is a psychotherapeutic intervention defined as creating sensory rich images within one's mind . Within medical contexts, researchers have conducted interventions where relaxation imagery (e.g., imagining a peaceful place) and motivational imagery (e.g., imagining a medical procedure or treatment being successful) is often paired with diaphragmatic breathing to help individuals cope with cancer , fibromyalgia , and tension induced headaches . Within sport, motivational imagery paired with diaphragmatic breathing is frequently used by athletes, coaches, and sport psychologists to enhance skill acquisition and recently cognitive specific imagery (e.g., imagining oneself successfully performing in game situations and in the situation in which they had previously been injured) has shown to be effective in reducing injured athletes re-injury anxiety, experience of pain, and improving speed of physical healing . For instance, Evans et al. interviewed three rugby players in their mid-twenties who had undergone surgery to repair a sport-related injury (i.e., dislocated shoulder, fractured fibula and tibia, or torn ACL).

CONCLUSIONS

For many endurance athletes getting injured is a normal part of the sport which may require a few weeks of working with a physical therapist or at most a short break from participation. However, when the injury is more serious and requires surgery it can quickly become a distressing setback, an event often appraised as impeding progress toward desired goals and for some ending their athletic career. Athletes who have suffered serious injury can likely relate to the psychological consequences discussed in this article and would have benefitted from receiving a psychological intervention, such as goal setting, imagery, or mindful self-compassion following their injury. Athletes with prior mental health concerns, as well as athletes requiring surgery and a greater

absence from participation in sport or physical activity are at greater risk for experiencing lingering mental health concerns following their physical recovery and should be encouraged to seek services from sport psychologists or sport consultants certified through the Association of Applied Sport Psychology (AASP).

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The Effect of Circuit Training Exercises on Physical Fitness of School Going Children

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ABSTRACT

The main objective of Physical Education in School is to fit the upcoming generation of the country. Now a day's we are facing a problem regarding physical fitness level of the school going children. As students are engaged with tv, Mobile, Laptop and other such activities. The interest level of active participation in PE classes is decreasing. If we are able to develop the interest of the students in PE classes with advanced exercises is being a good thing. So here the researcher tries to find the actual effect of advanced Circuit Training exercise on physical fitness with experimental method. As we all know that the Circuit Training is a one of the advanced training methods the students take part in it very interestingly. The actual results of Circuit Training on physical fitness components are very positive. If a physical education teacher uses a circuit training one day in a week with a proper manner it will gives a very good result on physical fitness component of school children.

Terms Used : *Circuit Training: Circuit training is a form of body conditioning that involves endurance training, resistance training, high-intensity aerobics, and exercises performed in a circuit, similar to High-intensity interval training.*

Physical fitness : *Physical fitness is state of health and wellbeing and, more specially, the ability to perform aspects of sports, occupations and daily activities.*

School children : *Students who acquire knowledge and curious about the new knowledge.*

INTRODUCTION

As we all know that the Physical Education is a compulsory subject for school children but many of us just confused about its effect on health and fitness. Many researchers proved that the high-level physical fitness contributes the major role in sports performance but what about healthy life? Now a days we are noticed that physical inactivity is increasing among the school going children. So, to acquire a normal physical fitness parameter in growing age of human offspring, various researchers try to investigate the different techniques from ancient exercises to modern exercises. Out of such some advanced training activities plays an important role in physical fitness with recreation. Circuit training is one of them.

Circuit Training is an everlasting and evolving training exercise program developed by R.E. Morgan and G.T. Anderson in 1953 at the University of Leeds, England. Circuit Training was developed to allow people to work at their own intensity while also training with others. In the original format, a circuit would comprise of 9 to 12 stations. Individual may alter the number of stations as their own comfort. A participant would move from one station to the next with little rest and performing an exercise for a set period of time (30 second, 40 second etc.) or number of repetitions (10 times, 20 times etc.) During the circuit training session all the energy systems interweave to enable different intensity activities to be performed. This will result in the aerobic energy system being more predominant during some exercises and the anaerobic energy system will be more predominant in other exercises.

The main purpose of this study is to find out the effect of Circuit training exercise training program on school children and suggest the right program of Circuit training exercise for school going children. The study has been limited to the school children of age group between 14 to 16 years and the duration of the study was restricted to 12 weeks. The observations and finding made in this study would be helpful and beneficial to Trainers and Coaches to develop a Physical fitness. Also, this study may give an opportunity to the researchers to conduct further studies on different aspects of Circuit training exercises.

METHODOLOGY

Design of study: The researcher used a true experimental method with two experimental groups in which one was experimental and other was controlled.

	Experimental Group A	Controlled Group B
	↓	↓
Step 1	Pre-Test	Pre-Test
	↓	↓
Step 2	Training	Training
	↓	↓
Step 3	Post Test	Post Test
	↓	↓
Step 4	Comparison of final points	

Sampling : The researcher carried out the research with forty students of age group 14 to 16 years. Population selected by random method and divided samples in two groups with simple random method by lottery method. Experimental group A (Circuit training) and group B was Control. Each group consists of 20 students.

Procedure : Experimental Group 'A' Circuit Training Exercises

Sr. No.	Exercise	Sr. No.	Exercise
1	Box exercises	7	Side sit ups
2	Knee rises	8	Dumbbell picking
3	Sit ups with medicine ball	9	Leg rises and twisting
4	Dips	10	Medicine ball passing
5	Rope Skipping	11	Sit ups for abdomen
6	Arm action	12	Dips on box

Time Table :

Week / Days	Exercise number	Repetition / Time
1 st to 4 th Monday, Tuesday, Wednesday	Warming up exercises	15 Min.
	Circuit training exercises no. 1 to 6	Each exercise for 30 Sec
	Relaxation exercises	15 Min.
1 st to 4 th Thursday, Friday, Saturday	Warming up exercises	15 Min.
	Circuit training exercises no. 7 to 12	Each exercise for 30 Sec
	Relaxation exercises	15 Min.
5 th to 8 th Monday, Tuesday, Wednesday	Warming up exercises	15 Min.
	Circuit training exercises no. 1 to 6	Each exercise for 40 Sec
	Relaxation exercises	15 Min.
5 th to 8 th Monday, Tuesday, Wednesday	Warming up exercises	15 Min.
	Circuit training exercises no. 7 to 12	Each exercise for 40 Sec
	Relaxation exercises	15 Min.
9 th to 12 th Monday, Tuesday, Wednesday	Warming up exercises	15 Min.
	Circuit training exercises no. 1 to 06	Each exercise for 50 Sec
	Relaxation exercises	15 Min.
9 th to 12 th Monday, Tuesday, Wednesday	Warming up exercises	15 Min.
	Circuit training exercises no. 7 to 12	Each exercise for 50 Sec
	Relaxation exercises	15 Min.

2 Controlled Group 'B'

This group was engaged with various recreational activities, small games, funny games and other related activities and games etc. etc.

Selection of Variables and Tests :

Circuit Training is an aerobic activity where vigorous training techniques are used. The Circuit training exercises make an effect on physiological systems of the body as well as they also effects on Physical Fitness. Thus,

assessment of Physical fitness is measured scientifically by various approved tests as follows,

Sr. No.	Variable	Test
1	Flexibility	Modified Sit and Reach
2	Speed	30 M Flying Start
3	Agility	6 X 10 M Shuttle Run
4	Strength	Standing Broad Jump
5	Coordination	Wall Volley

Data Analysis : Various statistical scales were used to analysis the data collected by tests. The statistical scales like mean, mode, median, t scale, anova and ancova were used for conclusion.

Graphical Representation of Data :



CONCLUSION

Circuit training activities are recommended in schools for improving important factors of physical fitness. Also, it is recommended that Circuit training Exercises are used to be fit at home too. Where at home we can use the

interesting ideas like jumping, rolling, catching, sitting and standing (up and down), picking objects, throwing etc. etc. etc. there is many more scopes for our creativity with enjoyment.

Thus, the hypothesis Circuit training exercises would help to improve physical fitness of school going children is accepted.

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A Comparative Study of Physical Capacity between Rowing and Kayaking Players from Nashik District

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ABSTRACT

The present study was an attempt to compare physical capacity among district level girls rowing and kayaking players. For this study, Cooper's JCR motor fitness test was applied to rowing and kayaking players to compare their physical capacity performance. 10 girls rowing and 10 girls kayaking district level players those played under the district association were selected for this study. The age group of the subjects was between 17 to 24 years. For analysis of the data mean & standard deviation were calculated and to examine the significance difference between the group mean of different physical capacity, independent samples t-test was applied and level of significance was set at 0.05 levels. The shown result that vertical jump performance of kayaking players was high as compared to rowing players. The result indicates that there are insignificant differences between rowing and kayaking players in chin-ups, rowing players performed better than kayaking players. Result found that kayaking players have shown their superiority on shuttle-run compare to rowing players.

Keywords : Physical Capacity, Kayaking, Rowing Sports Vertical-Jump, Chin-Ups and Shuttle-Run.

INTRODUCTION

As we enter the 21st century, one of the greatest accomplishments we can celebrate is our continuous pursuit of fitness since the beginning of human kind. Throughout prehistoric time, the quest for fitness was driven by a need to survive through the arduous tasks of hunting and gathering. In previous years, fitness was commonly defined as the capacity to carry out the day's activities without undue fatigue. However, as automation increased leisure time, changes in lifestyles following the industrial revolution rendered this definition insufficient. In current contexts, physical fitness is considered a measure of the body's ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypo kinetic diseases, and to meet emergency situations. There are five main components of physical fitness in sports:

STRENGTH

Strength is the maximal force you can apply against a load. Strength is one of the main fitness components, important for success in many sports. Rowing & Kayaking games require great strength lower and upper body to best performance.

ENDURANCE

Endurance is the ability to do sports movement with desired quality and speed under the condition of fatigue. Most sports require athletes to develop muscular endurance to a certain degree, along with the other components of fitness, but because muscular endurance is muscle-specific, certain sports require athletes to hone different muscles for endurance. In Rowing & Kayaking players there is much use of endurance. These games are mostly used aerobic capacity.

FLEXIBILITY

Flexibility is defined as the ability to move joints or muscles through their full-range of motion. All sports require flexibility. Rowing & Kayaking players need to be able to perform against the object, walking and sprints also requires flexibility. Stretching is of huge benefit as it can with proper stretching can bring increased muscle control, flexibility and range of motion.

COORDINATION

Coordination is the ability to repeatedly execute a sequence of movements smoothly and accurately. This may involve the senses, muscular contractions and joint movements. All sports require the coordination of eyes, hands and feet. Rowing & Kayaking players are an activity that depends on the coordination of both nerves and muscles, and on the ability of the central nervous system to eliminate as many breaking and friction movements as possible.

The main purpose of the study was find out whether the participation in Rowing & Kayaking players was developed the motor ability of every individual. The vigorous participation in Rowing & Kayaking players was developed physical capacity. A person can improve the physical capacity through related test batteries for development better performance in sports activities, but also meaning of healthful living. A good physique depends upon certain amount of physical strength along with the Mental Strength while Physical Strength determines one's abilities and capacities potentialities.

MATERIAL AND METHOD

Sample

To obtain data for this study, the investigators was selected twenty (N=20) district level girls Rowing & Kayaking players of 17 to 24 years of age group players. They were selected into two groups which includes ten (n = 10) girls Rowing players and ten (n = 10) girls Kayaking players. The purposive sampling technique was used to selection of sample. All the subjects, after having been informed about the objective and protocol of the study was give their consent and volunteered to participate in this study.

Table 1 : Selection of Tools

J.C.R. test items	Criterion Measure	Unit
Vertical-jump	Recorded in nearest cm/inches	Centimeter
Chin-ups	The total number of correctly completed Chin-ups is recorded	Numbers
Shuttle-Run	Recorded to the nearest 1/100th Second	Seconds

Results of the study :

The results pertaining to significant difference between male Rowing and Kayaking players were assessed using the Independent sample 't' test & the results are presented in table 2

Table 2 : Independent sample t-test to perform of Rowing and Kayaking players

Gender	Test	Group	N	Mean	Mean Diff	't'	df	Sig(2 tail)
Girls	Vertical Jump							
		Rowing	10	22.00	1.70	1.68	18	0.11
Girls	Chin-Ups	Kayaking	10	23.30				
		Rowing	10	9.90	1.70	2.66	18	0.01
		Kayaking	10	8.20				
Girls	Shuttle Run	Rowing	10	15.84	0.53	0.81	18	0.42
		Kayaking	10	15.31				

Table 2 presents the result of girls rowing and kayaking players with regard to the Cooper's JCR motor fitness test. The descriptive statistics shows the mean values of rowing players on the variable of vertical-jump 22.00 respectively and similar test kayaking players was mean 23.30 respectively. The 't'-value 1.68 as shown in the table above was found statistically no significant ($p=0.11$). It has been observed that rowing players were no significant difference vertical-jump compare to kayaking players. The descriptive statistics shows the mean values were rowing players on the variable chin-ups as 9.90 respectively. However, kayaking players was mean values as 8.20 respectively. The 't'-value 1.70 as shown in the table above was found statistically significant ($p=0.01$). It has been observed that rowing players was better on chin-ups than compare kayaking players. The descriptive statistics shows the mean values of rowing players on the variable shuttle-run as 15.84 respectively. However, kayaking players was mean values as 15.31 respectively. The 't'-value 0.81 as shown in the table above was found statistically no significant ($p=0.42$). It has been observed that kayaking players had no significant difference shuttle-run than compare rowing players.

The comparison of mean scores of both the groups had been presented graphically in figure below.

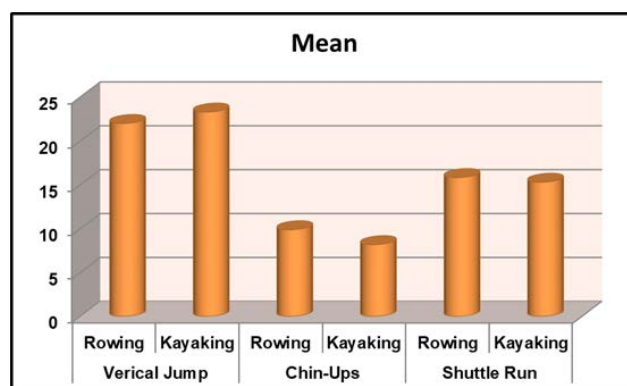


Fig. 1: Graphical representation of mean scores of female Rowing and kayaking players with regard to the Cooper's JCR motor fitness battery

CONCLUSION

The physical demands vary greatly among the rowing and kayaking game obviously speed was very important for rowing and kayaking game. JCR test represents an important consideration in an individual's performance in physical activity. While JCR test was one of the numbers of determinants of the capability of performance in physical activity in many classes it may spell the difference between success and failure. The present study was under report studied the physical fitness components such as under the measure vertical jump, chin-up, shuttle run, of the girls rowing and kayaking players. From the obtained results it was very clear that participated kayaking players was perform better vertical jump, and shuttle run. Rowing players were better in the chin up test. Hence it is finally concluded that the result reveals that the vertical-jump & shuttle run performance of kayaking players were high as compared to rowing players & chin-up performance of rowing players were high as compared to kayaking players. The result indicates that there was a significant difference between rowing and kayaking players in chin-ups and indicates that there were no significant differences between kayaking and rowing players in vertical jump & shuttle run tests.

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Effect of Eight Weeks Specific Exercise Training Program on Health & Skill Related Physical Fitness Components of Skating Players of Pune City

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ABSTRACT

The purpose of this study was to examine the effect of eight weeks specific exercise training program on health related physical fitness and skill related physical fitness components of skating players of Pune city. It was an experimental study in which pre-test & post- test non equivalent groups design was used. 80 boys & girls skating players mean of age (13.17±2.15) were selected as sample by using simple random sampling technique and among that (n=40) boys & (n=40) girls from Aims skating club pune. They were equally divided into, Experimental group (n=20) boys & (n=20) girls and Control group (n=20) boys & (n=20) girls. Sit & reach, Standing broad jump, Half squat jump, Shuttle run, 30 meter dash & Balance beam test was conducted on both the groups obtained data was analyzed by using Independent sample t-test. Result shows that data collected was analyzed by using Independent t-test to see the change of specific exercise training program was useful to improve health & skill related physical fitness. Further data was analyzed by using Independent 't' test the experimental & control group of Sit & reach, Standing broad jump, Half squat jump, Shuttle run, 30 meter dash and Balance beam tests which shows the significant difference at 0.05 level thus researcher concludes that there was significant improvement of Sit & reach, Standing broad jump, Half squat jump, Shuttle run, 30 meter dash and Balance beam performance of experimental group as compared to control group due to the treatment given.

Keyword : Specific exercise training program, Sit & reach, Standing broad jump, Half squat jump, Shuttle run, 30 meter dash and Balance beam.

INTRODUCTION

The wealth of the nation resides on the health and vitality of its people. Every nation is becoming increasingly concerned about physical fitness of its men, women and children; recognized physical fitness is fundamental and useful living in any capacity. A motor component is the basic of all activities in our society. A motor component is defined as asset of attributes that people have or achieve that relates to the ability to perform physical activity with skillful. A motor component means different things to different sportsmen and may include Strength, explosive power and speed.

The sports of skating can be broken into three categories: roller skating, inline skating, and ice skating. Skating involves gliding over a smooth surface on roller skates which are specially design boots with two wheels at the front and two at the heel. Skating enjoyed outdoor and indoor roller rinks. Skating game need to health & skill related fitness to perform in cardio endurance, muscular strength, flexibility, agility, speed, balance and coordination include that all factor play vital role in skating performance must to develop in base level of skaters.

MATERIAL AND METHOD

Method of the study

The present study was an experimental research which was conducted with a purpose to see the effect of eight weeks specific exercise training program on health related physical fitness and skill related physical fitness components of skating players of Pune city.

Research Design

Experimental design was used for this study to check the hypothesis; this research was based on pre-test & post- test non equivalent groups design.

Method of Sampling

For the present research whole population a total number of 80 boys & girls skating players mean of age (15.17 ± 2.15) were selected as sample by using simple random sampling technique and among that ($n=40$) boys & ($n=40$) girls from Aims skating club pune.

Selection of Variable

The study was taken to pinpoint the variables was flexibility, explosive strength, muscular endurance, agility, speed and balance. For that variable measures sit & reach, standing broad jump, half squat jump, shuttle run, 30 meter dash and balance beam tests used for collected data.

PROCEDURE OF THE STUDY

The researcher assembled all the subjects and given to them instruction about the need, importance description of the experiment and explanation of sit & reach, standing broad jump, half squat jump, shuttle run, 30 meter dash and balance beam tests and experimental group implement specific exercise training program including stretching exercise, squat, various jumping exercise, crosses, leg hoping, power push, sit ups, shadow skating 90 degree bend position, shadow 4x1 skate lap, high knee, body weight transfer, 30 m dash, various yoga poses for cooling down etc. exercise for selected a total number of 20 boys & 20 girls and control group 20 boys & 20 girls they doing regular activity skating players in the age group 12-15 years old with the help of simple random sampling technique. The selected subjects were pre-test by sit and reach, standing broad jump, half squat jump, shuttle run, 30 meter dash and balance beam tests experimental and control groups, after the implemented training program conduct post tests for data collection.

STATISTICAL TOOLS

After data collection, data of pre-test and post-test of both the groups i.e, experimental and control group, by using analysis of covariance and interpretation were drawn. The level of significance was kept at 0.05 to test the hypothesis.

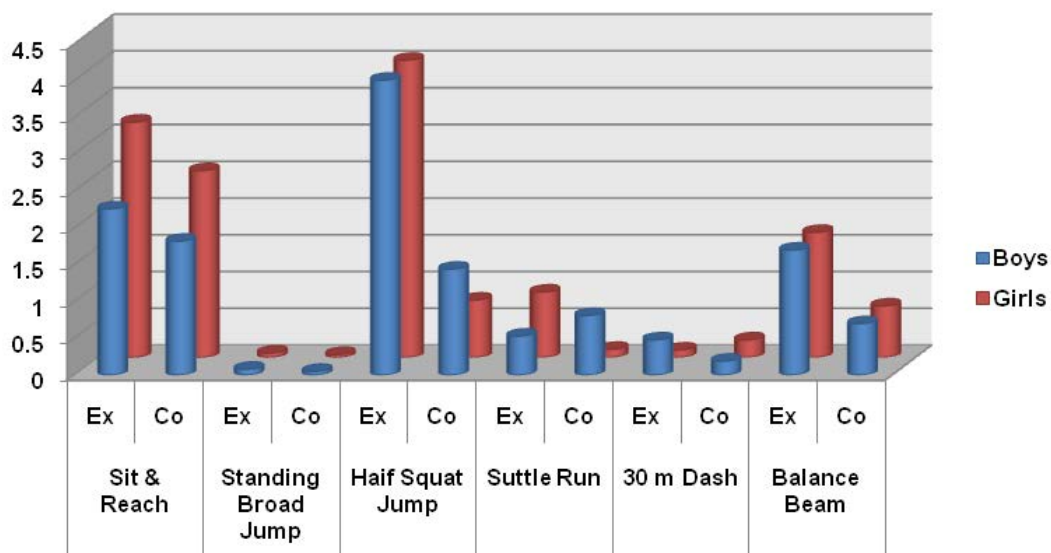
RESULTS OF THE STUDY :

The obtained results are present in the following table which represents the results of descriptive analysis and independent sample t-test to compare the mean of group's i.e, experimental and control group.

Table 1 : Descriptive statistics & comparison to gain the health & skill related physical fitness performance of boys & girls skating players of experimental and control group

Gender	Test	Group	N	Pre	Post	Change in Performance Mean	Mean Difference	't'	df	Sig(2 tail)
Boys	Sit & Reach	Exp	20	17.42	19.68	2.26	0.24	0.94	38	0.03
		Con	20	16.10	17.92	1.82				
Girls	Sit & Reach	Exp	20	22.52	25.72	3.20	0.66	3.00	38	0.00
		Con	20	17.30	19.84	2.54				
Boys	Standing Broad Jump	Exp	20	1.40	1.48	0.08	0.03	2.65	38	0.00
		Con	20	1.30	1.35	0.05				
Girls	Standing Broad Jump	Exp	20	1.42	1.48	0.06	0.01	2.33	38	0.02
		Con	20	1.26	1.30	0.04				
Boys	Half Squat Jump	Exp	20	19.85	23.86	4.01	2.86	9.63	38	0.00
		Con	20	18.16	19.60	1.44				
Girls	Half Squat Jump	Exp	20	17.96	22.02	4.06	2.88	7.19	38	0.00
		Con	20	10.98	11.76	0.78				
Boys	Shuttle Run	Exp	20	11.10	10.57	0.53	0.34	4.62	38	0.00
		Con	20	13.91	13.10	0.81				
Girls	Shuttle Run	Exp	20	12.47	11.58	0.89	0.63	8.72	38	0.00
		Con	20	15.56	15.67	0.11				
Boys	30 meter Dash	Exp	20	11.05	10.53	0.48	0.32	4.18	38	0.00
		Con	20	14.26	14.07	0.19				
Girls	30 meter Dash	Exp	20	11.63	10.73	0.10	0.45	7.47	38	0.00
		Con	20	15.09	14.85	0.24				
Boys	Balance Beam	Exp	20	2.50	4.20	1.70	1.00	10.80	38	0.00
		Con	20	2.50	3.20	0.70				
Girls	Balance Beam	Exp	20	2.70	4.40	1.70	1.00	8.89	38	0.00
		Con	20	2.20	2.90	0.70				

Table 2 : Comparison to gain the health & skill related physical fitness performance of boys & girls skating players of experimental and control group



The figure no. 1 shows that there was significant improvement in Health & Skill related physical fitness factors Skating players of experimental group due to treatment.

DISCUSSION OF THE FINDINGS

Discussion on the results of Sit & reach, Standing broad jump, Half squat jump, Shuttle run, 30 meter dash and Balance beam tests performance; It was observed from the finding that the effect of specific exercise training program on health related physical fitness and skill related physical fitness components of skating players from table No. 1, shows that there was a significant difference between experimental group and control group of subjects regarding to the all test items. This indicates that specific exercise training program had positive effect on Sit & reach, Standing broad jump, Half squat jump, Shuttle run, 30 meter dash and Balance beam of experimental group. Therefore the set hypothesis that there will be significant effect of specific exercise training program on Sit & reach, Standing broad jump, Half squat jump, Shuttle run, 30 meter dash and Balance beam of skating players was accepted.

Sankaran (2000) conducted a study on the effect of weight training exercises on the performance of scooping in hockey on sixty hockey players of Sivagangai District. Six weeks weight training was given to the students. During the six weeks training period, the subjects of experimental group were given weight training with the bar bells. They were also asked to do the skill scooping. The result showed a highly significant improvement in the subjects of the experimental group after six weeks of training with specific weight training and exercises.

CONCLUSION

On the basis of the result obtained in the study the researcher made the concluded that eight weeks specific exercise training program was significantly effective to the Sit & reach, Standing broad jump, Half squat jump, Shuttle run, 30 meter dash and Balance beam of skating players which indicate the level of performance and also the findings of this study may be helpful to the skating players to doing regular practice of specific exercise training to improve Health and Skill related physical factor performance.

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Effect of Weight Training Program on Explosive Power of Female Volleyball Players

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ABSTRACT

The Purpose of the present study was to determine the effect of Weight Training Program on Explosive Power. Female (18) Volleyball Players of Shri.ShivajiShikshanPrasarak Mandle's, Barshi. Age Group between 16 to 22 years was selected as subjects for the study the pre-test and post-test single group design was adopted. The experimental treatment was given to the subjects through the Weight training program, Three days a week for Nine weeks of one and half hour per session from 6.50 a.m. to 8:35 a.m. The pre-test and post-test data were collected before and immediately after the completion of the training program by using Standing Broad Jump. To analyze the collected data t-test statistical technique was employed and the level of significant was observed at 0.05 level of confidence. On the basis of the statistical technique it was conclude that there was significant improvement of Explosive Power ($t_{0.05} = 3.074 > 2.0244$) due to the training of selected weight training Program exercises.

Keywords : Weight training Program, Explosive Power, Standing Broad Jump.

INTRODUCTION

Volleyball is a team sports in which two teams of six players are separated by a net. Each team consists of six players. To get play started; a team is chosen to serve by coin toss. A player from the serving team throws the ball into the air and attempts to hit the ball so it passes over the net on a course such that it will land in the opposing team's court (the serve). The opposing team must use a combination of no more than three contacts with the volleyball to return the ball to the opponent's side of the net. These contacts usually consist first of the bump or pass so that the ball's trajectory is aimed towards the player designated as the setter; second of the set (usually an over-hand pass using wrists to push finger-tips at the ball) by the setter so that the ball's trajectory is aimed towards a spot where one of the players designated as an attacker can hit it, and third by the attacker who spikes (jumping, raising one arm above the head and hitting the ball so it will move quickly down to the ground on the opponent's court) to return the ball over the net. The team with possession of the ball that is trying to attack the ball as described is said to be on offence. Weight training is a common type of strength training for developing the strength and size of skeletal muscles. It utilizes the force of gravity in the form of

weighted bars, dumbbells or weight stacks in order to oppose the force generated by muscle through concentric or eccentric contraction. The rate of force development is at the maximum for any type of muscle action is explosive power. In activities requiring high acceleration and output, explosive power training is necessary for maximum development. The purpose of the present study was to determine the effect of Weight Training Program on Explosive Power of Female Volleyball Players.

METHODOLOGY

This study was an experimental research which was conducted to find out the effect of Weight training program on Explosive power of female volleyball players. Selection of particular design was based on purpose experiment, sample was selected purposively. There was two groups one was experimental and another was control group the Pre-test and Post-test would be conducted on each group. The type of research design was pre-test and post-test equivalent group design. The experimental treatment was given to the subjects through Weight training program, Three days a week for Nine weeks of one and half hour per session from 6.50 a.m. to 8:35 a.m. The pre-test and post-test data were collected before administering the training and immediately after the completion of the training program by using Standing Broad Jump test to measure the Explosive leg Power in inches. To analyze the collected data t-test statistical technique was employed and the level of significant was observed at 0.05 level of confidence.

SAMPLING

- i) Population - All the girls age between 16 to 22 years of Volleyball players from Shri. Shivaji Shikshan Prasarak Mandle Barshi.
- ii) Sample - The sample of 18 players was selected with purposive Sampling method, Further these were divided into two groups, experimental group and control group.

The pre-test and post-test data were collected before administering the training and immediately after the completion of the training program by using Standing Broad Jump test to measure the Explosive leg Power in inches.

RESULT AND DISCUSSION

Present research deals with the, effect of weight training program on explosive power revealing the nature of the research design; the data collected was analyzed using the descriptive statistics. Mean, standard deviation and standard error of mean and using compare mean, Paired Sample 't' test, Independent Sample 't' test With the help of SPSS. (17.00) The obtained data were presented in following tables which represents the results and descriptive analysis, and using 't' test.

Table 1 : Descriptive Statistics of Pre-test & Post-test of Experimental and Control group

Group		Mean	N	Std. Deviation	Std. Error Mean
E.G.	Pretest	32.2840	10	4.24576	1.11731
	Posttest	31.1200	10	5.60048	1.44601
C.G.	Pretest	29.7067	08	4.63591	1.48124
	Posttest	30.7020	08	4.59467	1.44470

Table 1 shows mean performance of 18 subjects in the pre-test and post-test of the experiment group was 32.2840 (4.24576+) and 31.1200 (+5.60048) respectively. In the control group mean performance of pre-test and post-test was 29.7067 (+4.63591) and 30.7020 (+4.59467) respectively.

Table 2 : Paired Samples Test of Pre-test and Post-Test

Group	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
E.G.	-2.7800	1.27571	0.32939	-8.440	14	0.000
C.G.	-0.0933	0.95877	0.24755	-0.377	14	0.712

In table 2 shows mean different between pre-test and post-test of experiment group was 2.7800(+1.27571). This mean difference was tested by paired sample 't' test where it value was 8.440 at degree of and freedom 14 show statistically significant difference at 0.05, significant level (P=0.001) and the mean difference between pre-test and post-test of the control group was 0.933 (-0.95877) and calculated 't' value was 3.770 at degree of freedom 14 shows statically significant difference at 0.05 significant level (P=0.001) This indicates that complex training program was effective to develop Explosive Power of Female Volleyball players.

CONCLUSION

On the basis of statistical findings of the study it was concluded that there was significant improvement of Explosive power due to Nine weeks weight training of selected exercises.

RECOMMENDATIONS

- i) The researcher suggested to coaches and teachers that Weight training program is beneficial to improve Power.
- ii) The researcher suggested that Nine weeks time is not enough to improve the skills of the volleyball players.
- iii) The researcher has completed his research works only on college level also can be done on other school level, West Zone level and All India level volleyball players.
- iv) Researcher also suggests that apply the weight training program on other ball games and find out the significant effects.

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Sports Psychology

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ABSTRACT

Sports psychology is a sub discipline of psychology applied to a competitive sport as a specific context of organized physical activity. Competitive sport is focused on high achievement and consistent excellence, in contrast to other settings in which exercise is used for physical education, leisure, or rehabilitation. The major emphasis in sport psychology is on the study and application of psychological factors enhancing athletic performance and on the impact of sport participation on a person's (or team's) development. Psychological characteristics of high-level performance, motivation, psychological techniques for individual performance, life span development, exercise and health psychology and future directions in sports psychology. The book includes chapters on expertise, intrinsic and extrinsic motivation, exercise and mental health, compulsive exercise, measurement, pain, confidence building, self-efficacy, and a theoretical discussion of cognitive and dynamical systems. Introduction, Competitive Sport as a High Achievement Setting, Performance Enhancement, Athletic Excellence from a Developmental Perspective, Conclusion: Future Directions in Sports Psychology.

Keywords : Sports, Psychology, Confidence, Performance.

INTRODUCTION

Many definitions of sport psychology have been suggested, there has been no comprehensive and internationally accepted definition of sport psychology. In its Position Stand # 1 (1995), the European Federation of Sport Psychology (FEPSAC) proposed that "sport psychology is concerned with the psychological foundations, processes, and consequences of the psychological regulation of sport-related activities of one or several persons acting as the subject(s) of the activity". This definition indicates that sport psychology attempts to improve athletic performance and help athletes to concentrate better, deal effectively with competitive stress, and to practice more efficiently. The term "sport" is used as an umbrella term that includes different kinds of sport, exercise, and other physically active pursuits. These types of physical activity are also used in other settings such as organized physical education, leisure, and rehabilitation (healing). Another important feature of sport psychology is its double nature.

MAJOR FOCUS AND TRENDS IN SPORTS PSYCHOLOGY

Noteworthy are two major focuses in sport psychology research, with two corresponding trends in applied work. The first is understanding the psychological factors that affect athletic performance and how athletes realize their potential in sport. Applied aspects here include high-quality practices, optimal performance, and adequate recovery at the level of an individual athlete and team. The second important objective of sport

psychology is to understand how athletes develop in sport and what are the “benefits” and “costs” of their multiyear sport participation. In team sports, this also involves dealing with team-building issues and helping individual athletes find a balance between individual and team interests and values.

HOW SPORT PSYCHOLOGISTS WORK

First, sport psychologists as a professional group are experts with different backgrounds. They may be clinically oriented consultants, educationally oriented consultants, mental trainers, applied researchers specializing in performance enhancement, or social or personality psychologists. Second, it is well known that the science of coaching focuses on the use of general principles. Per Weinberg and Gould (1999), “the art of coaching is recognizing when and how to individualize these general principles”. As with coaching, the practice of applied sport psychology is both a science and an art.

Third, there are certain organizational working models, assessment technologies, and interventions based on specific ethical norms that characterize how sport psychologists work. For instance, sport psychology research and effective delivery of psychological services to elite athletes and coaches usually focuses on two closely related aspects: (1) performance enhancement in practices and competitions, and (2) optimization of interpersonal and intragroup communication, creating optimal team climate and effective management. Sport psychologists use several guide-lines or principles to enhance their work, including action and growth-orientation; an emphasis on developing individualized strengths rather than on repairs of deficiencies; empowering athletes, coaches, and teams rather than developing over-dependency on outside experts; and enhancing active participation, partnership, and cooperation between sport psychologists, athletes, and coaches.

COMPETITIVE SPORT AS A HIGH ACHIEVEMENT SETTING

Sport and Competition

Organized competitive sport is characterized by a clear focus on high achievement, exceptional level of skills, enhanced working capacity supplemented by health, well-being concerns, and prevention of injuries.

Rules of competition in different sports create three distinct psychological contexts for competing athletes: “one-by-one” performances (with no physical or psychological contact between opponents during performance); “one-near-one” performances (with only psychological contact between opponents); and “face-to-face” performances (with both physical and psychological contacts between the opponents during performance). Each of these contexts creates specific challenges for athletes and requires specific resources to cope with task demands. Moreover, a competitor can be either an individual athlete or a team.

Individual and Team Excellence

Athletic excellence is defined as an athlete’s exceptionally good performance compared with the previously achieved standards. The standards of performance can be self-referenced, i.e., based on a particular athlete’s record of achievements and performance history. In contrast, normative standards reflect performance levels of other top performers in a particular sport event. In both cases, the indicators of athletic excellence are results (outcomes) achieved and the quality of performance process (task execution).

To achieve a collective excellence, it is important to find an adequate balance between the athletes’ individual goals and the team goals. These goals usually overlap, but they often do not perfectly match. However, a coach should realize that the degree of this match or mismatch between individual and team goals can result

in a balance or imbalance between cooperation and competition processes in the team. Specifically, higher overlap (a match) between individual and group goals leads to better cooperation between teammates, whereas a lower overlap (a mismatch) can result in competitive behavior among the players (e.g., competing for starting positions, playing time, etc.). To find an adequate balance between stimulating athletes to develop their individual excellences and encouraging them to contribute maximally to the team is one of the key issues for coaches.

High-Quality Practice

How much time do athletes have to spend in practice in order to achieve athletic excellence? What is the difference between high- and low-quality practice? The major focus in sport psychology since the late 1960s was on successful and poor performances in competitions. Although competitive stress is still a popular topic of research, it is clear that excellence in competitions depends on how much and how well athletes practice. Research shows that top performers typically engaged in 10,000 hours, or 10 years, of deliberate (effortful) and sometimes non-enjoyable preparation to become experts in their domain

High-quality practices have several important features. First, they require an athlete to be very aware of his or her individual strengths and limitations, optimal emotional states, and bodily signals. An athlete should know how to recognize and monitor this working state during the entire practice and how to recover effectively.

PERFORMANCE ENHANCEMENT

Performance Related Experiences and Athletic Excellence

As mentioned previously, athletic excellence is an extended period of exceptionally good performance by an athlete or a team that exceeds previously established or situationally acceptable self-referenced standards. The usual level of performance provides the frame of reference for defining individually successful (optimal, peak), less than successful (sub-standard, below average, plateaus), and poor (choking, slumps) performances. Peak performance describes an ideal (outstanding, desired) performance. In contrast, optimal performance is the greatest degree attained (or attainable) under implied or specified conditions (e.g., skill level, health status, opponents, weather conditions, competition site).

Athletes' behaviors and subjective experiences accompany successful and less than successful performances. Pre-event emotional experiences affect performance, whereas ongoing performance affects the dynamics of mid- and post-event emotional experiences. There are three interdependent levels of human experiences related to and induced by athletic performance: situational transitory emotional experiences (psychobiosocial states) such as anxiety, anger, joy, or excitement, relatively stable patterns of experience (traits, dispositions), and meta-experiences (experiences about experiences). For instance, an athlete can experience a high level of anxiety prior to a competition. This situational state manifests itself in negative thoughts and expectations, such as feeling nervous, worried, and apprehensive. This experience is very individual (idiosyncratic), and for different athletes it can be harmful, can be helpful, or may not affect athletic performance in a particular competition. If anxiety is experienced repeatedly, a consistent pattern of experiences or a typical response disposition (trait anxiety) is formed.

Research shows that, in contrast to an ideal performance state (flow state) triggered by outstanding performance, optimal emotional states can be positive and negative prior to, during, and after performance. Positive optimal states are experienced when an athlete's resources match well with current task demands;

positive dysfunctional states reflect a routine performance situation in which resources are available but are neither recruited nor used properly. Typically, the physiological component of arousal is measured through muscle tension, cortical activity, electro-dermal activity, respiration, and biochemical markers such as epinephrine and cortisol.

Resources as Performance Enhancement Strategies

The construct of internal and external resources proposed here is not entirely new. For example, it is used in the conservation of resources (COR) model proposed by Hobfoll to define and explain psychological stress. Examples of broadly defined resources include not only personal characteristics (self-esteem, mastery, well-being) but also interpersonal, material, and work-related resources. The basic tenet of the COR model is that people strive to retain, protect, and build resources because the potential or actual loss of these resources is a threat and a source of psychological stress. Then psychological stress is defined as a reaction to the environment in which there is the threat of a net loss of resources, the net loss of resources, or a lack of resource gain following the investment of resources.

In competitive sport, resources are defined as psychobiosocial assets that determine athletes' ability to consistently perform up to their potential. Here the emphasis is on how available resources are identified and then systematically and effectively recruited, used, recuperated, and further developed. Therefore, equitable or non-equitable conduct found in society is generally reproduced in sport settings.

Barriers to Athletic Excellence

Four groups of internal and external resources (situational states, personality traits, psychological skills, and group dynamics factors) proposed earlier can provide a framework for describing potential barriers to athletic excellence. Specifically, the notion of resources and their role in enhancing athletic performance is dialectic. A lack of resources or a failure to identify, recruit, and use them effectively could become a potential serious barrier to consistent athletic excellence. Examples of such barriers are dysfunctional emotional states, an overemphasis on apparent deficiencies, and a lack of performance-related skills. Finally, environmental barriers include inadequate motivational climate in the team, selfish behaviours of teammates, media pressures, and conflicts between a coach and an athlete. The typical consequences of the impact of barriers include performance slumps, over-training, burnout, and injuries.

ATHLETIC EXCELLENCE FROM A DEVELOPMENTAL PERSPECTIVE

Athletic Career Demands, Coping Resources, and Barriers

It is very common for an athlete taking the first steps in his sport to dream of reaching athletic excellence, turning professional, and winning the world championship or Olympic games. However, it usually takes a long time to make this dream true. A so-called "athletic pyramid" shows metaphorically that only a few athletes achieve athletic excellence and have successful (elite, recognized, professional) athletic careers. For instance, a pyramid with one professional soccer player at the top contains 6000 soccer players at bottom; a pyramid with one professional basketball player at the top has 14,000 players at the bottom. According to Csikszentmihalyi and Robison (1986), "in highly competitive domains, such as music, math, or sports, the way down is always much broader than the way up. Year by year, it becomes more difficult to catch up, and dropping out becomes increasingly easy".

An athletic career usually starts at the age of 7 to 10 years, sometimes even earlier depending on the sport event (e.g., in swimming, artistic gymnastics, figure skating, and ice-hockey). First, children perceive

sport as merely “playing a game,” however, later their attitudes change and sport becomes as “a sphere of education”.

Typically, at the beginning of their athletic career, athletes experience a lack of internal resources (sport-specific knowledge and skills), which are compensated for by social support from a coach, the family, and peers. At the culmination of their athletic career, athletes are usually at their most resourceful and their career demands are the highest. Elite athletes often rely very much on their relatively stable experience patterns and meta-experiences.

Athletes’ Successful Transitions and Crisis Transitions

The coping process is central in a transition and includes all strategies the athlete uses in order to adjust to particular transition demands. An adequate match between the perceived demands and available resources creates a state of readiness to the career transition and a higher probability of successful transition. Successful transition is associated with effective coping when the athletes are able to recruit, use, or rapidly develop necessary resources and avoid (or overcome) potential transition barriers. One of the principles in effective coping is relying on athletes’ strengths, which can compensate for potential and existing weaknesses or barriers.

An alternative outcome is a crisis transition, when an athlete is unable to cope effectively on his own with the demands of the transitional situation. Research identified a set of symptoms or markers describing typical reactions of athletes in crisis transition, including a decrease in self-esteem (as a first reaction to ineffective coping) and chronic emotional discomfort. Athletes also report new fears, increased sensitivity to failures, poor decision-making, and inadequate behaviors. Attempts to change the situation are usually ineffective, and instead of improvement new mistakes (and failures) are committed. A developmental perspective provides a framework for a better understanding of career transitions. For instance, Vygotsky’s constructs of the zone of actual development (ZAD) and the zone of proximal development (ZPD) could be instrumental in prediction of transition consequences.

From Athletic to Personal Excellence

An athletic career can be evaluated not only as a stage-like developmental process, but also as a developmental event contributing to the lifespan development in and outside sport. From this perspective, several parameters characterize an athlete’s development during his or her athletic career. These include duration of sport participation from start to peak and finish, the sport event(s) practiced, the degree of specialization, and achieved sport titles/records/results. Subjective indicators include perceived benefits of sport participation and its costs (in terms of time, energy, health, money, etc.) as well as career satisfaction (one’s self-esteem in regard to the athletic career) and career successfulness (social recognition of one’s athletic career). Successful (or elite) careers are usually associated with athletic excellence, whereas satisfactory careers are associated with achieving individual peaks corresponding to the individual resources and environment. Satisfaction is based on a set of self-referenced criteria, but most often it consists of perceived potential in relation to level of achievements and athletic career costs.

CONCLUSION

Future Directions in Sport Psychology

In order to enhance the effectiveness of scientific support in elite sport, several new future directions from a research-oriented and a practical (organizational) perspective can be identified. more psychological support for elite coaches. Initial focus of most sport psychology research and interventions on athletes and teams is

well documented in the literature. However, the role of coaches in the psychological preparation of athletes and teams should be further emphasized. In practice, this means that the coach should be the central figure in preparation of the team, and sport psychologists should work more through the coach and with the coach-athlete team rather than only with the athlete. In the past, sport psychology interventions and mental training programs usually focused on competing athletes who were coping with competition stressors.

International cooperation of sport psychologists. There are indications that in the future, a better collaboration between applied sports psychologists from different countries could be useful not only for research but also in consulting. With recent developments in world-wide communication, joint consulting and psychological support for coaches and athletes across different countries seems like a reality in the near future. To conclude, now as never before, the application of what is already available in sport psychology is extremely important. Practical experience and expertise available in sport psychology are important not only in competitive and elite sport settings but also in such high-achievement settings as the performing arts and business. Moreover, there is a clear shift in applied sport psychology from a predominantly negative, problem-oriented, and deficit-repairing approach initially borrowed from clinical psychology to a more positive psychology focusing on optimal performance and on an athlete's and team's strengths rather than limitations

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The Role of Sport Psychology In Sports' Performance Enhancement

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ABSTRACT

This article chronicles the roles which sport psychology could play in the sports performance enhancement, which subsequently could lead to sports development in the country. Some of the identified roles in the article include resolution of the Athlete's emotional conflict, mental preparation, team building discipline etc. Problems encountered by the sports psychologists in the country are also mentioned such as; non-utilization of the sports psychologists by sport organizations, low budget for sports, lack of awareness of the roles of the sports psychologist. Some recommendations are also made such as organization of workshops, conferences and employment of sport psychologists by various sports ministries and councils. The paper concluded by saying sport psychology should be employed as a scientific training means for athletes in order to enhance sports performance.

INTRODUCTION

It is a truism that sports is one of the most effective weapons of exhibiting political might the world over. It is used to show a state or nation's supremacy over other nations and foster national and international friendship. A country or nation does not just ascertain her supremacy over others by sitting and professing it there are a lot involved in it. There must be adequate preparation towards achieving any form of success in sports. The preparation takes several forms; there is usually a planning stage. This may take the form of budgetary allocation to sports; there is the physical training session for the acquisition of skills and techniques, which of course is one of the most important preparations. There are some invaluable services that sports have come to stay with, and if over looked may lead to poor outings and that is; medical and psychological services.

WHAT IS SPORTS PSYCHOLOGY?

The mind is sports science last frontier; all other systems have been used extensively to improve the athletics' performances. Kinesiology, the science of human movement, have been used extensively to improve the players' movements. Even the athlete's blood has been sampled and his/her biorhythms chartered (Straub 1980). He further explained that only the mind seems to have been neglected when considering the general input of an athlete. However, he defined sports psychology. as the science of psychology applied to athletes and the athletic situation. It is the science that explains why we do what we do in the sports area. Singer (1980) asserted that psychology is, and always has been an integral part of sports. In this part of the world, this realization is very recent and not even involved in the training of the athletes most times. According to

Ikulayo (1990) sports psychology is said to be a branch of sports science involving the science of psychology applied to sportsmen/women in athletic situations. She further said, it can also be defined as an attempt to study individuals in sports situations in order to analyze, explain, describe, modify, alter or predict behavior through various psychological means.

Similarly, Vipene (2005) defined sport psychology as a science that deals with the emotional aspects of physical performance. In the context of competitive sports it is an attempt to explain and predict behavior of an athlete in the environment of competitive sports. The science of sports psychology does end with the athlete on the field of play only. It spill to other aspects of the competitor ranging from the field of play to his/her domestic activities which in turn will affect sports performance. Hence it becomes necessary to apply this science of sports to competitors. However, there has been cases where psychologists and Psychiatrists work with athletes. The concern has been to make the athlete better.

The Role of Sport Psychology in Sports Performance Enhancement Sports Psychology has a lot of roles to play in the realization of the nations sporting objectives, the following are therefore some of the roles which Sports Psychology can play in enhancing performance.

1. Since the totality of the athlete's personality is involved on the playing field, one of the major roles of the sports psychologist is in the area of behavioral control of the athlete. This could be used for performance enhancement through the modification of undesirable attitudes.
2. The sports psychologist work on the emotional conflict of each individual and needs of the individual athlete, which makes him take decisions that are crucial to success or failure during play. They must be treated as individual realizing their differences; hence the need of one person must be separated from those of another person who comes from a different background.
3. . Ikulayo (1990 & 2003) says the Sports Psychologist is also involved in crisis intervention. Crisis is viewed as an acute situation with emotional responses that interfere with or mar an athlete's ability to perform excellently. Ensuring high class performance of athletes - under pressure of competition by the application of various psychological principles before, during and after competitions. The sports psychologist assist the athlete to block out stress provokingly. Thoughts, discouraging self doubts, avoidance of negative imagery and inhibitory self statements which may impair sports performance
4. Mental preparation is also taken up by the psychologist; this involves according to Adedeji (1987) our understanding of those factors that yield a lot of influence on the athlete. These are social status, the home, the economic background, their religious setting, physical tolerance, the moral background, social status and value system in the society
5. The sports psychologist is also involved in performance enhancement OT the athlete, to facilitate the learning process, errors- [hat athletes make may be corrected during skill acquisition.
6. This can be by team building through testing and observation of behavior. Sports psychology also enhances communication .amongst the athletes and officials. This may also involve interpersonal communication among athletes. This is a very important role. It should be noted that communication is very important, even in our various families, in our places of work etc. It should not be assumed that the person knows or that he is suppose to know. The person should be told what is to be done, in order to maintain cordial relationship. As soon as communication is established, a relationship has been established and treatment plan' can be made which varies from individual to individual. Treatment may

involve simply talking with the individual which may help to restore the athlete's confidence, if he is not confident in himself or herself.

7. Teaching the athlete how to cope with pain. According to Adedeji (1987) an athlete needs to understand what pain is and how pain relate to improvement in sports, so he should develop a positive mental attitude towards pain.
8. The sports psychologist will use his/her knowledge of human • behavior in motivating athletes. Motivation does not mean material rewards like money, house, car etc. this time motivating the athlete in training by varying training methods, makes them have feedback of progress in training, and also makes them to have a say in the training plan.
9. Stress management is another important area where the sport psychologist helps in enhancing sports performance. Coping with stress is developed in the athletes. There are various techniques that can be adopted in dealing with stress.
10. Discipline is deliberately taught among the athletes. The discipline of sports man/woman affords the individual to develop very high self-esteem which is said to enhance performance, create confidence, making the athlete satisfied to feel involved in sports (Weinberg and Gould 1995). Athletes who develop self-esteem can get more motivated and become more productive (Core 1990).

CONCLUSION

Due to the immeasurable contributions of psychology to, sports, this paper therefore concludes that sports psychology is necessary and should be employed in the scientific training of athletes for performance enhancement. It is hereof: e relevant for the development of sports in the country.

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The Comparative Study of Cognitive Anxiety Between District Level Junior And Senior Male Mallakhamb Players

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ABSTRACT

The main purpose of the study was to compare Cognitive Anxiety between District level junior and senior male Mallakhamb players. Competitive State Anxiety Inventory-2 was utilized for data collection which was administered before 30 minutes prior to the competition. Data collected from 46 Junior and 30 Senior male Mallakhamb players from the various districts in Maharashtra. The results indicate that there was a significant correlation between Cognitive Anxiety of District level Junior and Senior Male Mallakhamb players ($f = 3.971$, $t = 2.302$, $p = .024$). Cognitive Anxiety was compared using an independent sample t test. Analysis reveals that there was a statistically significant difference between District level Junior and Senior Male Mallakhamb Players Cognitive Anxiety. District level senior male Mallakhamb players found less Cognitive Anxiety level than District level junior male Mallakhamb players.

Keywords : Mallakhamb, District Players, Cognitive Anxiety.

INTRODUCTION

Mallakhamb is a pure ancient Indian sport. The word Mallakhamb is composed of Malla which denotes a wrestler and Khamb which means a pole. Mallakhamb can therefore be translated in English as wrestler's pole in ancient India Malla means wrestler practices the Mallakhamb to improve their wrestling techniques. Mallakhamb was originated in Maharashtra around 200 years ago in 17th century Guru Balambhatt Dada Deodhar is known as founder of Mallakhamb he was a physical instructor of King Bajirao Peshwa II.

The earliest mention of Mallakhamb can back to the 12th century it is mentioned in the Classic "MANASOLHAS" (1135 A.D) competitive Mallakhamb at the national level first made its appearance at the national Gymnastics competition held at Pahadganj Stadium, New Delhi India in the year 1958. The first national Mallakhamb Championship was held at Gwalior Madhya Pradesh India in the year 1962 as a part of national Gymnastics Championship they were continuously organized by Gymnastics Federation of India until 1976 when they were associated from the Gymnastics Federation of India from 1977 to 1980. Mallakhamb was introduced in the All India Inter University Gymnastics Championship in 1968 – 1969.

Mallakhamb is a blend of Yoga, Gymnastics, and Martial Arts, which makes body light, strong, and boosts energy. The manner in which the body is turned, twisted and balanced on the Mallakhamb keeps the spectators spellbound. Playing on the Mallakhamb helps to develop one's speed, reflexes, concentration and coordination. If properly practiced, Mallakhamb gives maximum exercises to maximum muscles in a minimum period of time. Current competitive sports can be advantaged because of Mallakhamb fitness and exercises.

Anxiety in sports is such a big issue for many athletes. The reasoning is that, the better you become, the higher the level of competition, the more anxiety you experience. Anxiety can have a devastating effect on the performance of an athlete (Ethan & Sampson, 2013). No matter how much skill or talent someone possesses, he can never perform at his best if he feels scared before the event. In the world today, almost every human effort is considered to be affected by anxiety. A lot of theories exist about how anxiety has an impact on performance.

Psychologists generally bifurcate anxiety in two types: Trait anxiety and state anxiety. Trait Anxiety is related to one side of the personality in which anxiety is a stable personality in a person. State anxiety, on the other hand, refers to temporary feelings of anxiety for a particular situation. That is why a person with an anxious personality may find many different everyday tasks stressful compared to someone who only gets nervous in extreme situations.

Competitive anxiety consists of cognitive and somatic subcomponents. The cognitive component of anxiety arises due to fear of negative evaluations of the social environment, fear of failure, and lack of self-esteem (Martens, Vealey, & Burton, 1990). The somatic component of anxiety is a physiological response from these perceptions such as increased heart rate, respiration, and muscle tension. Physical symptoms are caused by the effects of psychological symptoms, which cause anxiety in the players before participating in the sport and thus prevent it from showing excellent performance (Lavalley, Kremer, Moran, & Williams, 2004).

More than 50 counselors at the Olympics competed with stress or anxiety problems (Murphy, 1988). According to Hann (2000), high levels of anxiety during competition can lead to harm, poor performance, and even quitting. Therefore, it is important to know the level of cognitive anxiety to make all the necessary preparations to reduce it.

Swain and Jones (Cox, 2007) states that before the play begins, the level of Somatic and cognitive anxiety will increase. As the match begins, somatic anxiety will decrease, but cognitive anxiety varies depending on how long the game lasts. High level of anxiety interferes with the performance of the player because it causes the athlete to be unable to control the rhythm of the game, not able to regulate the timeliness of reacting, makes it difficult to control muscle contraction, and feels tired too quickly. It also reduces the ability and accuracy of the opponent to read the game and encourages the player to make hasty decisions and movements with conscious mind control.

Cognitive is a range in a person's brain that exhibits exercise symptoms and anxiety disorders that affect competition activities, such as inability to concentrate, thinking about irrelevant things, and distracting concentration by negative thoughts (Smith et al. 1990)

In sports and games, psychological and physical factors play an important role in determining the level of performance. Many players who perform well during training or practice may suffer from performance anxiety on the day of the game. If feelings of anxiety, worry, or fear interfere with people's performance in sports, learning to use some tips from Sports Psychology can help a person to control their anxiety and reduce the nerves of Game Day.

OBJECTIVE

The main objective of the study was to compare Cognitive Anxiety between District level junior and senior male Mallakhamb players.

MATERIAL AND METHODS

- 1 Selection of Subjects :** Total Seventy Six (N=76) 46 Junior and 30 Senior district level male Mallakhamb players were purposely selected from the various districts in Maharashtra.
- 2 Collection of Data :** The data was collected by administering Competitive State Anxiety Inventory-2 (CSAI-2) questionnaire.
- 3 Statistical Technique :** To find out the significance of mean differences between District level junior and senior male Mallakhamb players Independent sample t-test was applied. The level of significance was set at 0.05 level.

Data Collection

To measure Cognitive anxiety level researcher used the competitive state anxiety inventory-2 (CSAI-2) questionnaire prepared by Martens et.al (1990) this questionnaire consist of 27 items full-scale comprising three items sub scales measuring cognitive anxiety, somatic anxiety and self-confidence. We used for our research the questions that let us know the cognitive anxiety of the players. Question number 1, 4, 7, 10, 13, 16, 19, 22, 25 from CSAI-2 was used to calculate Cognitive anxiety of the players. Cognitive anxiety subscale was scored on a 4 point Likert type scale ranging from (1) " Not at all" to (4) " Very much so" higher score on each subscale indicate higher level of anxiety the score for each will range from 9 to 36: 9 indicating low cognitive anxiety and 36 indicated high cognitive anxiety.

RESULT

Table 1: Mean and standard deviation of Cognitive Anxiety of District level Junior and Senior Male Mallakhamb Players

Cognitive Anxiety	Age Group	N	Mean	Standard Deviation
	Junior	46	16.239	5.237
	Senior	30	13.633	4.097

From table no.1 it is seen that, the Mean of Cognitive Anxiety in District level Junior Mallakhamb players is 16.239 and the standard deviation for them is 5.237. The Mean of Cognitive Anxiety in District level senior Mallakhamb players was 13.633 and the standard deviation for them was 4.097.

Table 2 : Independent sample t-test of Cognitive Anxiety of District level Junior and Senior Male Mallakhamb Players

	Levene's test for Equality of Variance		t- test for Equality of Means			
	F Value	Sig	t Value	df	Sig. (2-tailed)	Mean Difference
Equal Variance assumed	3.971	.050	2.302	74	.024	2.605
Equal Variance not assumed			2.424	71.447	.018	2.605

In Table No.2 District level Junior and Senior Mallakhamb players cognitive anxiety was compared using an independent sample t test. It was seen that f value is 3.971 which was significant at 0.05 level and the t value of district level junior and senior Mallakhamb players is 2.302 and this value was statistically significant at 0.05 level of significance ($p=0.024$).

DISCUSSION

The current study has given a result which shows that there was a statistically significant difference between District level Junior and Senior Male Mallakhamb Players Cognitive Anxiety. District Level Senior Male Mallakhamb players found less Cognitive Anxiety than District Level Junior Male Mallakhamb players. which is similar to the result by Kumar,V. (2017) in his study the researcher concluded by the present evidence that The findings of the study revealed that, senior male and female players found to have less anxiety than junior male and female players.

CONCLUSION

The aim of the present study was to analyze if District level Junior and Senior Male Mallakhmab players Cognitive anxiety level is different. District level Junior and Senior Male Mallakhmab players Cognitive Anxiety was compared using an independent sample t test. Analysis reveals that there was a statistically significant difference between District level junior and senior male Mallakhamb players Cognitive Anxiety. On the basis of mean scores it can be seen that District level Senior Male Mallakhamb players were having less Cognitive Anxiety level than District level Junior Male Mallakhamb players during the study investigator realize that the Cognitive Anxiety depends upon players experience and number of participation in the different tournaments.

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Yoga A Relief For Stress

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ABSTRACT

The state of the mind and that of the body are intimately related. If the mind is relaxed, the muscles in the body will also get relaxed. Stress produces a state of physical and mental tension. Yoga is recognized as a form of mind body medicine. In yoga, physical postures and breathing exercise improves muscles strength, flexibility, blood circulation and oxygen uptake as well as hormone functions. In addition, the relaxation induced by meditation helps to stabilize the autonomous nervous system with a tendency towards parasympathetic dominance. Physiological benefits which follow help yoga practitioners become more resilient to stressful conditions and reduce a variety of important risk factors for various diseases, especially cardio respiratory diseases.

Keywords : Mind, Stress, Yoga, Meditation, Physiological benefits, Resilient

INTRODUCTION

In the modern world, we all are under innumerable stressors that create a state of physical and mental tension. Life is full cut-throat stress wherein all suffer a lot in the modern age. Humankind's lives become a hell because of mental agitations. Majority of the people become the victims of stress nowadays. As a result, the majority of people are getting addicted to drugs and liquors. Subsequently, those who fail to manage their emotions attempt to commit suicide. It is well known that the mind and the body have interrelation for functioning. If the mind is relaxed, the muscles in the body also become relaxed. Taking into account these inter-relations of body and soul, the ancient yoga is formulated as a method that unites all the movements one needs for physical health with breathing and meditation practices that ensures peace of mind.

STRESS AND MODERN MAN

Stress is something that we cannot avoid in our life. We are all caught in a world where stress is an epidemic. The stress of modern life affects us all in one way or another. When we are unable to release stress we will lose our control on our mind and body. Medical research has confirmed the role of stress in premature ageing, as well as its complicity in the many common health problems today such as hypertension, diabetes, asthma, sexual dysfunctions, insomnia, peptic ulcer, neurosis, digestive disturbances and even concern. On the top of that, stress weakens the immune system and makes us vulnerable to infection and a whole host of other medical conditions.

Life is not easy at all. The main reasons for all these lies in man's retrace for life. People aspire to achieve superior positions in life and to accomplish this they compete with each other. When they fail to achieve their dreams, they fall under depression. There are many reasons for stress like:-

- Personal stress arising in the workplace
- Strained family relationships with teenage children
- Emotional stress caused by financial problems
- Post traumatic disorder after an unhappy event like an accident
- We feel stress even when we are on the holiday.

All these various types of stress and many more, can however group into four main types of stress.

1) Eustress

- The thrill and excited feeling while watching a horror movie
- The feeling of excitement when you have won a game or race
- The happy feeling of being loved makes us good and they are the so-called good stress or positive stress. It is a type of stress that only occurs for a short period of time.

2) Distress

Distress is a negative stress. It is a stress disorder that is caused by adverse events and it often influences a person's ability to cope. Some events leading distress are:

- Death of loved one
- Financial problems
- Chronic illness

3) Hyper stress

It results from being overloaded or over worked. When someone is hyper stressed, even little things can have a strong emotional response. People who are most likely to suffer from hyper stress are:

- Working mothers who are abide with multi –task, juggling between work and family commitments
- People who are under constant financial strains.
- Generally people work in a fast environment.

HYPO STRESS

Hypo stress is one of those types of stress experienced by a person who is constantly bored. Someone in an unchallenging job, such as a factory worker performing in the same task over and over, will often experience hypo- stress. The effect of hypo- stress is a feeling of restlessness and lack of inspiration. This stress is likely to lead us to tension, emotional and physical strain. It is necessary that we learn different ways to tackle stress and calm our mind for good health and well-being. Natural relaxation is the best way to powerfully control

stress. Regular practice of yoga is one the best stresses releasing techniques, which will help us to feel good and youthful.

WHAT IS YOGA?

Yoga, derived from the Sanskrit word yuj meaning to yoke or union, is a 3000 year-old discipline that was developed as a part of traditional Indian medicine. Yoga is the merging of an individual soul with the universal soul. It is not a religious dogma, but is simply a tool for exploring the depth of human nature or examining the mysteries of the body and the mind. Yoga is now recognized as a form of mind-body medicine, because mental and spiritual parts of one are being. And because of this there is a growing research to support its health benefits.

Yoga practice usually includes the use of physical postures, controlled breathing and meditation to improve the overall well-being. First of all, the practice of yoga cultivates emotional stability by bringing involuntary muscles under the control of the mind. Secondly, yoga liberates the mind from sensory fetters by controlling the senses thereby bridging the gap between the body and mind, and thirdly, by completely merging the subject and the object where the mind loses its sense of identity a necessary prerequisite for the liberation of the soul. Yoga is now practiced by millions of people in the world of wellness, relaxation and spiritual growth.

YOGA : A STRESS-BUSTER

Yoga conceptualizes mind and body as a single unit. Deep breathing, visualization techniques and other forms of positive imagery can help us to take charge of our emotions physically and release toxic thoughts and feelings. All reactions in the human body function under a psychosomatic base. The human body and the mind, their functions are interrelated. As a result, if one is affected, the other is also affected. As per proverb, "a sound body contains a sound mind." So Yoga Sadhana gives special consideration to both body and soul. The 8 elements (Ashtanga Yoga), of Yoga can be divided into Antheranga Sadhana(internal) and Bahiranga Sadhana(external). The basis of this division is the aspect of psychosomatics. When we perform Yama, Niyama- an empowerment of the body and the mind is possible. Through a sound body, a sound mind is attained – this is the principle behind Yama Niyama. Yama, Niyama, Asana, Pranayama, Prathyahara, - these are known as Bahiranga Sadhana. Dharana, Dhyana, and Samadhi are known as Antheranga Sadhana. The 5 aspects in Bahiranga Sadhana aim at the human body while the three aspects of the Antheranga Sadhana aim at the human mind. Even if we perform one Sadhana, say, the Antheranga Sadhana, it also gives the result of the performance of the other sadhana, since both are interrelated. Because the functioning of the body influences the functioning of the human mind.

RESPIRATORY EXERCISES:

Breathing exercises are of great importance in yoga. They provide freshness and energy immediately to the stressed body and mind. One of the breathing exercises is Kumbhakam which is divided into Anther Kumbhakam and Bahir Kumbhakam, Anuloma Viloma pranayama, Abdominal breathing. These breathing techniques are simple techniques that control the flow of vital energy to the brain and have a very calming and balancing effect on the mind and body also provide relaxation and stress relief to the human body. The concentration of mind is requisite in the performance of these breathing techniques. So, they are really effective in reducing stress.

ASANAS

The asanas which are performed with proper body balance help to retain the concentration power and relieve stress. Kakasana, Vrikshasana, Thalasana, Mayurasana, Natarajasana- these asanas require proper balance for the perfect performance. The basics for body balance are the power of concentration. When we perform Vrikshasana, we focus on a point in front of a wall. But if we close our eyes during the performance of this asana, we will easily lose our balance. This lack of balance is because when we close our eyes, our thoughts are scattered to different spheres and different thoughts come to our mind. As a result, we lose our mental concentration and body balance. These asanas provide self-confidence, concentration power and stress relief.

MEDITATION

Meditation is a process absolutely regarding the human mind. We consciously give commands to our mind and the process of meditation enhances the functioning of the mind. The body postures like Padmasana, is very effective for good concentration. During the performance of these exercises, our body attains a pyramidal structure. From Mooladhara to Anja, the body attains a single straight line structure. There are Seven Chakras in our body. The lowest Chakra is Mooladhara and the highest chakra is Ajna Chakra. Kundalini remains an inactive at Mooladhara as a potential energy. Meditation awakens the Kundalini, makes it arise through all the six energy centers of the chakras and finally enter the 7th energy center. It activates the parasympathetic nervous system which helps in the relaxation of the body muscles. We can use different techniques for meditation. Breathing, environment- concentrates on these aspects for some time with an undisturbed mind. This is the most basic technique in meditation. In the next stage, close the eyes visualize the sky or waterfall or rain or any familiar aspect. Gradually increase the time span of visualization. This can be seen a positive sign for increasing the concentration power of the human mind. When the concentration power is enhanced, stress can be reduced to a great extent.

MUDRAS

Mudras are hand gestures used in yoga and meditation in order to focus and direct energy. Mudras have a prominent role in yoga shastra. Even though they are very simple at the first sight, they are very prominent.

Chin Mudra/ Jnana Mudra :

This is the Mudra to attain spiritual power. The tips of the thumb and the pointing finger have to be kept together. The other fingers remain relaxed and extended. Do this with both hands and place them on your thigh whilst in Padmasana, during meditation. When the fingers are pointing upwards, it is called Jnana Mudra. When they are pointing downward, it is called Chin Mudra. This is the most important Mudra in Hata yoga. This enhances the physical, mental, emotional and spiritual levels of the human body. Mental stress and strain, tension can be relieved by performing this Mudra. The concentration and memory power can be increased by constantly practicing this Mudra. Sleeplessness, high BP, these can be corrected.

Atmanjali Mudra/ Pranamanjali Mudra :

This is a prayer Mudra. The palms need to be joined together in front of the chest. The left and the right hemispheres of the brain can be united through this Mudra. Anjali Mudra is used as a posture of composure, of returning to one's heart whether we are greeting someone or saying good-bye, initiating or completing an action. This yogic process is unification of our active and receptive natures. Practicing Anjali Mudra is an excellent way to induce a meditative state of awareness. Benefits- strong thought process, spiritual power

is released and as a result, the concentration power of the mind increases. This plays an important role in reducing stress.

CONCLUSION

Yoga can be a great way to minimize the impact stress has on our life. The field is so broad that there are many different approaches and styles. Practiced with the right approach, yoga is a stress management technique. Yoga emphasis on breathing and the mind and body connection yield strong emotional benefits. Yoga followers who practice yoga frequently report that they sleep better and feel less stressed. When we practice yoga regularly, we will notice that we are handling a stressful event more easily, whether its family or work. That is the power of yoga.

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To Study The Effect of Zumba Training on Central Fatness And Body Fat Among Overweight Women Aging 20-35 Years.

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ABSTRACT

The research was conducted “To study the effect of zumba training on central fatness and body fat among overweight women aging 20-35 years.” Population of the study were from Maharashtra Mandal Vyayamshala Pune, Non-probable convenient sample technique was used to select the subjects, and 25 subjects of overweight women zumba fitness group were selected from Maharashtra Mandal Vyayamshala Pune. Standardized tool WHR were used to measure the Waist and Hip circumference of overweight women. Experimental design was used for this research to find out the differences. The research was conducted in three phases; 1st phase the pre-test, 2nd phase the training program and the 3rd phase the post-test. Descriptive statistic was used to find out the mean, median, standard deviation, minimum and maximum score. The paired sample ‘t’ test was used to find out the comparison between pre-test and post-test. The mean of the pre-test Waist- 36.10 and Hip- 42.42 and post-test showing a significance difference Waist- 34.04 and Hip- 40.55. Hence there was a significance effect of the zumba fitness training program on the waist and hip circumference of overweight women.

INTRODUCTION

Exercise is most important for every living being in other words, we can also say that physical in activity results in several types of diseases in the body. It mostly Causes Cardio-vascular diseases. So, if we maintain and keep balance between our diets and regular exercise, it will result the best. Zumba involves dance and aerobic elements. Squats and lunges are also included. Zumba fitness improves Cardio vascular Endurance, Body composition and more other factors like Speed and Co-ordination.

Statement of the problem:

“To study the effect of zumba training on central fatness and body fat among overweight women aging 20-35 years.”

Obesity is rapidly growing global problem. World health organization has declared obesity as one of the most neglected disease of significant public health importance of this century. The worst thing which needs to be considered is that we are not accepting obesity as a disease. It is an established fact that obesity is associated with coronary heart disease, high blood pressure, diabetes, and respiratory problems, orthopedic disorders etc. Many experienced people, experts, physical educators and review of literature is of opinion that there is a need of investigation in this area.

Method of study

- **Experimental Method :** The researcher use the experimental method for research purpose in which only one group will be given special treatment which will be pre as well as post tested before and after the program.

Method of Sampling:

- **Population :** The population selected for this study is the Zumba fitness group of Maharashtra Mandal VyayamShala Pune.
- **Sample :** In this study 25 subjects will be selected by applying non-probable convenient sample technique.

Data Collection Tool:

- WHR (Waist-Hip Ratio)

WHR (waist- hip ratio):

- Purpose – To measure the central fatness of body.
- Equipment – Tailor tape.

PROCEDURE

Waist–hip ratio or waist-to-hip ratio (WHR) is the ratio of the circumference of the waist to that of the hips.

Table 1 : Waist to Hip Ratio Chart

Male	Female	Health Risk Based Solely on WHR
0.95 or below	0.80 or below	Low Risk
0.96 to 1.0	0.81 to 0.85	Moderate Risk
1.0+	0.85+	High Risk

Research Design :

The researcher used single group Pre-test and Post-test design under pre experimental study.

O1 X O2

Where, O1 - Pre-test observation,

X - Experiment/ Treatment,

O2 - Post-test observation

The design provides some improvement over the first, for the effect of the treatment are judge by the difference between the pre-test and post-test scores.

Training Program :

The six week program of Zumba fitness training includes warm up exercises on music, Zumba fitness training and cooling down activities. The following table will focus the daily routine of program.

Table 2 : Training Routine of Program

Training Aspects	:	Training
Frequency	:	Three day / week
Sessions	:	One
Intensity	:	Moderate
Duration	:	6 week
Training time	:	45 min.

Training procedure 6 week :

Warming up - in the warming up the following activities were followed (10 min)

- Dynamic stretching
- 3 songs for warm up (songs choreography will be based on cardio and strength exercise)

Main part :

- 8-10 songs with moderate intensity (low, medium, high)

Cooling down :

In the cooling down the following activities were followed (10 min)

- Static stretching in standing and sitting position.
- Sometime partner stretching.

Throughout the experiment same program was followed.

Statistical analysis of experimental group :

Total 25 overweight women were selected for the research purpose. 25 above women categorized as experimental group based on their pre-test score. The experimental group was analyzed for WHR (waist-hip ratio) by comparing their pre-test and post-test score means using paired sample 't' test. Analysis of data has been presented in the form of table for descript.

Table 3 : Descriptive statistics of Waist Ratio

	N	Mean	Std. Dev.	Median	Minimum	Maximum	Std. error of mean
Pre-test	25	36.10	3.17	36.00	31.50	41.00	.63
Post-test	25	34.04	3.02	32.20	28.80	39.20	.60

The above table 3 reveals descriptive statistics of women in waist ratio. They had pre-test were mean of 36.10 and std. deviation 3.17, similarly for post-test mean was 34.04 and std. deviation was 3.02. Standard error mean of pre-test was .63 and for post-test was .60. As compared to mean of pre-test there was an improvement in post-test mean.

Table 4 : Descriptive statistics of Hip Ratio

	N	Mean	Std. Dev.	Median	Minimum	Maximum	Std. error of mean
Pre-test	25	42.42	3.04	42.50	37.50	47.80	.60
Post-test	25	40.55	3.19	40.70	35.00	47.00	.63

The above table 4 reveals descriptive statistics of women in Hip ratio. They had pre-test were mean of 42.42 and std. deviation 3.04, similarly for post-test mean was 40.55 and std. deviation was 3.19. Standard error mean of pre-test was .60 and for post-test was .63. As compared to mean of pre-test there was an improvement in post-test mean.

Table 5 : Descriptive statistics of WHR

	N	Mean	Std. Dev.	Median	Minimum	Maximum	Std. error of mean
Pre-test	25	.85	.055	.86	.74	.98	.011
Post-test	25	.84	.060	.84	.73	.94	.012

The above table 5 reveals descriptive statistics of women in WHR. They had pre-test were mean of .85 and std. deviation .055, similarly for post-test mean was .84 and std. deviation was .60. Standard error mean of pre-test was .011 and for post-test was .012.

Table 6 : Paired Correlation of WHR

	N	Correlation	Sig.
Pre-test & Post-test	25	.55	.004

From the table 6 by using paired sample test with 25 sample between correlation of pretest and posttest of WHR was .55 which was statistically not significant at 0.05 levels ($p = 0.001$)

Table 7 : Paired Samples Test of WHR

	Mean	Std. Dev.	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Pre-test & Post-test	.019	.054	.010	.003	.041	1.76	24	.091

The above table 7 consists of score analysis of experimental group of WHR pretest and posttest through which conclude the difference between mean of pre and posttest was .019. This mean difference was tested with standard deviation was .054 and this difference was tested paired sample 't' test were 't' value was 1.76. Which was not statistically significant at 0.05 significant level ($p = 0.001$). This indicates that experiment was useful in reduction of waist and hip measurement but there was no change in WHR of the subject.

SUMMARY

The present study entitled as to study the effect of zumba fitness training on central fatness and body fat among overweight women.

The purpose of study was to prepare training module, to assess central fatness factors pre and posttest, to study the effect of training module on the overweight women. Twenty- five subjects were selected by non-probable convenient sample technique from Maharashtra Mandal Vyayamshala Pune and only one group was formed that is experimental group. The training program of six weeks was divided into three phase 1. Pre-test, 2. Treatment, 3. Post-test. Pre-test and post-test consisted test namely WHR.

Statistical tool used are Mean, Median, Standard Deviation Paired sample 't' test to find out significance. Analysis was done using SPSS 21 software. Statistical analysis proved that there is a significant improvement in WHR at 0.05 significance level.

CONCLUSION

Within the delimitation and assumptions stated in present study it is generalized that, the 6 weeks of Intramural training program helps to decrease body fat of WHR overweight women of Maharashtra Mandal Vyayamshala Pune.

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A Comparative Study on Body Composition and Physical Fitness of Adolescent Archers Residing in the City of Mumbai, India

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ABSTRACT

Archery is the ancient sport of shooting with bow and arrow at the target. This sport requires skills like precision control, focus repetition and determination along with optimum body composition and physical fitness. The study aimed to assess the physical fitness & body composition of adolescent national, state and amateur level Indian archers. Forty adolescent archers including boys and girls in the age group of 10 to 18 years, competing at national (n=09) and state level (n=11), and amateur players (n=20) were selected from Savarakar institute, Dadar, Mumbai, India using purposive sampling technique. Height, weight and BMI were recorded. Information on body composition was collected using bioelectrical Impedance analysis. Physical fitness was measured using standard procedures. Results indicated that all the participants were found to be of normal body weight and BMI. Their total body fat % was also normal. The arm fat % and the arm muscle % were comparable between the groups. Participants had excellent balance, concentration and flexibility but had average muscle endurance that was further lower in amateur female archers. The data also indicated certain gender differences in the overall physical fitness. There was no significant difference in the body composition and physical fitness between the various groups. In Conclusion all the archers were having good body composition and physical fitness status but there is a scope for further improvement in female amateur archers in terms of muscle endurance; and in total body weight for state level female archers.

Keywords : Archery, Adolescents, Physical fitness, Body composition, BMI

INTRODUCTION

Archery is an ancient sport of shooting with bow and arrows that has evolved with the evolution of mankind. This sport has been practiced since ages all through the world as an integral part of human survival. Thus, this sport requires skills like precision, control, focus, repetition and determination. The earliest records have been dated back to the 3000 BC ancient Egyptians. It was first introduced in Olympics in the 1900s as the only sport where women could also participate since the beginning. This sport has been divided into two categories: Target archery, known as the archery of modern times that can be played indoors or outdoors. This uses a

traditional five colour target that is made up of 10 rings. Field archery is traditional type of archery where there are multiple targets in different areas that can be in field wood or forest (Worldarchery.org, 2017).

Even though archery is a static sport, it requires a good amount of strength and endurance to maintain that posture and to hit the arrow. There are various other factors that also affect the performance of the archers; these include technique, psychology, nutrition, physical characteristics, environment, weather conditions, injuries, etc (KiSik Lee and Tyler Benner, 2009; Neelam Sharma, Pravin Kumar and Kreepa Sharma, 2016).

Physical characteristics such as body composition and physical fitness may have a remarkable effect on the performance of an archer; as these have an effect on the individuals' structural, functional and behavioural characteristics. Body composition of the person comprises mainly of the muscle mass, fat mass, water, electrolytes, bone mass and visceral fat (Mahan LK et al, 2017). In a comparative study conducted on Indian archers of age group 20 to 30 years males showed better fitness in terms of VO₂ max and hand grip strength than female archers (MonalisaDebnath, 2016).

According to WHO, Adolescence is the phase of life between childhood and adulthood, from ages 10 to 19 years during which they experience rapid physical and psychological growth and development. During this period body composition changes very rapidly indicating a scope to train them as sports persons in the category of their interest. Archery is one of the sports that interests many adolescents. However, there is paucity of data on the performance related parameters of Indian adolescent archers. Thus, the present study aimed to assess the body composition and physical fitness of adolescent archers playing at different levels of competition.

METHODOLOGY

The present study was conducted on a total of 40 adolescent male and female archers in the age group of 10 to 18 years of age. The sample included players of national (n=9) and state (n=11) level along with amateurs (n=20) who were selected purposively from Sawarkar institute of archery, Mumbai, Maharashtra, India. The purpose of the study was explained in detail to the participants and an informed written content has been obtained prior to the beginning of the study.

All the archers were assessed for their anthropometrical parameters, body composition and physical fitness using standard techniques as described below.

ANTHROPOMETRY

Height and Weight were measured using stadiometer and standard weighing scale to the nearest point of 0.1 cm and 1 gram. Using these parameters, the BMI (body mass index) which is a measure of weight to height ratio (Weight (kg) / height (m²)) was calculated. (Mahan LK et al, 2017)

Body Composition was measured using BIA (bioelectrical impedance analyzer). The other parameters obtained through this machine were body fat mass%, fat free mass %, BMI, visceral and resting metabolism (ACSM resource manual, 2014).

Physical Fitness : Various physical fitness parameters were measured using the following techniques (Table-1).

Table 1 : Techniques of measuring physical fitness parameters

Physical fitness parameters	Technique
Flexibility	YMCA sit and reach test#
Muscle endurance	Push up test**
Stability	Standing stroke test*
Shoulder mobility	Shoulder mobility test ^
Reaction time	Reaction time test**

#Annette M. Musta, (1999), *Mackenzie, B. (2000),

**ACSM resource manual, (2014), ^ <http://www.exrx.net/Testing/FlexFunction/ShoulderMobilityOpen.html>

Data Analysis: Data obtained was statistically analysed using SPSS version 16.0. descriptive statistics were used to calculate Mean and standard deviation. One way ANOVA was applied to find the difference in the body composition and physical fitness between the three age groups of both males and females.

RESULTS & DISCUSSION

Archery is an ancient sport and various factors such as the technique, psychological state and physical fitness affect the performance of archers. Studies on the relative importance of various vital parameters responsible for peak performance appraisal are crucial in order to understand their contribution to positive sports performance (MonalisaDebnath, 2016).

Anthropometric status holds ample importance for excelling in sports performance (AryavartDabaset al, 2014). A Significant correlation was found between physique and body structure with physical performance in rugby players by Gabett et al (2007). Thus, the present study aimed to understand the difference in the body composition and physical fitness of adolescent male and female archers (10-18 years) participating in various levels of competition.

The measures of anthropometry and body composition of the participants in the present study are presented in Table Nos-2a and 2b. Since the body composition standards of males and females are different, data are presented gender wise. The various parameters are discussed in comparison to the reference values given by the WHO for BMI and to the total body percentage reported in the literature on similar groups of population.

Table 2 a: Body composition measures of male participants (N=29)

Parameters	Amateur (N=15)	State (N=8)	National (N=6)	F-Value	P Value
BMI (kg/m) ²	21.0±5.9	21.82±5.14	18.68±2.6	0.65	0.53
Total body fat %	24.38±7.28	24.81±8.33	22.51±5.17	0.19	0.82
Arm fat %	24.98±1.77	28.06±7.26	24.15±6.11	0.59	0.55
Arm muscle %	40.76±3.43	39.46±2.78	40.56±2.96	0.44	0.64

Table 2 b : Body composition of female participants (N=11)

Parameters	Amateur (N=5)	State (N=3)	National (N=3)	F-Value	Sig.
BMI (kg/m) ²	19.6±2.07	16.56±1.06	21.2±4.57	2.19	0.174
Total body fat %	22.42±2.27	19.4±2.33	25.23±5.65	2.13	0.18
Arm fat %	30.72±7.78	30.9±2.7	38.33±7.45	1.35	0.31
Arm muscle %	35.42±4.2	36.23±1.77	31.53±4.8	1.28	0.32

As shown in the above tables, the BMI of males and amateur female archers was within the normal range suggested by WHO for Asians i.e., 18.3 to 24.9 kg/m² (Singh SP, Sikri G, and Garg MK. (2008). Interestingly, the national level male players showed lower BMI than state level and amateur players probably due to the heavy training schedules they were subjected to. Whereas the national level and state level female archers showed a tendency of overweight and underweight respectively.

Pramanik, P., Chowdhury, R., & Arnab Das, (2014) reported a total body fat percent of 14.36-17.31% and 15.02-25.6% respectively among nonathlete apparently healthy adolescent boys and girls (10-18 years) from West Bengal, India. Except the national level female participants, all the other archers of the current study showed lower total body fat percent than that reported by the above authors indicating the benefit of sports training on the body composition.

When the data was compared with that of international and national archers, different trends were noticed. The Mean BMI of the participants in the current study was lower than that of international male and female archers (23.2&22.56) as reported by Santos et al (2014). And both the mean BMI and total body fat % of participants were lower as compared to Indian inter-university archery players aged 18–25 years (Males, 22.56 and 27.44% & Females, 20.89 and 25.22% respectively) from Amritsar, India (Koley, S and Rajpreet Uppal, 2016). In another study, from the same city of Amritsar, Ritika et al (2017) reported that the total body fat % of female and male archers in the age group of 17 to 19 years was 26.33±2.31 and 18.77±1.97 respectively. In comparison, participants of the current study showed lower total body fat %. These differences indicate a possibility of region and age specific differences in the body composition of archers. The Arm muscle and Arm Fat percent values were comparable across the three groups of participants and none of the body composition parameters showed any significant difference between the groups ($p > 0.05$).

Athletes with higher performance potential exhibit better physical fitness than those with lower potential (Abdullah et al., 2016). Flexibility, muscle strength and balance are very important fitness parameters for archers. The results of physical fitness of archers are given in Table 3a and 3b.

Among male archers, the general flexibility and shoulder flexibility were found to be excellent in amateur and state level archers and above average among national level male archers whereas female archers of all three levels showed excellent general and shoulder flexibility indicating their serious involvement in training (Annette M. Musta, 1999). The stability and reaction time were excellent and/or above average in all the players. But the muscle endurance was at an average and above average level in the state and national level players with the amateur players showing below average level indicating the need for further training.

Reaction time is an important fitness parameter for archers and shooters. In the present study, the reaction time was found to be lower than the optimum value in all the three groups of both males and females as per the standards given by the ACSM (2014). However, no significant difference was observed in the fitness levels between the three groups of both male and female archers ($p > 0.05$).

Table 3 a : Physical fitness of male participants (N=29)

Parameters	Amateur (N=15)	State (N=8)	National (N=6)	F-Value	Sig.
YMCA flexibility (inch)	14.36±1.57	15.18±5.2	12.5±3.01	1.23	0.30
Shoulder flexibility (inch)					
• Right	8.03±6.08	6.75±10.13	5.91±4.35	0.21	0.80
• Left	6.98±5.39	7.18±5.87	8.28±9.25	0.09	0.91
Push up test (no.)	19.4 ±11.42	14.13±7.22	21.17±8.32	1.05	0.36
Standing stork test (seconds)	99.93±72.95	125.37±97.39	70.33±48.35	0.8	0.42
Reaction time test (seconds)	0.14±0.03	0.15±0.02	0.16±0.02	1.38	0.26

Muscle endurance was below average level in amateur archers, average and above average level in the national level and state level archers. The stability and reaction time were excellent and above average respectively in all the players. However, among the female archers also the physical fitness was not found to be significantly different between the groups as per their level of performance ($p > 0.05$).

Table 3 b : Physical fitness of female participants (N=11)

Parameters	Amateur (N=5)	State (N=3)	National (N=3)	F-Value	Sig.
YMCA flexibility (inch)	16.3±4.84	15.16±6.33	16±1.73	0.05	0.94
Shoulder flexibility (inch)					
• Right	10.2±5.06	13±3.6	5.16±2.25	2.74	0.12
• Left	6.7±4.2	4.16±3.81	2.23±1.96	1.44	0.29
Push up test (Nos.)	14.8±3.27	30±19.46	27±6.08	2.40	0.15
Standing stork test (seconds)	65±37.87	85.67±24.7	43.67±11.84	1.46	0.28
Reaction time test (seconds)	0.14±0.02	0.15±0.04	0.13±0.04	0.15	0.88

The national level archers showed good performance on Push ups test in the current study where as state level and amateur players need to improve on Muscle endurance. Süreyya Yonca Sezer, (2017) reported a capacity of 39 pushups/ min among 30 participants of 18 to 20 years of age in the city of Elazig, Turkey indicating their higher level of muscle endurance. The reaction time which is a crucial parameter in archery was lower than the optimum among the female archers of all the three groups.

CONCLUSION

Adolescent archers residing in the city of Mumbai, India showed healthy body composition and reasonably good physical fitness. However, there is a need to improve their muscle endurance and reaction time in order to perform well in the sport. The study also indicated a need to generate similar data from across the country on a larger sample in order to draw more valuable conclusions on Indian archers.

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Importance of Nutrition In Sports

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ABSTRACT

Participation in physical activity is essential for physical and mental health of children. Adolescents taking part in sports have high demands of nutrients due to additional needs of increased physical activity besides growth, development and wellness. The health and nutritional status may be compromised in this population due to lack of proper nutritional counseling. The purpose of this review paper is to represent the nutritional needs of adolescents participating in different games and also to empower and teach adolescents to know about the importance of nutrition during participation in physical activity or games; hydration level (Fluids) that deliver nutrients involves proper fueling and recovery

Also misinformation about healthy and nutritious foods by the media targeting school going children can be quite hazardous.

INTRODUCTION

Sports nutrition is a specialization within the field of nutrition that partners closely with the study of the human body and exercise science. Sports Nutrition can be defined as the application of nutrition knowledge to a practical daily eating plan providing the fuel for physical activity, facilitating the repair and building process following hard physical work and achieve athletic performance in competitive events, while also promoting overall health and wellness. The basic concept for sports nutrition for athletes requires proper eating strategies and need to have a command of general nutrition as well as exercise science. The second step is to gain the knowledge of how nutrition and exercise science are intertwined, emphasize that physical training and dietary habits are reliant on each other in order to produce optimal performance. The final step is the practical application of sport nutrition knowledge on the individual sports person who is participating in any sport or physical activity.

WHY STUDY SPORTS NUTRITION AND SPORTS NUTRITION IS IMPORTANCE

An athlete challenges his body on a regular basis through physical training and competitions. In order to keep up with requirement of his activity or sport, he requires enough fuel for his body on day to day basis. Participating in endurance sports requires optimal nutrition, with specific focus on dietary modifications. Targeted fitness development at an early age, especially in adolescence is deemed the foundation for leading an active lifestyle, avoiding potential overweight, reducing motor deficiencies and thus improving the general quality of life.

WHAT ARE THE BASIC NUTRIENTS?

Food and beverages are composed of six nutrients that are vital to the human body for producing energy, contributing to the growth and development of tissues, regulating body processes and preventing deficiency and degenerative diseases. The six nutrients are classified as essential nutrients. They are carbohydrates, proteins, fats, vitamins, minerals and water. The body requires these nutrients to function properly however the body is unable to endogenously manufacture them in the quantities needed on a daily basis.

Water: The human body can survive for a long duration without any of the micro and macro nutrients but not without water. The body is made of 55-60% water, representing a nearly ubiquitous presence in bodily tissues and fluids. In athletics, water is important for temperature regulation, lubrication of joints and the transport of the nutrients to active tissues. It regulates the body's temperature, cushions and protects vital organs, aids the digestive system, acts within each cell to transport nutrients and dispel waste.

Fats: Fat is primarily used as a fuel during low to moderate intensity exercise. Fat is also engaged in providing structure to cell membranes, helping in the production of hormones, lining of nerves for proper activity and make it easier for process of absorption of fat soluble vitamins

Protein: Protein is needed for nutrient transfer in the blood, connective tissue support and the repair of tissue in response to periods of exercise

Vitamin and Minerals: Vitamins are required in wide variety of bodily functions and operations which helps to sustain the body healthy and disease free. The function of minerals is for structural development of tissues as well as the regulation of bodily process

Carbohydrates: Carbohydrates are stored in the body in a form of glycogen, which can be used during physical activity. Carbohydrate is necessary to meet the demands of energy needed during exercise, to maintain blood glucose level and replenish muscle glycogen store. During submaximal exercise, carbohydrates in the body are the major source of fuel

NUTRITION IS FUEL FOR EXERCISE

Athletes challenge their bodies on a regular basis through tough physical training and competitions. In order to keep up with demand for stamina of their activity or sport, athlete needs adequate fuel for their body on day to day basis

Nutrition is important for an athlete because it provides energy required to perform the activity. The food they take leaves an impact on strength, training, performance and recovery. Not only the type of food is important for sport nutrition but also the time is equally important for what they eat throughout the day. It also has an impact on their performance level and their body ability to recover after workout. An athlete needs to pay close attention about when, what and how much does he eat or drink prior to a game or match. At the time of final performance an athlete is supposed to be well nourished, uninjured, fit, focused and ready to compete. Sports nutrition is not just about calories to achieve weight or body composition goals; nor is it all about protein for muscles or carbohydrates for fuel. Nutritional and eating habits have been of specific interest in sports, especially given their impression on athletic performance. General recommendations need to be suggested by sports nutrition experts to accommodate the specific requirements of individual athlete regarding health, sports, nutrient, food choices and body weight and body composition

NUTRITION IS FUEL FOR EXERCISE

Nutritional needs for peak athletic performance includes sufficient calorie intake, adequate hydration and attention on timing of meals taken. Adolescent athletes and their advisor often are misinformed or have misconceptions about sports nutrition. The studies show nutritional needs for young athletes have common misconceptions about sports nutrition. Studies show that proper nutrition for young athletes is critical not only to their athletic success, but more importantly to their growth, development and overall health

The science of nutrition in relation to sports performance has progressed from empirical studies investigating the effect of dietary manipulations such as restriction and supplementation to the direct investigation of physiological basis of the specific nutritional demands for hard physical exercise.

The main role of sports nutrition is to support the training program. Dietary intake for performance will change as the training regime changes. Poor nutrition can lead to injury, fatigue and poor recovery, all three of which can hinder as to how efficiently an athlete performs. American Dietetic Association, Dietician of Canada and American College of Sports and Medicine stated that physical activity, athletic performance and recovery from exercise are enhanced by optimal nutrition. Appropriate selection of foods and fluids, timing of intake and supplement choices are required for optimal health and exercise performance

CONCLUSION

Diet is of great importance to athletes, the key to achieving an optimal sports diet in relationship to peak performance and good health is balance. Athletes must fuel their bodies with the appropriate nutritional foods to meet their energy requirements in competition, training and recovery. If these nutritional needs are not met, there is an increased risk of poor performance and health issues. The use of nutritional supplement within established guidelines is safe, effective and ethical. Hundreds of studies have shown the effectiveness of creatine monohydrate supplementation in improving anaerobic capacity strength and lean body mass in conjunction with training, but still there is sports specific variation in the food fads and practices indicating the strong influence on coaches and peers. It is vital to educate the sportsmen about the dietary pattern. Failure to consume the right diet during competition due to false belief in markets and constant fear of eating prohibited foods may hamper performance.

Finally the future of nutritional supplement looks bright in regard to the areas of transport mechanism, improved muscle retention as well as treatment of numerous clinical maladies through supplementations.

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Analysis of Motor Fitness Components Between Different Sports Playing in MIT World Peace University

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ABSTRACT

The purpose of the study was to compare the Motor fitness components among different sports teams. To achieve this purpose Ninety male sports person from the MIT World Peace University were selected as the subject. All subjects were practicing regularly and related from different team games like Volleyball, Football, Baseball. Their age ranged from 18 to 21 years old. The data of selected subject for fitness components were recorded by different measures for namely Muscular Strength, Muscular Endurance, Agility and data were observed by performing the Push Ups, Sit Ups & 10 × 4 Shuttle Run. There is significant difference found between the mean value of Motor fitness components (Muscular Endurance ($F= 9.10$) and Muscular Strength ($F= 21.34$) and that of Agility ($F= 6.05$) among different Sports. With the limitations of the study, it's possible to infer that there was a difference in selected fitness among the different games such as football, baseball, and volleyball.

Keywords : Motor Fitness Components, Volleyball, Football, Baseball

INTRODUCTION

Physical education is a planned sequential nursery to 12th standards-based program of curricula and instruction designed to develop motor skills, knowledge, and behaviours of healthy active living, physical fitness, sportsmanship, self-efficacy, and emotional intelligence. As a school subject, physical education is focused on teaching school-aged children the science and methods of physically active, healthful living (NASPE, 2012). It is an avenue for engaging in developmentally appropriate physical activities designed for children to develop their fitness, gross motor skills, and health (Sallis et al., 2003; Robinson and Goodway, 2009; Robinson, 2011). Various curriculum models are used in instruction, including movement education, sport education, and fitness education, Sport Education. One prevalent physical education model is the sport education curriculum designed by Daryl Siedentop (Siedentop, 1994; Siedentop et al., 2011). The goal of the model is to “educate students to be players in the fullest sense and to help them develop as competent, literate, and enthusiastic sportspersons” (2011, p. 4, emphasis in original).

Findings from research on the sport education model have been reviewed twice. Wallhead and O'Sullivan (2005) report that evidence is insufficient to support the conclusion that use of the model results in students' developing motor skills and fitness and learning relevant knowledge;

Sports develop the physical as well as mental strength in students. Daily physical exercise is essential for students because exercise not only helps students to stay healthy, but it also helps to improve their emotional fitness. Sports should be a major part of the curriculum because if students stay emotionally and physically healthy, they can easily focus on their studies.

Sports will help you get into shape or keep in shape. Having a particular target in mind can be extremely motivating. Power and endurance are needed on a physical level. Sports is one of the many manifestations of humanity's never-ending search for perfection. Sports elicit an experience that is solely human and unaffected by a civilization's shifting forms, patterns, and customs, which profoundly alter our understanding of our surroundings.

A many schools and colleges adopt sports model as an approach towards physical education. Various games are taught to achieve the aims of physical education. It is always a problem which games should be chosen for achieving the aims of physical education. A variety of fitness components are necessary for good handball results. While more than one is normally relevant, in this poll, we only ask you to nominate the most important fitness part. There are several other factors that contribute to success in this sport; review the survey and score each one. The word "components of fitness" refers to a set of facets of conditioning and attributes that athletes should improve for competition. Strength, Power, Speed, Endurance, Balance, Coordination, Reaction Time, Muscular Endurance, Cardiovascular Health, Body Composition, and Flexibility are all aspects of fitness.

These are general categories, but they aid in categorising exercises and events, as well as defining the various physiological criteria for a sport like basketball. Kho-Kho, is one of India's most common traditional sports, but science training is not commonly available for it. The game puts the players' physical agility, strength, pace, and endurance to the test. Kho-Kho is an exciting and fast-paced game in which players dodge, feint at a regulated interval.

To know if different games can achieve the objective of fitness of physical education, and if through different games selected fitness of students are developed at the same level so we can choose if the games are to be continued this study was conducted on college students studying in MIT world peace university.

METHODOLOGY OF STUDY

The study's aim was to analyse the motor fitness components between different sports of college students studying in MIT world peace university. For this study, 30 athletes each from the Volleyball, Football, Baseball sports from MIT world peace university were chosen as the subjects. The research was limited to the chosen fitness components viz. muscular strength, muscular endurance, CV endurance, flexibility, and body structure, with participants ranging in age from 18 to 21. The data of selected subjects for fitness components, namely Muscular Strength, Muscular Endurance, and Agility, were collected by performing Push Ups, Sit Ups, and Sit & Reach. Descriptive statistics and one-way analysis of variance (ANOVA) were used to find differences in selected health-related fitness components within various sports team games.

Comparison of Selected Motor Fitness Components among Different Sports Teams

Table 1 : Descriptive Statistics of Push Ups Test

	Mean	Median	SD
Volleyball	36	29	4.32
Football	41	27	3.45
Baseball	33	21	3.34

Table 2 : Descriptive Statistics of Sit Ups Test

	Mean	Median	SD
Volleyball	34	27	5.65
Football	30	27	4.34
Baseball	30	25	5.43

Table 3 : Descriptive Statistics of 10X4 Shuttle Run Test

	Mean	Median	SD
Volleyball	12.42	13.12	6.54
Football	11.34	12.10	5.34
Baseball	11.37	12.23	6.43

Table 4 : Muscular Endurance among Different Sports Teams

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1377.33	3	200.27	9.10	.00
Within Groups	3676.41	57	29.21		
Total	5836.80	89			

Table 5 : Muscular Strength among Different Sports Teams

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3731.14	3	1021.20	21.34	.00
Within Groups	7887.120	57	69.21		
Total	11618.134	59			

Table 6 : Agility among Different Sports Teams

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	984.09	3	231.21	6.05	.00
Within Groups	5912.35	57	49.32		
Total	15796.44	59			

DISCUSSION AND FINDINGS

The results of the data review show that there is no substantial variation in muscular Endurance, Muscular Strength between sports teams but there is difference in Agility. When playing a game, football players, baseball players, and volleyball players all use different type of fitness while taking part in a game

CONCLUSIONS

With the limitations of the study, it's possible to infer that there was a difference in selected fitness among the different games such as football, baseball, and volleyball.

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Indian Ancient Sport : Mud Wrestling

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ABSTRACT

Today, Asian nation is turning into a lot of privy to its ancient sports, and Mud wrestling is one in every of them. As wrestling in Asian nation compete on mud, thus it's referred to as mud wrestling (kushti). Kushti is Associate in Nursing ancient Indian game, gift since the traditional time in Maharashtra. This paper describes the assorted styles of mud wrestling, well-liked Indian mud wrestlers and also the edges of mud wrestling. the target of this paper is to develop awareness of mud wrestling.

Keywords : Ancient Sports , Mud Wrestling.

INTRODUCTION

Wrestling represents one in every of the oldest styles of combat. The origins of wrestling return fifteen thousand years through cave drawings. Babylonian and Egyptian reliefs show wrestlers exploitation most of the holds illustrious within the contemporary sport. Literary references to that occur as early because the will and also the ancient Indian Vedas .Indian epics Ramayana and Mahabharat contain references to martial arts together with wrestling. In ancient Balkan state wrestling occupied a distinguished place in legend and literature; wrestling competition, brutal in several aspects, served because the focal sport of the traditional Olympic Games. the traditional Romans borrowed heavily from Greek wrestling, however eliminated a lot of of its brutality. it's evident that mud wrestling (Kushti) is Associate in Nursing ancient game of Asian nation. it's its deep roots in Indian tradition and culture. it's Associate in Nursing art that is sort of 3000years previous.

Various styles of Mud wrestling :

- Krishna Kushti
- Jambuvanti kushti
- Hanumanti Kushti
- Bheamsene Kushti
- Jarasandi Kushti

The popular Indian Mud wrestlers are :

- Gama
- Gunga
- Denanath Sinh
- Harishcandra Birazdar
- Dadu Chougule

Benefits of mud wrestling

- Improve muscular strength
- Improve co-ordination
- Improve balance
- Improve muscular endurance

As wrestling (kushti) in Asian nation is compete on mud it's referred to as mud wrestling. Kushti is Associate in Nursing ancient Indian game since ancient time in Maharashtra. folks went to play wrestling, and there's an excellent quantity of historical proof. throughout those times wrestling was performed in mud, however currently trendy international wrestling is oppose on a mat. Before the players begin wrestling ,the wrestling pit should be ready with three fit of sand , that should be filtered so it's unfold on the aakhadas that could be a minimum 20 x20 feet. The wrestling pit should be patterned properly. Mud wrestling is compete in an exceedingly specially ready red soil.

Conclusion: tho' there's no importance for mud wrestling at international level nowadays, however it's still of nice importance because it has several health edges. because it is Indian ancient sports it's our responsibility to stay our culture alive.

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Yoga for Health in Modern Era with Reference to Globalization

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ABSTRACT

This paper deals with the therapeutic need of Yoga in view of changed lifestyle due to rapid global access caused by modernization. Today human health despite regional differences has become a common issue in matters of treatment and socio-political obligations. The national boundaries are merged as the man becomes global physically and psychologically. The importance and need of health care mechanism, its adequacy shifted to world standards. To witness the same we have instances of recent pandemic break out. The worldwide spread of this contagious disease has caused long term effects on life of man. It has turned human psychology upside down. The dark side of the fatal disease, led us to look for silver lining in the clouds. First time in the race of life, man has become introverted, interrogating himself the worth of his existence. Taking some of the positive clues from the calamity, it is obligatory for all of us that we should adopt a fresh perspective on health issues for which Yoga, the ancient cultural heritage of India seems to have promising solutions.

Key Words :

INTRODUCTION

Yoga practice as an Art and Science is not only a full grown discipline in the academics but also a way to healthy living. Mythologically, it is considered a spiritual discipline based on an extremely subtle science, which helps in bringing harmony between what is psychological and physical. Today a holistic approach to Yoga has potential to establish sound balance in all walks of life and has gone into recognition for disease prevention, creation of health and management of multi-tasked lifestyle pertaining to all types of malfunction of physique.

Etymology traces that the term 'Yoga' is derived from the ancient Indian Sanskrit root 'YUJ', meaning 'to join' or 'to yoke' or 'to unite'. Scriptures mentioning the practice of Yoga prescribe that the union of individual consciousness with that of the cosmic consciousness, brings a perfect harmony between the human mind, body and nature. It focuses on how yoga aims at self realization and how it helps overcome all kinds of sufferings.

Thus this indicates that yoga is one of the oldest as are many other sciences of the world that have originated in India. This equally is very interesting to mention that we the Indian have been preserving, maintaining and promoting this ancient but not out dated therapy. We have in majority successfully have adopted this as a part

of our life style. This is a type of 'spiritual evolution' in India which has dragged the well developed nations to look into the India's mystery.

The revival of the practice of Yoga is believed to have started with the very dawn of civilization. Actually in the remote past, in mythologically, the Lord Shiva is considered to be the first teacher of Yoga. It was widely considered as an immortal cultural outcome of Indus civilization. Since then Yoga has proved itself catering to both material and spiritual upliftment of human beings. The inculcation of basic human values among the forthcoming generation has been a religious identity of Yoga Sadhana in the Indian cultural context. It is found that yoga motives as well as suggest the presence of Yoga in ancient India has strengthened the cultural roots of religious feelings among Indian people.

The various techniques of performing Yoga have associative values of symbols, seals of idols of mother Goddess. Presence of Yoga is available in many Indian folk traditions. Vedic and Upanishadic heritage, Buddhist and Jain traditions, Darshanas, epics of Mahabharat and Ramayana, theistic traditions of Shaivas, Vaishnavas are found in yoga practice. Moreover, there was a primordial or pure Yoga which has been manifested in mystical traditions of the South of Indian subcontinent of Asia. Yoga was being practised under the direct guidance of Guru and its spiritual value had special importance. Many a time Yoga was a part of Upasana and yoga sadhana was inbuilt in their rituals of ancient hermits in India. The representation of natural phenomena like worship of sun goddess was given highest importance during the vedic period which is evident in the practice of Surya namaskara. Pranayama was a part of Yoga which helped to maintain good health.

India is the most populated country in the world. In the context of human resources India is a source of workforce and the biggest market for consumers worldwide. The governance of the vast population itself is a challenge. In this regard ridden on the democratic setup India has successfully and fruitfully completed its journey of 70 years life of a democracy which set an ideal for the world community. The Indian governance and its population deserves the world applaud for its meek, courteous nature of the people. While governing the vast population divided in a number of sections of different communities living together with common aim but divided interest, requires a special skill and purpose.

YOGA TRADITION

Nowadays in the contemporary times, everybody has shown special concern and work about establishment of yoga practices in the direction of preservation, maintenance and promotion of health. Today taking clues from Indian culture Yoga has spread all over the world by the teachings of great personalities like Swami Shivananda, Shri. T. Krishnamacharya, Swami Kuvalayananda, Shri. Yogendara, Swami Rama, Shri. Aurobindo, Maharshi Mahesh Yogi, Acharya Rajanish, Pattabhijois, BKS. Iyengar, Swami Satyananda Sarasvati and the like. Many researcher over world have shown interest in these different Philosophies, Traditions, lineages and Guru-shishya parampara of Yoga lead to the emergence of different traditional Schools of Yoga such as Jnana-yoga, Bhakti-yoga, Karma-yoga, Dhyana-yoga, Patanjali Yoga, Kundalini-yoga, Hatha-yoga, Mantra-yoga, Laya-yoga, Raja-yoga, Jainyoga, Bouddha-yoga etc. Though each school of thought has its own principles and practices, they lead to ultimate common aim and objectives. However, to mention a few only, the widely practiced Yoga are, Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana (Meditation), Samadhi, Sanyama, Bandhas & Mudras, Shat-karmas, Yukta-ahara, Yukta karma, Mantra japa, etc.

Generally, it came to notice that the public health is relied on by the health department. Functionaries of this department consists of the work and duties of health administrative officials, doctors and technical staff engaged through health care mechanisms all over the nation, from top city-urban areas to the remote rural

areas. The second important part of this mechanism is the infrastructural facilities in addition to the mental task force. Thus both the halves have been strongly and intensely affected by the pure and malign interest of the individuals working with the system.

SOOTHING EFFECT ON MODERN LIFE

Over the world the health services are modeled on the western principles and influence. Yoga has separated from the root Indian culture and tradition with regards to health issues. It is completely divorced from the western culture. Excessive health care is the matter related to city culture where medication is dominated. Many types of medical facilities and treatment of different illnesses are provided in the cities only. On the contrary the major problem in public health issues is centered at the common mass residing through low class localities and houses at the outskirts of metro polis, and in the remote rural. In wake of subsequent epidemics a lesson that all are equal before the health issue, has compelled to brood over the life of man whether he is the poor or the rich living through cities or through the remote rural, everyone is equal in the eye of death. It has brought a new awareness about human existence as numerous. Having a lot of wealth cannot save life in general. The name and fame come to dust.

In the light of the modern health scenario as a whole the research in this present attempt has resorted to a simple solution through yoga practice to most common health issues which needed to be handled with gentle care, with renewal interest grounded on humanity and a sense of social conduct. The sense of devotion to the spirit of nationalism and spiritualism is desired at the top of priority list of all the health functionaries.

CONCLUSION

India is the land of Yoga. It reflects a love for ecological balance, tolerance towards other systems of thought and a compassionate outlook towards all creations. Yoga practice is what India claims as its real hue and colour. Yoga is a panacea as mystery for a meaningful life and living. Its orientation to a sound and full health in the direction of human individual and social makes it a worthy practice for the people of all religions, races and nationalities. In the wake of the modern era of shifting identities, millions and millions of people across the world have been benefited by the practice of Yoga which has been preserved and promoted by the great eminent Yoga Masters from ancient time to this date.

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Effect of Acupressure Program on Selected Fitness Variable of Kho-Kho Players Aged Between 14 to 18 Years

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ABSTRACT

When you feel pain or any kind of discomfort anywhere in your body, you feel the need to lightly rub or press lightly on the affected area to get some relief. This is the simplest form of acupressure. Acupressure is one of the oldest forms of healing. The purpose of the present study was to examine the effect of acupressure program on cardiovascular endurance and explosive power of Kho- Kho players. In the present research, the population was the players aged between 14 to 18-years playing Kho- Kho from Sanmitra sangh, Pune city. 20 players who have played at district and state level were selected as the sample of the study by purposive sampling technique. The subjects were equally allocated to experimental group and control group (10 players per group) by simple random method. The research was carried out by pre and post equivalent group design. The experimental group received acupressure training program, at the points (Lu 1 & UB 17, Gb30). Beep Test for Cardiovascular endurance and Standing broad jump for Explosive power was conducted on both the group. Paired sample t test was applied to see the difference between two groups. After the analysis Significant difference was found at 0.05 level for cardiovascular endurance and no significant difference was found at 0.05 level for Explosive power.

Keywords : Acupressure, Cardiovascular endurance, Explosive power

INTRODUCTION

When you feel pain or any kind of discomfort anywhere in your body, you feel the need to lightly rub or press lightly on the affected area to get some relief. This is the simplest form of acupressure. Acupressure is one of the oldest forms of healing.

The energy in our body is constantly flowing. Acupressure treatment is believed to be the result of this imbalance. During acupressure treatment, energy balance is restored by using physical energy as a medicine. This treatment method is suitable for self-treatment as it has no side effects and is effective, simple and cost effective. Acupressure is a very ancient, divine and wonderful healing method.

In the concept of acupressure, the imbalance in the conduction of energy in the body causes diseases in the body and the balance of energy is restored by using the physical energy (medicine) as a medicine. Acupressure treatment has been developed by giving this congenital system a neat and tidy look. Our physical body works only because of light. Acupressure Therapies suggest that any ailment of the body is due to an imbalance of light. In acupressure treatments, the body's energy (consciousness) can be used as a medicine to restore balance through the acupuncture point.

Surprisingly, such acupuncture points can form in many places in the body. For example, internal organs, muscles, eyes, nose, ears, tongue, palate, armpits, chest and elbows, groin, wrists, ankles, as well as face, lips, navel, nails, palms and soles. In the study of the body and the energy that keeps the body functioning, the tenfold method in Ayurveda, Tayan Ying in the traditional compositional system and Prof. It is very important to consider the basic concepts of Homo-Hetero in the Sujok method of Paka J. Wu. Based on these concepts, the disease can be cured by balancing the body's energy.

In the same way, many experts are also researching different things to increase / enhance the performance in the field of sports. Apart from sports training, there are many things and solutions that can help us improve our sports performance. There are many different mediums available such as acupressure, acupuncture, as well as ayurvedic herbs that we can use in the field of sports. The important thing is to side with any of these treatments in a reliable way. In China, acupuncture is used by athletes to enhance their fitness and is used during competitions to enhance their fitness. Such experiments have been done in foreign countries but very rare work has been done such area in India and even in traditional games like Kho- Kho, Kabaddi etc.

METHOD

In the present research, the population was the players age between 14 to 18-years playing Kho- Kho at Sanmitra sangh, Pune. 20 players who have played at district and state level were selected as the sample of the study by purposive sampling technique. The subjects were equally allocated to experimental group and control group (10 players per group). The research was carried out by pre and post equivalent group design. The experimental group were received acupressure training program, at the points (Lu 1 &UB 17, Gb30). Beep Test for Cardiovascular endurance and Standing broad jump for Explosive power was conducted on both the group.

PROCEDURE

Players from experimental group were received the points at Lu 1 &UB 17 to see the effect on cardiovascular endurance and Gb30 for explosive power. The points were administered before the players begin their practice session in the evening. For good results these points had to be on hand for at least 7 to 8 hours out of 24 hours of a day. Since the point would not be on hand during the day, the researcher decided to wear it in the evening so that the point would be on hand for 7 to 8 hours at night. The scheduled program was implemented by the researcher on the experimental group players (4 weeks) for 32 days. Then the post test was conducted on both the group.

RESULTS

After the collection of post test data, data was analysed and applying paired sample t test for comparing the two groups.

Table 1 : Analysis of Beep test performance of control group and experimental group

Group	Mean	S D	Standard Error of Mean	t value	Sig diff
Controlled	86.80	16.89	5.34	4.38	0.002
Experimental	80.30	10.40	3.28		

Table no. 1 shows statistical analysis of beep test performance of control and experimental group. The mean score of beep test was 86.80 (\pm 16.89) laps of control group and 80.30 (\pm 10.40) laps of experimental group. The difference in mean performance on the tests of beep test with t value 4.38 has been found to be significant at 0.05 level of significance.

Table 2 : Analysis of Standing broad jump test performance of control group and experimental group

Group	Mean	S D	Standard Error of Mean	t value	Sig diff
Controlled	2.04	0.14	0.04	1.14	0.28
Experimental	2.08	0.12	0.03		

Table no. 2 shows statistical analysis of Standing broad jump test performance of control and experimental group. The mean score of beep test was 2.04 (\pm 0.14) meter of control group and 2.08 (\pm 0.12) laps of experimental group. The difference in mean performance on the tests of Standing broad jump test with t value 1.14 has not been found significant at 0.05 level of significance.

CONCLUSIONS

The purpose of the present study was to examine the effect of acupressure program on cardiovascular endurance and explosive power of Kho- Kho players. The analysis reveals that there is significant effect on cardiovascular performance and no significant effect on explosive power of Kho Kho players. More intensive and controlled experiments are needed to investigate the influence of training protocols, patterns, age and gender to come to a concrete result.

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Effect of Suryanamaskar on Selected Physical Fitness Variables of Stay at Home Peoples of Nashik City

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ABSTRACT

The purpose of this study was to keep fit or physical fitness a need of the days in human society. Physical fitness refer to the ability of your body system to work together efficiently to allow you to be healthy & perform activities of daily living. A fit person to able performs enthusiastically daily routine work. Suryanamaskar consist of twelve different postures and is done along with chanting of mantras in every posture. Suryanamaskar is traditionally performed on empty stomach at sunrise which is considered the most spirituality favorable time and facing the rising Sun. The aim of this study was find out the “effect of Suryanamaskar on selected physical fitness variables of stay at home peoples of Nashik city”. The present research whole population a total number of 20 male stay at home peoples were selected the basis of purposively method of sampling technique from Vinayak Society Sanjay nagar Nashik city. And the subjects were divided into two group by randomly method i.e, 10 each experimental and control group. Stay at home peoples of the experimental group was given the 30 minutes Suryanamaskar program but the controlled group did not part in Suryanamaskar program. The duration of Suryanamaskar program was six weeks which was given six days in a week. Pre and post test conducted on the both the groups & data was analyzed by independent sample t-test. The results showed that the significant improvement of pre and post tests of subjects on 1 min Push-ups test, 1 min Sit-ups test, Plank hold test and there was no significant improvement of 1 min Squat test of significant level at 0.05. The effect of Suryanamaskar was found to improve the physical fitness of stay at home peoples.

Keywords : Suryanamaskar program, Stay at home peoples and Physical fitness test.

INTRODUCTION

The wealth of the nation resides on the health & vitality of its people. Every nation primarily enhances the concern about physical fitness of its men, women and children. Physical fitness refers to the ability of your body system to work together efficiently to allow you to be healthy & perform activities of daily living. A fit person is able to enthusiastically do daily routine work. So many people maintain physical fitness by doing different types of workouts. In daily routine peoples engage the activity like walking outside of home & near to the healthy premises, grounds for walking, running & suryanamaskar activity, gardens or park for doing yoga

activity, health club for weight training & zomba, aerobic dance classes for fitness there are the option to people regularly as per the facility to daily workout for physical fitness.

But due to the Coronavirus disease (COVID-19) in the infectious disease caused by a newly discovered Coronavirus most people who fall sick with COVID-19 would experience mild to moderate symptoms & recover without special treatment. The virus that causes COVID-19 mainly transmitted through droplets generated when an infected person coughs, sneezes, or exhales. These droplets are too heavy to hang in the air, & quickly fall on floors or surfaces, people can be infected by berthing in the virus if you are within close proximity of someone who has COVID-19 or by touching a contaminated surface and then your eyes, nose or mouth. (COVID-19 MyGov.in)

That is reason the Government implemented lock down in India last couple of months in lock down period peoples not allowed to going to outside at home & government shut the grounds, parks, gardens, health clubs, gyms, yoga, aerobic dance, zumba classes, in that condition peoples missed the physical activities & disturbed the fitness schedule. The peoples lock down periods have the option to own body weights exercises are available to do at home and keep fit. In the situation of COVID-19 disease people must engage with physical activity to develop the immunity system to fight against the disease and keep fit our self or family. Activities like Suryanamaskar easily done at home without any equipment only exercise with your own body weight.

Suryanamaskar is a form of sun worship and can trace its origin back to the Vedas. But the literal meaning of Suryanamaskar is 'Salutation to the Sun'. Suryanamaskar consists of twelve different postures and is done along with chanting of mantras in every posture. Suryanamaskar is traditionally performed on an empty stomach at sunrise which is considered the most spirituality favorable time and facing the rising Sun. (Saraswati 1983)

Benefits of Suryanamaskar :

- Help maintain the cardiovascular health
- Stimulates the nervous system
- Help in stretching, flexing & toning the muscles
- An excellent exercise for weight loss management
- Strengthen the immune system
- Enhance cognitive function
- Improve overall health, strengthen the body & relaxes the mind.

MATERIAL AND METHOD

Method of the study

The present study was an experimental research which was conducted with a purpose to see the effect of Suryanamaskar on selected physical fitness variables of stay at home peoples of Nashik city.

Research Design

True experimental design was used for this study to check the hypothesis; this research was based on pre-test and post-test equivalent group design.

Method of Sampling

The present research whole population a total number of 20 male stay at home peoples were selected the basis of purposively method of sampling technique from Vinayak Society Sanjay nagar Nashik city.

Selection of Variable

The study was taken to pinpoint the selected variables of physical fitness which indicate the level of upper and lower body muscular strength & endurance.

Procedure of the study

The researcher using the method of online zoom application for online assembled all the subjects from his population and was given to them instruction of Suryanamaskar program & physical fitness tests and selected a total number of 20 male stay at home peoples in the age group below 35 years of purposively sampling technique. Subjects were divided into two even groups i.e, experimental and control group. The selected subjects were pre-tested by 1 min push-ups test, 1 min sit- ups test, plank hold test and 1 min Squat test after that the and six weeks Suryanamaskar program which was given six days in a week was implemented only on experimental group & control group doing regular training. After both the group's i.e, experimental and control groups, were post test conducted for data collection.

STATISTICAL TOOLS

After data collection, data of pre-test and post-test of both the groups i.e, experimental and control group, compared by independent sample t-test and interpretation were drawn.

The level of significance was kept at 0.05 to test the hypothesis.

RESULTS OF THE STUDY

The obtained results are present in the following table which represents the results of descriptive analysis and independent sample t-test to compare the mean of group's i.e, experimental and control group.

Table 1 : Descriptive statistics to gain the pre and post-tests of experimental and control group

Test	Group	N	Mean	SD
1 Min Push-Ups Test	Experimental	10	30	4.2
	Control	10	26	3.3
1 Min Sit-Ups Test	Experimental	10	20	2.9
	Control	10	17	1.5
Plank Hold Test	Experimental	10	36.3	5.6
	Control	10	31.5	4.6
1 Min Squat Test	Experimental	10	27	3.1
	Control	10	25	2.7

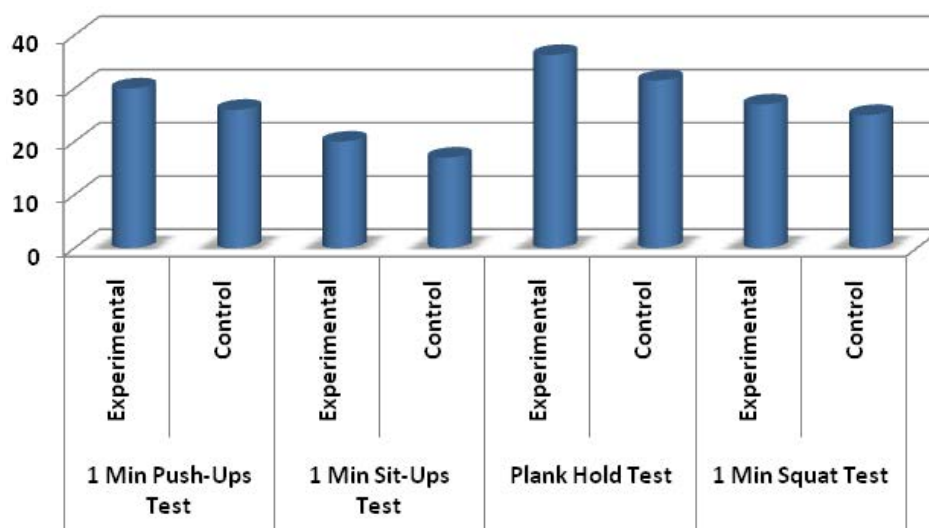
Table no. 1 shows that there were 10 subjects each in experimental and control group. The mean gain in 1 min Push-ups test, 1 min Sit-ups test, Plank hold test and 1 min Squat test as experimental group was (30 ± 4.2 , 20 ± 2.9 , 36.6 ± 5.6 , and 27 ± 3.1) respectively and the descriptive statistics mean gain of control group was (26 ± 3.3 , 17 ± 1.5 , 31.5 ± 4.6 , and 25 ± 2.7) respectively.

Table 2 : Independent sample t-test to gain the tests of experimental and control group

Test	Group	Mean Difference	't' value	Sig. (2-tailed)
1 Min Push-Ups Test	Experimental	4.0	2.35	0.03
	Control			
1 Min Sit-Ups Test	Experimental	3.3	3.00	0.00
	Control			
Plank Hold Test	Experimental	4.8	2.00	0.04
	Control			
1 Min Squat Test	Experimental	2.6	1.95	0.06
	Control			

Table no. 2 shows the mean of gain in experimental and control group were compared with independent t-test. The calculated 't' value of subjects in 1 min Push-ups test, 1 min Sit-ups test, Plank hold test and 1 min Squat test was 2.35, 3.00, 2.00, and 1.95 respectively. To determine the effect of Suryanamaskar on selected physical fitness variables of stay at home peoples of Nashik city, independent sample t-test was used at 0.05 levels of significance in relation to pre and post-test of 1 min Push-ups test, 1 min Sit-ups test, Plank hold test and 1 min Squat test. A significant level at 0.05 respectively ($p = 0.03$), ($p = 0.00$), ($p = 0.04$) & ($p = 0.06$).

Fig. 1: Comparisons of group mean to the Physical Fitness tests of experimental and control group



The figure no. 1 shows that there was significant improvement in physical fitness tests of experimental group due to treatment.

DISCUSSION OF FINDINGS

Discussion on the results of Physical fitness variable consists of 1 min Push-ups, 1min Sit-ups, Plank hold & 1 min Squat test. It was observed from the finding that the effect of Suryanamaskar on selected physical fitness variable of stay at home peoples. From table No. 1, & 2 shows that there was a significant improvement of 1 min Push-ups, 1min Sit-ups & Plank hold tests and there was no significant improvement of 1 min Squat test of experimental group compare to control group of subjects. This indicates that Suryanamaskar program had positive effect on selected physical fitness variables of experimental group. Therefore the set hypothesis that there in case of 1 min Push-ups, 1min Sit-ups & Plank hold tests research hypothesis was accepted and null hypothesis was rejected and 1 min Squat test null hypothesis was accepted and research hypothesis was rejected.

This finding was supported by Singh, K., et al (2010) studied the effect of Suryanamaskar on muscular endurance and flexibility among inter college student the results shows that muscular endurance and flexibility was significantly improved in group A compared with the control one, and it was also concluded that Suryanamaskar may be recommended to improve muscular endurance and flexibility.

CONCLUSION

On the basis of the result obtained in the study the researcher made the concluded that six weeks Suryanamaskar program was significantly effective to increase the physical fitness of stay at home peoples which indicate the level of muscular strength and endurance of key – muscle groups and also the findings of this study may be helpful to the stay at home peoples to doing regular practice of Suryanamaskar to improve their health and physical fitness.

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Health Related Fitness And Its Impact on Sports Performance

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ABSTRACT

Regular exercise and physical activity promotes strong muscles and bones. It improves respiratory, cardiovascular health, and overall health. Staying active can also help you maintain a healthy weight, reduce your risk for type 2 diabetes, heart disease, and reduce your risk for some cancers. Aerobic exercise, like running and swimming, appears to be best for brain health. That's because it increases a person's heart rate, "which means the body pumps more blood to the brain," says Okonkwo. But strength training, like weight lifting, may also bring benefits to the brain by increasing heart rate. Health related physical fitness is primarily oriented towards systematic development of motor abilities and their manifestation through sports skills. Health related physical fitness help to improve sports performance. In Sports performance stamina, muscle strength, and body movement is important. It is develop by physical fitness training. Health-related components focus on factors that promote optimum health and prevent the onset of disease and problems associated within activity.

INTRODUCTION

To improve health and fitness effectively through physical activity or exercise, we need to understand how this comes about. For many of these changes, the stimulus has been grossly defined in terms of type, intensity, duration, and frequency of exercise, but for others a dose-response relationship has not been determined. Physical activity that appears to provide the most diverse health benefits consists of dynamic, rhythmical contractions of large muscles that transport the body over distance or against gravity at a moderate intensity relative to capacity for extended periods of time during which 200 to 400 kilocalories (or 4 kilocalories per kilogram of body weight) are expended. For optimal health benefits, such activity should be performed daily or at least every other day and should be supplemented with some heavy resistance and flexibility exercises. The greatest benefits are achieved when the least active individuals become moderately active; much less benefit is apparent when the already active individual becomes extremely active. Overexertion or inappropriate exercise can produce significant health risks. Research is needed to characterize better the health-promoting features of physical activity and exercise.

Sports performance is to enhance one's performance in competition and increase one's potential for success in a chosen sport or everyday activity. Sports performance is the execution of specific physical routines or acts by an athlete while participating in a sport or activity.

Components of health related fitness :**Health related fitness divided into five parts****Cardiovascular Endurance**

Cardiovascular fitness is the ability of the heart (cardio) and circulatory system (vascular) to supply oxygen to muscles for an extended period of time. Cardiovascular is also called cardiorespiratory (lungs) fitness. Usually the mile run or some other type of continuous fitness activity (12 minute run, cycling, step-test, etc.) is used to assess

Cardiovascular fitness. Cardiovascular, which is synonymous with cardiopulmonary exercise or “Cardio”, is aerobic physical activities that last longer than 90 seconds. Cardiovascular or cardiopulmonary endurance is your physical ability to maintain aerobic exercise for prolonged periods of time. Physiologically, cardiovascular endurance deals with the efficiency of your body’s (heart, lungs and vascular system) ability to transfer oxygen rich blood to your working muscles during activities that last longer than 90 seconds.

Important of Cardiovascular Endurance

Life without exercise or physical Fitness contributes to the early onset and progression of life style disease such as cardiovascular disease, hypertension, diabetes and obesity.

The importance of cardiovascular fitness to health for all individuals has been well documented. Physical fitness is a required element for all the activities in our life. Cardiovascular fitness of an individual is mainly dependent on lifestyle related factors such as daily physical activity levels. It was believed that the low cardiovascular fitness level of an individual is associated with higher mortality rate. (Jourkesh et.al.2012). Cardiovascular endurance is very important because the more cardiovascular fit you are, the healthier your lungs, heart and vascular system is. While exercising this may be obvious to you but there is more. If you demonstrate high levels of cardiovascular endurance during exercise you also have more efficient heart, lungs and vascular system while at rest which takes up the bulk of your time. This means less stress is put on your heart and lungs around the clock which enables you to avoid illness and live a long healthy life. Many argue that cardiovascular endurance is the most important of the 5 components to physical fitness.

In sports cardiovascular endurance is important for improves your posture and health, Enhances stamina which improves your performance ability, Boosts your immune system and reduces the risk of injury, Increases oxygen supply to muscles – efficient functioning Improves your anaerobic ability, Reduces the risk of fatigue, enhances concentration and reduces stress levels.

MUSCULAR STRENGTH

Muscular strength refers to the maximum amount of force a muscle can exert against an opposing force. Fitness testing usually consists of a one-time maximum lift using weights (bench press, leg press, etc.). Muscular strength is the amount of force your muscle can exert against resistance for short duration, anaerobic (without oxygen) activities. Resistance includes external objects such as free weights or household objects as well as your own body weight. Physiologically, muscular strength it is the ability to your body to supply ATP (Adenosine Tri-Phosphate or muscle energy) to your muscle fibers for concentric, eccentric and isometric contractions in short times, which range from 0 to around 15 seconds.

IMPORTANT OF MUSCULAR STRENGTH

While muscular strength may be subjective, the primary reason why muscular strength is important is your efficiency at Activities of Daily Living (ADLs). ADLs one of the most important reasons why being proficient at all 5 components of physical fitness is important. At the very least, to be physically fit for in the muscular strength department, you should demonstrate the basic muscular strength needed to efficiently your ADLs. While ADLs vary from person to person, you can also consider activities such as push-ups, pull-ups and carrying heavy objects as ADLs. Even though each of the 5 components of fitness depends on one another, poor muscular strength can also affect aerobic fitness and muscular endurance negatively.

Muscular strength can enhance the ability to perform general sport skills such as jumping, sprinting, and change of direction tasks. Muscular strength allows an individual to potentiate earlier and to a greater extent, but also decreases the risk of injury. Greater muscular strength when it comes to improving an individual's performance across a wide range of both general and sport specific skills while simultaneously reducing their risk of injury when performing these skills.

In sports muscular strength is important for increase your ability to do performance in sports without getting tired, Reduce the risk of injury, Help you keep a healthy body weight, Lead to healthier, stronger muscles and bones and Improve confidence and how you feel about yourself.

MUSCULAR ENDURANCE

Muscular endurance refers to the ability of the muscle to work over an extended period of time without fatigue. Performing pushups and sit-ups or crunches for one minute is commonly used in fitness testing of muscular endurance. While muscular strength deals with short duration muscle contractions muscle endurance deals with sustained muscle contractions and other anaerobic activities lasting less than about 90 seconds. Muscular endurance is the bridge between muscular strength and cardiovascular endurance. In order to be cardiovascular fit, you must demonstrate muscular endurance. Physiologically while muscle strength deals primarily with type II, fast twitch muscle fibers, muscular endurance deals with primarily type I, slow twitch muscle fibers. Your body contains both but only anaerobic exercises which last longer than around 15 seconds and less than 90 seconds strengthen your type I muscle fibers.

In sports muscular endurance is important for helping maintain good posture and stability for longer periods, improving the aerobic capacity of muscles, improving the ability to carry out sports performance activities, increasing athletic performance in endurance-based sports.

FLEXIBILITY

Flexibility is the range of motion possible for each of your joints or groups of joints. To some degree, your flexibility determines how efficiently your muscles are. Increased flexibility has also been associated with decreased risk of acute and chronic (overuse) injuries. Poor flexibility can directly affect cardiovascular endurance, muscle strength and muscular endurance. Physiologically flexibility can include extra-muscular (range of motion at a joint) and intramuscular factors such as hyper tonicity (knots) within the muscles themselves.

Flexibility is important for completing sports activities with ease, increased joint mobility, better posture, decreased back pain and a lower risk of injury. Improved performance of daily sport performance activities, Improved performance in sport, Enhanced joint health, Relief of pains. Relief of muscle cramps, Relaxation and stress relief (mental and physical), Improved posture and balance.

BODY COMPOSITION

Body composition is the percentage of your body's tissues which you exhibit. The easiest way to look at body composition is with a 2 compartment analysis which estimates the amount of body fat you have with lean body mass which includes muscle, bone, water, and organs. It takes expensive equipment for a 3 compartment analysis which isolates bone mass which can also be considered an important part of body composition. You could say body composition depends on the other components of physical fitness. Having a poor body composition has many negative physical and psychological effects such as increased chance of a host of chronic diseases and depression. As mentioned previously, improper exercise habits and choices can not only lead to being overweight and obesity, but decreased bone mass associated with osteopenia and osteoporosis.

NEED OF PHYSICAL FITNESS

Regular physical activity can improve your muscle strength and boost your endurance. Exercise delivers oxygen and nutrients to your tissues and helps your cardiovascular system work more efficiently. And when your heart and lung health improve, you have more energy to tackle daily chores. Regular physical activity can help children and adolescents improve cardio respiratory fitness, build strong bones and muscles, control weight, reduce symptoms of anxiety and depression, and reduce the risk of developing health conditions. Exercise can help provide: Sharper memory and thinking. The same endorphins that make you feel better also help you concentrate and feel mentally sharp for tasks at hand. Exercise also stimulates the growth of new brain cells and helps prevent age-related decline

IMPACT ON SPORTS PERFORMANCE

Health related physical fitness training can improve stamina, strength, body movement and body posture. Physical fitness leads to better athletic performance, and persistent training will usually develop physical fitness. Ability of the endurance athlete to use oxygen is related to circulatory and respiratory capacity, but in sprints, weight lifting, and swimming there are many other important specifics. In sports, good physical fitness can increase the efficiency of learning sports skills, but also can reduce the incidence of injuries and accidents caused by the movement. Maintain and improve sports performance by health related physical fitness training.

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The Study of Exercise Adherence Techniques Used by Male Exercise participants at Maharashtra Mandal

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ABSTRACT

According to the study of the ICMR, 54.4% Indians are physically inactive , Number of exercise participants in the city is high but few of them are able to maintain consistency in exercise. Following a study conducted on 15 exercise participants in pune city ,those have high exercise adherence rates. The study research question was to find out regular participants exercise adherence strategies , how they overcome the obstacles while maintaining exercise adherence , prepare guidelines to overcome the obstacle and increase exercise adherence rate, in-depth interview method used to collect data. key words, motivating factors, remedy appropriate to the obstacle in exercise adherence noted during the interview . on the basis of interview guidelines developed for Youth , adult . alternative remedy suggested for overcoming obstacles commonly faced by exercise participants.

Keywords : exercise adherence , exercise participants , obstacles , guideline.

INTRODUCTION

According to the Literate India Census, India has a literacy rate of 72% in 2011 and Maharashtra has a literacy rate of 85% (India, 2011). As per the ICMR report, only 54.4 per cent of the Indian population is found to be physically active. When people are asked about the importance of exercise, they will explain the importance of exercise, but only a few of them are found exercising, those who do not exercise or those who are left in the middle are found to have various problems and obstacles in exercise. Many young men or women start exercising before marriage but very few people continue to exercise after marriage. Exercise is a positive addiction. Some people maintain exercise consistency. In this paper , study has been conducted on these Regular most consistent 15 exercise participants from Maharashtra Mandal, the study is how they overcome difficulties and maintain consistency in exercise.

OBJECTIVE

- to collect the Remedy applied to overcome exercise barrier.
- to find the small cues for maintaining exercise adherence.

MATERIALS AND METHODS

The present research is based on the practice of exercise behaviour and aims to study the applied life skills while adjusting to the problems and difficulties encountered in exercise.

population and sample : The population in this research was male exercisers in the age group of 25 to 45 years in Pune city. 15 male most regular exercise participants were selected purposively as a sample .

data collection tool : in-depth interview method with recording used for The study of exercise participants those coped with exercise barriers, maintain exercise continuity .

DATA ANALYSIS

Exercise continuity adjustment methods were studied through in-depth interviews of 15 individuals who exercised regularly with the help of an interview guide. During the interview, questions were asked about the difficulties encountered in daily exercise. The questions that guide the research and the response to it are outlined in the table below.

- Self talk to maintain exercise motivation: Exercise today more than yesterday. Sustaining youth, constant learning, comparison, rhythm, goals, pursuit, living for yourself, losing every day with increasing age,
- Adjustment of family bonds: love of exercise with family, contribution to wife's work, less intense exercise with family, freedom of exercise as per preference. Encouragement, expert help.
- Measures to avoid exercise boredom: Changes in exercise, changes in exercise space, changes in exercise type, rhythmic exercises to the beat of music, reduction in exercise intensity, learning, initiation, social media
- Adjustment of Exercise while travelling: Sport Shoes - Exercise clothing, body weight exercises, walking or running tours, use of public transport, physical activity in between, dietary control, pranayama exercises
- Increased work stress: Rare exercise volume, more vigorous exercise the next day, minimum pranayama retention meditation, minimal exercise using home exercises, basic 5 strength training types, minimal physical activity
- Return to Exercise After Sickness: Athletes' recovery from illness is more than usual, things that seem easy at the beginning continue, things that seem difficult gradually become easier, Yoga Asanas.
- Adjustment of volume due to environmental factors and lockout exercise, if less time is available: Enjoy physical activity with other members of the household, exercise without fail even in a bad environment Pranayama, 10 minutes cardio in place, live ups and downs, native exercises. Yogasana
- Consequences of group exercise: Exercise more intensely, more vigorously, encouragement, less exercise, mental exercise with the body, social interaction, less stress, the habit of exercising alone in the absence of others, less collective reliance on self-control.
- Negative experience with exercise: Exercise by checking more movements with the help of mobile. Repeat the exercise with the help of a trainer or specialist.

Exercise failure to achieve results: SMART goal setting, exercise with younger people. Complete exercise and diet by accepting the truth with the help of experts or trainers

CONCLUSION

Guideline for overcoming exercise barriers :

1. If time availability is low: Exercises to be done in minimum time Circuit Training, Tabata, 10 Minute Cardio Bout, Core Workout, HITT, Yoga, Pranayama, Sun Mascara, Native Strong Exercises. Guidance on such exercises as animal walks etc. should be done in minimum time and in minimum space.
2. If you are out of town: If you take sports shoes with you when you go out, at least walk, run etc. Can determine the type of exercise, the maximum use of public transport. Exercises should be done in the least amount of space and in the least amount of time. Exercises to be done in the shortest time Circuit Training, Tabata, 10 Minutes Cardio Bout, Core Workout, HITT, Yoga, Pranayama, Sun Mascara, Native Strength Exercises. Animal walk etc.
3. If you do not want to exercise or get bored: If you get bored, change the type of exercise, exercise, change the exercise space. Wearing minimal exercise clothes and going to the gym creates the desire to exercise at least because of the environment. It is convenient to do extreme exercises the next day if you do stress exercises with minimum intensity exercises.
4. 4 Obstacles to exercise from the family: Instead of giving up exercise to give time to the family after marriage, both the objectives will be achieved if the husband and wife exercise together and exercise less with the wife's skill.
5. In case of illness or injury: Give time for complete recovery, restart the exercise only on the advice of an expert in the intensity and type of exercise, start with something that seems easy, unknowingly difficult exercise methods will become easier. Weight loss will be followed by fatigue and constant tiredness.

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Caparison of Health-Related Physical Fitness Factors of Pune City and Pune District First Year Under-Graduate Girl Students of Savitribai Phule Pune University

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ABSTRACT

The purpose of the given study was to find the difference between the HRPF factors (Muscular strength, Muscular endurance, Cardiovascular Endurance, Flexibility and Body composition) of the Pune city and Pune district undergraduate girl students of Savitribai Phule Pune University. A total of 4700 girls, studying in 1st year undergraduate courses from Pune city and Pune district colleges were selected for the study. Cluster random sampling technique was used for sample selection. Standardized HRPF tests were administered to collect the data. T test was used to find the difference between mean scores of HRPF factors of Pune city and Pune district girls. The result showed that there was statistically significant difference between the mean score of Muscular endurance, Cardiovascular Endurance and Flexibility HRPF factors and no significant difference was found in Muscular strength and Body composition HRPF factors between Pune city and Pune district girls.

Keyword : HRPF factors, Pune city, Pune District

INTRODUCTION

In India youth becomes far less active as they move through adolescence and it is found that obesity is increasing among youths. Adolescence may thus be pivotal times for preventing sedentary among adults (Manely, 1996). Recent newspaper reports have highlighted increasing obesity amongst college going girls. A range of evidence suggests that for many girls, sports and physical activities are positive features of their academic aspirations and achievement (Barrow & McGee, 1979). Thus, to motivate students to do physical activity SPPU has prepared norms of HRPF factors for the 1st year students of Arts, Science and Commerce. For administrative purpose SPPU is divided into four zones, namely Pune city, Pune District, Ahmednagar and Nasik. In the present study researcher searched for differences in the HRPF factors between 1st year girl students studying in Pune City College and Pune District College only.

Varied research is done to establish differences in two or more variables using quantitative and qualitative types of studies. For the present study researcher went through related studies to find out methodology of study, sampling techniques, administrative procedures, evaluation tools and interpretations. Barman (1960), Beulah (1965), Singh (1997) and Fedotova (2005) studies were related to present study. They had compared the fitness level of school children of different age groups, different geographical areas, having faced different physical training, gone through different physical education programs and even time spent in physical activity. The researcher did not find any study comparing the difference in the HRPF factors between girl students

studying in Pune City College and Pune District College. Thus the objective of present study was to find differences in the HRPF factors between girl students studying in Pune City College and Pune District College. The main purpose of this study was to compare physical fitness of girl students of SPPU from Pune City & Pune District zone. The study was confined to five selected HRPF factors i.e. muscular strength, muscular endurance, cardiovascular endurance, flexibility and body composition of first year college girl students of SPPU from Pune City and Pune District zone only.

HYPOTHESIS

To achieve the objectives of the study, the following hypothesis was framed.

H0: There will be no significant difference between the HRPF factors (Muscular strength, Muscular endurance, Cardiovascular Endurance, Flexibility and Body composition) of first year college girl students of SPPU from Pune City and Pune District zone.

PLAN AND PROCEDURE OF RESEARCH

As this is a comparative study under survey method, researchers followed standard procedures to collect sample. Population for the study was 74000 first year undergraduate girl students of SPPU. Cluster random sampling technique (Gupta, 2003) was used to select 4700 girl students as a sample. Standard fitness test was administered to collect data and a t-test was used to find differences between mean scores. Table 1 gives a brief description of test items selected and the respective variable measured, and Table 2 gives Mean, SD and t-test scores to compare mean difference between HRPF factors of first year college girl students of SPPU from Pune City and Pune District zone only.

Table 1 : Test Items Selected for the Study

Sr. No.	Name of the test	Variable	Trait measured
1	Hand grip strength	Morphology	Muscular Strength
2	Sit ups	Morphology	Muscular Endurance
3	12 min. Run/walk	Morphology	C V Endurance
4	Sit and Reach	Morphology	Flexibility
5	BMI	Morphology	Body composition

Table 2 : Mean, SD and t-test scores to compare difference between HRPF factors (N=4700)

HRPF factors	Zone	Mean	SD	't' Value	Result
Muscular Strength	Pune City	19.58	3.58	6.268	Not Significant
	Pune Dist.	19.00	3.20		
Muscular Endurance	Pune City	16.82	3.54	-0.981	Significant
	Pune Dist.	16.92	3.44		
Cardiovascular Endurance	Pune City	1273.5	241.62	0.951	Significant
	Pune Dist.	1266.8	240.23		
Flexibility	Pune City	19.29	3.30	0.729	Significant
	Pune Dist.	19.22	3.27		
Body Composition	Pune City	20.95	2.47	-3.968	Not Sig.
	Pune Dist.	21.27	2.99		

As this is a comparative study, researcher analyzed data applying the 't' test for comparing means.

CONCLUSION AND FINDINGS

1. Analysis and interpretation of data shows that there exists significant difference in Muscular endurance, Cardiovascular Endurance and Flexibility HRPF factors of first year college girl students of SPPU from Pune City and Pune District zone.
2. There is no significant difference in Muscular strength and Body composition HRPF factors of first year college girl students of SPPU from Pune City and Pune District zone.

DISCUSSION

Various reviews and studies advocate that physical activities and fitness are associated with overall well being and negatively associated with depression and anxiety. Barman (1960), Beulah (1965), Singh (1997) and Fedotova (2005) studies were related to present study. Barman (1960) studied girl's fitness by taking AAHPER youth fitness test norms and found that girls were above the mean in some tests and below in some tests. The difference was attributed to their physical education program. Similarly in present study there was difference in three HRPF factors i.e. Muscular Endurance, Cardiovascular Endurance and Flexibility but not in Muscular strength and Body composition. This may be because of geographical differences the subject live, sports played and their lifestyle. Beulah (1965) administered fitness tests on 1st grade, 3rd grade and 5th grade students and found differences in fitness and interest of students in fitness tests. The age group and objective of testing fitness was different but the approach for research was the same. Singh (1997) study was the same as present study except age group. He found differences in physical fitness for rural and urban high school boys from Punjab state. Fedotova (2005) studied the development in physique and fitness of young female athletes. His procedures and testing method matched the present study.

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Relationship of Yoga, Immunity, Diet And Corona Virus-19 (Covid-19)

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ABSTRACT

The immune system is made up of special organs, cells and chemicals that fight infection (microbes). The main parts of the immune system are: white blood cells, antibodies, the complement system, the lymphatic system, the spleen, the thymus, and the bone marrow. Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2. COVID-19 is a new disease and there is limited information regarding prevention of coronavirus is available. Based on currently available information and clinical expertise, the good immunity may reduce the chance of Coronavirus-19. The immunity system may improve through the practice of yoga, specially, meditation and pranayama with good intake of healthy diet. Currently, there is no specific treatment for disease caused by a novel coronavirus are available in our world society.

INTRODUCTION

The immune system works to recognize the antigens and get rid of them. B lymphocytes are triggered to make antibodies. Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (Hui et al. 2020). The disease was first identified in December 2019 in Wuhan, the capital of China's Hubei province, and has since spread globally, resulting in the ongoing 2019–20 coronavirus pandemic (Coronavirus disease 2019—Symptoms and causes). The lungs are the organs most affected by COVID-19 because the virus accesses host cells via the enzyme angiotensin-converting enzyme 2 (ACE2). "Corona", in Latin, means crown. The virus is adorned with an outer layer of protein covered in spikes, like a crown. These spikes help the virus attach itself to target cells (Stamatiki, 2020). The coronavirus is an ongoing pandemic disease caused by severe acute respiratory syndrome coronavirus-2. The best way to prevent and slow down transmission is to be well informed about the COVID-19 virus, the disease it causes and how it spreads. Protect yourself and others from infection by washing your hands or using an alcohol based rub frequently and not touching your face (WHO 2020)

SYMPTOMS AND PREVENTION OF COVID-19

The COVID-19 virus affects different people in different ways. COVID-19 is a respiratory disease and most infected people will develop mild to moderate symptoms and recover without requiring special treatment (WHO). The two most common symptoms of coronavirus are fever and dry cough. Less common symptoms include fatigue, respiratory sputum production (phlegm), loss of the sense of smell (Coronavirus Disease 2019 (COVID-19)—Symptoms), shortness of breath, muscle and joint pain, sore throat, headache, chills, vomiting, hemoptysis, and diarrhea (Hopkins 2020). The coronavirus -19 prevented through Wash your hands

regularly with soap and water, or clean them with alcohol-based hand rub, Maintain at least 1 metre distance between you and people coughing or sneezing, Avoid touching your face, Cover your mouth and nose when coughing or sneezing, Stay home if you feel unwell, Refrain from smoking and other activities that weaken the lungs. Practice physical distancing by avoiding unnecessary travel and staying away from large groups of people(Who-2020). The immune system encounters a pathogen, for instance, a bacterium, virus, or parasite, it mounts a so-called immune response

YOGA, IMMUNITY SYSTEM AND CORONAVIRUS -19

Our immune system is essential for our survival. Without an immune system, our bodies would be open to attack from bacteria, viruses, parasites, and more. It is our immune system that keeps us healthy as we drift through a sea of pathogens . The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes (WHO 2020). The immune system is a host defence system comprising many biological structures and processes within an organism that protects against disease (Wikipedia). A healthy lifestyle – avoid smoking and drinking sound sleep, intake a balanced diet, taking regular practice of Yoga calms the mind and can contribute to deeper, regulated sleep, which is crucial for wellness; sleep is one of the most important factors in healing and maintaining a healthy immune system . Yoga (Asana, Pranayama and meditation) are reducing stress and helps our immune systems to be in the strong shape to manage pathogens. Covit-19 is a new virus that has never infected humans before. Humans have poor immunity against it, so the virus spreads rapidly. No sleep, poor nutrition diet, and stress, all lead to a weakened immune system and vulnerability to sickness. Stress and anxiety, more than anything, leads to a breakdown in the body's ability to defend itself against viruses. When stressed, the hormone cortisol stays in the blood for extended periods of time, which the body develops resistance to, leading to increased inflammation. Kraftsow, in his recent book *Yoga for Wellness* (Penguin, 1999), explains that cold and flu infections, allergies, asthma, and other chronic respiratory conditions are “directly linked to a weakened immune response” due to “disturbed, irregular habits of breathing.” Drs. Robin Monro, R. Nagarathna, and H.R. Nagendra, authors of *Yoga for Common Ailments* (Fireside, 1991), also emphasize breathing exercises. Sectional breathing and rapid abdominal breathing (Kapalabhati) “increase the resistance of your respiratory tract,” they advise, while the nasal wash and alternate-nostril breathing “increase the resistance of your sinuses.” A virus-bound antibody binds to receptors, called Fc receptors, on the surface of phagocytic cells and triggers a mechanism known as phagocytosis, by which the cell engulfs and destroys the virus. Finally, antibodies can also activate the complement system, which opsonises and promotes phagocytosis of viruses

DIET AND IMMUNITY

The food you eat plays a key aspect in determining your overall health and immunity. Eat low carb diets, as this will help control high blood sugar and pressure. A low carb diet will help slow down diabetes and focus on a protein-rich diet to keep you in good shape. And regularly consume vegetables and fruits rich in Beta carotene, Ascorbic acid & other essential vitamins. Certain foods like mushrooms, tomato, bell pepper and green vegetables like broccoli, spinach are also good options to build resilience in the body against infections. Eat supplements rich in omega 3 & 6 fatty acids for your daily dose, if stepping out to buy groceries is not an option during social distancing. Some natural immunity supplements include ginger, gooseberries (amla) and turmeric. Some of these superfoods are common ingredients in Indian dishes and snacks. There are several herbs that help in boosting immunity like garlic, Basil leaves and Black cumin. Certain seeds and nuts like sunflower seeds, Flax seed, pumpkin seeds and melon seeds are excellent sources of protein and vitamin E.

Probiotics like Yoghurt, Yakult and fermented food are also excellent sources to rejuvenate the composition of gut bacteria, which is important for nutrient absorption by the body. These are good options for the older generation too.

CONCLUSIONS

A consistent yoga practice – along with certain poses in particular – can support and boost the immune system. Yoga helps keep you and your cells healthy even when you're stressed. This is due to the fact that yoga reduces stress systemically in the body, which reduces inflammation overall. Yoga is one of the most effective and natural immunity boosters that can lead to a healthy, sickness-free body and improve immunity system . Yoga lowers stress hormones Regular practice of Yoga (Asana, Pranayama and meditation) are reducing stress and helps our immune systems to be in the strong. Yoga calms the mind and can contribute to deeper, regulated sleep, which is crucial for wellness; sleep is one of the most important factors in healing and maintaining a healthy immune system. A regular yoga practice helps to improve glucose levels, increase insulin sensitivity and lower blood glucose. Furthermore, insulin can cause weight gain, which is a problem for people with diabetes (especially Type 2). Yoga helps with both of these things, as it promotes weight loss and mindful eating, so it makes sense that yoga is also great for diabetes. A recent review suggested that yoga may reduce the stress, improve metabolic profile, regulate autonomic nervous system and alter hypothalamopituitary adrenal axis which act as neural mediators of hyperglycemia (Mahajan 2014). Yoga practice is useful for stress reduction, awareness on satiety, awareness on over eating and weight reduction (Bernstein et al. 2013, Rshikesan Subramanya and Ram 2016).

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A Brief Study on New Innovative Factors to Analyze Coaching Patterns for Indian Sports

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ABSTRACT

The Coaching Behavior Scale for Sport (CBS-S) is intended to assess a mentor's contribution in creating sports individuals in multidimensional parts of sports. In spite of the fact that CBS-S has been utilized in various experimental examinations, the factor design of the instrument has not been inspected in Elite Indian settings. Present examination was, accordingly, directed to survey the factor construction of the CBS-S for Indian Elite games individuals, 76 Elite games individuals finished the CBS-S, CFA were done to evaluate the (CBS-S) for unwavering quality and legitimacy. Seven-factor CFA models fit the example information enough. Also, the spans of factor loadings on track factors were considerable. The discoveries from this investigation upheld the factorial legitimacy of the CBS-S for the current example and Personal Rapport (PS) and Negative Personal Rapport (NPR) are discovered to be modestly huge. This proposes that the Elite Indian games individual is depending more on the mentor corresponding to the Physical preparing, Technical expertise, Goal setting, Mental arrangements and Competitive methodologies instead of the two compatibility subscales.

Keywords : coaching effectiveness, factorial analysis, elite, sports performance, rapport

INTRODUCTION

Coaching is a vital and basic part of sports execution, as it includes amalgamating the actual procedure, psychological ability and the emotional expertise to accomplish success. Bill McCartney, American football trainer, suitably cited "all coaching is taking a player where he has not taken himself."

Sadly, regardless of these troublesome and complex difficulties in elite training, assessment of sports mentors' viability is basically centered around execution results, for example, win-misfortune records (Mallett and Côté, 2006; Koh et al., 2009). The intricacy of superior training requires continuous patterns of preparation, checking, carrying out and surveying to react to the unique attributes of instructing (Bowes and Jones, 2006). Thus, the work requests for elite mentors are huge (Lyle, 2002). Henceforth, evaluating their work ought to be finished utilizing a multi-dimensional conduct system to more readily mirror their exhibition. One such measure is the Coaching Behavior Scale for Sport (CBS-S), created by Côté and associates. A critical advantage of the CBS-S is that the instrument catches multidimensional parts of mentors' work (discrete practices) that can be measured. The CBS-S estimates seven components of a mentor's reliable contribution with the competitors

in the mind boggling preparing and rivalry training conditions. They are Physical Training and Planning (the mentor's inclusion in the competitor's actual preparing and Conditioning for preparing and rivalry), Technical Skills (the mentor's arrangements of criticism, showing and signs), Goal Setting (the mentor's contribution in recognizing, creating, and observing the competitor's objectives), Mental Preparation (the mentor's association in furnishing the competitor with guidance on the most proficient method to perform well under tension), Competition Strategies (the mentor's valuable cooperation with the competitor in rivalry), Personal Rapport (the mentor's congeniality, accessibility and comprehension of the competitor). While the scale has been utilized in some experimental investigations, its psychometric properties have not been evaluated thoroughly by utilizing further developed multivariate measurements for first class sports individuals. Execution mentors and specifically mentors working with tip top competitors (superior), embrace work that varies from support mentors (Lyle, 2002). Albeit all types of training ought to be similarly esteemed and regarded, the jobs and foci of execution mentors contrast from that of support mentors. Lyle portrayed support training as including free enrollment, transient interest and an attention on sure full of feeling results, like view of fitness and satisfaction. Interestingly, superior training is portrayed by more significant levels of responsibility, more steady mentor competitor connections and more noteworthy spotlight on medium-to-long haul arranging, checking, dynamic and the executives abilities to encourage control of execution factors (Lyle, 2002). Elite mentors are regularly considered totally liable for rivalry results. Subsequently there is need to examine the scale comparable to tip top games individual. Additionally, the CBS-S was created from an example in Canada and has been utilized principally for Caucasian grown-up competitors. Training is a profoundly intricate occupation and is limited by setting and culture (Lyle, 2002). Moreover, Côté et al. suggested that "diverse approval investigations of the CBS-S ought to be completed" (Côté et al., 1999) to more readily comprehend and assess crafted by mentors (Koh et al., 2009). Its psychometric properties have not been analyzed on information from different societies, settings and age gatherings. Consequently, this absence of experimental assessment may restrict the speculation of exploration discoveries to other social, ethnic, and age gatherings.

OBJECTIVE OF THE STUDY

To study new innovative factors for analyzing coaching patterns for Indian Sports

METHOD

Participants- The Participants were 76 game individuals contending at International level that addressed a wide assortment of sports. These games individually were from Golf (n=20), Shooting (n=15), Field and track (n=17), Tennis (n=5) Squash (n=2), Wrestling (n=4), Swimming (n=2) and Boxing (n=3). In particular, noticed examples of 76 parts in the different assorted game contending at International level just were taken which is the populace under examination. The entirety of the games individuals are being prepared by one or different global mentors.

INSTRUMENT

Instructing Behavior Scale for Sport: The CBS-S estimates seven components of a mentor's steady contribution with the games individual in the intricate preparing and rivalry training conditions. They are Physical Training and Planning, Technical Skills, Goal Setting, Mental Preparation, Competition Strategies, Personal Rapport, and Negative Personal Rapport. Scores were recorded on a >-point Likert scale secured by 'quite often's and 'never' (scored either 1 or 7, going from never to consistently).

STATISTICAL ANALYSIS AND PROCEDURE

A successive thing choice methodology Anderson and Gerbing (1988) proposed that multi-dimensional scales be created by first and foremost, characterizing starter scales through thing all out connections investigation; besides, inspecting the uni-dimensionality of these scales through corroborative factor examination; lastly surveying the unwavering quality of these scales through inside consistency examinations. Wille (1996) proposed a consecutive methodology that gets going with inner consistency examinations, trailed by united and discriminant legitimacy investigations. Part of each subscale that is analyzed and adjusted in Wille's stepwise methodology is its inward consistency. In this stepwise strategy, a subscale's unwavering quality is expanded by eliminating the most un-dependable thing, as demonstrated by the normal increment (assuming any) in alpha for the subscale. The unwavering quality investigation is then rehashed, the expansion in dependability noted, and the following least solid thing eliminated. This interaction is rehashed until the evacuation of none of the leftover things would prompt an increment in the subscale's alpha. While recognizing the shifting principles of dependability needed for various applications, a few creators (e.g., Cortina, 1993; Peterson, 1993; Steiner, 2003). When the reliability of the different subscales have been augmented through the successive erasure of inside conflicting things, Wille's (1966) system looks at and expands these subscales' focalized and discriminant legitimacy. The subscales discriminant legitimacy is evaluated and improved by recognizing and eliminating, individually, the things that heap altogether on more than one factor. Simultaneously, the subscales' united legitimacy is surveyed and improved by distinguishing and eliminating, individually, those things which neglect to stack fundamentally on any factor. These two models are assessed at the same time, and at each progression the thing which abuses these prerequisites of discriminant or potentially united legitimacy furthest degree is taken out, until none of the excess things disregard either type of legitimacy. In applying this technique, it is guaranteed that the things held don't just fulfill these psychometric rules, however that their substance is similar with the hypothetical build (s) that should be estimated. Accordingly a successive methodology is utilized where the things are concentrated to take out any if contributing low influencing the inside consistency, further simultaneously, the subscales discriminant and united legitimacy is surveyed and improved by distinguishing and eliminating, individually, those things which neglect to stack altogether on any factor. Factor Analysis was done to lessen the R network to its fundamental measurements by taking a gander at which factors appear to bunch together in a significant manner and accomplishing miserliness by clarifying the most extreme measure of regular change in a relationship framework utilizing the most modest number of informative builds in the Indian setting. Covariance based Structural Equation Modeling (SEM) was utilized to examine and evaluate the design for Coaching Behaviors Scale in world class Indian games individual, further separating the effect of psychomotor ability, impact and discernment inferable from Indian setting (the populace under investigation). Wherein it was understood that factor loadings of all scales in the current investigation are more than 0.75, further astounding Cronbach's Alpha ≥ 0.95 subsequently guaranteeing high interior consistency/unwavering quality, this fills in as a guaranteeing verification of build legitimacy.

RESULTS

Table 1 : CBS-S Descriptive Statistics

Parameter	Mean	Std. Deviation	PT	TS	PS	NPR	GS	CS	M	Cronbach's Alpha
Physical Training	3.57	0.20	.696***							.951
Technical Skills	4.19	0.07		.823***						.972
Personal Rapport	5.08	0.19			.417***					.946
Negative Personal Rapport	3.14	0.23				-.469***				.967
Goal Settings	3.34	0.15					.982***			.961
Competitive Strategies	3.24	0.15						.957***		.957
Mental Preparations	3.57	.076							.919***	.958

- Mean values of Physical Training and Technical Skills was found to be 3.57 and 4.19 with respective sd. values of .20465 and .07430.
- Mean values of Personal Rapport and Negative Personal Rapport was found to be 5.08 and 3.14 with respective sd. values of .19089 and .23843
- Mean values of Goal Settings, Competitive Strategies and Mental Preparations was found to be 3.34, 3.24 and 3.57 with respective sd. values of .15931, .15691 and .07638

All the seven factors of the CBS-S are highly positively correlated with the Coaching Behavior *** $p < 0.000$ except for Negative Personal Rapport which was found to be negative. Moreover internal consistency estimates for the seven factors were also found to be excellent and indicated that all subscales have high consistency and reliability.

Table 2 : CBS-S consistency measures and convergent validity

Observed	TS	PT	CS	GS	NPR	PS	M
Cronbach's Alpha	0.972	0.951	0.957	0.961	0.967	0.946	0.958
Composite Reliability	0.972	0.952	0.958	0.962	0.968	0.948	0.958
Convergent Validity	0.855	0.768	0.822	0.834	0.789	0.752	0.883

Cronbach's Alpha (CA)- Values of all the constructs exceeds the level of 0.95 indicates excellent scenario that observed data will reproduce consistent findings if they were repeated on another occasion / by another researcher, moreover it is representative of the population under study.

Composite Reliability (CR)- All the values in the above table are greater than .95 hence ensuring excellent scenario

Convergent Validity (CV)- All the values in the above table for Average Variance Extracted (AVE) are greater than .75 hence sustaining a very good scenario

Discriminant Validity- The Maximum Shared Variance (MSV) for all the constructs is less than Average Variance Extracted (AVE) (*see table below MSV < AVE for all constructs)

Table 3 : CBS-S Discriminant Validity

	CR	AVE	MSV	Max R(H)	TS	PT	CS	GS	NPR	PS	M
TS	0.972	0.855	0.561	0.973	0.924						
PT	0.952	0.768	0.458	0.983	0.639	0.876					
CS	0.958	0.822	0.796	0.988	0.749	0.551	0.907				
GS	0.962	0.834	0.796	0.991	0.728	0.677	0.892	0.913			
NPR	0.968	0.789	0.271	0.993	-0.488	-0.223	-0.521	-0.387	0.888		
PS	0.948	0.752	0.200	0.994	0.361	0.447	0.342	0.376	0.328	0.867	
M	0.958	0.883	0.738	0.995	0.698	0.535	0.821	0.859	-0.365	0.404	0.940

Table 4 : Displaying factor loadings of all observed parameters for all the constructs under study (CBS-S)

Observed	PT	TS	PS	NPR	CS	M	GS
1	0.92	0.912	0.925	0.868	0.945	0.968	0.924
2	0.858		0.847	0.885		0.927	0.946
3	0.923	0.932	0.887	0.877	0.915		0.897
4			0.835	0.862			0.867
5	0.845	0.912	0.905	0.886	0.923	0.923	0.929
6	0.909	0.931	0.793	0.885	0.920		
7	0.799	0.918		0.954	0.826		
8		0.94		0.881			

Table 5 : CBS-S Changeover/roll over items:

Items not selected	Items were making the model biased	Remarks
PT4	Provides me with a plan for my physical preparation	X
TS2	Gives me specific feedback for correcting technical errors	X
TS4	Provides me with feedback that helps me improve my technique	X
M3	Provides advice on how to stay confident about my abilities	X
M4	Provides advice on how to stay positive about myself	X
GS6	Provides support to attain my goals	X
CS2	Prepares me to face a variety of situations in competition	X
CS4	Has a consistent routine at competition	X
Note*	No new variance is explained by the inclusion of these items as these are already covered by other items. Yes in the absence of other items these items will play the rollover / changeover function	*Rollover / Changeover Items

Confirmatory factor analysis

Model Fit Information of the Confirmatory factor analysis reported (χ^2) = 1137.32 with 694 degrees of freedom calculated to be χ^2 / DF ratio as 1.639. A widely used index example is the Comparative Fit Index (CFI) which indicates the relative lack of fit of a specified model versus the baseline model. It is normed and varies from 0 to 1, with higher values representing better fit. CFI is widely used because of its strengths, including its relative insensitivity to model complexity (Khine, 2013). The root mean square error of approximation (RMSEA) corrects the tendency of the χ^2 to reject models with large same size or number of variables. A lower RMSEA value indicates a good fit; it illustrates how well the model fits the population covariance matrix considering the number of df to account for sampling errors associated in its estimation. Parsimonious fit indices include PNFI and PCFI are relative fit indices that are adjustments to penalize models that are less parsimonious, so that simpler theoretical processes are favored over more complex ones. There may be an important distinction between fit indices that are explicitly adjusting for parsimony and ones that are empirically affected by model complexity. The TLI is an example of an index that adjusts for parsimony, even though that was not its original intent.

In this study, Model Fit analysis results ($\chi^2/df= 1.639$, CFI = .889, TLI = .882, IFI = .890 RMSEA= 0.092, PNFI = .712, PCFI = .833)

indicated that there was an acceptable fit index values between 7 factor model. All the measures suggesting that observed data is a good fit of the model is representing the population under study. Moreover reasonable scenario that observed data will reproduce consistent findings if they were repeated on another occasion and by other researcher.

Fit indices may point to a well-fitting model when in actual fact, parts of the model may fit poorly (Jöreskog & Sörbom, 1996; Tomarken & Waller, 2004; Reisinger & Mavondo, 2007). Indeed, the area of fit indices 'rules of thumb' is highly topical at the moment with some experts in the area calling for a complete abandonment of fit indices altogether (Barrett, 2007). Apparently all the aspects are impacting on to the Coaching Performance for the Population under study.

- Psychomotor Skill (High Impact β) Regression Coefficients are .667 and .794 for Physical Training (PT) and Technical Skills (TS) Respectively. (95 % Confidence interval for PT = .542 to .801 p value sig. < .006 and for TS = .685 to .872 p value sig. < .009)
- Effect (Moderate Impact β) - Regression Coefficients are .398 and -.451 for Personal Rapport (PS) and Negative Personal Rapport (NPR) Respectively. (95 % Confidence interval for PS = .207 to .530 p value sig. < .019 and for NPR = -.615 to -.217 p value sig. < .014) Although both the impacts are statistically significant on Coaching but it is important to note that the impact of NPR is apparently (-ve) negative. Such a scenario becomes a concern and needs intervention.

Table 6 : Showing standardized effects subscales assessed on Coaching (with 95% C.I.)

Parameter		Estimate	Lower	Upper	P
Physical Training	<--- Coaching	.667	.542	.801	.006
Technical Skills	<--- Coaching	.794	.685	.872	.009
Personal Rapport	<--- Coaching	.398	.207	.530	.019
Negative Personal Rapport	<--- Coaching	-.451	-.615	-.217	.014
Goal Settings	<--- Coaching	.958	.884	.982	.041
Competitive Strategies	<--- Coaching	.927	.848	.975	.023
Mental Preparations	<--- Coaching	.887	.793	.949	.015

Table- Presenting comprehensive scenario of the constructs for coaching behaviour scale for sport (CBS-S) for the Indian elite sports person

Item	Description	Factor Loadings	Cronbach's Alpha	Composite Reliability	Convergent Validity	Regression Coefficient
Physical Training (PT)						
PT1	Provides me with a physical conditioning program in which I am confident	0.920	0.951	0.952	0.768	$\beta = .667$ p value = .006
PT2	Provides me with a physically challenging conditioning program	0.858				
PT3	Provides me with a detailed physical conditioning program	0.923				
PT5	Ensures that training facilities and equipment are organized	0.845				
PT6	Provides me with structured training sessions	0.909				
PT7	Provides me with an annual training program	0.799				
Technical Skills (TS)						

TS1	Provides me with advice while I'm performing a skill	0.912	0.972	0.972	0.855	$\beta = .794$
TS3	Gives me reinforcement about correct technique	0.932				p value
TS5	Provides visual examples to show how a skill should be done	0.912				=.009
TS6	Uses verbal examples that describe how a skill should be done	0.931				
TS7	Makes sure I understand the techniques and strategies I'm being taught	0.918				
TS8	Provides me with immediate feedback	0.940				
Mental Preparations (M)						
M1	Provides advice on how to perform under pressure	0.968	0.958	0.958	0.883	$\beta = .887$
M2	Provides advice on how to be mentally tough	0.927				p value
M5	Provides advice on how to stay focused	0.923				=.015
Goal Settings (GS)						
GS1	helps me identify strategies to achieve my goals	0.924	0.961	0.962	0.834	$\beta = .958$
GS2	monitors my progress toward my goals					p value
GS3	helps me set-short term goals	0.897				=.041
GS4	helps me identify target dates for attaining my goals	0.867				
GS5	helps me set long-term goals	0.929				
Competitive Strategies (CS)						
CS1	Helps me focus on the process of performing well	0.945	0.957	0.958	0.822	$\beta = .927$
CS3	Keeps me focused in competitions	0.915				p value
CS5	Deals with problems I may experience at competitions	0.923				=.023
CS6	Shows confidence in my ability during competitions	0.920				
CS7	Ensures that facilities and equipment are organized for competition	0.826				

Personal Rapport (PS)

PS1	Shows understanding for me as a person	0.925	0.946	0.948	0.752	$\beta = .398$
PS2	Is a good listener	0.847				p value
PS3	Is easily approachable about personal problems I might have	0.887				=.019
PS4	Demonstrates concern for my whole self (i.e., other parts of my life than sport)	0.835				
PS5	Is trustworthy with my personal problems	0.905				
PS6	Maintains confidentiality regarding my personal life	0.793				
Negative Personal Rapport (NPR)						
NPR1	Uses fear in his/her coaching methods	0.868	0.967	0.968	0.789	$\beta = -.451$
NPR2	Yells at me when angry	0.885				p value
NPR3	Disregards my opinion	0.877				=.014
NPR4	Shows favouritism towards others	0.862				
NPR5	Intimidates me physically	0.886				
NPR6	Uses power to manipulate me	0.885				
NPR7	Makes personal comments to me that I find upsetting	0.954				
NPR8	Spends more time coaching the best athletes	0.881				

Discussion-CBS-S has been used in many empirical studies and recommended as a useful instrument for measuring effective coaching. Koh, Kawabata, and Mallett (2009). The factorial structure of the scale has not been examined in the Indian context using advanced statistical procedures. To resolve this gap in the literature, the factorial structure of the CBS-S was carefully observed in the present study for Indian elite sports person through exploratory techniques using correlation matrix and internal consistency (Cronbach's alpha) and confirmatory factor analysis leading to 7 sub scales.

IMPLICATIONS OF THE STUDY

Initially, the outcomes demonstrate that lone 39 things of the first 47 things in CBS-S are applicable in the Indian setting when estimating viable instructing for the world class sports individual. Notwithstanding model evaluation overall, united and discriminant legitimacy of the seven variables was upheld through the assessment of individual boundary gauges after expulsion of 8 things. Inner consistency gauges for the seven components are discovered to be fantastic and demonstrated that all subscales are inside steady. This finding proposes that the things were acceptable markers for compelling training. Second, the relapse coefficients for all subscales are genuinely huge. Actual Training (PT), Technical Skills (TS), Goal Settings (GS), Competitive Strategies (CS) and Mental Preparations (M) are discovered to be profoundly measurably critical. Individual Rapport (PS) and Negative Personal Rapport (NPR) are believed to be modestly huge. The outcomes proposes that the Elite Indian games individual is depending more on the mentor for the Physical Training, Technical Skills, Goal Setting, Mental Preparations and Competitive Strategies as opposed to the two compatibility subscales-Personal

Rapport (PS) and Negative Personal Rapport (NPR). The Indian exhibition is sub optimal at the International level with just 14 individual decorations and just a single gold award in the Olympics in most recent 70 years. From the training viewpoint, it appears to be the effect of instructing in not reflecting or converting into improved games execution. Indian games individual at the world class level is prepared generally by worldwide mentors. In this examination larger part of the games individual has all or a few or possibly one worldwide mentor to aid multidimensional parts of sports execution. The effective worldwide mentors are recruited for their most elevated global norm corresponding to specialized and psychological abilities. Analysts propose that a relationship exists between the nature of the mentor competitor relationship and execution achievements; there is proof to show that fruitful bonds are probably going to incorporate positive relational characteristics like trust, regard, responsibility, and comprehension (Greenleaf, Gould, and Dieffenbach, 2001; Hemery, 1986; Jowett and Cockerill, in press; Vernacchia, McGuire, Reardon, and Templin, 2000). Positive compatibility is one of the basic components for the achievement of sportsperson, as one advancement from the school level mentor to a first class mentor the move from the expertise, intellectual capacity and effect of affinity go higher for the training to get compelling (Lyle, 2002; Mallett, and Côté, (2006). Michael Johnson, Clyde Hart, Inger Miller, John Smith, Carl Lewis, Tom Tellez, Steven Cram, and Jim Hendley, Linford Christie, and Ron Rodden are dyadic connections that have set up cozy connections as well as effective organizations in olympic style sports games (Jowett, 2003). Training climate, the moderate compatibility levels may be restricting the adequacy of high worldwide instructing abilities to the Indian games individual. Making the mentors prepare or gain proficiency with the mental ability in the pertinence of the Indian games people, childhood and social contrasts may assist with improving the affinity level. Olusoga, Butt, Hays, and Maynard (2009) feature the significance of mental abilities preparing for mentors to help them adapt to the different requests of a-list instructing. The affinity is clear in the relationship seen among Sindhu and Gopichand (Badminton) where the ternion of expertise, insight and compatibility has brought top exhibitions. Thirdly, in this examination, the negative affinity is unfavorably affecting powerful instructing. Specialists have likewise recommended that contrary compatibility makes nervousness and dread in the games individual (Baker, Côté, and Hawes, 2000). Positive compatibility and routes in improving the affinity will help in upgrading execution of the Indian games individual at the global level.

CONCLUSION

To improve the performance at international level, coaches need to understand the importance of psychological skills training to help them cope with the diverse demands of world-class coaching. The sports psychologist with specialized domain knowledge of upbringing and cultural differences can help to cope up with the bottlenecks as they are well versed with the grass root level issues.

Further, Indian coaches can be trained on motor skill and cognitive skills to assist with improving sports performance.

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Study of Health-Related Physical Fitness and Teaching Ability of Male Teacher Trainer

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ABSTRACT

The purpose of this study was to identify the correlation between health-related physical fitness and the teaching ability of male teacher trainers. Total of B.Ed. college Teacher Trainees 300 were selected from ten Colleges using stratified random sampling technique. The tools used for collecting data were 12 min Run/Walk test - Cardiovascular Endurance, Push Ups - Muscular Strength & Muscular endurance, Sit & Reach - Flexibility, Weight & Height - Body Composition. The lesson marks given by University of Pune were used to test the Teaching Ability of subjects. The analysis was done using descriptive analysis Tools – Mean, Standard Deviation and for Correlation Pearson Correlation tool was used. From the analysis it is shown that there exists a positive relationship between Health-Related Physical Fitness and Teaching Ability.

Keyword s: Health-Related Physical Fitness, Teaching Ability, Teacher Trainer

INTRODUCTION

Background of the Study

Fitness is defined as the quality or state of being fit. Around 1950, perhaps consistent with the Industrial Revolution and the treatise of World War II, the term “fitness” increased in western vernacular by a factor of ten. Modern definition of fitness describes either a person or machine’s ability to perform a specific function or a holistic definition of human adaptability to cope with various situations. This has led to an interrelation of human fitness and attractiveness which has mobilized global fitness and fitness equipment industries. Regarding specific function, fitness is attributed to personnel who possess significant aerobic or anaerobic ability, i.e. strength or endurance. A holistic definition of fitness is described by Greg Glassman in the CrossFit journal as an increased work capacity across broad times and modal domains; mastery of several attributes of fitness including strength, endurance, power, speed, balance and coordination and being able to improve the amount of work done in a given time with any of these domains. A well-rounded fitness program will improve a person in all aspects of fitness, rather than one, such as only cardio/respiratory endurance or only weight training.

Teaching Ability

Basic teaching skills are the skills or abilities of teachers to explain concepts related to learning material. Teaching skills are pedagogical competencies of a teacher. Pedagogic competence is the way teachers teach and regulate the learning system in the classroom by establishing good interactions with students. Teachers’ pedagogical

competence is one's ability to teach which includes various aspects related to the science of educating as well as basic teaching skills.

RESEARCH METHODOLOGY

The survey study was conducted to find the correlation between Health-Related Physical Fitness and Teaching Ability of Teacher Trainees. A total of 300 male teacher trainees from ten B.Ed. colleges from Pune District aged from 22 to 35 years were selected using stratified random sampling technique.

TOOLS OF DATA COLLECTION

The standard 'Health related Physical Fitness Test' by AAHPERD Youth Test. The tools used for collecting data were 12 min Run/Walk test - Cardiovascular Endurance, Push Ups - Muscular Strength & Muscular endurance, Sit & Reach - Flexibility, Weight & Height - Body Composition. The lesson marks given by University of Pune were used to test the Teaching Ability of subjects.

STATISTICAL TOOLS AND ANALYSIS

The researcher used the following statistical techniques tools for collecting the data. Descriptive Statistics was done by calculating Mean, median, mode and Standard Deviation and for Correlation Pearson Correlation tool was used.

RESULTS

Table 1: Statistical Analysis of Health-Related Physical Fitness and Teaching Ability of Male Teacher Trainer (n=300)

Variable	Mean	Median	Mode	S. D.
HRPF	128.29	123.35	112.92	29.55
TA	203.80	200.50	217.00	27.60

The table 1 illustrates the descriptive statistics of Health-Related Physical Fitness and Teaching Ability of Male Teacher Trainer. Health-Related Physical Fitness Mean score 128.29, Median-123.35, Mode-112.92 and SD-29.55 Teaching Ability Mean score 203.80, Median-200.50, Mode-217.00 and SD-27.60.

Table 2 : Correlation of variable of Health-Related Physical Fitness, Teaching Ability of Male Teacher Trainer

Variable	TA
HRPF	Pearson Cor. .235(**) Sig. (2-tailed) .000

The table 2 illustrates the descriptive statistics of Health-Related Physical Fitness and Teaching Ability of Male Teacher Trainer. Pearson Correlation is 0.235 and the significant score is 0.000 which shows that the score is significant at the 0.01 level of significance.

FINDINGS AND DISCUSSION

There exists a significant and positive correlation between Health-Related Physical Fitness and Teaching Ability Coefficient ($r=.235$) ($p=.000$) ($p>.01$). Thus, it is evidently obvious from the above discussion that Health

related Physical Fitness is significantly associated with one's Teaching Ability. The study has been conducted to enlighten the relationship between Health-related Physical Fitness and Teaching Ability. It is also now definite that there occurs remarkable correlation.

SUGGESTION

This means that if you want to improve or maintain your academic performance, you need to keep your physical capacity good so that you can maintain your health-related physical fitness by exercising daily.

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The Super Food Daliya Upma, the Nutritionally Dense Recipe for Fueling & Nourishing Athlete

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ABSTRACT

The purpose of the present study was to prepare nutritionally dense recipe for Fueling and Nourishing athlete. The main objective of this present study was to create the recipe “Daliya Upma” for complete Performance Dietary Intake of an Athlete. As per scientific procedure the nutritional value of this recipe was calculated and it is predicted that it would help in nourishing the need of calories required for athletic performance. In this recipe different ingredients like vegetables, herbs and spices along with wheat-daliya were used for the preparation of the “Daliya Upma” dish. After analyzing and calculating the macro and micro nutrient content it is concluded that this recipe of “Daliya Upma” could fulfil the Performance Dietary Intake (PDI) value for an Athlete. It is recommended to study the effect of this “Daliya Upma” recipe on the Athletes performance.

Keywords : Athlete, Athletic Performance, Nutritional Value, Dalia Upma, Performance Dietary Intake (PDI)

INTRODUCTION

Regional diet and its importance: It is very important to eat foods that grow in your region, there are so many reasons for this. Our bodies maintain a constant state of balance in all aspects, for example all the 11 systems of are balanced according to the climate, stress levels, situation and many unknown factors. This state of balance is known as “Homeostasis”. Because of homeostasis our bodies maintain our immune levels, strength, metabolism, hormone levels. This is natural process and every living body in the universe does this. Due to this mechanism we are able to adopt to certain situations, climates, processes. It is an important survival mechanism. Now the plants which come first in the food chain and are known as ‘producers’, produce the energy so that all the further living things in the chain could get their food. As we talk about Homeostasis, plants growing in particular region develop a strong sense of connection and are synced with the nature and surroundings around them. And of course it will grow at its best if the soil is suitable for it. If plants growing in your regions (city, village) are having the best tastes quality it means they are growing at their best. Their nourishment is very good in that soil which makes the plant more nutritious. Now when we consume these local plants (fruits, veggies) we get the best out of them. This was only one factor for consuming regional foods, there are various more factors like, financial growth, travelling, time period and much more. When we eat local foods we are helping the economy of that region to grow instead of benefiting the foods which travel thousands of kilometers before coming onto our plate. By buying local veggies and fruits we are helping those farmers

financially instead of purchasing the fancy vegetable or fruit which has been grown in some other country. The foods which are not grown in your country need to travel 1000s of kilometers before coming onto your plate, till that time the nutrients in that food would be barely present. The main thing is not that you should consume fancy stuff, you can even feel at your greatest by simply eating foods with high pranic value and there are numerous reasons for that beyond this research.

Dietary need of athlete for enhancing performance: Performance daily intake (PDI) is set of guidelines based on the science of nutrition, sports nutrition and fitness nutrition. The PDIs for each nutrition should be obtained from a total nutrition plan, consisting of both food and supplement sources taken together. For an elite athlete its very important that he/she gets her nutrition plan designed by a sports nutritionist because it's the fuel for the athletes fitness and a slight nutrient deficiency could impact on high edge performance. For enhancing the performance relying only on food is not enough because the demands placed on athletes body are far more than the common person. The amount of macros and micros depend on the nature of sport. The main macronutrient for the athlete is 'Carbohydrate' a it's the ultimate performance food. Athletes should focus on their carb intake to make sure that they are not running out of energy and they could perform their best.

The recommended dietary allowance (RDA for athletes, EDA refer ISSA sports nutrition): This number depends on individual to individual. In intense cases (Olympic level athletes) proper medical testing is done to determine the exact nutrient need of the athlete. However athletes should consume nutrients on the higher end of the tolerable upper intake level (UL) which is a level set to ensure the maximum limit of nutrient intake with no risk factor. UL is set for common person and he never reaches that level but an athlete should reach it as he uses his body to the upper limit. Micronutrients like vitamins and minerals have their own values which are represented in 'IU' (international unit). The intake depends on the size of athlete, his activity and lifestyle factors.

Sources of Diet for nutrition (vegan, dairy, meat, supplements): The main nutritional sources are 'vegan', 'dairy', 'animal meat', supplements. Humans can derive and meet their daily nutritional needs from these sources. Its very important for an athlete to utilize these sources completely before moving towards supplements or simply changing their food source. There are many cases where people think that they are nutritionally deficient especially in protein because they are not eating non-veg foods and due to this reason they shift towards non-veg foods, some even jump to supplements thinking the same. This happens because they lack knowledge regarding nutrition. Athletes need some supplements but it doesn't means that they should eat the foods which their body will not accept. Utilization of the food sources in proper manner is important instead of blaming those instead of directly jumping to advance things. There are many small things which if considered can have a huge impact on the fat loss, muscle building and other performance enhancing process. At our homes there are already foods which if used properly can give huge benefits regarding health and performance boost.

METHOD AND MATERIAL

Since 2 years I have introduced daliya in my diet and I have been experiencing a massive growth in my muscles it's a different part that I have not measured it with anthropometry but still there are far more things beyond science that we can experience.

I made a recipe which is Daliya Upma and its ingredients are as follows:-

INGREDIENTS

- Daliya (100 grams)
- Capsicum (1 big full or 2 medium)

- Tomato (1 to 2 big or 3-4 small)
- Chilies (1-2 medium)
- Radish (1 medium)
- Carrots (1 medium)
- Coriander (10-15 grams)
- Fenugreek leaves (20-30 grams)
- Spinach leaves (100 grams)
- Garlic (6-8 cloves for garnishing)

HERBS AND SPICES

- Red chili powder
- Turmeric
- Chat masala
- Sweet masala
- Onion masala
- Asafoetida

These all spices will depend on each one's taste preferences and but make sure it includes turmeric and asafoetida as those are ayurvedic herbs and also among the top superfoods in the world. They have some astonishing benefits on the body.

THE PROCEDURE

Boil daliya in pressure cooker for 4-5 whistles, Chop all the vegetables. Take two table spoons of desi ghee or coconut oil, heat it for sufficient time add jeera and mustard seeds.

- After that add all the vegetables and cook them until they are partially cooked.
- Stir them for 4-5 minutes
- Add daliya to the mixture and again mix them thoroughly and evenly.
- Serve hot.

Now the above mentioned procedure was the typical cooking show method but when it comes to cooking meals for athletic and sports purposes like recovery and other things which the researcher calls it as "athletic cooking", some important things are to be mentioned.

NOTES FOR ATHLETIC COOKING

- The vegetables should remain partially cooked and we have to make sure that they are not overcooked. They should be cooked just till the time when they start to lose water from their bodies. This water is full

of nutrients especially water soluble vitamins like B and C, which will get evaporated and lost from the food if we continue to cook the veggies for long period.

- Add a bit of extra (1 teaspoon) turmeric and hing if you are experiencing higher levels of muscle soreness. From ancient times these herbs are used for recoveries of both external and internal damages of the body in the form of medicines.
- Daliya also should be partially cooked and not like rice. As it should retain its fibrous properties.
- Cook in Iron vessel, this is an important strategy to be used not only by athletes but also by common people, cooking in iron adds that slight effect of iron enrichment in diet. But this should not be done on regular basis and cooking of sour foods should be avoided.

ANALYSIS

Micro and Macro Nutrients

- 1) Daliya- It has 372.6 grams of calories in 100 grams. Among the 100 calories it has only 2.36 grams of fats that is very low amount and hence this food aids in fat loss. It has 73.6 grams of good quality complex carbs which make sure that sugar in your blood is released slowly and also after eating daliya it will not spike your blood sugar levels. It also has a low Glycemic Index of 41 which is very healthy for overall digestion and further process.

It contains 15 grams of protein for 100 grams which is also a good amount for vegetarian carb source. However it is not a complete protein but after adding vegetables the amino acid profile gets completed which results in a good anabolic effect.

Because it's coarsely ground, and not refined, Dalia retains beneficial fibre that is lost on highly refined grains. A half cup of dalia has nearly 1.3 g of fibre which helps regulate sugar spikes among people diagnosed with diabetes.

Extremely abundant in iron content, dalia helps with chronic fatigue as the rich iron helps in the smooth transmission of oxygen and nutrients via the blood vessels.

3. Dalia is a good alternative for those who may lack in protein intake due to personal lifestyle preferences like vegan or vegetarian diet. Each half cup of dalia packs over 6 grams of pure protein that aids in building muscles and reducing fat accumulation.

Magnesium, the nutrient that is so vital to maintaining proper heart health, is found in good quantities in each portion of dalia. Magnesium which is present in sufficient levels in leafy vegetables and nuts are not easily found in most other staple grains.

Dalia comes loaded with the Vitamin B constituents - thiamine, riboflavin, and niacin or B1 B2 and B3 for short. Thiamine or B1 is a key vitamin that plays an important role in converting carbohydrates into energy and control glucose metabolism. A lack of thiamine is known to impact proper functions of nervous system, muscle development and heart health.

(Reference source: Organic bazar.com)

People mistaken dalia and oats as they are similar but both the foods are of different nutritional nature and both have different attributes.

This data differs from company to company and also how they test their products nutrition content. It differs at very less rate.

2) Capsicum, Carrots, Tomatoes, Chilies, Rarecipees

- Some of the vegetables are good in their cooked form. In case of tomatoes, when they are cooked for some time they release 'lycopene' which is a red carotenoid which is also found in other dark red fruits. Lycopene has rich antioxidant capacity which helps in removing the toxins and reduce the amount of free radicals in the body.
- Carrots are excellent source of Vitamin A, here in our recipe I have used 1 full big carrot which makes sure that it fulfills my daily requirement of vitamin A by almost 70%.
- Vitamin K which is also found less in foods is found in Carrots.
- Capsicum rich in antioxidant and Vitamin C. Vitamin C is a healing vitamin which is used by the body for the injury healing process, and also kills the germs in the system.
- Chilies has an excellent compound called as capsaicin which increases metabolism by burning fats and also lowers blood sugar level by keeping the insulin spike low.
- Capsaicin is also used in treatments of various diseases which also makes it a pharmaceutical product however it is used by the medical professionals.
- Rarecipees are a good source of antioxidants like catechin, pyrogallol, vanillic acid, and other phenolic compounds. These root vegetables also have a good amount of vitamin C, which acts as an antioxidant to protect your cells from damage. (reference source: Nourish WEBMd)

SPINACH, FENUGREEK LEAVES AND CORIANDER.

- Rarecipees are a good source of antioxidants like catechin, pyrogallol, vanillic acid, and other phenolic compounds. These root vegetables also have a good amount of vitamin C, which acts as an antioxidant to protect your cells from damage. (Reference: google)
- Greens help in overall muscle recovery as they contain high antioxidants and their fluidity is more in the body which means their nutrition reach towards muscle is more.
- Spinach belongs to the amaranth family and is related to beets and quinoa. It is loaded with nutrients and antioxidants.
- Eating spinach may benefit eye health, reduce oxidative stress, help prevent cancer, and reduce blood pressure levels.
- It contains vitamin c which helps in skin repair and health and immune function
- Iron and calcium are also present in Spinach which take care of your haemoglobin and bone health respectively.
- The antioxidant properties in methi help to improve digestion thus reducing the chances of several gastrointestinal problems. methi contains a good amount of fiber that helps to ease constipation.

- Dried fenugreek which is also known as Kasurimethican also be used if fresh fenugreek leaves are not available and it can help in reducing the production of bad (LDL) cholesterol and triglycerides in your blood. Moreover, it also helps in increasing the level of good (HDL) cholesterol. Kasurimethi has an incredibly strong effect on blood lipid levels, thus it helps in reducing cholesterol in people suffering from diabetes and keeps various heart problems away in non-diabetic people.
- Coriander comes from the *Coriandrum sativum* plant and is related to parsley, carrots, and celery.
- Coriander helps to lower blood sugars by promoting enzyme activity which helps to utilize the blood sugars.
- Coriander's anti-inflammatory properties may safeguard against these diseases.
- One 8-week study in 32 people with irritable bowel syndrome (IBS) found that 30 drops of a coriander-containing herbal medication taken thrice daily significantly decreased abdominal pain, bloating, and discomfort, compared with a placebo group

DISCUSSION

Since 2 years I have introduced daliya in my diet and I have been experiencing a massive growth in my muscles it's a different part that I have not measured it with anthropometry but still there are far more things beyond science that we can experience.

Our body has a biological memory due to which there are some foods which have a higher effect on your body. This happens because your ancestors have eaten those foods and probably your body has that memory.

There are some foods which are anabolic in nature and these foods have a good levels and quality of protein and also carbohydrates. Daliya is one of those foods in vegan sources and our recipe makes it even more better by improving its amino acid profile and healing effects.

When I started eating daliya I felt that there was improvement in my strength, performance and my recovery. Also there was significant increase in my muscle mass, for this also my training is responsible but still we cannot ignore the food and nutrition

- The Daliya Upma is perfect meal for the people who want to grow that means if they want to gain weight and muscle.
- But in order to achieve proper weight gain or muscle gain you have to follow some cultural and disciplinary rules which are followed by some of the greatest bodybuilders throughout many years.
- I have mentioned bodybuilding and muscle building sport because it require a greater frequency of body composition manipulations.
- Daliya is a high fibrous food and hence it can be very efficiently used in the cutting phase of a vegetarian athlete especially bodybuilder.
- Its high fiber and carb content and at the same time high protein with low calories overall is exactly beneficial for the people who want to lose weight and or pack on some muscle
- There are many problems which occur in one's body if there is overeating of some foods especially this happens when one consumes a lot of sugary products, salty products, spicy and high fatty products.

- A freshly cooked Daliya Upma is a great food for your gut health.
- The overall gut health is optimized by the consumption of Daliya Upma because of its high complex combination of soluble and insoluble fiber which feeds the good bacteria in the intestines.

CONCLUSION AND RECOMMENDATIONS

After analyzing and calculating the macro and micro nutrient content it is discussed as above and concluded that this recipe of “Daliya Upma” could fulfil the Performance Dietary Intake (PDI) value for an Athlete. This could be an option of complete diet for vegetarian Athlete.

It is recommended that there is need to go for experiment as each one’s body has different response and your performance may increase varyingly

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To Study the Health Effects of Slum Area in Pune City

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ABSTRACT

Purpose of this study was to examine the Health issues in slum of urban area. The study where uses descriptive survey with help of questioner specially design for this kind of research. S.O.I. Top sheet, Tahsil office Reports, Census Handbook, Paper cutting and PCMC web sites are the secondary data sources for this study. This questionnaire was used to get the information of selected slum area in pune city. The polluted water, insanitation effects on human health of selected slum pockets area population in Pune City. The study would lead to conclusion that awareness of health issues needs to improve in selected slum pockets area in Pune city. NGOs working in the area would suggest to provide sufficient fund to solve health issues in selected slum pockets area in Pune city.

Keywords : Health issues, cartographic techniques, sewage treatment, slum pockets.

INTRODUCTION

This research paper examines effects of polluted water and insanitation on the human health in slum areas. There are many problems in slum of urban area such as, air pollution, land pollution, lack of latrine facilities, lack of medical facilities, lack of educational facilities and so on. The water pipelines which passing and crossing bellow the drainage channels in the slum areas causes the water pollution. This may result to pollute the drinking water in pipelines many times the public water taps were closely garbage collection spot. Many diseases are water born diseases. This causes due to polluted or contaminated water. The Polluted water, insanitation and its effect on human health of slum population in areas studied to get some results.

AIMS & OBJECTIVES OF STUDY

To study the effects of slums area on environment of Pune City.

To comparative analysis of diseases in study area.

METHODOLOGY

The study uses descriptive survey with help of questioner specially design for this kind of research. The study focused on the geographical assessment of slum, slum environment and associated problems in of Pune City slum area.

SAMPLE SLUMS AND SAMPLE SIZE

Research sample selected slum pockets area PCMC these are Subhash Nagar, Milind Nagar, Ganesh Nagar, Bhaudha Nagar and Ramabai Nagar All these six slums of the two categories with respect to ownership of land, two each from the categories to ownership of land.

Out of total huts 71 huts from the 6 sample slum hut areas selected for each sample slum, stratified random sampling methods was use for this study.

PRIMARY DATA SOURCES

Actual field survey of selected slum pockets by surveying instruments for zone demarcation and Photographs are the basic source of primary data. This questionnaire includes the questions for gathering information of slum, different site of slum location and type of gutter or drainage system. The questionnaire was implemented for data collection. GPS instrument was used to collect the data related latitude, longitude and altitude of slums in Pune City area which were selected for the study. The photographs, observation of river, collection system of garbage, gutter, water taps, hut structure and land, water, and soil pollution of different location of slum in Pune City area, were also been taken with help of thirteen mega pixel camera of Sony company.

SECONDARY DATA SOURCES:

S.O.I. Top sheet, Tahsil office Reports, Census Handbook, Paper cutting and PCMC web sites are the secondary data sources for this study.

ANALYSIS OF DATA

The data collected through primary and secondary data sources has been analyses with the help of statistical tools. Some of the formulas which were used for this statistical analysis were given comparing percentage and cartographic techniques were applied to represent the data as per requirements through graphs, charts and bar graphs. The represented data will be interpreted and analyzed to find out results and conclusions.

CONCLUSION

There many problems in slum of Pune City area such as, air pollution, land pollution, lack of latrine facilities, lack of medical facilities and so on. The polluted water, insanitation and its effects on human health of slum population in Pune City area studied to get some results. The study area it's including the detailed explanation of drinking water taps- surrounding wet marshy places to cause water pollution, toilet seats causing solid waste & water pollution, dirty water polluted stream affecting slums insanitation and associated health problems.

SUGGESTIONS

On the basis of the study carried out, following are the few suggestions made for the improvement of the slum scenario, slum environment. The suggestions were expected to be undertaken by slum population as well as local government authorities like, PCMC and PMC, M.I.D.C., P.C.N.T.D.A. and also by the NGOs working in the area.

1. Sewage collected from the slum should be treated properly and not to be directly delivered in the natural streams. The scheme for sewage treatment must be properly designed and implemented by the PCMC and PMC.
2. Municipal Corporation will scale up the implementation of the scheme for management of solid waste.

3. The health department in PCMC and PMC should be systematically coordinate frequency of lifting of overflowing garbage tin bins and the same way they must increase the number of tin bins at possible locations connected to the slum.

As this is representative study it only shows the scenario of slum pockets in particular area, which also represents the general trends in slums of Pune city area. The study will support and lead to conclusion that in all slums in Pune city area. Scenario will have general as same as like that of slums under study.

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Analysis of Motor Fitness Components Between Different Sports

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ABSTRACT

The purpose of the study was to compare the Health fitness components among different sports teams. To achieve this purpose fifty male sports person from the Pune city were selected as the subject. All subjects were practicing regularly and related from different team games like Volleyball, Basketball, Handball. Their age ranged from 16 to 19 year old. The data of selected subject for fitness components were recorded by different measures for namely Muscular Strength, Muscular Endurance and Flexibility data were observed by performing the Push Ups, Sit Ups & Sit & Reach.

There is significant difference found between the mean value of Health relates fitness components (Muscular Endurance (F= 10.20) and Muscular Strength (F= 15.79) and that of Flexibility(F= 5.02) among different Sports. With the limitations of the study it may be concluded that, there was significant difference found between the different sports teams i.e. Volleyball, Basketball and Handball in relation to their health related fitness component.

Keywords : Handball, Health Related Fitness, Basketball, Volleyball

INTRODUCTION

Sports will help you get into shape or keep in shape. Having a particular target in mind can be extremely motivating. Power and endurance are needed on a physical level. Sports is one of the many manifestations of humanity's never-ending search for perfection.

Sports elicit an experience that is solely human and unaffected by a civilization's shifting forms, patterns, and customs, which profoundly alter our understanding of our surroundings.

Man's slogan has been health and physical education since the dawn of time. People's health and physical fitness are likely to be deteriorating due to current automation and a lack of mechanised day-to-day life. Due to very small movements caused by scientific and acute stress and pressure, the health of the general public has suffered significantly.

Individual well-being, as well as the success and stability of a country, are all dependent on physical health. It serves as the foundation for all other types of excellence. There has been a related decline in the amount of

activities that involve an investment of energy as a result of increased mechanisation, and adequate rigorous workouts are not performed to develop and sustain equate levels of fitness.

Fitness encompasses not only a person's physical well-being but also their emotional well-being. A individual who is physically fit but mentally ill or disturbed may not be able to perform at their best. Mental fitness is only possible if the body is in good shape.

A variety of fitness components are necessary for good handball results. While more than one is normally relevant, in this poll, we only ask you to nominate the most important fitness part. There are several other factors that contribute to success in this sport; review the survey and score each one.

The word "components of fitness" refers to a set of facets of conditioning and attributes that athletes should improve for competition. Strength, Power, Speed, Endurance, Balance, Coordination, Reaction Time, Muscular Endurance, Cardiovascular Health, Body Composition, and Flexibility are all aspects of fitness.

These are general categories, but they aid in categorising exercises and events, as well as defining the various physiological criteria for a sport like basketball. Kho-Kho, is one of India's most common traditional sports, but science training is not commonly available for it.

The game puts the players' physical agility, strength, pace, and endurance to the test. Kho-Kho is an exciting and fast-paced game in which players dodge, feint at a regulated interval.

METHODOLOGY OF STUDY

The study's aim was to analyse the motor fitness components between different sports. For this study, 30 athletes each from the Volleyball, Basketball, Handball, sports from Pune were chosen as the subjects. The research was limited to the chosen fitness components viz. muscular strength, muscular endurance, CV endurance, flexibility, and body structure, with participants ranging in age from 16 to 19.

The data of selected subjects for fitness components, namely Muscular Strength, Muscular Endurance, and Flexibility, were collected by performing Push Ups, Sit Ups, and Sit & Reach.

At the 0.05 level of significance, descriptive statistics and one-way analysis of variance (ANOVA) were used to find differences in selected health-related fitness components within various sports team games.

In mean performance of selected Health related components among different sports teams, the findings are presented in following Tables.

Table 1 : Descriptive Statistics of Push Ups Test

	Mean	Median	SD
Volleyball	28	37	14.48
Handball	35	25	3.58
Basketball	23	24	3.62

Table 2 : Descriptive Statistics of Sit Ups Test

	Mean	Median	SD
Volleyball	32	29	8.88
Handball	28	29	5.38
Basketball	30	30	4.74

Table 3 : Descriptive Statistics of Sit & Reach Test

	Mean	Median	SD
Volleyball	32	29	8.88
Handball	25	25	5.94
Basketball	31	30	7.64

Table 4 : Muscular Endurance among Different Sports Teams

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1481.44	3	370.36	10.20	.00
Within Groups	4355.36	87	36.29		
Total	5836.80	89			

Table 5 : Muscular Strength among Different Sports Teams

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4629.23	3	1157.30	15.79	.00
Within Groups	8795.280	87	73.29		
Total	13424.51	89			

Table 6 : Flexibility among Different Sports Teams

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1076.11	3	269.02	5.02	.001
Within Groups	6431.44	87	53.59		
Total	7507.55	89			

DISCUSSION AND FINDINGS

The results of the data review show that there is no substantial variation in muscular Endurance, Muscular Strength or Flexibility between sports teams. When playing a game, handball players, basketball players, and volleyball players all use different type of fitness while taking part in a game

CONCLUSIONS

With the limitations of the study, it's possible to infer that there was a substantial gap in health-related fitness among the various sports teams (Volleyball, Basketball, and Handball).

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The Effect of Sportsmen Participation on Emotional Intelligence Among UG Level Student of Bangalore University

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ABSTRACT

Many educators and psychologists believe that students who receive an exclusively academic environment may be ill equipped for future challenges, both as individuals as well as members of the society. Certain instances come in our day to day life wherein the brightest students in a class did not succeed later in their lives as individuals having well rounded personalities as compared to their less intellectual counterparts. These examples are particularly evident in various fields like politics, business and administration (Singh, 2002). But then a question arises what is it that helps a person to succeed in life other than intelligence? Which human quality is it that helps people to function better in all spheres from career to personal life? With the dawn of 21st century, the human mind added a new dimension which is now being held responsible more for success than intelligence. This is termed as Emotional Intelligence and is measured as EQ (Emotional Quotient).

INTRODUCTION :

Concept of Emotional Intelligence- Over the past several years the term emotional intelligence has received much attention as a factor that is useful in understanding and predicting individual's performance at work, at home, at school etc. The concept of Emotional Intelligence was first introduced by Salovey and Mayer in the early 1990's and made popular by Daniel Goleman with publication of his book: "Why it can matter more than IQ" in 1995. Emotional intelligence is the capacity to create positive outcomes in relationships with others and with oneself. According to Mayer and Salovey (1993), emotional intelligence is the ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and actions. Thus, emotional intelligence is an umbrella term that captures a broad collection of interpersonal and intrapersonal skills. Interpersonal skills consist of the ability to understand the feelings of others, empathies, maintain and develop interpersonal relationships and above all our sense of social responsibility. On the other hand, intrapersonal skills comprise of the ability to understand one's own motivation. Emotional intelligence plays a key role in determining life success.

Statement of the Problem: To study the effect of sportsmen participation on emotional intelligence among UG Level students of Bangalore University

OBJECTIVES :

1. To assess the emotional intelligence among UG Level students who are active in sports.

- To compare the level of emotional intelligence among UG Level students who are active in sports and non active sports

HYPOTHESIS :

“Sports participation enhances emotional intelligence among UG Level students of Bangalore University”

Research Design : Between two group research design is used.

SAMPLING :

The data was collected from a sample of 100 UG Level students who come under the age group of 18 to 23. Among them 50 were boys who are actively involving in competitive sports and other 50 boys who are not involved into any kind of competitive sports.

VARIABLES :

Independent variable : Sports participation

Dependent variable : Level of Emotional Intelligence

MEASURES :

- A detailed interview schedule is prepared to collect the demographic details of the subjects.
- Mangal Emotional Intelligence Inventory Mangal and Mangal (2004).

METHODOLOGY :

In order to collect data the survey method was used. The sample of the study consisted of 100 students who were studying in different Colleges situated in Bangalore city. Only students of classes of UG students were taken for the study. Among them 50 boys who were actively involving in competitive sports and 50 boys who are not involved in any kind of competitive sports for the study. To collect necessary information for this study, investigator specially designed interview schedule was used along with Emotional Intelligence Inventory developed by Dr. S. K. Mangal and Mrs. Shubra Mangal. Emotional Intelligence Inventory has 100 items, 25 each from the four areas to be answered as “yes” or “no”. The mode of response to each item is either “yes” or „no” indicating complete agreement or disagreement with the proposed statement. Tool has both positive and negative items. For scoring one mark is provided for the response indicating presence of emotional intelligence and zero for the absence of emotional intelligence. In order to test the hypotheses, investigator applied t-test.

ANALYSIS AND INTERPRETATION :

In the present study researcher intends to examine the level of emotional intelligence among students who participate in competitive sports and students who do not participate in any kind of competitive sports.

Table 1: shows the mean, standard deviation and t-test of sport participants and non participants.

	N	Mean	S. D	T-Ratio
Sports Persons	50	47. 16	10. 467	5. 38
Non-Sports Persons	50	37. 14	7. 959	

Graph showing the mean value of the boys who participate actively in sports and who do not take part in any kind of sports

It is observed from the above table that t- value of 5.38 was found significant at 0.01 levels. Based on the obtained results it can be observed that the students who are actively involving in competitive sports have higher emotional intelligence level when compared with non participants. In other words, it is implied that participation in sports positively influence on emotional intelligence.

CONCLUSION :

On the basis of the results which were obtained it can be concluded that sports play an important role in the increasing the emotional intelligence of an individual and in turn it helps him to cope with the environment in which he lives.

LIMITATION AND SUGGESTIONS :

1. Sample restricted to only boys and chosen from Bangalore city.
2. Since the sample was small the study can't be generalized.
3. The study was restricted only to state level players. It could have been including higher level participation also.
4. The study is confined only to the secondary school children.

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Effects on Mallakhamb Elasticity And Balance : Semi-Experimental Studies

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SUMMARY

Despite the many health benefits, Mallakhamb also has a proven role to play in enhancing efficiency. Thrills that drive specific elements of fitness. Our aim was to study the elasticity resulting from Mallakhamb and its study.

J. R.city sports academy, Dhule. There is a balance among the trainees practicing Mallakhamb at J. R City Sports Academy.

A total of 20 players took part in the Mallakhamb training of the trainees. We had 10 participants in each group (10 in the mallakhamb group and the other 10 in the non- Mallakhamb group). Regular mallakhamb sessions are conducted in the morning. All participants were allowed to attend regular training sessions.

Only the Mallakhamb group participated in the additional Mallakhamba session. Including flexibility and balance measurement. Seat and Reach (SR) test and Stork Stand (SR) test were conducted before and after mallakhamb and training.

Period Independent T-test and combined T-test were performed to determine the significant effect of Mallakhamba inside and outside Mallakhamba. Between groups before and after Mallakhamba training. Our participants were men. Age of participant It was between 12-1-17 years. All of these had normal levels of BMI. Showed significant improvement in Mallakhamb group for elasticity (SR, $P = 0.017$) and balance (SS, $P = 0.044$) relative to the group. No.

Significant improvements in flexibility and balance were observed in the non-Mallakhamb-non-group. Between groups Comparison (Mallakhamb and non-Mallakhamb) also has flexibility (SR, $P = 0.018$) and Balance (SS, $P = 0.021$). Our findings help us to conclude that regular

Mallakhamb training can improve balance. And in the short term (weeks) the flexibility of shooting Mallakhamb athelit can also improve atheletic.

Performance demanding high flexibility and balance.

Keywords: Mallakhamba; Flexibility balance players; Shooting game

INTRODUCTION

Regular practice of Mallakhamb has numerous health benefits (Wolf et al., 2011; Pal et al., 2011; McDermott et al.,

2011 ; Parikh etc., 2011). Mallakhamb has also brought about positive changes in physical functioning and well-being

Improved flexibility and balance and practiced regularly (Akhtar et al., Ross and Thomas, 2010) (Bohede Etc. 2005) as well as cardiovascular functions (Bera and Rajapurkar, 1993). Moreover, Mallakhamb can be direct

Link to improve general components of athletic performance (Harrelson and Swann, 2003). This is also clear Mallakhamb can be an important component of a regular exercise routine or training program Can even replace that (Broad, 2012). Increased flexibility increases rapidly due to regular mallakhamb abhasya. The process involves stretched muscle and connective tissue around the joints (Woodyard, 2011).

Mallakhamb also has a profound effect on balance, muscle strength, endurance and coordination Structural activity and participation (Carico, 1997).

Mallakhamb differs from other specialized types of exercise training in that it requires multi-structural participation which a Suitable for the body in various ways (Gulati and Sharma, 2011; Kaminoff and Matthews, 2007)

Mallakhamb in position increases the ability of movement and reduces the limit of movement, thereby improving the body Working in each other's thighs helps maintain constant and steady breathing through a series of seats (Stable consecration) requires muscle groups under stress. The respiratory system communicates to a stressed person.

The musculoskeletal system causes extensive changes throughout the body while doing those Mallakhamb elements (Coulter, 2010).

Traditional exercise focuses on improving specific fitness for the availability of a given sport (Bryant et al.Green, 2006) Although specific fitness components are increasing, it is difficult to use them to achieve optimal. Athletic Performance (Aberg, 2002) On the other hand, regular Mallakhamb poses improve many features.

Fitness factors (e.g. increasing alignment, increasing range of motion, and increasing muscle fiber Recruitment) Increases flexibility and reduces muscle tension thus allowing new movements to occur and Help move joints freely (Clark and Powers, 2012) thus improving sports skills.

Balance thrills in Mallakhamb games require their balance and flexibility for long periods of time and beyond. According to the above evidence, Mallakhamb helps to strengthen and refine connective muscle tissues and A really good practice on some really small muscles that are responsible for balance and stability.

Mallakhamb help a lot in this regard.

Therefore, the main purpose of this paper was to examine the effect of Mallakhamba on specific components. Fitness especially the balance associated with flexibility and balance theatrical performance. Thus, through an improvement. The specific fitness factor, the core capacity of the athletic performance should be increased. To apply our results to this In competitive conditions, we conducted our experiments on trainee athletes who regularly participated

Training in Dhule J.R City Sports Academy (Dhule) Maharashtra, India Mallakhamb Department for their athletics Program.

MATERIALS AND METHODS

The semi-experimental study was conducted for a period of 7 weeks (measurement days and Mallakhamb training Session) To evaluate the effect of Mallakhamb on specific aspects of athletic fitness in appropriate athletes. Participating in regular Mallakhamb training at J.R. City sports academy, Dhule, Maharashtra, India. The study was conducted in the measurement section Physiology Exercise and mallakhmb Training Sessions were conducted at Institute of Sports Science, J.R. City sports academy.

The study period of J.R.City sports academy Mallakhamb Complex was from Jan, 2019 to February, 2019. Mallakhamb was trained Twice a week over a 6-week period. We have selected 20 participants according to them. The availability and usefulness guided by instructors allows researchers to collect data on their athletes.

Participants (n = 20) were trainee players in both the male and female Mallakhamb divisions. Were the subjects Divided into Mallakhamb group (n = 10) and non-Mallakhamb group (n = 10). Participants had no previous experience

Mallakhamb and free from injury. It was also asked before including the history of any existing medical condition Them in this study. J.R.City sports academy, Dhule, Maharashtra, India. consisted of students who had passed at least one year of training. There were new students Excluding study without specific sports training predicts your study.

2.1. Process

The Mallakhamb group and the non-mallakhamb group consisted of mallakhamb trainees. During mallakhamb In sessions for weeks, members of both groups have also regularly participated in pre-scheduled game specific Training. General training includes static stretching exercises, weight and endurance training, and walking for it In addition to their regular training, both groups participated in early morning mallakhamb sessions on Mallakhamb subjects (Monday and Thursday) each week before any other physical activity. Professionals held sessions Mallakhamb expert. The Mallakhamb expert demonstrated various types of mallakhamb poses (asanas) followed by participants And imitated those poses. Flexibility and balance measures were taken 6 weeks before and shortly after the Mallakhamb session.

The assessment of each group was completed separately. One day before the start of the first Mallakhamb session Measurements were taken with the same test protocol from group members without mallakhamb and mallakhamb. Similarly, at the end of the 6-week Mallakhamb training session, one day later, the test protocol was repeated.

Mallakhamb group and Mallakhamb-non-Mallakhamb group respectively. Without any practice sessions, the following assessment Protocol completed: (1) Sit-Reach (SR) test and (2) Stork Stand (SS) test. Flexibility was the solution Is determined by the SR test (Bachale, 2008), while the balance test was taken by the stork stand (SS) test. (Coulson and Archer, 2011) We've recorded the best of the three.

2.2. Statistical analysis

Critical descriptive statistics (i.e. standard deviations) were directly measured and derived. All computable values were calculated before comparing instruments. Pair T-test was used for comparison of different characteristic variables between the two groups. Data were analysed using SPSS (Statistics Package for Social Science) Version 22.0. A 5% level of probability was used to show the statistical importance.

RESULTS

A total of 20 participants (10 from each group, i.e. Mallakhamb and Non-Mallakhamb) were included in the study. Participants were both male and female trainees of Mallakhamb Game in J.R. city sports academy, Dhule, Maharashtra, India. Of middle age participants for the Mallakhamb group in the age group of 14 to 17 years, the mean was 13.70 (SD) 1.33. Age without Mallakhamb. The members of the group were 13.60 (SD) 1.20 in the age group of 12 to 17 years. Sixty percent were men and forty percent were women in both the groups. The mean (\pm SD) height was slightly higher in the non-Mallakhamb group. The weight of our participants in the two groups. All participants had BMI (Body Mass Index) inside the General category. Participants in the Mallakhamb group had slightly higher BMI levels. It is from the table below that Mallakhamb is clearly visible in all aspects of the selected anthropological variables.

The non-Mallakhamb group is a control and standard deviation of the anthropological variables in the two groups is given below (Table 1). The difference in resilience test scores was observed in the Mallakhamb group as compared to the non-Mallakhamb group. In the Mallakhamb group,

According to the tests performed before and after the Mallakhamb training, significant differences ($P = 0.017$) were found.

The score and average difference was -2.00. This means that an average of 2 inches of elasticity is increased in participants in the Mallakhamb group after training. On the other hand, there is no difference in mean scores. Flexibility testing was observed in participants in non-Mallakhamb groups (Table 2).

The Mallakhamb training session studied balance improvements in the Mallakhamb group over a period of weeks.

A difference was found in the non-Mallakhamb group who underwent the same test as those who were trained regularly (Table 3).

In addition, comparisons between groups (Mallakhamb and Non-Mallakhamb) also showed that there were also significant

SR test for flexibility ($P = 0.1$ and 1 weeks) and ST test (at 0.021) after balance ($P = 0.021$) weeks

Table 1 : Descriptive Statistics of selected anthropometric variables.

Variables	Malkhamb Group (n=10)		Non-Malkhamb Group (n=10)	
	Mean	SD	Mean	SD
Height (Cm)	153.16	24.50	163.79	6.76
Weight (Kg)	51.80	12.96	53.30	6.05
BMI (Body Mass Index)	22.23	3.61	19.88	1.98

SD = Standard deviation, n = number of participants

Table 2 : Analytical statistics for Mallkhamb and Non-Mallkhamb traditional measures for flexibility.

Measures	Sit reach (SR) test (Inches)		
	Mallkhamb Group	Non-Mallkhamb Group	Mallkhamb – non Mallkhamb Group
Mean +SD (before)	35.50+ 5.33	37.20 + 5.03	36.85 + 5.05
Mean +SD (after)	38.50 + 6.62	37.30 + 4.95	37.90 + 5.72
Mean difference	-2.00	-0.10	-1.05
Standard error of mean	0.68	0.18	1.82
T statistics	-2.93	-0.56	-2.58
P Value	0.017	0.591	0.018

Table 3 : Analytical statistics for Mallkhamb and Non-Mallkhamb traditional measures for Balance.

Measures	Stork Stand (ST) Test (Seconds)		
	Mallkhamb Group	Non-Mallkhamb Group	Mallkhamb – non Mallkhamb Group
Mean +SD (before)	24.10+ 16.33	16.50 + 4.71	20.30 + 12.33
Mean +SD (after)	26.30 + 17.73	16.30 + 4.52	21.30 + 13.60
Mean difference	-2.20	0.20	-1.0
Standard error of mean	0.57	0.13	0.40
T statistics	-3.84	1.50	-2.52
P Value	0.004	0.168	0.021

Significant level < 0.05. SD = Standard Deviation.

DISCUSSION

Flexibility and balance are important factors in the fitness of any player in any important role On their performance. In this particular study, our main focus was on determining whether Mallakhamb had any additional effects.

Flexibility and balance in mallakhamb game athletes despite the regular type of training. Players from Both groups participated in their regular training programs. Warm up exercises in regular training sessions, Strength and endurance training, sports specific skills training and regularly participating in their sport. Mallakhamb only.

The group was given additional Mallakhamb training. Evidence has shown that flexibility enhances training and wrestling Range of joint movements (McHugh and Cosgrave, (2010; Amin and Goodman, 2011) Untrained. Therefore, we assumed that both groups would show improvement in the resilience test because all.

Among them participated in regular practice sessions.

Our findings show that in addition to regular training sessions, mallakhamb training significantly increases Flexibility measures. Conversely, the non-mallakhamb group showed no improvement in flexibility Remedy. In addition, the participants in the Mallakhamb group are also Mallakhamb

- There was more flexibility than non-participation

Thus, practicing Mallakhamb helped to improve flexibility measures in athletes with active training. Do not stretch until warm. We have also estimated that both groups (Mallakhamb and Non-Mallakhamb) will improve in the balance test.

Participate regularly in strength and endurance training, especially skills specific to Mallakhamb games Stimulates stability and balance (Zach et al., 2010) In addition, the practice of regularity is like increasing. Balance (Zach et al., 2010; Bohede et al., 2005), we expected additional Mallakhamba training to improve as well.

Balance According to us, there was a significant improvement in the balance measures in the Mallakhamb group Expectation. However, Mallakhamb vs. Mallakhamb- Mallakhamb group emerged with a significantly higher balance. According to the findings Above, we can re-establish the fact that additional Mallakhamb training has a positive effect on the traditional balance Training in a very short period of time.

Our study also bears a resemblance to other studies. In a study of college players for about 10 Coincidentally setting the weeks the same way. Significant improvements were seen in both flexibility and balance.

Among the participants who belonged to the Mallakhamba group, In their performance after tests taken for measurements (Polgrove et al., 2011). This proof too Support our search. Mallakhamb can really increase flexibility and balance with athletes

TRADITIONAL TRAINING

A second study of Olympic weightlifters found that - weeks of Mallakhamb training showed nothing Significant differences between groups on resilience measures (Ernst & Jensen, 2011). The results though In contrast to our results, several other studies have shown a positive effect of mallakhamb on flexibility.

Therefore, with the exception of just one piece of evidence, we can recommend including them in a regular Mallakhamb session

TRAINING IN ATHLETES

Studying Mallakhamb up to 6 weeks has shown an improvement in both flexibility and balance Remedy. From our findings we can expect that Mallakhamb group athletes increase the number of flexible and balance non-mallakhamb group athletes frequently. Participate in additional training with multiple focus Fitness factors, flexibility and balance for the Mallakhamb group can explain the improved measures Players.

Following the above quote and the advice of many others, the investigator came forward with confidence

CONCLUSIONS

That the trainees participating in the yoga session increased flexibility and balance. It would be beneficial to have a professional, rather than just another group participating in regular training. A mallakhamb expert can be added to the coaching team to provide regular training for overall improvement

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Study of Weight And Liner Measurements With Explosive Leg Strength of Kabaddi Players

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ABSTRACT

The purpose of the study is to correlate weight and linear measurements with explosive leg strength of Kabaddi players. A sample of 30 senior male Kabaddi players of Gujarat the ranging of 18 to 22 years was selected for the study. Convinced cum random sampling method was used to select the sample. The Explosive leg strength was measured with the standing broad jump. For analysis and interpretation of data, the investigator used Pearson Product Moment Correlation statistical techniques with the help of SPSS analytic software. There was a significant relationship found between weight and linear measurement with explosive leg strength of Kabaddi players accepting foot length.

Keywords : Anthropometry, explosive strength, body weight, height

INTRODUCTION

Human beings are a biological fact. This is a universal fact in every sports and games where events selectively reflect concomitant genetic and environmental influence on physique. Olympic Games provide an anthropological microcosm, which permits human biologists to delineate prototypes with specific structural and functional capacities to excel at highly defined, ritualistic, physical performance tasks of combination of tasks in organizing sports.

The world of games and sport has crossed many milestones, because of different achievements, in general, and their application in the field of sports and games. Kabaddi is one of the most popular games in India especially in north India. It is a game played by both males and females across many age groups and levels of participation.

Scientific investigation into performance of sportsmen has been playing an increasingly important role in the training of sportspersons, in the scientific way, to attain excellence in performance, in different spheres of sports.

Various research studies conducted by experts, in Physical Education and sports, have emphasized the importance of investigating the specific structures correlated with various sports activities for the selection and development of talent in sports for better performance, at different levels of sports competitions. Anthropometry is the interface between anatomy and movement. It is the application of a series of measurements made on the body and from these we can use the data that we gather directly or perform calculations using the data to produce various indices and body composition predictions and to measure and describe different body physique. Kabaddi is a game in which two teams fight each other. Two teams try to score points against one another. Raid and catch in Kabaddi is both an art and a science. Kabaddi and catch the art form because it involves finely tuned hand-eye leg-eye coordination rather than gross motor skills. The correlation also been done on selected Kin-anthropometric variables and sports performance of different athletic events, games and sports. They have emphasized that top-level performance, in particular sports and game activity, demands particular size, shape and proportions of the body. Performance improvements are mainly due to application of different sport sciences, new techniques, methods of training, fitness techniques, availability of appropriate body structures, and modern equipment and facilities. Time has come to explore the possible body structures and motor fitness related to specific sports activity and develops them for a particular level of performance. In this way, anthropometry and physical fitness components play an important role in the selection and training of sportspersons. Physical fitness is the ability to perform activities that require muscular coordination such as walking, running, playing and manipulating instruments and machinery.

Mathews (1973) defined general motor fitness as the immediate capacity of an individual to perform in many varied stunts or sports events. Identification of requirements that increase performance in specific sports could aid the coach, trainer, and/or athlete in creating a proper training program for that sport and games. Satyanarayana (2002), the aim of the study was to determine the effect of sand training on selective motor abilities of junior volleyball players. Investigation was done on 24 junior players. Subjects were divided in two groups each comprising 12 subjects. One was an experimental group and the other was a control group. Standing vertical jump, standing broad jump, approach and jump reach, court speed test, coordination test (92 meters agility) and 30meters sprint test were administered at the beginning and end of four weeks sand and general training programmer. On the basis of results it was found that sand training on experimental group improved jumping abilities with significant 't' value 2.09, 2.83 and 2.50 in standing vertical jump, standing broad jump and approach and jump reach respectively but significant improvement is not observed in speed and coordination domination abilities where's' value are 1.57, 1.27 and 1.94 inco-ordination test (92 meter agility) court speed test and 30meters sprint respectively. A non-significant in all the test performances was also seen in the control group.

PURPOSE

The purpose of the study is to correlate weight and linear measurements with explosive leg strength of Kabaddi players.

METHODS

Sample

A sample of 30 Kabaddi players were conceived and randomly selected from the different parts of Gujarat. The investigator approached the coaches and trainers of the team for approval to select players from a regularly scheduled practice time. After approval, the investigator collected the data related to anthropometric measurement and explosive leg strength.

STATISTICAL ANALYSIS

To determine whether relationship among the research variables exists or not, Pearson Product correlation method was applied. The data was computed on the Statistical Package for the Social Sciences (SPSS).

Table 1 : Correlations of Weight and Liner measurements to Explosive leg strength of Boxers (N = 30)

SN	Variables correlated with leg strength	Coefficient of Correlation
1	Body Weight	.681*
2	Standing Height	.618*
3	Sitting Height	.671*
4	Trunk Length	.503*
5	Total Leg Length	.747*
6	Upper Leg Length	.763*
7	Lower Leg Length	.771*
8	Thigh Length	.707*
9	Lower Leg Length	.571*
10	Hand Length	.346*

** Correlation is significant at the 0.01 and 0.05 level.

RESULTS OF THE STUDY

Table one show that the correlations of body weight (.681), standing height (.618), sitting height (.671), trunk length (.503), total leg length (.747), upper leg length (.763), and thigh length (.707), Lower Leg Length (.571) with explosive leg strength are highly positive and significant at both .01 and 0.5 level of significance. Hand length (.346) hand breath (.324) and (.261) also positive correlation but not significant with explosive leg strength at .01 and 0.5 level of significance. It implies that the body weight, standing height, sitting height, trunk length, total leg length, upper leg length, leg length and thigh length significantly contributed to explosive leg strength of Kabaddi players.

CONCLUSION

As per above interpretation the researcher showed that the anthropometric variables i.e. body weight, standing height, sitting height, trunk length, total leg length, upper leg length thigh length, Lower Leg Length are important for performance of Kabaddi players, because explosive leg strength are improve the performance of Kabaddi players and explosive leg strength and above Kin anthropometric variable are direct and positive correlation.

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