NATIONAL CONFERENCE 2015

Trends, Issues and Future of Physical Education and sports

27th february & 28th february



M.M's Chandrashekhar Agashe College of Physical Education

Gultekdi, Mukundnagar, Pune 411 037.

National Conference 2015 Trends, Issues and Future of Physical Education and Sports

27th – 28th February 2015

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Physical Education: "The Present and Future "

Dr. Nayana Nimkar

1. Introduction

Physical Education has seen many initiatives, influences and developments, which have variously shaped, national systems. There are different and various forms of structures and practices evident across the world in which amongst diversity there are some elements of congruence in PE and school sport concepts and delivery. Physical education is often advocated as a source of positive developmental characteristics from early childhood, through adolescence to late teen-age and now, when it is perceived to be a lifelong process, throughout adulthood, resulting in a 'physically literate person'. The perceived role of physical education has expanded over the years and to some extent there has been a re-affirmation of its purposes. Over the past century and a half, there have been several contradicting physical education curriculum themes: inter alia physical, educational, social control (order, discipline and obedience to authority), physical fitness (labour productivity, military defense and strong mothers), health (therapeutic), body shape, competitive performance-related sports and associated physical/motor skills development, play and movement concepts, personal, psychosocial, social and moral development (collectively promoting character building), adventure education, individual, lifetime, or recreational activities, antidote to inactivity and sedentary lifestyle illnesses as well as an alleged obesity epidemic. As a school subject, with such broad scope and potential, physical education is in a relatively unique and indispensable position with characteristics not offered by any other learning or school experience. A paradox here is the perception by many of physical education as a 'non-cognitive' subject, inferior in status to other so-called academic subjects and by association, inferior status of physical education teachers.

The alleged distinctive profile of physical education with its unique characteristics is summed up as "the only school subject, which seeks to prepare children for a healthy lifestyle and focuses on their overall physical and mental development, and is deemed to be "among the most important tools of social integration". We are also aware of a decrease in "the number of PE lessons… in the past decade" in both primary and secondary schools, that there is a lack of provision of facilities and equipment and that PE is taught in school by teachers with inadequate specialist training". There is also recognition that "there is no appropriate coordination aimed at reconciling school and out-of-school sporting activities, and at making better use of existing establishments (Hardman, 2007; Hardman & Marshall, 2000; Hardman & Marshall, 2009)

Two fundamental questions arise here:

- a. Where or what is the evidence to support any or all of the educational outcomes or benefits claimed on physical education's behalf?
- b. How can physical education deliver all that is claimed in its name?

Relevant to both questions is a list of associated questions. For example: how is it possible to impact on children's obesity with only one or two 30-minute physical education lessons a week?; how can we develop a broad range of movement skills in large class sizes of 30 or more pupils, seen, in some instances, by the physical educator for less than 36 hours a year?; is even an hour of daily physical education enough?; and with the knowledge that the intensity, duration, and frequency of physical activity do more than anything to immediately impact on student health, how can we successfully help students experience the joy of movement in physical education classes while urging them to meet target heart rates? Maybe it is an issue of 'changing attitudes and the need to base our advocacy on scientific evidence. Let us now turn to some realities.

2. Realities

a) The Situation of Physical Education in Schools

Physical education provision during compulsory schooling years varies across regions and countries according to age or year stage of attendance. An initial reality is that despite legislation commitment to access to physical education in schools or as a matter of general practice, such provision is far from being

assured. International surveys over the last decade indicate that almost 79% of countries (in Europe 89%; in Asia and North America only 33%) adhere to implementation regulations and delivery but they can, and do, differ from school to school in the majority of countries. Conversely, globally in 21% of countries, physical education is not actually being implemented in accordance with legal obligations or expectations. The 'gap' between official policy and regulations and actual practice is geographically widespread. Factors contributing to it are seen in devolvement of responsibilities for curriculum implementation, loss of time allocation to other competing prioritized subjects, lower importance of school physical education in general, lack of official assessment, financial constraints, diversion of resources elsewhere, inadequate material resources, deficiencies in numbers of qualified personnel and attitudes of significant individuals such as head teachers. Additionally, exemption from physical education classes on medical grounds is recognizably widespread throughout the world, thus perhaps undermining its status within the curriculum.

b) Physical Education Curriculum Time Allocation

A second reality relates to achievability of all of the outcomes ascribed to physical education given the amount of curriculum time allocation. The issue of time allocation is generally complicated not only by localized control of curricula but also by practices of offering options or electives, which provide opportunities for additional engagement in physical education and/or school sport activity. However, some general tendencies can be identified. During the primary school phase years, there is an average **100** minutes (in 2000, the average was **116** minutes) with a range of 30–250minutes; in secondary schools, there is an average of **102** minutes (in 2000, it was **143** minutes) with arrange of 30–250 minutes per week. There is a gradual 'tailing off' in upper secondary (high) schools (post 16+ years) in several countries and optional courses become more evident (Hardman & Marshall, 2009).

c) Physical Education Subject and Teacher Status

Data indicate that across all regions except Europe, in practice physical education is considered to have lower status than other subjects. Occasionally parents demand that PE lessons are 'converted' to maths etc." (PE Teacher)Frequency of cancellation of lessons is one indicator of subject status. Evidence indicates that the low status and esteem of the subject are detrimental to its position. Apart from its attributed low status as of little educational value etc., other reasons for the cancellation of physical education include: government financial cuts; insufficient numbers of qualified physical education teachers; adverse weather conditions; the use of the dedicated physical education lesson space for examinations; preparation for examinations; concerts; ceremonial occasions such as celebratory prize giving; spiritual exercises; and use as dining areas. It is also seen that physical education teachers do not enjoy the same status as other subject teachers.

d) The Physical Education Curriculum

With educational reforms, associated philosophical and pedagogical changes, and in response to concepts of active life styles in life-long learning contexts and the perceived obesity epidemic, some curricular changes are now occurring in some parts of the world. Some shifts in aims, themes and contents are evident with signs that the purpose and function are being redefined to accommodate broader life-long educational outcomes including healthy well-being and links with personal and social development are occurring in some countries. New activities are being incorporated into some programmes. Increasing attention to quality physical education concepts and programmes is also evident.

i) Physical Education Curriculum Aims

Examination of the thematic aims of curricula suggests that physical education is primarily concerned with development of motor skills and refinement of sport-specific skills This tendency is encapsulated in a South Korean commentary, where "... PE strongly focuses on sport skills rather than health promotion and the affective domain."

Most physical educators still have a traditional perspective that the subject's basic role is to develop motor skills in a variety of sports". (Kang & You, 2005, p.583)

Aims linked to broader lifelong educational outcomes such as promotion of health-related fitness and active lifestyles as well as recognition of physical education's contributory role in personal and social but less so of moral are apparent.

ii) Physical Education Curriculum Activity Areas

Many countries commit to a 'broad and balanced' range of curricular activities' opportunities and at one level, this would appear to be reflected in practice with the range of different activities taught within many physical education programmes. However, analysis of data gathered from international surveys challenges the actual extent to which breadth and balance are provided. Examination of activity areas' time allocation across the world reveals how, in practice, competitive sport activities such as Games and Track & Field Athletics dominate the physical activity experiences of pupils globally, thus echoing the indications in the World-wide Survey I (Hardman and Marshall, 2000) of an orientation to a performance sport discourse in which there is in both primary and secondary schools a predominantly Games orientation followed by Track and Field Athletics and Gymnastics. Such orientation runs counter to societal trends outside of school and raises issues surrounding meaning and relevance to young people as well as quality issues of programmes provided.

iii) Physical Education Curriculum Relevance and Quality Issues

A third reality within the physical education domain relates to quality and relevance to the outside world of school physical education curricula, especially in a context of significant societal changes and concomitantly in values and norms over the last 40 years. The scenario of a discrepancy between what the school offers and what the pupils are looking for is not untypical in many countries. An emerging theme in recent surveys is repeated teachers' and officials' references to pupils no longer seeing the significance of physical education as a school subject: the traditional content of physical education and/or sports activity has little relevance to their life-style context. The overall situation is not only seen in content of curricula but also in extra-curricular activity structures and emphasis on school sport. In some countries, this situational orientation may be counter to, or not aligned with, the lifestyle needs and demands, trends and tendencies of young people in out-of-school settings. Collectively, the experiences acquired from unwilling engagement in competitive sport-related physical education are a 'turn-off'.

e) Research

Generally accepted is physical education's distinctive contribution to physical development. The physical focus has shifted over time from health-related fitness rationale, through performance-related considerations, to impacts of sedentary behaviors with physical activity as a public health issue and in the political limelight with lifelong engagement in physical activity as a widely accepted goal. It is claimed that a value of physical education lies in acquisition of personal, social and socio-moral skills to produce a form of 'social capital' to enable young people to function successfully in a broad range of social situations (Bailey, 2005). The claim is grounded in a belief that physical education is a suitable vehicle for personal and social responsibility and pro-social skills. But research evidence is inconclusive, and longitudinal studies and evaluations are thin on the ground. There is a need for greater understanding of mechanisms that lead to improved social behaviour, i.e. of the process of change.

3. Sustainable Future Directions

A fundamental question is what should be done to secure a sustainable future for school physical education and sport? One answer is to accept the situation for what it is and suffer the consequences; the other is to confront the situation and address available options to help resolve some of the problems. The importance of physical education for the development of life-long physical activity habits and health promotion and the importance of participation in physical education in the development of social skills needed by our society, as well as the importance of physical education in the development of cognitive

function have not been well researched or understood or articulated beyond the community of physical educators. The attention devoted to increasing levels of obesity and the association with physical inactivity might appear to bode well for physical education but this association may prove to be a mixed blessing because arguably there is a risk of ignoring many of the most beneficial outcomes of quality physical education if the subject matter is reduced to simply being a means to countering the obesity problem. Unfortunately, while some physical activity is certainly better than none, the physical education profession alone cannot solve the obesity crisis. For socialization into physical activity engagement, the school physical education curriculum and its delivery need to be conceptually and contextually reappraised. The widespread practice in physical education curricula to provide experiences, which merely serve to reinforce achievement-orientated competition performance sport, is a narrow and unjustifiable conception of the role of physical education. In this context, it is unsurprising that pupil interest in physical education declines throughout the school years and youngsters become less active in later school years. For many boys and girls, such programmes do not provide personally meaningful and socially relevant experiences and they limit participatory options rather than expand horizons and thus, are contrary to trends and tendencies in out-of-school settings amongst young people. If physical education is to play a valued useful role in the promotion of active lifestyles, it must move beyond interpretations of activity based upon performance criteria: its current frame of reference should be widened. The preservation of physical education in its old state is not the way to proceed; it is time to move into the 21st century! Engagement needs to be relevant and meaningful to sustain regular and habitual participation in, and out of and beyond school. In the light of available scientific evidence, individual needs and societal trends, inactivity levels and sedentary lifestyles patterns and circumstantially associated rising levels of obesity, consideration of the re-conceptualization and reconstruction of physical education is essential. Over the years, there has been an apparent steady shift in physical education to a broader, more balanced approach. Physical education curricula need to be based on the vision that the knowledge, skills and understanding acquired should benefit students throughout their lives and help them thrive in an everchanging world by enabling them to acquire physical and health literacy, and to develop the comprehension, capacity and commitment needed to lead healthy, active lives and to promote the benefits of healthy active living. Physical literacy (the ability to move with competence in a variety of physical activities) and health literacy (the skills needed to obtain, understand and use the information to make good decisions for health) are key in curriculum development: the curriculum is about helping students develop the necessary skills to make healthy choices!

Concluding Comments

Collectively, early 21st century and advocacy developments have been demonstrative of broad-spread political will and indicative of an international consensus that issues surrounding physical education in schools deserve serious consideration in problem resolution. There is evidence to suggest that national and, where relevant, regional governments have committed themselves through legislation to making provision for physical education but some have been either slow or reticent in translating this into action through actual implementation and assurance of quality of delivery. Generally, the following reveal several areas of continuing concern:

- Continuing deficiencies in curriculum time allocation and actual implementation as well as a failure to strictly apply legislation on school physical education provision, subject status, and material, human and financial resources
- Considerable widespread inadequacies in facility and equipment supply, especially in economically developing countries; a related issue in the facility equipment concern is insufficient funding
- Disquiet about teacher supply and quality embracing insufficiency in numbers and inadequacy of appropriately qualified physical education/sport teachers

- Relevance and quality of the physical education curriculum, especially in countries where there is a sustained pre-disposition towards sports competition and performance-related activities dominated by Games, Gymnastics and Athletics
- Whilst some improvements in inclusion (related to gender and disability) policy and practice can be identified, barriers to equal provision and access opportunities for all still remain
- Falling fitness standards of young people and high youth drop-out rates from physical/sporting activity engagement, insufficient and/or inadequate school community co-ordination physical activity participation pathway links. These concerns are succinctly summed up in a statement:"PE in has gone through intensive development and many changes.

In spite of attempts by PE professionals, PE teachers, pupils and parents still struggle, with a range of problems. Some of these are presented here: decreasing amount of compulsory PE; often decreasing quality of education; large PE class sizes and increasing pupils' behavioral problems; growing numbers of non-participating and 'excused' pupils from PE lessons; stagnating physical fitness and performance of youth; care of pupils with disability; inadequacies in provision and lack of PE facilities; increase in PE teachers' average age and low interest of young graduates to work in the field of PE; inadequate social and financial reward of PE teachers, low work ethic of PE teachers that results from insufficient evaluation of their work; low representation of PE teachers in schools' management positions; absence of monitoring of PE teaching ,monitoring by school directors is non-existent; weak organization (professional associations) of PE teachers; shortages in pre-graduate teachers' preparation; unfinished system of lifelong PE teachers' education; lack of financial resources for science (research) in the field of physical education and sport". Positive developments and policy rhetoric are juxtaposed with adverse practice shortcomings and continuing threats to physical education, as portrayed in a recent UK magazine headline: "Future of PE is at risk, claims a PE" (Cordell, 2009). In essence, the situation especially in economically underdeveloped and developing regions has changed little. The overall scenario is one of 'mixed messages'. The crux of the issue is that there is too much of a gap between the promise and the reality, policy and practice do not always add up! If children are to be moved from 'play stations' to playgrounds' (Balkenende, 2005), any re-conceptualization of physical education, which contributes to the creation of the 'physically educated' or 'physically literate' person, does need to be accompanied by improvements to raise the quality of teaching and learning processes as well as that of associated teacher educational preparation or training. Recent pedagogical and didactical developments have consequences for physical education teacher education both at initial and in-service training levels. Wherever appropriate, physical education delivery will benefit from re-orientation towards placing more responsibility on students for their learning with the managerial responsibility of the teacher progressively transferred to pupils and so enhance pupil involvement. Reflective practitioners will translate into reflective students! Re-conceptualization needs to be seen in the context of life-long participation in physical activity and should include inter-related strategies to embrace the formulation of quality programmes, which provide meaningful experiences and, which attract young people to the joy and pleasure of physical activity and so foster an 'active life-style' philosophy with a focus on relevance and understanding. Initial and in-service training/further professional development should properly address pedagogical and did actual developments and social and cultural shifts and so help to enhance the physical education experience of children. This is particularly important in primary/elementary schools, preparation for which is often 'generalist' rather than specialist conditions. The nature and quality of delivery of the school physical education curriculum is fundamental to the future not only of the subject in schools but also to the future of active life-styles over the full life span for the two are inextricably entwined. Advocates have to ensure that physical education can justifiably claim a higher status, be worthy of improved time allocations and appropriate personnel, financial and material resources. If physical educators are serious about physical activity for health promotion, then nutrition and physical literacy should be central strategies and they should work closely with families, wider school, education and health, (sport) communities. Additionally, radical changes to pedagogy would be required, especially

when trying to meet challenges while meeting the individual needs of each child but all "need to acquire knowledge, understanding and behavioral skills to ensure physical activity becomes a regular part of their daily life" (Fairclough & Stratton, 2005). The challenges should not ignore relevant scholarly research, which, in recent years has made significant progress in unraveling some of the 'mysteries' of learning and socialization processes in different and various cultural and cross-cultural contexts. If policy-makers, decision-takers, administrators and practitioners are to be persuaded or continue to be persuaded of an essential presence of physical education in schools' curricula, commitment to re-conceptualization, reconstruction and delivery of a relevant quality curriculum by appropriately qualified teaching personnel will in themselves be insufficient. Sustained application of political skills and argument of the case at local, through national, to international levels is required. The value of communication to ALL components of society, teachers, parents, and government officials cannot be over-estimated. Research into the relationship between physical education and cognitive benefits has actually produced mixed messages: from beneficial through not disadvantageous to no relationship or a trivial one. The available evidence does suggest that increased levels of physical education do not interfere with achievement in other subjects and in some sub-groups may be associated with improved academic performance. These research findings on cognitive function are interesting because with the increase in the importance of literacy and numeracy as indicators of 'academic achievement', the role of physical activity in the enhancement of these, plus academic function, becomes significantly important. To this end, as both intergovernmental and non-governmental organizations have recognized, goals will be better served by effective partnerships with shared responsibilities of all vested interested agencies and institutions involved in policies and their implementation. The principle of partnerships embracing multi-sectorial policies is an essential feature of the World Health Organization's (2004) Global strategy on diet, physical activity and health policy framework as well as the European Parliament's 2007 Resolution. A school's role extends to encouraging young people to continue participation in physical activity, through the provision of links and co-ordinate opportunities for all young people at all levels and by developing partnerships with the wider community to extend and improve the opportunities available for them to remain physically active. Hence, there is a need for wider community-based partnerships. With less than two hours per week time allocation (in many countries, it is frequently less), physical education cannot itself satisfy physical activity needs of young people or address activity shortfalls let alone achieve other significant outcomes. Bridges do need to be built, especially to stimulate young people to participate in physical activity during their leisure time. Many children are not made aware of, and how to negotiate, the multifarious pathways to out-of-school and beyond school opportunities. Physical Education Teacher Education programmes should address these facilitation and intermediary roles of the physical education teacher. Thus, at the very least, their professional preparation should embrace familiarization with pathways for participation in wider community multi-sector provision and the achievement of personal excellence. Support is fundamental to the realization of such ideals. It can be achieved through the collaborative, co-operative partnership approach involving other professionals and committed, dedicated and properly mentored volunteer individual and group enthusiasts. Therefore, it seems logical to suggest that socialization into, and through physical activity, should occur from 'womb' to 'tomb' i.e. a physical education over the full life span. If physical education is to sustain its presence both in formal and informal educational and socio-cultural settings, and continue to have a positive role as an instrument of socialization, then issues have to be confronted. Education in general and physical education in particular, should respond to the needs of optimally developing

individuals' capabilities and provide opportunities for personal fulfillment and social interactions, essential in human co-existence. It is worth remembering, however, that it is not the activity, but the reason for taking part that sustains participation. To add, its role embraces the often overlooked intrinsic value of the 'sheer joy of participation in physical/sporting activity'. It is an agenda, which UNESCO is also actively pursuing as it attempts to formulate quality physical education policy principles, which can be suitably adapted by Member States to 'local' circumstances and conditions. With such inter-

governmental commitments to policy principles and action advocacy, a secure and sustainable future for physical education appears to be realizable (Hardman & Marshall, 2008). Nevertheless, maintenance of monitoring of developments in physical education across the world is an imperative... A 'watching brief' mechanism is essential to gauge whether "promises" are being converted into "reality" and so contribute to countering potential threats and securing a safe future for physical education in schools(Hardman & Marshall, 2008).

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Suggestive Approach for Scholars in the Field of Physical Education & Sports Sciences

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Prologue

As we are aware that research is creation of knowledge. But the important prerequisite for that is knowledge should be acceptable by the beneficiaries. But research or creation of knowledge is not an easy task. For the completion of any task a systematic approach is required to attain maximum probability of success. The word systemic has two inbuilt characteristics i.e. sequence and correctly defined systematic approach.

Apart from this, another important prerequisite is proper and required approach. This thematic paper is an effort in providing some suggestions and guidelines that will be beneficial for researchers.

Since, the discussion in this paper is about the suggestive approach for scholars. It will be better to explain the exact meaning of the term "Scholar".

There is a misconception about the word scholar. We delimit it only to Ph. D., M. Phil. Scholars. Actually, the scholar means any individual who has very profound knowledge in a particular field or we can say that who has great, intense & extreme knowledge.

Scholarly approach is required towards the profession of physical education for the development of this profession. The word scholarly means related to serious academic devotion to academic pursuits. We, the physical educationist are from academic pursuits. Serious academic devotion is required towards our profession particularly in the sub field of research.

After the brief explanation of the word scholarly, there is also need for explaining the meaning of the word approach. The word approach means the way or we can say that, how to tackle the task? In our discussion, the task is to conduct research. So, here with respect to approach, discussion is how to deal with research or how to begin to tackle research?

We are also aware that scholars are curious by nature, Due to curious by nature; several questions arise in the mind of scholars. Some of the questions may be:

- 1. What is the criteria to nkow the importance of any article?
- 2. In Which journal, I should publish my paper?
- 3. What are the best journals in the field of Physical Education and sports sciences?
- 4. Whether any scholar is citing my publication? If yes than who is citing my publications? Or how many times have my paper have been cited?
- 5. What is my h-index score?
- 6. What is the h index score of Journal in which I have published or going to publish my paper?

7. What is the impact factor of Journal in which I have published or going to publish my paper?

Several other questions other than the questions mentioned above, may arise in the mind of scholar due to curiosity. The scholar also needs proper answer of all his/her questions. For proper answer a measurement toll is required, not only a measurement tool but a standard measurement tool is required. The standard measurement tool may be called as bibliometrics. The word biblometrics consist of two words i.e. biblio and metrics. Biblio means related to book/ publication and metrics means a system or a standard of measurement.

Bibliometrics

Bibliometrics are set of methods for measuring and analyzing academic literature quantitatively since quantitative approach of measurement is also required. Bibliometrics are one of the key methods or ways of measuring the impact of scholarly publications. Means there are several methods or ways also by using that we can measure the impact of scholarly publications. Here the question arises that what are the key

concepts of bibliometrics. The key concepts of bibliometrics are only two i e. output and impact. These are measured by publications and citations respectively. Output means productivity and is measured by number of publications. On the other hand impact is measured by number of citations. Another question may arise in the mind that why Bibliometrics are required? In answer, there are two main reasons in this respect one is "gaining insight in the research potential of entities or a complete organization and another is "gaining insight in the past performance of entities or a complete organization.

But there are some limitations of bibliometrics, these should be considered before using. Some of the limitations are:

- 1. Metrics and these tools are not properly developed for physical education, education, arts, humanities and social sciences.
- 2. Citation patterns is different from subject to subject
- 3. Coverage of tools is not comprehensive (widely)
- 4. Self-citations can distort metrics
- 5. Review articles are more highly cited than standard articles
- 6. Citations to a paper may not reflect its quality
- 7. Metrics tend not to account for age of researcher

Major Metrics for scholars

- 1. Citation Counts
- 2. h-index
- 3. g-index
- 4. i-10 index

Major Metrics for journals

- 1. Journal Impact Factor (JIF)
- 2. h-index

h index

One question arises in mind, why H-index? Answer is, we need an Index including both i.e. quantity & also quality of scholar's publications i.e. productivity and impact. There is two characteristics on the basis on that it can be considered as appropriate i. e. it is not affected by "big hits" and it is also not affected by "noise". This concept is given by Hirsch, J. E. According to him this is an index to quantify any one's scientific research output. It is meaningful when compared to others within the same discipline area. Researchers in one field may have very different h-indices than researchers in another field (e. g. Physical Education VERSUS Physics). The H-index can be defined as the highest number of papers a scientific authors or we can say that this similar idea to journal impact factors but for individuals. It can be used for an author. It evaluates the research performance of any author. It can also be used for a group of Papers of an institution, department or journal. The *h*-index deals with the disadvantages of other bibliometrics indicators i. e. total number of papers or total number of citations etc. Sometimes for evaluation of author's performance, the H-Index is as indicator not suitable since it has difference in citation ways between physical education and other disciplines. It also does not take care of age and career length of authors.

g index

The "g index" is defined as "When a set of papers is ranked in decreasing order on the basis of citations that they received, the g-index is the (unique) largest number such that the top g articles received (together) at least g^2 citations".

It was suggested in 2006 by Leo Egghe. However, unlike the h-index, the g-index saturates whenever the average number of citations for all published papers exceeds the total number of published papers; the way it is defined, the g-index is not adapted to this situation.

i 10 index

The i10 index is defined as "the highest number of papers a scientist has that have at least ten citations each". It was introduced in July 2011 by Google as part of their work on Google Scholar, a search engine dedicated to academic and related papers.

Journal impact factor

Journal impact factor may be defined as "Number of citations to a journal in a given year from articles occurring in the past 2 years, divided by the number of articles published in the journal in the past 2 years". There are some limitations of journal impact factor. All citing references weighted equally without seeing quality. It cannot be used to compare between different disciplines. One main limitation is that two year time frame not sufficient for physical education.

Citation Analysis

Counting citations may be called "citation analysis". Care should be taken during citation analysis, when we do citation analysis, we should use many resources to count citations to catch correct impact.

Citation Databases

The word citation means "citing a statement or quoting" and data base means data bank. So, citation databases means "data bank showing citations/ metrics". Some of the citation databases are Scopus, Google Scholar and Web of Science.

After the concept of bibliometrics, major metrics, citation analysis, and citation databases; the need arises to publicize the publication. Than the researcher search the way to publicize his/her publication. There are several social networking websites, help may be taken to publicize our publication. Some are Academia.edu and Research Gate.

Academia.edu

- 1. Academia.edu is a social networking website for academics.
- 2. It was launched in September 2008
- 3. The site now has over 11 million registered users as of 2014.

The platform can be used:

- 1. To share papers
- 2. To monitor their impact
- 3. To follow the research in a particular field.

Research Gate

Research Gate is a social networking site for scientists and researchers launched in May, 2008. The platform can be used:

- 1. to share papers
- 2. to ask and answer questions
- 3. to find collaborators

Conclusion and Suggestions

A critical review has been done by the researchers regarding the strength and weaknesses of different data basis. Different trend was found by the researchers from different streams. Some databases covers wider range of journals on the other hand some coverage is limited. But in the field of physical education and sports sciences, least trend was found in relation to use of different databases. In most of the cases

Physical educationists publish the papers without considering the future vision of different metrics. In the field of physical education, scientists should use different metrics related to publications as well as journals. Stress should be given to publish papers in indexed journals especially from the approved and accepted list of SCOPAS and Web of Science, since quality journals are accepted by both. At present instead of quantitative approach towards publications, mixed approach (Qualitative & Quantitative) should be followed by the researchers of sports sciences. Still, there are weaknesses and strong points of different metrics, so researcher should not depend on the citations given by single source, variety of sources may be used. To publicize the publication, social networking web site may be used, these websites are specially for researchers.

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Relevance of Standards-Based PE in the 21st Century

Kishen Whabi

Profile: A human movement specialist, Kishen is a certified Functional Movement Specialist, Performance Enhancement Specialist and a Certified Personal Trainer from the National Academy of Sports Medicine, California. He has been involved in the health and fitness arena for the last 29 years and has worked extensively with children for their physical education and sports requirements. He has also trained a number of India's top athletes in Golf, Tennis and Track and Field. Kishen is currently the Program Director at FitKids and drives curriculum development, training and program quality.

Physical activity is one of the most important behaviours to achieve a lifetime of health and well-being. Promoting physical activity among children and adolescents is especially important not only because of the health related benefits but also because a physically active lifestyle adopted early in life will affect ones' ability to be healthy and active for a lifetime.

Increased academic demands together with hours spent participating in sedentary lifestyles, has resulted in our children becoming obese and unhealthy. As physical educators, we can take great pride in knowing that we are imparting knowledge and influencing children in many ways and take very seriously the responsibility that we could affect a child's health and well-being for a lifetime.

As a physical educator, it is not only important to reach psychomotor goals through activity and discovery, but also to reach cognitive and affective levels of learning. Cognitive learning takes place when children understand learning cues, proper techniques, and healthy lifestyle behaviours. In addition, students also must learn how to work with others, demonstrate positive attitudes, and recognize feelings of success and enjoyment while participating in a quality physical education program. Students can be successful in all areas of physical education when they are given opportunities to explore, discover, manipulate, and practice during instructional time.

A physical educator should possess many qualities to be a strong role model and teacher. One should be energetic, motivating, open-minded, dynamic, physically fit, and able to provide appropriate developmental tasks and activities for students of all skill levels. A great physical educator of the 21st century should ensure that PE classes are nothing like those of the past where activities were only for those who were natural born athletes with the weakest excluded, elimination games and drill sergeant mentality was accepted.

My biggest goal as a physical educator in the 21st century is to keep children physically active and fit throughout their lifetimes by providing fun, appropriate, and standards based opportunities to engage in physical activity.

Women's Rugby – Scope & Future

Surhud Khare

Director & Coach, Kfandra, India

Sometime between 2008 and 2010 Mr. Suresh Kalmadi said "Rugby is the sport of the future". Now you may or may not agree with whatever Mr. Kalmadi has said or done but I for one was overjoyed that finally someone in a position of power in Indian sport had acknowledged the potential of Rugby.

However despite the best teams and coaches in the world gracing the Rugby 7's at the Delhi CWG, the hope Rugby aficionados had that CWG 2010 would be the catalyst for a resurgence in Indian Rugby fell flat and Indian Rugby did not take the expected steps towards a brighter future. A sad scenario for a sport that was first played in India in the 1800's and whose first National Championship was played in 1924.

Why should Rugby BE the sport of the future?

- a) Considering India's humungous population more focus should be put towards sports that involve as many players as possible. What better than Rugby? Teams can comprise of 7, 10, 12 or 15 players with a minimum 5 subs.
- b) When it comes to the 15's format, Rugby is unique in having a position whatever be your body shape, size, height etc. Few other sports can a beanpole 6'4" tall lock play in the same team as a 5'2" waif of a scrum-half and a 115 kg prop.
- c) At a time when there is great concern about where today's youth are headed; where young lads and lasses are able to spend hours and hours in front of a games console and at all night parties but will be hard pressed to run even a few rounds of a 400 meters track; A sport like Rugby assumes great significance not only for the fitness and strength levels it demands but for the values that are an integral part of the sport. Rugby is unique in that the Ethos of Rugby is paramount and values such as ' Discipline, Sportsmanship, Camaraderie, Courage and Respect ' are all important. Most other sports pay lip service to such values but Rugby is fully committed to them at all levels of the game.
- d) India's traditional sports of Kabaddi, Wrestling and Kho-Kho are perfect building blocks for Rugby. The close contact grappling of wrestling, the tackling of Kabaddi and the agility, fitness and running skills of Kho-Kho are all intrinsic elements of the sport of Rugby.
 In fact a rugby powerhouse like England has started introducing Kabaddi as a good way to teach contact and tackling skills to Rugby players!
- e) Cost! All you need is a ball. And if the ground is soft enough you don't even need shoes. However the trend nowadays seems to be geared towards sports which are likely to reward you monetarily in the future and towards have 'glamour' associated with sports that them. Whatever happened to playing a sport just for the sheer pleasure of playing that sport?! The other important factor for the younger lot is whether the sport is 'cool' enough for them. Most of the girls who joined our Academy in the mid 2000's did so because of the 'Bend it like Beckham' effect and because it suddenly became 'cool' to play football. A few were not too keen on the Rugby but most had the correct mentality and were ready to 'buck the trend' by doing what many thought Indian girls could never do: Play a contact sport like Rugby Union.

Physical Education Instructors / Teachers play an incredibly important role in Society. The sports teachers I had in Zambia and Swaziland had a massive influence on me and played a role in who I am today (for better hopefully and not worse!) and there are many others I know who will always remember their Phys Ed teachers albeit sometimes not for the right reasons.

As money flows into different sports and parents start looking at sport seriously as a career choice for their children the importance of the Phys Ed teacher starts growing. As if the dedicated sports teacher did not already have an incredibly tough job of ensuring that 50 plus girls and boys not only 'sweat' it out during the 40 min class but also enjoy it!

May the future be one where every girl and boy in India is able to play 'The Game They Play in Heaven'

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Abstract

The purpose of the study was to develop and validate a quantitative instrument (Disposition Assessment Tool and Disposition Self Assessment Tool) that measures dispositions for being an effective and professional physical education teacher. Interviews of stake holders (N=9) were conducted for inductive analysis, which revealed 11 themes on which the entire tool was based. To establish reliability of Disposition Assessment Tool, post graduate students (N=22), and to establish reliability of Disposition Self Assessment Tool post graduate students (N=9), and Graduate students (N=13) of Chandrashekhar Agashe College of Physical Education were selected purposively. In this way for self assessment (N=22) students were selected and for assessment by the teacher educators (N=22) students were selected. Two faculty members rated students and inter rater reliability was computed. Content validity was established through the content analysis by experts. Reliability was tested using split half method and coefficient was found to be 0.879 for Disposition Assessment Tool and 0.653 for Disposition Self Assessment Tool, which is considered to be reliable. Inter-rater reliability for Disposition Assessment Tool showed 86.81% agreements between faculty members. Objectivity calculated for Disposition Assessment Tool was not acceptable, the reason of which could be, difference between perception, beliefs, views and relationship of faculty members with students. The tool i.e. Disposition Assessment Tool and Disposition Self Assessment Tool is the basic draft or the first attempt towards pre-service teacher disposition assessment. The research has substantiated the need of disposition assessment which was also reiterated by the Teacher Educators and University teachers. The tool developed in the study has been found to be valid and reliable but more work needs to be done for establishing higher degree of stability between raters, validity and administrability.

Keywords: Dispositions, Teacher Educators, Pre-service teacher candidates, Physical Education Teacher Education Program.

1.1 Introduction

Teacher education has moved from knowledge, skills, and attitudes to knowledge, skills, and dispositions (Villegas, 2007). Besides having academic qualifications a professional teacher must act in an ethical manner based on an explicit or implicit code of conduct through the development of characteristics of a professional and model professionalism every day (Kramer, 2003). A fundamental task of college and department of teacher education is that of tracking, monitoring and assessing candidate performance through their program. It is up to the teacher education programs to train the best teachers to help students succeed; ". . . Qualified and effective teachers are the most important building blocks for improving students achievements, especially that of at risk students" (Talbert-Johnson, 2006, p.151). Institutes of teacher education must identify program components that affect candidates "perceptions, beliefs, and dispositions" that enable them to work effectively with diverse students, families and with available resources (Talbert-Johnson, 2006). The impact of disposition assessment was stated by Broko, Liston, and Whitcomb (2007). They explained that dispositions are an individual's tendencies to act in a given manner and are predictive of patterns of action. They answer the question of whether

teachers are likely to apply the knowledge and skills they learn in teacher preparation programs to their own classroom teaching when they are not being critiqued. One of the most difficult situations faced by teacher candidates who meet the requirements of content knowledge and pedagogical skills, yet lack the dispositions essential to effective teaching.

1.2 Purpose of the study

The goal of Chandrashekhar Agashe College of Physical Education (CACPE) is to prepare the most qualified competent and professional physical education teachers. The college faculty always strives hard to implement and introduce new teacher education curricula at both graduate and post graduate levels. The curricula includes physical education practical, theory knowledge, and few special programs such as soft skills development, sports event management skills and pedagogical skill development which are required for being effective physical education teacher. College also provides candidates with internship experiences on regular basis. Participation in International, National conference and educational visits are also included in curricula for the professional development of teacher candidates. Graduate candidates from CACPE should bear a distinctive level of professionalism by virtue of their graduate preparation and commitment of excellence. Therefore there is a need to assess whether Physical Education Teachers Training Program of Chandrashekhar Agashe College of Physical Education is effective enough to develop teacher disposition required for being an effective physical education teacher as well as a physical education professionals. For this, there will be a tool required to be developed, so that dispositions required for a future effective physical education teachers can be assessed. Hence the researcher had decided to develop a Disposition assessment tool for physical education teacher.

1.3 Research questions

To develop disposition assessment tool the researcher had following questions to ask :-

- "How can we operationally define dispositions so that when measured they provide a basis for pinpointing effective verses ineffective classroom behaviors (both as student in college classroom and as teachers)?"
- "What kind of disposition may be expected to be possessed by a physical education preservice teacher?"
- "Can we predict which students will be effective teachers based on their dispositional behaviors exhibited in college classrooms?"

2.1 Research Method and Design

To achieve the purpose of the present study the researcher adopted the Mix-Method approach and Sequential Exploratory Design was used. (Teddlie & Tashakkori, 2009)

2.2 Sample

In the first phase of tool development, for the purpose of interviewing and establishing content validity, samples were selected from the stake holders like Head of the institution (N=1), Teacher educators (N=5), expert school physical education teacher (N=1) and Colleagues (N=2) were selected purposively. In the second phase to establish reliability, Teacher educators (N=2) from the Chandrashekhar Agashe College of Physical Education faculty were selected. To establish reliability of Disposition Assessment Tool, Post graduate students (N=2), and to establish reliability of Disposition Self Assessment Tool Post graduate students (N=9), and Graduate

students (N=13) of Chandrashekhar Agashe College of Physical Education were selected purposively.

2.3 Procedure

Phase 1Interview of selected expert physical education teachers, Stake holders, few faculty members from Chandrashekhar Agashe College of Physical Education, Head of the institute of Chandrashekhar Agashe College of Physical Education and Colleagues was taken to identify the descriptors .Common descriptors were identified trough inductive analysis and evaluated on 4 point likert scale. Content validity was established.

The detailed procedure of inductive analysis for finalizing descriptors and establishing content validity is mentioned in chapter four.

<u>Phase 2</u>Teacher educators assessed students, self assessment was also done by the students and data was collected. Reliability of both the tools i.e. Dispositions Assessment Tool and Dispositions Self Assessment Tool was established. Objectivity of Disposition Assessment was established.

3.1 Inductive Analysis

Unstructured interviews were conducted and recorded on tape. Interviewees were asked to define dispositions, to think about dispositions required for being an effective and professional physical education teacher, how dispositions can be observed and assess. All the interviews were transcribed and coding process was done to identify dispositions and associated indicators. Indicators which overlapped were eliminated. Common themes/descriptors were identified and researcher came up with the list of 11descriptors which describes dispositions, they are as followed:

- 1. Demonstrates Professionalism.
- 2. Demonstrates a positive and enthusiastic attitude.
- 3. Demonstrates effective oral communication.
- 4. Demonstrates effective written communication.
- 5. Exhibits an appropriate and value for diversity.
- 6. Is prepared to learn and teach.
- 7. Collaborates effectively with peers and professors.
- 8. Is a Self regulated learner.
- 9. Exhibits the emotional intelligence to promote goals.
- 10. Exhibits respect for peers, professors, students, and supervisors.
- 11. Demonstrates professional appearance.

Associated indicators for each disposition were identified and two tools i.e. Dispositions Assessment Tool and Dispositions Self Assessment Tool were developed which were to be assessed on four point Likert scale: Needs improvement, Basic, Proficient, Outstanding.

3.2 Analysis of content validity

The researcher reviewed dispositions and indicators several times for content validity. Researcher asked experts to review the tool and suggest the changes. Some overlapping statements were eliminated and grammatical mistakes were corrected. After corrections were made, tool was compared with standard tool which was developed and used by University of Tampa to assess Teachers dispositions. Few new items were added and items having same meaning were eliminated. Again experts reviewed the tool and finalized it.

3.3 Reliability and objectivity

Reliability of both the tools was established by using split half method, where spearman correlation between all odd and even scores was calculated. Coefficient of determination was done for interpreting the meaningfulness of the correlation coefficient. Inter-rater objectivity was established where two faculty members rated students and percentage of agreements between both faculty member was

Correlation coefficient for Dispositions Assessment Tool was 0.879 which is considered to be very high. To examine common and unexplained variance coefficient of determination was calculated which was found to be 77%, and showed that high percent of common variance exists. Thus, it can be interpreted that reliability of tool is very high. The percentage of agreements for inter-rater reliability was 86.81% which is considered as strong and acceptable. Dispositions Self Assessment Tool showed low correlation coefficient of 0.653 with 43% of correlation of determination where unexplained variance are more than the common variance, thereby leading to less reliability. Two faculty members rated students and spearman correlation coefficient was used to compute the two sets of scores. Correlation coefficient for objectivity was 0.641 which is unacceptable.

4. Conclusion

The teacher disposition assessment has many potential uses for teacher preparation programs. First, by completing the teacher dispositions assessment early in their pre-service program and at several checkpoints over the course of preparation, candidates may become increasingly aware of the dispositions of effective teachers and may be able to apply, observe, and reflect on these dispositions throughout the teacher preparation process. Second, it offers the opportunity for early self assessment to help teacher candidates determine if teaching is an appropriate professional "fit". If not, additional support to teacher candidates to help them develop the dispositions of effective teachers could be made available, or candidates could reinforce dispositional issues in coursework as well as tie coursework assessment to the defined dispositions. The process of creating, validating, and implementing a dispositions assessment gave a rise to several issues, some of which have yet to be completely resolved.

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Effectiveness of Gymnastics Teaching for Future Teachers

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Abstract

The purpose of the present study was to determine the current skills used by the future teachers and the contribution of these skills to determine the risk evaluation during the learning of gymnastics situations. Twenty six future teachers voluntarily participated in this study. They were students pursuing degrees in Physical Education from Department of Physical Education, Visva-Bharati, Santiniektan, during the academic year 2013/2014. The investigators attended and observed all the learning lessons for 10 weeks throughout the sessions. The interesting finding of this study was that there are seven skills that are mostly used by the future teachers such as the choice of the learning situations, problems resolution, risk assessment, mastery of the rules of safety, application of security rules and responsibility taking. The results suggested as well that future physical education teachers showed great importance to Equipment Management and Time and Space Management. Likewise, responsibility taking, Intervention / help, and Group management were the most determinant skills used during the future teachers' interventions.

Keywords: Skills, Physical Education (PE), Observation, Intervention, Learning.

Introduction

Physical Education (PE) is one of the educational means, possibly the most enjoyable and most effective one when used properly to reach its objectives (Güne, 2007; Öztürk, 1998). Considering this, the teaching of gymnastics, which is one of the branches of PE and which is described as a physical activity performed on athletic equipments or on the floor with the aim of making people gain strength, power, coordination, body control and flexibility, is vital in all PE classes. However, this activity requires a wide range of equipments which can lead to injury if not used correctly. It may also lead to injury in case the actions to be performed are not attempted sensibly. This diversity of elements requires different forms of education and raises questions for educational researches about the organization and systems of learning, and consequently, about the methods that are used by teachers. So far, the most important target of today's educational system, when dealing with the teachers' learning situation, is the safety issue which is related to the lesson and the risk of injury that should be seriously taken into consideration. In fact, each activity taught in PE has its own safety regulations that children must be made aware of as confirmed by Capel (2002) who stated that, "... high quality organization, planning and management skills are required to ensure a purposeful, yet safe environment for children to practice new skills". Following this conclusion, all teachers are required to consider the risk assessments of the equipments and the environment they intend to use before the lesson begins because "Safety is arguably the most important factor in planning a PE lesson" (Capel, 2002). Therefore, when thinking about the issue, the developments in the security context of the PE and sport should enable us to better design an appropriate content which would be useful in its design and implementation of education. However, there is a lack of academic work in this area, and studies that had been conducted had mainly focused on high performance aspects of the sport. There are few studies related to gymnastics that had focused on the different levels and

methods of teaching and learning. Similarly, few studies considered the act of safety during the learning situation. Accordingly, the primarily aim of this research was to determine the current skills of future teachers and the contribution of these skills to the risk evaluation during the learning of gymnastics situations.

Methods

The research protocol has combined two methodologies presented to participants during a learning Gymnastics Cycle composed of eight lessons of one-hour session of practice. During the experiment, the same researchers were present throughout the lessons. Future teachers were debriefed about the goal of the study once all the experimental sessions were finished. During the Gymnastic cycle, the future teachers used the following learning items in their instructions: (a) forward roll; (b) backward roll; (c) handstand; (d) round off; and (f) the creation of gymnastics sequences including different element. During the field experiences, the future teachers used the same class level and taught eight educational gymnastics lessons. The following mediums were used for data collection:

- 1. The aspects of the lesson planning and the intervention of the future teachers were based on a constructed evaluation grid that comprises:
 - (1) Didactic Preparation (DP): This refers to the analysis of the activities and the different processes of knowledge transmission and the skills specific to a discipline and its acquisitions by the students.
 - (2) Physical Preparation of Lesson (PPL): This refers to the construction and implementation of tasks or situations which would allow a better control of interventions and move towards a better adaptation of content.
 - (3) Management of Work Areas (MWA): This refers to the choice of the organization and the distribution of activities in space.
 - (4) Setting up Equipment (SE): it is setting up and putting away the equipment designed for the establishment of play spaces or hardware configuration of the workshop (the nature of the obstacle, the height, width, area and pulse reception ...).
 - (5) Use the Rules of Safety (URS): This involves organizing the session, making the Parade, adjusting groups favouring child safety, giving instructions on safety rules.
 - (6) Objectives / Constraints to be respected (O/C): Involves setting objectives and analysing the social and material constraints responsible for the choice of sport and the physical activity.
- 2. Observing and assessing the skills used by teachers during the lessons by referring to the professional skills of teachers such as:

Equipment Management (EM): which is the fact of putting away the equipment designed for the establishment of the play spaces, Space Management (SM), Time Management (TM): which refers to the time spent for organization and transition actions, Group Management (GM): which deals with assigning students to play individually, per group or collectively according to the type of the task, Individualization of Instruction (II): which is implementing differentiated instruction on joint learning for all students based on objectives, Correction (C), Safety (S). Observation allowed us to perceive the possible difference between the content analysis of the educational record of the session itself as well as the security taken at risk. The investigator had no prior relation with the participants. The investigator started this observation when the future teachers began their teaching in gymnastic cycle. The investigator attended and observed all learning

lessons for 10 weeks throughout the entire session. During the learning lessons, the investigator observed future teachers in individual and separate sessions throughout the Gymnastic cycle. The investigator took field notes while observing the future teachers. In each session, investigator primarily tried to identify the types of interventions and skills utilized by the teachers that we presented below. Indeed, the focus is on the choice of the use of active and passive safety, the intervention time and ability to help and prepare the students for the learning situations. Accordingly, main purpose was to characterize a typical profile of future teachers.

Individual Evaluation Forms

The individual Evaluation Forms were prepared for individual interventions to evaluate prelesson preparations and lesson interventions of the experiment future teachers who took part in this research experiment. This individual Evaluation Form was constructed by observing teaching lesson before the experiment. This observation allowed us to construct the individual Evaluation parameters which were also relying on the given literature [the "five generic properties" risk situations defined by Cadet (2001)]. Each form has different evaluation parameters specifically related to that intervention. So, a four point scale (1=not at all; 4=very much so) was used. The evaluation of each future teacher was recorded and afterwards was graded by the evaluators who were involved in the research experiment. Thus, overall scores that future teachers received from each activity evaluation were counted. Observing and evaluating pre-lessons' preparations and lessons' interventions of the experiment future teachers is assessed via the teachers' professional skills such as: the Choice of Learning Situations (CLS), Solving Problem (SP), Risk Assessment (RA), Mastery of the Discipline (MD), Mastery of the Rules of Safety (MRS), Applying the Security Rules (ASR) and Taking Responsibility (TR). Twenty six future teachers (age 22.8±1.2 years; mass 78.5±5.7 kg; height 178.8±9.3 cm) voluntarily participated in the study. They were Physical Education students pursuing degrees in Physical Education during the academic year 2013/2014. To access the student populations in physical education, we contacted the school Principals and Head Masters. The phase of data collection took place during the gymnastics cycles in August 2013 till February 2014. No information about the purposes of the study was given to the participants until after they completed the experiment. The step wise regression was established between correlated variables. Statistical analyses were compiled onto Excel spread sheets and were performed using the software package SPSS version 16.0.

Results

The aspects of planning lessons and future teachers' intervention

Model	Α	SE	Beta	Т	Sig.
Constant	8.03	0.85	-	9.46	0.000
SM	0.96	0.31	0.48	3.08	0.005
TM	0.87	0.29	0.46	2.93	0.007

Table 1: The effective skills during lessons interventions

a. Dependent Variable: global assessment skills. *(SM) Space management; (TM) Time management.

Model	Α	SE	Beta	Т	Sig.
Constant	0.00	0.00	-	-	-
MD	1.00	0.00	0.36	-	-
URS	1.00	0.00	0.33	-	-
PS	1.00	0.00	0.32	-	-
MRS	1.00	0.00	0.35	-	-
RA	1.00	0.00	0.36	-	-
CLS	1.00	0.00	0.48	-	_
TR	1.00	0.00	0.36	-	-

a. Dependent Variable: Total teachers 'skills. *(MD) Master Discipline; (URS) Uses the Rules of Safety; (PS) Problem-Solving; (MRS) Mastering the Rules of Safety; (RA) Risk Assessment; (CLS) Choice of Learning Situations; (TR) Taking Responsibility.

Table 3: The main	ı skills in m	naking safety	y in learning	gymnastics situations
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Model	Α	SE	Beta	t	Sig.
Constant	8.14	1.14	-	7.09	0.000
TR	1.40	0.44	0.51	3.17	0.004
I/H	-0.66	0.22	-0.49	-2.93	0.008
GM	0.78	0.34	0.37	2.29	0.032

a. Dependent Variable: teachers 'competence. *(TR) Taking responsibility; (I/H) Intervention /

Help; (GM) group Management.

The Effective Skills During Lessons Interventions

According to Table 1, the regression of the overall score of the competence of the different variables shows that this score was determined by the space and time management. Furthermore, the score of the future teachers and the realization of pedagogical situations are based primarily on these two skills.

The factors that contributed to the determination of the teacher's competence

The results indicated that the factors mentioned above contributed to the determination of the teacher's competence and each one contributes according to its regression coefficient. Indeed, step wise regression which can also be expressed in the form of an equation leads to predict the score of the competence of the future teachers (table2).

The major skills ensuring safety in learning gymnastics situations

According to the table 3, the results indicated that responsibility taking, Intervention /help, and Group management were the most common skills used by the future teachers. In fact, we deduce that, these skills were effective for teaching and they are key skills in ensuring safety in learning gymnastics situations. The teaching episodes indicated that the future teachers intentionally used the types of interventions in their lesson for example:

- We must install the equipment before starting, - Push with your hands, - Stay tucked, especially tuck your head.

The most common skills used by the future teachers during gymnastics learning situations Figure 3 illustrates that most of the future teachers were using the Taking Responsibility skill. There was a great consistency between the results of the skills' factors. So, we noted that "taking responsibility" was considered as the most effective skill that characterized the future teachers. However, the findings showed that the "choice of learning situation" and "solving problem" skills were almost similar.

Discussion

The primarily aim of this research was to determine the actual skills of future teachers and the contribution of these skills to risk evaluation during the learning of gymnastics situations. The findings of this research indicated that physical education teachers are presented with numerous opportunities to show they care for their students such as Equipments' Management, Time Space Management and Space Management. Adedeji (2000) also pointed out that there must be sufficient motivation in the form of attractiveness of facilities, supplies and equipment to captivate the athletes' interest to participate in sports or physical education. Moreover, statistical analysis allows us to rank these skills according to their coefficient and their contribution to the gymnastics lesson. Hence, there are seven skills that are mostly used by future teachers such as the choice of learning situations, solving problem, risk assessment, mastery of the rules of safety, applying the security rules and taking responsibility. These skills are essential in the practical preparation of the lesson and are inherent to the specific motor, the risk-taking and the Security Management. In this study, not all teachers or their skills were perceived in a positive manner. In fact, future teachers didn't accord much importance to the Group Management, Individualization of Instruction and Correction. Accordingly, safety is arguably the most important factor in your planning. In all PE lessons the safety of pupils and hence of the environment and the equipment must be of a paramount importance. Likewise, while observing and evaluating pre-lessons' preparations and lessons interventions of the experiment future teachers investigator noted that future teachers had recorded high scores at Take Responsibility skill. Nevertheless, Risk Assessment (RA), Mastery of the Rules of Safety (MRS), while taking into account the PE teachers of these fundamental skills, were rarely accomplished in order to offer students a content. When applying the Security Rules, these skills have received a substantial share from future teachers. So, teachers must know the specific rules of each activity, warn pupils of the particular dangers, set up safe routines with pupils and use appropriate lesson plans. This security context is achieved through appropriate planning for each child in their P E lessons, including assessing and adhering to the safety rules and practices relevant to the subjects taught. To improve instruction delivered to students, teachers must have a reflective understanding of the "cadet experience" in the gymnastics course. In fact, the concept of risk seems to be closely linked to the logic of sports. Indeed, Physical Education, in general, and gymnastics, in particular, may provide a real learning safety, carrying specific skills and methods which are transferable to other sectors' attitudes. It seems quite possible to provide "safety learning" cycles in Physical Education.

Conclusion

The findings suggested that future physical education teachers caring showed great importance for Equipment's Management, Time Space Management and Space Management. Likewise the taking of responsibility, Intervention/help, and Group management were the most determinant skills used during the future teachers' interventions. In fact, investigator deduces that these skills were effective for teaching and were very important skills in making safety in learning gymnastics situations. In conclusion, investigator deduces that the educational system in gymnastics is including a system at risk. Effective management depends on the skills of the teacher and his perception of the risk related to the situation. The complexities of this system explain the heterogeneity of practices and standardization requirements which are empirically observed. Conversely, some of the causes of this uncertainty are partly placed under the control of the teacher because they do not depend on chance, but on skills in envisaging risks. Safe practice in Physical Education should be an integral feature of all aspects and in all phases of education, from the very early years of playgroup and reception to adulthood and higher education. Teachers and people in positions of responsibility have a duty to care for those who are in their charge to ensure that planning and implementation should include recognition of safety as an important element.

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Keywords: Mentoring Program, Student teacher, Practice Teaching, Physical Education Teacher Evaluation Tool, Mentor, Protégé, Sequential Explanatory Design – Multi strand Design.

The first year of a Student Teacher's (S.T) life is a critical time for his development (Patton et al., 2005). This time prepares him for the years ahead as a Teacher. The aim of any Physical Education (P.E) Teacher Training Program is to groom a Student Teacher into an effective P.E Teacher. The B.Ed. (Physical Education) course at Chandrashekhar Agashe College of Physical Education (CACPE) it's vision is to be a National Leader in communicating, creating knowledge and environment about physical activity to enhance the Quality of life for all. The Mission of the College is to create and communicate information about sport, exercise and physical activity (agashecollege.org). This is a yearlong intervention where the S.T has to assimilate a lot in a short period of time, help here from an experienced person will help ease the S.T.'s transition. This person thus would thus play the role of a Mentor in the S.T.'s (Protégé) life. The researcher's aim was to study the Impact of Mentoring on Protégé's Teaching Experiences. Anderson et al (1987) define mentoring as; a nurturing process in which a more skilled or experienced person, serving as a role model, teaches, sponsors, encourages, counsels and befriends a less skilled or experienced person for the purpose of promoting the latter's professional and or personal development. The Mentor's role was being a Big brother, a sounding board in the S.T's life and to help ease his initial year transition into a Teacher who is effective.

The study had a Mentoring Program that was designed where the Mentors and Protégés met at least twice a week. Non-Random Purposive Sampling (Best and Khan) was used to select Protégés (Undergraduate students) N=6 and Mentors (Pedagogy subject Post Graduate students) N=3. The Mentors were trained in their role of a mentor and then the Mentors were introduced to the Protégés (S.T.). This program started right after the second Bridge lesson and was for the duration of the Practice Teaching Lessons. The Mentor stayed in communication with the new teacher where he guided, instructed and directed the protégé in the areas of teaching like Management, Organizational techniques and in giving Instructions, from planning a lesson to implementing it on the field, in the process giving feedback based on his observation. School practice lessons taken by the protégé and non mentored students were then video recorded.

The design of this study was Sequential Explanatory Design – Multi strand Design, where Qualitative data follows Quantitative. The videos were analyzed and quantified using Physical Education Teacher Evaluation Tool (NASPE, 2007). This formed the Quantitative aspect of the study. It was followed by Interviews of mentors and concerned teachers and focus groups of protégés and non-mentored students which were used for Qualitative analysis. The data that was collected from the interviews and focus group discussion were transcribed and then interpreted using general inductive approach. Mixed method approach (Teddlie. C. and Tashakkori.A. 2009) was used to collect, analyze, and "mix" both quantitative and qualitative aspects so as to

understand this research problem. The data collected was triangulated and then incorporated in a framework.

The findings of this research have been:

> Stakeholder's reflections on teacher development

The past experience of Teacher Educators tells us that the focus was on conventional type, old school lessons, which was 'boring" (Interview, Teacher Educator 2) and the need of the hour is to now move and "change with the times" (Interview, Teacher Educator 2) and make activities fun and interesting and meet the demands of time. In the last few years the institution (C.A.C.P.E.) is experimenting and various interventions include examining the student teacher's attitude, perceptions, experiences in sports and physical education teaching. This has happened over a period of time and is fragmented. This is where a strong mentoring program is the need of the hour, catering to the holistic development of a student teacher. To be an effective teacher and identify areas of professional growth the S.T needs to learn and improve upon his skills like Instruction delivery, Class Management, Communication, Intra Personal skills and impact on student learning. This can be met if content knowledge is enriched so that he can "draw upon his past experiences and knowledge." The curriculum structure's focus has been shaky because teachers have been trained to teach higher grades instead of teaching right from the smaller grades. Since the entire teacher training course is condensed into a single year there is limited amount of time to understand what is taught as "there is something new happening daily" (Focus group discussion, mentored student 4).

Mentoring as a medium for teacher development

During a short span of time S.T's have to assimilate and develop teaching skills and congenial attitude, so help here from a Mentor will help in the S.T's professional and psychological development. A Mentor's role here will include Professional development includes aspects such as sponsorship, visibility, coaching, and protection, whereas psychosocial aspects include role modelling, acceptance, counselling, and friendship (Griffin and Ayers, 2005). S.T's felt that the Teacher Educators are not easily accessible to cater to student's needs, whereas it becomes easier to ask a senior trivial queries, discuss things beyond lessons and also because they look up to them as "Role Models".

Pre lesson planning

For a lesson to be effective pre lesson planning is very important, but clash in timings and schedules of both concerned meant that "The Mentor Protégé relationship was not really established", but when S.Ts approached Mentors their lessons went really well. There is a conflicting view here in whether the mentor protégé relationship was established.

Parts/ aspects of a lesson

The aspects of a lesson that were worked on included teacher positioning, class management, voice/speech intonation, increasing Academic Learning Time Physical Education (ALT-PE), going down to the students level, involvement with students, variations, progressions, planning a lesson, moving the class quickly, lesson script (Interview, Mentor 1,2,3).

Mentor Protégé Interactions

Mentors and Protégés felt that their relationship was good but "slow" initially which got better as it progressed and in future they could approach their mentors anytime. This program was a big

responsibility and a learning experience for the Mentors, as they had to brush up on their skills to be able to help the Student Teachers.

> Unravelling potential and Timely Inputs and Working on Unforeseen Circumstances

When student teachers prepared for classes they realised they need a backup plan to fall back on in order to fulfil the lesson objectives. Timely inputs and specific constructive feedback led to the protégé growing in confidence during practice lessons.

Post lesson Conference

Post lesson conferences included discussing the positives and negatives and working on aspects that didn't go well for further lessons.

Relevance of Mentoring Program

Stakeholders agreed that additional help along with the knowhow to use it has to be made available. Getting the post graduate students into the picture will help bridge the gap between Student Teachers and Teacher Educators. Language (English) being a "mental block" led to a need in recognising the need of more literature in Marathi. Constant change in taught groups led to discontinuity and difficulty in building on past knowledge. Additional help given like ready lesson plans, Marathi Literature, Ideal lesson videos, consistency and uniformity in teaching by Teacher Educators will go a long way in helping S.Ts take better and effective lessons. If mentoring is introduced as a program in the institution for the undergraduate student teachers it will help retain them in the teaching field, make them better equipped to teach in schools, develop them holistically, and improve the overall quality of the teacher education program in India. This will help meet the demands of the time and will benefit the country's Physical Education as a whole.



Figure No. 1.1 Difference between Mentored and non Mentored students average scores in parts of a lesson on PETET

If we take a look at the above graph we can see that the mentored students did perform much better on an average in different aspects of teaching. But it is not significant as not all could approach their mentors often due to time constraints and other commitments. When they did approach their mentor and designed their lesson they could move the class better and take a much better planned unit.



The Mentoring Framework

Initially hand holding will benefit the S.T and where there is a triadic relationship between the Mentor, Protégé and his concerned Teacher Educator where the Mentor plays the role of a bridge between the Teacher Educator and the Student Teacher. He acts as a Big brother or Role model for the Student Teacher to look up to. At the start of the Program the Protégé is dependent on the Mentor who guides and supports him emotionally/ personally and helps the protégé by pointing him in the right direction giving timely inputs; giving the Student Teacher space to learn, to experiment and use his creativity but he cannot impose himself.

At the same time he helps the student teacher professionally by emphasizing on the different aspects of taking a class, familiarizing him with behaviors and roles played by the Physical Education Teacher there by leading him towards the role of being an effective teacher. To do this he takes help of additional resources and helps the student teacher in accessing and using them effectively. Additionally he shares his own past experiences and knowledge there by helping the student teacher establish his own belief systems. For all this to be effective and beneficial for the student teacher a Mentor's suitability and compatibility plays an important role i.e. they need to have similar wavelengths. For mentoring program to be effective the mentor needs to be trained and open minded and the student teachers need to be receptive to ideas and suggestions at the same time assertive. It is a reciprocal relationship. The Teacher Educator oversees the development of the Student Teacher and works with the mentor in the overall development of the Student Teacher. The mentor has to keep in mind that the Student Teacher has a difficult schedule so he has to make life slightly easy and make it a good experience for the Student Teacher especially during his Practice Teaching. Once the relationship has been established the Mentor Protégé Relationship needs to move from dependent protégé to an Independent Protégé (Kram, 1985) who has been groomed to be an effective Physical Education Teacher and is ready to enter the Profession.

Conclusion

1. Mentoring is an effective way for improving the student teacher's teachings skills and has helped them develop holistically.

- 2. It has led to a properly designed mentoring program.
- 3. A theoretical framework has emerged from the qualitative data collected.

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Jump Rope Activity and Its Impacts on the Cardiovascular Endurance

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Abstract

This research aimed at studying the effect of jump rope activity on the cardiovascular endurance of girls and to compare post test scores with AAHPERD 85thPercentile norms and to decide the status of the subjects, for this purpose an experimental design was used. Fifteen girl students of Maharashtriya Mandal's Pune Vyayamashala were selected using non probable convenience sampling method (Best and Kahn, 2008). Run walk test and skipping tests were conducted pre and post intervention of 3 days each for 6 weeks. Intervention included jump rope activity basic for skill and endurance development. Descriptive analysis showed a mean of 1190.93 (±156.92) for pretest and 1308.80 (±223.87) posttest for 9 min run/walk test. For skipping test the mean was 74.93 (± 25.73) for pretest and 88.53 (± 26.45) for posttest. To determine the difference, paired sample t test was used. A positive effect was found where the t value was -2.334 for 9 min. run/walk test at 0.035 significance level and for skipping test t value was -2.686 at significance level of 0.018. A the same time researcher used observation technique and observed each student during each session and the data was analyzed by crosstab technique showed that those who did progress in this study were observed enjoying, involving and interacting. Hence it can be concluded that there is a positive effect of jump rope activity on the cardiovascular endurance of the girl students aged 10 to 11 years and the same effect is seen better in those who enjoyed, involved and interacted skipping jump program.

Keywords: Jump rope intervention, Cardiovascular Endurance, Enjoyment, Interaction and Involvement.

Introduction

"Today there is a growing emphasis on looking good, feeling good and living longer. Increasingly, scientific evidence tells us that the key to achieving these ideas is fitness and exercise" "Regular physical activity of at least moderate intensity provides general health benefits across a range of diseases and across all ages". The goal of physical education is to develop physically literate individuals who have the knowledge, skills and confidence to enjoy a lifetime of healthful physical activity. The main role of a P.E teacher is to develop KSA-knowledge, skills and attitude.

The present curriculum has lot of activities like many different kinds of conventional and modern activities. There are some teachers who the researcher have experimented with including different activities like adventure activities. But it cannot be done in every school because of some constraints. They are some other activities which are simple like dance, jump rope which can be run on daily basis, in different forms- it can be included in physical activity, extended curriculum- where it can be done on daily basis. Jump rope has proved to be very effective. Therefore, the jump rope activity is selected by the researcher for the study.

The purpose of the study was to find out the effect of jump rope activity on cardiovascular endurance of girls aged 10-11 years and to compare post test scores with AAHPERD 85th Percentile norms or criterion norms and to decide the status of the subjects.

This study aims at improving the cardiovascular fitness of the students. As the jump rope is convenient, it can be implemented as a part of daily physical activity routines. The complexity of
jump rope and the exercises that can be done are very versatile which can suit the varied levels of physical activity. As it requires small space, it can be incorporated anywhere (classroom, ground). It is inexpensive and can engage students in a lifelong physical activity which is suitable for all age groups. Jump rope is easy to store and carry around and it's a fun activity. (Health: effects of jump rope, the jump rope institute, jump rope for life benefit). The activity becomes monotonous and the students tend to develop a disinterest for the activity and jump rope activity will be new and interesting activity for the students.

For the research undertaken, the researcher has considered the following objectives:

- i. To plan jump rope activities for girls of 10-11 years.
- ii. To prepare observation table (tool).
- iii. To measure the cardiovascular endurance.
- iv. To compare post test scores with AAHPERD 85th Percentile norms and to decide the status of the subjects.
- v. To compare the student's performance on jump rope test with post intervention with minimum of 100 jumps.

The researcher has used the pre-experimental design to study the impact of jump rope activity on the cardiovascular endurance of girls aged 10-11 years. The researcher has selected one group pretest-posttest design because the study involves a single group of 15 girls to be tested before and after the intervention of the jump rope. Hence the researcher has selected this pre experimental design.

The data collection tools used for the research were: 9 Min run/walk test and One minute skipping. Along with these tools observation were also made during the research by the researcher. The observation table is as follows:

a	Interactions	Enjoyment of		Involvement of the students in a sess			
Sr. No.	unrelated to skill performance	jump rope activity	Progress	Less mistakes	Participation of students	No. of successful attempts	

This was a small experiment that consisted of pretest for C.V endurance followed by 6 week jump rope program and posttest. The jump rope program was designed as per the principles of any training. The students were informed about the tests and the program before implementing the program. Before the program was implemented, the students were trained and informed about the tests and the program. 1 week prior to 9 minute run/walk test, the students were introduced to the pacing of the test i.e. running for less time and gradually increasing it to 9 minute. After one week the 9 minute run/walk test was conducted.After the pretest, the jump rope program was implemented. Assuming that the students were beginners in jump rope, they were taught basic jump rope skill for 1 week. At the end of that week 1 minute skipping test was conducted.

Design of jump rope program: The jump rope program was implemented for 6 weeks, 3 lessons per week for 30 minutes. The first part of program was implemented for 3 weeks. After the implementation of the first part of the program for 3 weeks the following findings were observed:

• Some of the skills were very difficult for the students to perform.

- Adequate time is required to acquire new skills. •
- The main focus was developing cardiovascular endurance.

Therefore the program was modified:

In the second part, following 3 weeks the same skills were focused on, increasing the intensity of the jump rope activity and giving more time for the basic both leg jump.

The data was collected and descriptive tools are used to ascertain the effectiveness of the program. The statistical tools that were used in the study were simple descriptive tools like mean, median, mode, standard deviation, kurtosis so as to ascertain the normality of the study as well as to be able to describe the kind of performance. Then to find out the difference between the pretest and the posttest i.e. the effectiveness of the program the researcher has employed inferential tool like one sample t test and paired sample T- test which is a test of the significance of differences between means of two sets of scores that are related, such as when the same participants are measured on two occasions.

The researcher has discussed about the methodology used to interpret the data. The researcher has conducted two tests namely 9 minute Run/Walk test and 1 minute skipping test. Both the tests were conducted before and after the treatment and the scores were recorded. The average age of the subjects on 31st December, 2013 was 10 years, 7 months.

			1 min.	1 min.
Measure	9 min. R/W	9 min. R/W	Skipping	Skipping
	Pre-Test	Post Test	Pre-Test	Post Test
Mean	1190.93	1308.80	75	89
Median	1232.00	1320.00	76.00	83.00
Mode	1316	1050	75	83
Std. Deviation	156.92	223.87	25.73	26.45
Kurtosis	-1.206	871	055	798
Minimum	924	1008	21	50
Maximum	1400	1736	110	135

-		Table 4.1		
Descriptive Analy	sis of Cardio-vascul	ar Endurance Pe	rformance on P	re & Post Test
			1 min.	1 min.
Measure	9 min. R/W	9 min. R/W	Skipping	Skipping
	Pre-Test	Post Test	Pre-Test	Post Test

Description of Statistical Analysis of the Data Collected on 9 Min. Run/Walk Test and **Skipping Test.**

From table 4.1, the mean value of pretest and posttest of 9 min. run /walk test is 1190.93 and 1308.80 and standard deviation is 156.92 and 223.87 respectively. For 1 min. skipping test the mean value of pretest and posttest is 74.93 and 88.53 and standard deviation is 25.73 and 26.45 respectively. The kurtosis value ranges from -3 to +3. The value shows that the data is next to normal. The minimum distance covered by the student in pretest was 924 which increased to 1008 for the posttest performance. In the same way the in 1 min. skipping test minimum number of jumps in pretest were 21 which increased to 50 in the posttest. The maximum distance covered in 9 min. run/walk test (pretest) was 1400 which was increased to 1736 in the posttest. In 1 min. skipping test the maximum number of jumps (pretest) was 110 which was increased to 135 in the posttest. Thus showing improvement in the performance of the students in 9 min. Run/walk test and skipping test.

	Table No. 4.2						
		Summary (of t test of 9	9 Min. R	un o	r walk	test Scores
Test	Mean	Std. Dev.	SEM	Т	Df	Sig	Decision
Pre	1190.93	156.92	40.51754	2 224	14	025	Null Hypothesis is rejected
Post	1308.80	223.87	57.80519	-2.554	14	.035	Null Hypothesis is rejected

4.0

Description of 't' Test for comparing Pre and Post Test Scores

From table No. 4.2, the pretest and posttest performances were compared using a paired sample T- test. The T value was found to be -2.334 for degree of freedom 14. The significance level was considered to be 0.05. Hence from the T value it can be seen that the difference that has been found is statistically significant. Therefore the null hypothesis is rejected.

	Table No. 4.3						
		Summary	of t tes	st of 1 M	in. sl	kippin	g test scores
Test	Mean	Std. Dev.	SEM	Т	df	Sig	Decision
Pre	74.93	25.73	6.64	2686	14	019	Null Hypothesis is rejected
Post	88.53	26.84	6.83	-2.000	14	.018	Null Hypothesis is rejected

Description of 't' Test for Comparing the Pre and Post of 1 Min. Skipping Jumps

From table no.4.3 the pretest and posttest performances were compared using a paired sample T-test. The T value was found to be -2.686 for degree of freedom 14. The significance level was said to be 0.05. Hence from the T value it can be seen that the difference that has been found is statistically significant. Therefore the null hypothesis is rejected.

Table No. 4.4 One Sample t test for comparing the Obtained Scores with AAPHERD Norms and the Skipping Performance

	Test Value	Т	df S	Sig. (2-tailed)	Mean Difference
Run Walk Post	1646	-5.833	14	.000	-337.20
Skipping Jump Post	100	-1.332	14	.204	-8.80

Description of One Sample 't' Test for Comparing the Obtained Scores with AAPHERD Norms and the Skipping Performance.

To find out the status of the students with 9 min. run/walk post –test which was compared to 85th percentile (1646) of cardiovascular fitness scores given by AAHPERD, one sample t test was employed by the researcher. The t value is -5.333 at 14 df at .000 significance. It was seen that the students were able to achieve the target as individual but not as a group. The students are not able to reach the expected target. In the skipping test, it is seen that the t value is -1.333 at 14 df at .204 significance level. It says the students have achieved the 100 jumps target.

Discussions:

The purpose of the study was to find out the effect of jump rope activity on cardiovascular endurance of girls aged 10-11 years and to compare post test scores with AAHPERD 85th Percentile norms or criterion norms and to decide the status of the subjects. Similar study was conducted by (**Partavi 2013**) where it was proved that Jump Rope helps in Improving the

Cardiovascular Endurance and agility of middle school student boys. Based on the data analyzed and interpreted it has been found that there is a significance effect of jump rope activity on the cardiovascular endurance of 10-11 years girls. The number of jumps have also improved for the skipping test. It was seen that the performance of the students was increased in jump rope because the students were doing it consistently. They did it consistently as they were enjoying the activity and nobody dropped out. While administering the program, the researcher has done observation. It was seen that the performance of the students was increased in jump rope because the students were doing it consistently. They did it consistently as they were enjoying the activity and nobody dropped out. While administering the program, the researcher has done observation. It was seen that the performance of the students was increased in jump rope because the students were doing it consistently. They did it consistently as they were enjoying the activity and nobody dropped out. From table 4.5, 4.6 and 4.7 it is seen that interaction, enjoyment and involvement of the students shows effect in their progress.

Conclusions

- i. The program has shown a positive effect on the cardiovascular endurance of the students.
- ii. The fitness of the students has improved.
- iii. The students have developed their interest in jump rope activity.

5.4. Recommendations

- i. Similar study can be done to study the effect of long term jump rope activity on various parameters of fitness.
- ii. Research can be conducted on different age groups and gender.
- iii. Similar study can be done to study the effect of jump rope activity with music on cardiovascular endurance.
- iv. Research can be done to examine the time required to acquire jump rope skills and its effectiveness.

Similar study can be done to find out how jump rope benefits to athletes and common people of different age groups and genders.

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Use of technology and Gadgets in Training Physical Education Teachers: Perception of Faculty members

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Abstract

This study investigated the preparedness for technology integration of 26 teacher educators within PETE programs. The study utilized descriptive survey research design to identify current technologies used, analyze current level of technology proficiency in relationship to the level of integration, identify factors that aid or hinder the technology infusion process and examine approaches PETE programs use to integrate technology within PETE programs. The Technological Pedagogical Content Knowledge Framework (Mishra & Koehler, 2006) was used as theoretical guide. Results indicated low proficiency and integration levels. On average, proficiency levels were that of basic use of technology and integration levels indicated that PETE professors were aware of the use of technology but often did not integrate it or teach it to the students and the level of proficiency predicted integration levels significantly. Projectors, digital cameras, cell phone applications, heart rate monitor, you tube, emails, office tools and Presentation software, were tools most often integrated within PETE programs. PETE teacher educators expressed concerns related to the abundance of technologies as well as the limited availability and accessibility of technologies at the PETE. The results and literature suggest PETE faculty can enhance technology integration by developing a clear vision of technology integration, creating a technology plan, constructing teaching technology labs, and encouraging faculty-practitioner collaboration. The results suggest that PETE administrators should explore various professional development models in improving proficiency levels using technology as well as effective teaching strategies related to technology (enhancing integration levels).

Introduction

Physical educators can integrate technology through a variety of approaches. Preparing, generating, administering, and reporting information such as fitness scores, class participation, or motor skill rubric grades for both students and teachers are completed more efficiently (Posner, 2004). Digital videos, exergaming equipment and other fitness-related devices may be incorporated into daily assignments and unit planning (Mohnsen, 2006).

Pedometers count the steps students take each day and motivate them to adopt a more physically active lifestyle (Lubans, Morgan, & Tudor-Locke, 2009). Heart rate monitors provide teachers with vital information on the level of activity output of their students in order to effectively design instruction geared to the needs of specific students (Kirkpatrick & Birnbaum, 1997; Ratey, 2008). Digital video is used to help pre-service teachers observe, assess, and provide specific feedback to children on how to move in space in order to support motor skill development (Fiorentino, 2004; Lim, Pellett, & Pellett, 2009). Most reports conclude that schools have hardware, software, connectivity to internet but teachers are not well prepared to use educational technology (Lara, 2003).

Innovations in educational technology have changed systems of communication, learning resources, lesson ideas, and professional development. Innovative technology facilitates creativity and learning productivity. Technology can consist of computer programs, Internet programs, or other assistive, digital and communicative tools. Classroom teachers have integrated these forms of technology over time using a variety of methods through different

styles and practices (Becker, 2001; Friedman, 2006; Judson, 2006; Wozney, Venkatesh & Abrami, 2006). There is a need of analyzing use of technology & its related factors by PE Faculty members in PE training college.

Research Objectives

- To identify the types of technology currently taught in PETE courses within undergraduate & graduate programs.
- To study the current technological proficiency of PE faculty members.
- To examine the factors that affect technology utilization of PE faculty within the training programs.
- To analyze the current status of technology integration within physical education faculty members.
- To investigate the different approaches to technology integration.
- To examine the perception of PET Educators towards technology integration in their program.

Research Questions

- What are the perceptions and experiences of PETE educators on the inclusion of .1. technology in physical education teacher education programs (PETE)?
- What types of technologies are currently included in PETE programs?
- What do current PE educators believe to be their technological proficiency levels?
- How are PE educators integrating technology in PETE courses?
- What factors affect technology use of PETE faculty within the PETE programs?
- How do PETE programs approach technology integration according to the perceptions of the PETE faculty members?

Research Method

For this survey method the researcher used questionnaire developed by Helena Baert as a tool. This study adopted descriptive methodology of describing the characteristics of individuals and groups in relation to specific research objectives.

Research Design

This is a descriptive survey design. This study used descriptive methodology of describing the characteristics of individuals and groups in relation to specific research questions.

Research Variables

Independent Variables- Technology Integration, technology & Gadgets

Dependent Variables- Faculty member's perception, Knowledge about technology, Technological Proficiency

Intervening/Confounding Variables- interest, response, truthfulness

Extraneous Variables- Technology & gadgets available in college, age, experience of teaching.

Population

For the current study the population was PET Educators who are teaching at least one affiliated courses within Pune University, Solapur University and Bharati Vidyapeeth like B.Ed.(Phy.edu.), M.Ed.(Phy.edu.). In this we selected faculty members who teach PE pedagogy

courses in PE department of Pune University, Chandrashekhar Agashe college of PE, College of Physical Education Barshi and Bharati Vidyapeeth college of PE.

Sample

For the current study Non-Probability sample in that Judgmental / Convenience sample technique (Cashillo, 2009) is used. The sample size selected from the population was 26.

Table No. 1		
Number of PET Educators from Variou	ıs Instit	tutes
Name of institutes	Male	Female
Chandrashekhar Agashe College of PE, Pune	11	4
PE Department of Pune University	3	1
Bharati Vidyapeeth college of PE, Pune	2	0
College of PE, Barshi	5	0
Total		26

Data Collection Tool

I have used a questionnaire which is made by Helena Baert in her dissertation 'The Integration of technology within PETE: Perception of Faculty' (2011). Which is used to get information about:-

- Demographics
- Use of different technologies, proficiency in each technology & utilization of that .1. technologies within the teaching.
- Factors influences use of technology
- Approaches to technology integration.

Reliability of test:-

The questionnaire developed by Helena Baert was used as a tool for collecting the desired information. It was translated in vernacular language with the help of language experts. The reliability of this translated questionnaire was established using test-retest method. Marathi questionnaire can be reviewed in appendix 2.

Steps for Developing Instrument:-

- Survey in the literature.
- Design the instrument.
- Survey instrument following Expert panel Review.
- Pre-test of the survey instrument.
- Pilot Study.
- Final review of Survey.

Procedure

- The available Questionnaire is in English Language. For all faculty members it will be translated in vernacular language.
- The Marathi questionnaire- Content validation will be done with the help of 3 experts & a language expert.
- We are going to appeal to the PETE educators & those who consent will be the sample of my study.

Research Questions

- What types of technologies are currently included in PETE programs?
- Table 3 indicates that 75% or more of PETE faculty members reported the use of projectors, digital cameras, cell phones, office tools, presentation software, social network, YouTube and email. heart rate monitors, chat rooms, handheld technology and course management tools were used by 50 to 75% of respondents. Less the 50% of PETE programs included smart board technology, educational games, PE software programs, Web 2.0 tools, exergames, Respondents reported least used technologies to be accelerometers, smart boards, webquests, podcasting/vodcasting, Educational games, sport simulator, bookmarking and virtual networks (20%).
- What do current PE educators believe to be their technological proficiency levels? PETE faculty reported to be mostly proficiently in the use of email, presentation tools, office tools, projector, cell phones, You tube, pedometer, and digital cameras, and least proficiently in the use of web 2.0 tools, podcasting/ vodcasting, web quests, Educational games, accelerometers, smart boards, sport simulator, virtual networks, and bookmarking tools.
- How are PE educators integrating technology in PETE courses? When analyzing the overall average percentages at each level of integration the data reveal that respondents were mostly aware of the technologies. The mean integration score of all the technologies combined was 2.37. This indicates that most PETE faculty members are either aware of the technologies or use the technologies in class.
- What factors affect technology use of PETE faculty within the PETE programs? The respondents reported that knowledge of how to use the technology had the most influence on the choice to use or integrate a technology. Knowledge on how to integrate the technology, financial support, and the motivational aspects, Fear of failure when using the technology in class and unsupportive colleagues were reported to be factors that influenced the integration of technology the least. Most of the faculty members knows about the technology but they are not using technologies with their full potential.
- How do PETE programs approach technology integration according to the perceptions of the PETE faculty members?

Three major themes can be described as: (1) Current applications of technology in PETE, (2) Technology integration concerns and (3) The purpose of technology integration in PETE. Over 80% of PETE faculty members believed that technology should be included in student teaching, faculty should be required to attend technology training sessions, technology expectations should be mentioned in the syllabus and PETE students should be assessed on their use of technology. A major difference in current events and beliefs is that while currently less than 50% of programs have a technology plan to guide the technology integration process, more than 80% believe that there should be one implemented in the program. Less the 20% of PETE programs currently collaborate on the integration of technology but this collaboration is inadequate it is done at very superficies level, more than 80% of faculty members believe that should happen. PETE faculty members are using technologies in their teaching but not in the integration of student teachers teaching in all levels.

Discussion

This study revealed similar results as earlier work on the Integration of technology within PETE: Perception of faculty members completed by Helena Baert. Technologies such as projectors,

digital cameras, cell phones, office tools, presentation software, social network, YouTube and email are very common in higher education.

Factors affecting technology integration Personal Use

This study found that most PETE professors used the following tools personally: digital camera, cell phone applications, office tools, presentation software, email, online database, You tube. The lowest level of personal use was found with technologies such as smart boards, sports based simulators, GPS, accelerometers, PE software, virtual networks, exergames, Educational games, podcasting, web quests, web based assignments, electronic portfolios, electronic grading and web 2.0 tools. Cost of certain technologies that would allow people to purchase a tool for personal use could be a contributing factor as well. Several digital cameras can be bought for the cost of a single exergames unit. Also, even if the cost of a sport simulator, GPS system or exergames is fairly low, in order to purchase a class set, PETE professors must often go through grant programs to receive such funds. While many technologies have shown benefits in PE, certain factors must be addressed before purchasing the required technologies.

Proficiency

Skill level, personal interest, beliefs, time to learn, impact of technology in learning, availability and access to technology labs these are factors affecting of technology within PETE program.

Recommendations

Within this study, PETE educators have shared their perceptions, fears, and successes related to the integration of technology within PETE courses. Finally, the most important aspect of integrating technology within PETE is to focus all efforts on the enhancement of learning. Technology should only be used to inform and improve the quality of physical education instruction and learning. Additional research is encouraged to investigate the effects of technology on learning in PE as well as examining and sharing best practices of technology integration within PETE in relation to the development of quality teacher educators and candidates. To investigate the effect of technology integration on teaching and learning process by giving any technology experimentally in PETE courses.

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Effect of video feedback teaching on knowledge of Basketball skill learning

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Introduction

Teachers of physical education have to be well equipped to make use of variety of teaching methods to develop and enhance student's skill learning. Different teaching methods are used to impart knowledge among the students according to the need of the subject as well as students. The choice of teaching method depends on expected students out comes, on the children's stage of progression & on the activity.

Purpose of the study

The purpose of the study is to gain an understanding of what is effect of video feedback teaching at cognitive level of the students for Basketball skill learning therefore, this research study examine the effectiveness of video feedback on players behavior and ultimately the students learning environment in physical education.

Objectives

- a) To make video clips (Reference clips) of experimental group while practicing and providing immediate feedback.
- b) To prepare different paper pencil test.
- c) To identify knowledge level of basketball players with respect to skills.

Video Feedback teaching Method

Feedback from an external source helps the player identify and correct performance errors and improves motivation.video feedback enhances the speed at which a player acquires a skill. Learners gain a lot of information about their actions by receiving feedback. Using video as a form of performance feedback can be an effective tool to improve motor skill learning and performance.

Cognitive stage in Basketball skill learning

Learning by receiving knowledge and information .The **cognitive stage** is characterized by thinking trying to understand the skill. In this stage the learner forms a cognitive picture of the skill and what is required to do it.

Knowledge Test

One of the main objectives of this research project is to assess participant's knowledge and understanding of the various aspects of basketball skills. The most efficient method of measuring the level of achievement of cognitive objectives is the written test.

In some disciplines there are nationally standardized test and norms available. In physical education, however, outside sources of written tests are rare. This is partly due to the great variety of activities embedded in physical education curricula and the fact that there are fewer textbooks available in physical education.

Method

This study is intended to discover the effectiveness of the two teaching methods viz. Traditional Teaching Method (TTM) and Video graphic teaching Method (VGT) on the skill Performance (SP) and Knowledge Performance (KP) of the Basketball fundamental skills on junior girls, Pune. For achieving this purpose an experiment was carried out with subjects selected from "Pune Vyayam Shala" Pune. This chapter elaborates the method and procedure adopted for carrying out experiment. This study has been carried out following mixed approach of research and the experimental research method was followed during this endeavor

Sampling

This study is experimental in nature. Hence a purposive sample was selected. The subjects selected for this study were girls of Pune Vyayam Shala, Pune studying in std. VI to std. VIII

Data collection process

For the present study, the effect of video feed back teaching on knowledge was examined through knowledge performance test for the dribbling, passing and shooting. Researcher developed two different knowledge tests with the help of basketball experts on the basis of fundamentals of basketball. For developing knowledge test following procedure was employed.

Method of Developing knowledge Test:

Knowledge test was used to assess the knowledge performance of the subjects in the fundamentals of Basketball. As there was not a single standardized test available to assess the knowledge performance in the said event, it was the need of the present research to develop the test. Researcher used teacher made test for the same. Tests were developed and checked by experts and changes were done in the test according to the corrections given. Two paper pencil tests were conducted during the research period, to assess the cognitive aspect of the students. It was a multiple choice test. There were 25 questions in each test. Time duration for test was 30min. One mark was awarded for each correct answer and score was calculated for each child.

Description of Statistical Analysis on Knowledge Test Performance

Two separate question papers on Knowledge of Basketball were set by Basketball experts. Midtest after eight weeks and a post-test after experiment got over was conducted and marks were given to every individual (As during pre-test; students were very new to basketball game and did not know anything about skills of it hence no evaluation of it was done during pre-test). Average marks obtained by experimental group on mid- test are 17 (2.704) and on post- test are 19 (3.121) while control group subjects attained 15 (2.024) and 17 (2.345) marks on mid-and posttest respectively. To analyze the significance and compare mean difference considering mid-test as covariate, ANCOVA was the best statistical tool to be applied for knowledge test

Description of ANCOVA for the Comparison of Knowledge of Basketball Skills between Experimental and Control Groups

Data analysis of scores on knowledge test of basketball skills shows that between experimental and control groups 'F' value of 0.870 is not found significance at 0.01 level of significance as 'p' value is found 0.361, which indicates that there is no significant difference occurs between the knowledge of basketball skills among the girls from experimental group treated by video feedback and control group treated by traditional method of teaching basketball skills.

It is interpreted that video feedback and traditional method of teaching basketball skills have same effect on learning basketball skills at knowledge (cognitive) level.

Conclusion:

The result of knowledge test doesn't show much improvement in the performance of the students of both groups hence it can be said the cognitive aspect of the skill learning is not enhance by both the teaching methods.

In the experimental group special skills accomplishment in the students overall performance was significantly higher than control group because student's motivation and enthusiasm for skill learning was high in using video feedbackteaching than traditional teaching.

Recommendations

- The coach should teach simple, fundamental skills in this stage, by demonstrating, modelling and giving clear instructions.
- Instructions should be brief and should focus on only a few skills at a time.
- Employ a range of motivational techniques.
- Keep instructions and demonstrations short and simple.
- Have athletes follow an example at first and then try the skills themselves with more instruction and feedback.
- Conduct knowledge test regularly.
- Use frequent knowledge of performance (KP) feedback.

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Teachers' Attitude towards Teaching Physical Activity and Physical Fitness: A study of Attitudinal Change

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Abstract

Teachers influence their students' attitudes toward the subject that they teach. Teachers attitudes are often translated into specific classroom and instructional practices which in turn affect student behavioral and learning outcomes. Experienced teachers are considered to be more able to concentrate on the most appropriate way to teach particular topics/units to students who differ in their abilities, prior knowledge and backgrounds. Attitudes are not readily changed once formed but are malleable so long as positive experiences occur and favorable attitudes develop. This article is an effort to understand whether teachers' attitude change as they grow in experience or is attitude borne by the pre-service teachers a transient character? Study was conducted on 70 in-service and 116 pre-service physical education teachers. Teachers' Attitude towards Teaching Physical Activity and Physical Fitness scale (TATPAPF) was administered to measure their attitude towards teaching physical activity and physical fitness. It was found that all the teachers has positive attitude and there was a significant difference in the attitude of preservice and in-service PE teachers, whereas there was no significant difference in the in-service PE teachers whose experience varied from less than 5 years to more than 10 years. It was concluded that gender and length of teaching experience do not influence teachers' attitude towards teaching physical activity and physical fitness but the stage of service influences the attitude, the pre-service teachers showed more positive attitude towards teaching PA & PF. Keywords: Attitude, in-service, pre-service, TATPAPF

Introduction:

The 1996 Surgeon general's report on physical activity and health addresses the importance of regular physical activity and its relationship with preventing disease and premature death, as well as maintaining a high quality of life (USDHHS, 1996). Schools are the only major institution that can address the physical activity needs of most children and youth (Sallis & McKenzie, 1991). Participation in Physical activity outside physical education classes can be limited due to a variety of factors, including limited program availability, fiscal restraints and urbanization (McKenzie et al., 1995). School physical education has the potential to develop habitual physical activity participation patterns in students with possible carryover into the adult years.

There are many factors that affect the quality of a school physical education program. One of them is teacher attitude which reflects an individual's positive or negative, favorable or unfavorable feelings regarding the attitude object (Oppenheim, 1992; Ajzen, 1993; Eagly & Chaiken, 1993). Attitudes are formed through beliefs. When a group of beliefs cluster around a situation or object, an attitude forms that is prone to action (Kulinna & Silverman, 2000). Teachers' attitudes are extremely important because of the relationship between attitude and action. Teacher attitudes are often translated into specific classroom and instructional practices which in turn affect student behavioral and learning outcomes (Cook, 2002). Attitudes are not readily changed once formed but are malleable so long as positive experiences occur and favorable attitudes develop. In turn, unfavorable attitudes develop when a situation lacks positive experiences (Oppenheim, 1992).

Attitude as a concept is linked with personal way of thinking, acting, and behaving. It has profound effect on the learner, teacher, the group with which student relates and the entire education system (Olatunde, 2009). An individual's beliefs, attitudes and values compose their belief system (Pajares, 1992). Attitudes are formed as a result of some kind of learning experiences. They may also be learned simply by following the example or opinion of parent, teacher, or friend. The learner draws from the teacher's disposition to form his or her own attitude. Bandura (1971) demonstrated that behaviours are acquired by watching the model, parent, and teacher. Teachers are invariably role models whose behaviours are easily copied by the student. What teachers like or dislike, appreciate and how they feel about their learning, and its effect on their students. The way the teachers teach, behave and interact with students is more important than what they teach, thereby strictly affecting students attitude (Olatunde, 2009). Learning by the students is based on the decisions taken by the teachers. Teaching decisions are influenced by teachers' attitudes towards several aspects like curriculums, goals, priorities and outcomes. Teachers also have attitudes about their own abilities to teach specific content. (Kulinna, Silverman & Deng, 1998)

Several research findings in other subjects have confirmed that teachers' attitude towards the subject or teaching of that subject affect students' achievement in and attitude towards that subject (Olatunde, 2009). Teachers' attitude has been found to be a significant predictor of students' achievement and their attitude. Researchers (Slavins 1987, Evan 1992, Gibbon, Kimmel, & O'shea, 1997) have studied the relationship between teachers' experience and student achievement. Students taught by more experienced teachers achieve at a higher level, because their teachers have mastered the content and acquired class management skills. Furthermore, more experienced teachers are considered to be more able to concentrate on the most appropriate way to teach particular topics/units to students who differ in their abilities, prior knowledge and backgrounds (Raudenbush & Bryk, 1991 and Stringfield & Teddlie, 1991).

Researchers demonstrate that the attitude teachers hold influences their perceptions of education, instructional behaviors, and student learning outcomes. Therefore, a better understanding of teacher's attitude towards teaching physical activity and physical fitness and the changes in attitude according to stage of service and length of teaching experience can provide valuable information to the beneficiaries and in the promotion of physical activity. This study investigates pre-service and in-service physical education teachers' attitude towards teaching physical activity and physical fitness and the changes in attitudes with regard to the experience.

Materials and Method:

A descriptive survey was conducted to study the variations in teachers' attitude towards teaching physical activity and physical fitness based on gender & stage of service (Male In-service, Female In-service, Male Pre-service & Female Pre-service) and length of teaching experience (Less than 5 years, 6-10 years & more than 11 years).

Participants: Population of this study consisted of Physical Education teachers from English medium secondary schools in Pune city affiliated to Maharashtra state secondary and higher secondary board of education and pre-service teachers from the Physical Education teacher training college from Pune city affiliated to Pune University. Convenience sampling technique was used to select the Physical Education teachers in this study. Seventy in-service Physical Education teachers (46 male & 24 female) from the selected 28 schools who assented to participate in the study formed the in-service teachers sample, while the pre-service teachers

sample of the study was all the 116 student-teachers (76 male & 40 female) pursuing B.Ed. (Phy. Edu.) from Chandrashekhar Agashe college of Physical Education in the academic year 2010-11. *Instrument:* Teachers' attitude towards teaching physical activity and physical fitness (TATPAPF) developed by the researcher was used to measure the teachers' attitude towards teaching physical activity and physical fitness; it consisted of four domains, namely, motor skill development, social development, physical activity and physical fitness, and self-actualization as suggested by Kulinna & Silverman (1999). The scale consisted of a total 20 items to be scored on five point Likert scale ranging from 5 points for strongly agree to 1 point for strongly disagree. (Reverse scoring pattern was used for negative statements). Minimum 20 and maximum score of 100 could be obtained on this scale where higher score meant more positive attitude.

Procedure: Scale was administered considering the convenience of the school and teachers. The researcher read the instructions from the scale and also asked teachers to again read the instructions and the test items carefully. They were encouraged to respond to the statements honestly and genuinely. They completed the scale within a span of 25 to 30 minutes. Similar procedures were adopted in the data collection from the pre-service physical education teachers.

Results:

 Table 1

 Descriptive Statistics of Teachers' Attitude towards Teaching Physical Activity & Physical Fitness for Different Groups of Teachers

Groups	Ν	Mean	Std. Deviation
Male pre-service teachers	76	83.46	6.97
Female pre-service teachers	40	83.15	6.70
Male in-service teachers	46	78.76	6.46
Female in-service teachers	24	78.25	3.48

From table 1 it can be interpreted that the attitude scores of both in-service and pre-service teachers were positive. The attitude scores of the pre-service teachers are greater than that of inservice teachers.

 Table 2

 ANOVA for comparing teachers' attitude towards teaching physical activity & physical fitness in different groups of teachers

PJ == 0		B-	oups of touthous		
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	999.00	3	333.00	8.03	.001
Within Groups	7546.85	182	41.47		
Total	8545.85	185			

The F value in table 2 shows that there is significant difference between different groups of teachers hence to find out differences between the groups, Scheffe's post-hoc test was applied.

the score teachers' attitude towards teaching physic	ar activity & phy	sical littless	
Crown Crown	Mean	Std.	Sig
Group – Group	Difference	Error	Sig.
Male pre-service teachers - Male in-service teachers	4.70^{*}	1.20	.002
Male pre-service teachers - Female pre-service	.31	1.26	.996
teachers			
Female pre-service teachers - Female in-service	4.90^{*}	1.66	.037
teachers			
Male in-service teachers - Female in-service teachers	.51	1.62	.992

Table 3
Multiple comparisons using Scheffe's post-hoc test in different groups of teachers for
the score teachers' attitude towards teaching physical activity & physical fitness

Table 2

From the observed differences (table 3), it can be interpreted that the pre-service teachers both males and females had more positive attitude towards teaching physical activity and physical fitness scores than the in-service teachers. From the 4 comparisons done in four groups of teachers, significant difference was found in both male and female teachers according to stage of service.

Table 4
Descriptive Statistics of In-service Physical Education Teachers' Attitude towards
Teaching

Physical Activity and Physical Fitness Based on Length of Teaching Experience in Years

Groups	Ν	Mean	Std. Deviation
In-service teachers with experience ≤ 5 years	34	77.59	4.91
In-service teachers with 6 to 10 years experience	15	81.00	6.14
In-service teachers with experience ≥ 11 years	21	78.48	5.98

Observing table 4 it can be understood that the attitude towards teaching physical activity and physical fitness of teachers with varied teaching experience ranges from positive to highly positive. It can also be interpreted that moderately experienced teachers had highest attitude scores.

		Table 5						
ANOVA for comparing	in-service physic	cal educatio	n teachers' att	itude tov	vards teaching			
physical activity and physical fitness based on length of teaching experience in years.								
	Sum of	df	Moon	Г	Sig			

	Sum of	df	Mean	F	Sig.	
Between Groups	121.51	2	60.76	2.00	.14	
Within Groups	2037.47	67	30.41			
Total	2158.99	69				

Observing Table 5 it can be interpreted that the length of experience in years did not seem to influence the attitude scores of the in-service teachers.

Figley (1985) suggested that teachers influence their students' attitudes toward the subject that they teach. Several research findings in other subjects have confirmed that the teachers' attitude toward the subject or teaching of that subject affect student's achievement in and attitude towards that subject (Okpala 1985, Onocha 1985, & Igwe 1985). Teacher's attitude toward teaching plays a significant role in shaping attitudes of students and they can be influenced by teacher related factors such as teacher's enthusiasm, teacher's resourcefulness and helpful behavior, teacher's thorough knowledge of the subject and their ability of making the subject more interesting. Cale (2000) stated that teachers have powerful impact on their students' attitude on engagement in physical activity

The analysis of the teachers' attitude towards teaching physical activity and physical fitness showed no significant difference in gender wise comparisons (Guan, McBride, & Xiang 2005, Kulinna & Silverman 2000), whereas, significant differences were found in pre-service and inservice teachers' attitude. It is concluded that the pre-service teachers had more positive attitude towards teaching physical activity and physical fitness than the in-service teachers.

The length of experience in years did not seem to be a deterrent in the attitude scores of the inservice teachers. This study showed similar findings as that of Guan, McBride, & Xiang (2005). It was concluded that there is no significant difference in attitude of teachers with varying length of teaching experience. Teachers with moderate teaching experience of up to 10 years had higher attitude score than that of novice and experienced teachers.

Conclusion:

It was concluded that gender and length of teaching experience do not influence teachers' attitude towards teaching physical activity and physical fitness but the stage of service influences the attitudes, the pre-service teachers showed more positive attitude towards teaching PA & PF.

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Comparison of Fat Contents of Different Sportsmen with that of **Mountaineers**

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The biggest problem faced by the world today is excess of fat i.e. Obesity. Various research related to this subject are being done; like research on reasons for the increase in body fat content, exercise or activities which will help lower the fat levels, diet to be taken to maintain or lower fat content, etc. Exercise helps us burn calories and lose weight in two different ways. First, it causes muscles of the body to do more work and second it enlarges our muscle tissue, thus raising our metabolic rate. This is because our muscle is more metabolically active than body fat, so physical activity immediate in calorie expenditure during a particular workout and also helps in burning extra calories even when our fitness routine is over. In order to know how much fat is necessary various researches on individuals have been done. Data from all categories of the society were collected and average fat requirement for normal human beings were known. The normal fat content required is presented in table 1.

Body Fat Ranges for Individuals (Wikipedia)							
Category	Males	Females					
Exceptionally Lean	6-10%	10-15%					
Very Lean	11-14%	16-19%					
Lean	15-18%	20-25%					
Moderate	19-24%	26-29%					
Over fat	25%+	30%+					

Table 1						
Body Fat Ranges for Individuals (Wikipedia						
Category	Males	Females				

Lower is Not Necessarily Better

Individuals have always considered that lower fat content is always better, but a certain amount of body fat is **vital** for the body to function normally and healthy. In fact striving for a body fat percentage that is **too low** can be dangerous. Measuring your body fat percentage calculates your **TOTAL** body fat.

The total body fat can be split into two categories:

- Storage Fat: This consists mainly of fat deposited just under the skin or subcutaneous fat. Storage fat for men and women is fairly similar. For the average man 12% of bodyweight is storage fat and for the average woman 15% of bodyweight is storage fat.
- Essential Body Fat: For the body to function normally and healthily a certain amount of body fat is required. This is called essential fat. For women the average amount of essential fat is 12% of bodyweight and for men it is 3%.

Trying to achieve a body fat percentage that is so low it affects your essential fat stores is NOT GOOD for your health. Some storage fat is also required for good health. It's used to protect internal organs in the chest and abdomen. So remember...Aim to stay within the range for age and gender and rest assured you are.

But the problem faced was that these were for normal individuals, but what about sportsmen. The sportsmen with such body fat content were considered as obese. So research on sportsmen was essential. Fat content of elite sportsmen were collected and average fat content according to the games were presented (Table 2).

Average Body Fat Percentage of Sportsmen (sport-fitness-advisor.com)								
Sport	Male	Sport	Male	Sport	Male			
Athletes	13%	Rowing	14%	Tennis	16%			
Basketball	12%	Rugby	12%	Volleyball	14%			
Body building	8%	Shot Putters	20%	Weightlifters	16%			
Cycling	15%	Soccer	12%	Wrestlers	16%			
Gymnastics	12%	Sprinters	10%					
Ice/field Hockey	15%	Swimming	12%					

 Table 2

 Average Body Fat Percentage of Sportsmen (sport-fitness-advisor.com)

Objective of Study

The objective of the study was to compare the fat content levels of different sports with that of mountaineers. For the current study fat percentages of only male sportsmen are considered.

Hypothesis

Researcher is interested in testing whether Mountaineers belong to the population of sportsmen with respect to percent body fat and hence stated the following hypothesis

H₁: Mountaineers do represent the Population of sportsmen with respect to percent body fat

 $M_1 = M_2$

Subjects

The fat content of the sportsmen was known through books, few researches and on websites. To find out the fat content of mountaineers the researcher used the Bioelectrical Impedance Analyzer and tested **240 Male Mountaineers** aged 17 to 30 years. Two groups were formed according to age:

Group 1: Boys 17 to 23 years, Group 2: 24 to 30 years.

Tools of study

The fat content of mountaineers was measured using the Bioelectrical Impedance Analyzer (*Omron Machine*).

Statistical Analysis

Descriptive statistics (Prakash, 2000) was done and mean score of the fat content of mountaineers was calculated. The mean scores of fat content of Group 1 and Group 2 are 16.42 and 20.06 respectively.

 Table 3

 Descriptive Analysis of Mountaineers

 Group
 N
 Mean
 Std. Dev

 1
 120
 16.4258
 5.20987

 2
 120
 20.0642
 4.77715

One tailed 't' test was employed and the mean of fat percentages of both the groups of mountaineers were compared with the fat percentages of different sportsmen. The analysis is given below.

			Table 4			
Descriptive Statistics of Fat Percentages of Different Sportsmen						
	Ν	Mean	Std. Deviation	Std. Error Mean		

1 M	witan	Stu. Deviation	Stu. Error Wiean
16	13.5625	2.82769	.70692

Table 5

Comparison of Fat Percentages with Different Sportsmen								
	Test			Sig.	Mean	95% Confidence Interval of the		
Group	Value	t	df	(2-tailed)	Difference	Difference		
						Lower	Upper	
1	16.42	-4.042	15	.001	-2.8575	-4.3643	-1.3507	
2	20.06	-9.191	15	.000	-6.4975	-8.0043	-4.9907	

Null Hypothesis

Researcher was interested in testing whether Mountaineers belong to Athlete with respect to percent body fat hence he stated the following Null hypothesis for testing purpose H_0 : Mountaineers do not represent the Population of sportsmen with respect to percent body fat

 $M_1 \neq M_2$

Alternative hypothesis

H1: Mountaineers do represent the Athlete Population with respect to percent body fat

 $M_1 = M_2$

Results and Discussion

When the mean score of percent body fat was compared with the percent body fat of other sportsmen with the help of one sample tailed 't' test, it is seen that there occurs significant difference between percent body fat of Mountaineers and other sportsmen at 0.01 level of significance, hence null hypothesis is rejected.

The reasons for the higher fat content in mountaineers are to be known and study in this related field is required. Research says that "Cold weather mountaineers stay warmer at night if they have a bedtime snack high in slow burning food fuel (fat)". It is due to this that the fat content of mountaineers is higher than other sportsmen.

Conclusions

It proves that Mountaineers show more fat content than other sportsmen.

Recommendations

Section 2: Fitness

- Relative measures are to be taken in order to decrease the fat content among mountaineers.
- Research has proved that mountaineering is an activity requiring high amount of calories and hence the Fat content of Elite mountaineers is to be found out in order to find out the average requirement of fat for mountaineers.

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Status of Health Related Physical Fitness of Students of Bharati Vidyapeeth University

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Abstract

The aim of the study to know the status of Health related physical fitness of Bharati Vidyapeeth University students. Physical fitness has remained a very essential requirement for the human being from time immemorial. Person who participate in regular physical activity do so partly to improve the current and future level of health. To days students are more attracted towards internet, mobile, facebook, whats App. And also they are not physically fit to participate in sports activities. Students are more interested in academics for their carrier.

Keywords: Health related Physical Fitness; Health; Fitness

Introduction

Physical fitness has remained a very essential requirement for the human being from time immemorial. History points to the facts that physical fitness has been the basic fact for survival of the fitness. Physical fitness should, therefore become an essential program for total development of children in our school plans. 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 and to meet emergencies. Physical Fitness is all about tuning your body so that you can perform to the best of your potential. A state that helps us to look and feel good is Fitness. A physically fit person can perform daily tasks with enthusiasm and utilize the left over energy in other activities. Physical fitness has remained a very essential requirement for the human being from time immemorial. History points to the facts that physical fitness has been the basic fact for survival of the fitness. Physical fitness should, therefore become an essential program for total development of children in our school plans. 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 and to meet emergencies. The main objective of education is to prepare talented citizens and healthy human. While working as a physical director in institution of Pune district it is observe that todays students are more attracted towards internet, mobile, facebook, whats App. And also they are not physically fit to participate in sports activities. Students are more interested in academics for their carrier. This study is, therefore, needed to know the status of Health related physical fitness of Bharati Vidyapeeth University students.

Method

The population for this study was students of Institutes of Bharati Vidyapeeth University. The tests were conducted according to the components of health related physical fitness is flexibility-Sit and reach, muscular strength-Grip dynamiter, cardiovascular fitness-Homes step test, and body components –BMI., Muscular Endurance- Sit-ups. Data was analyzed after the collection to verify the hypothesis. However, there is significance difference in health related physical fitness between the selected Colleges. In analysis of data in ANOVA significant difference of physical fitness are seen between the selected Colleges. Researcher selected the 50students from each college, considering random sampling method, from the colleges, two hundred male (n=200), were considered as sample.

Results

Descriptive statistics, inferential statistics and ANOVAs were calculated. Where Mean for B.M.I. of Medical college students 22.9500 (SD=3.23590) Engineering Colleges students 23.5000 (SD=2.89464).Arts commerce Sci. College students 23.8000 (SD=2.74533) Management College students 24.8000 (SD=2.62779).

Mean for Homes Step of Medical students is 107.5000 (SD=15.55466). Engineering Colleges students is 115.3500 (SD=50.05591). Arts commerce Sci. College students is 108.0500 (SD=29.27092). Management College students is 122.7000 (SD=15.80839).

Mean for Grip dynamometer Test (Muscular Strength) of Medical College is 45.3000 (SD=7.82102). Engineering Colleges students is 47.1500 (SD=11.33822) Arts commerce Sci. College students is 46.7000 (SD=8.90358). Management College students is 47.4500 (SD=9.16214).

Mean for Sit-ups of Medical College is 23.1000 (SD=7.51770). Engineering Colleges students is 19.4500 (SD=8.75680) Arts commerce Sci. College students is 25.4500 (SD=9.34415). Management College students is 14.5000 (SD=5.43478).

Mean for Sit and reach of Medical College students is 7.5000 (SD=4.32252)of Engineering Colleges students is 12.3000 (SD=5.89469). Arts commerce Sci. College students is 8.8500 (SD=3.24889).Management College students is 9.3000 (SD=3.97492).

Summary of A	NOVA of HRPF o	f Bharati Vi	dyape	eth Universit	y College	students
Variabla		Sum of		Mean		
v al lable		Squares	Df	Square	F	Sig.
Body	Between Groups	40.638	3	13.546	1.628	.190
Composition	Within Groups	632.550	76	8.323		
BMI	Total	673.188	79			
Homes Steps	Between Groups	3074.500	3	1024.833	2.341	.080
CVE	Within Groups	33266.700	76	437.750		
	Total	36341.500	79			
Muscular	Between Groups	1440.900	3	480.300	7.683	.000
Endurance	Within Groups	4750.900	76	62.512		
(Sit-ups)	Total	6191.800	79			
Flexibility	Between Groups	246.038	3	82.013	4.112	.009
(Sit &Reach)	Within Groups	1515.950	76	19.947		
	Total	1761.988	79			

Table 1

F-Value of Sit-ups of Bharati Vidyapeeth University Colleges students 7.683 that is significant at 0.05 level of significance.

F-Value of Sit and reach of Bharati Vidyapeeth University Colleges students 4.112 that is significant at 0.05 level of significance.

Discussion & Conclusion

Medical College- According norms applying to the means of fitness tests, BMI of Students is in healthy range. Cardiovascular Endurance is above average, Muscular strength is average, Flexibility is good and Muscular Endurance is very poor.

Engineering College - According norms applying to the means of fitness tests, BMI of Students is in healthy range. Cardiovascular Endurance is above average, Muscular strength is below average, Flexibility is good and Muscular Endurance is very poor.

Arts commerce Sci. College - According norms applying to the means of fitness tests, BMI of Students is in healthy range. Cardiovascular Endurance is above average, Muscular strength is average, Flexibility is good and Muscular Endurance is poor.

Management College - According norms applying to the means of fitness tests, BMI of Students is in healthy range. Cardiovascular Endurance is poor, Muscular strength is average, Flexibility is good and Muscular Endurance is very poor.

In conclusion, the physical fitness of Arts commerce Sci. Collegestudents is in healthy range. Other three colleges students are not only overweight and obesity but also underweight seem.

Recommendations

To improve the physical fitness of staff and students colleges should provide proper facilities to students. There should be a fitness center in every college. This is easily available every time. The students are aware to avoid junk food, cold drinks etc. There must be a checkup of physical fitness for every six months for staff and students of college. In addition, guide them about their diet and weight. If possible, college should provide proper diet to underweight student. Every college should take steps to make interest of students in exercise by organizing some games like adventure sports, outdoor activities etc. Every student is aware with daily exercise at least walking or running. College should guide for healthy life style student. College should organize seminars on physical fitness for awakening amongst students.

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Effect of Selected Yoga Practices on Health Related Physical Fitness Components and Personality Factors of School going Children

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Physical education teachers who are helping our school children to develop personality along with health related physical fitness. However, till-to-date, there is no data available about what is the present status of personality and health related physical fitness of school children in India. Although many programme related to personality development are available today, the composite programme for development of personality-cum-health related physical fitness for school children is not available till-to-date. It was, therefore, thought desirable to include Yoga as a training intervention for this study, because our scriptures have given more emphasis to internal fitness / beauty / strength rather than external fitness and outward beauty. Such intervention may prove fruitful for improvement of both personality and health related fitness of school going children. Thus, conducting research work in this direction is justified.

Objectives of the Study

- To assess the present status of Health related Physical fitness and Personality of the school going children.
- To design a "yoga module" with a view to improve health related physical fitness and personality development of school going children. To study the effect of selected "yoga module" on personality factors and components of health related Physical fitness of school going children.
- To suggest a model of yoga training programme for school going children.

Significance of the study

- The yoga practices as selected in this study may have immense importance for growth and development of the selected students along with personality and health related physical fitness.
- Student undergoing yoga training may know thyself and realize ownself that may contribute to develop his personality and other psychological attributes.
- Yoga practices, as developed in this study, may remove obstacles and may promote children's personality and health related physical fitness.
- The study will help children for better understanding effect of yoga practices.
- The result of the study will add further knowledge to existing literature of health related physical fitness and personality development in relation yoga practice.

Methodology

This is an experimental study that considered one experimental intervention having one experimental group and one control group. The groups were, in fact, divided into total two groups randomly. The methodology followed here was Parallel group design (Hubbard, 1973).

Seventy male students (n=70), who were studying in Raja Raghunathrao Vidaylaya,Bhor, Dist.Pune, PIN-412 206 (Maharashtra), were volunteered as subjects. Their age was ranged from 13 to 14 years for this study. The random sampling technique was employed to pool the subjects

from the same school. All the subjects were taking part in their regular activities as per school time table. Since all the students attended this study from their respective homes, therefore diet control phase was not possible.

The selected subjects were divided equally into two groups, viz., Yoga (Group A) and Control (Group B) having 35 subjects in each. All the subjects were pre-tested with number variables, discussed later, as selected in this study.

The subjects of group A underwent specified yoga training, whereas the Group B was treated as control. Since the subjects of all the groups were school children, they were directed to continue their daily activities in the school.

Training period was for 3 months. After the training was over, all the subjects were exposed to post test, where all the variables were measured for the subjects of all the groups.

The dependent variables being selected in this piece of research are:

- Health related physical fitness includes flexibility (normal & stretching), muscular endurance, muscular strength, body composition (height, weight & BMI i.e., Body Mass Index) and cardiovascular fitness (run-walk test).
- **Personality variable** includes the factors like A, B, C, D, E, F, G, H, I, J, O, Q2, Q3 and Q4 respectively.

Standard tests were used to measure the above variables. However, in case of personality – as it was adapted for the students of Marathi population – the test retest reliability coefficient was ranged from 0.74 to 0.88.

The pretest data were collected on 15th December 2007, whereas the posttest data were from 16th March 2008.

The collected data were processed for descriptive statistics. In case of health related physical fitness, since there were two groups participated in two times of testing on ten variables (viz., muscular strength - right hand & left hand, muscular endurance, flexibility – holding breath & exhaling breath, body mass index, cardiovascular endurance), the statistical model employed for data analysis was $2 \times 2 \times 7$ Factorial ANOVA (Analysis of Variance), which was followed by the Scheffe's post-hoc test.

Further, in case of students' personality, there were two groups participated in two times of testing on ten sixteen variables (viz., Factors A, B, C, D, E, F, G, H, I, J, O, Q2, Q3, & Q4), the statistical model employed for data analysis was 2 x 2 x 14 Factorial ANOVA (Analysis of Variance), which was follonawed by the Scheffe's post-hoc test.

Results

- a) Results on Scheffe's Post Hoc analysis for Health Related Physical Fitness
- "Yoga training" showed significant superiority over the "Controls" in improving Muscular Strength of right hand (CD=0.31, p<0.05)
- **"Yoga training"** showed similar result like the "Controls" in the case of **Muscular Strength** of left hand (CD=0.11, p>0.05)
- **"Yoga training"** showed significant superiority over the "Controls" in improving **Muscular** Endurance (CD=0.33, p<0.05)
- "Yoga training" showed similar result like the "Controls" in Case flexibility in holding breath (CD=0.18, p>0.05)
- "Yoga training" showed significant superiority over the "Controls" in improving Flexibility - in exhalation (CD=0.30, p<0.05)

- "Yoga training" showed significant superiority over the "Controls" in improving Body Mass Index (CD=0.34, p<0.05)
- "Yoga training" showed significant superiority over the "Controls" in improving Cardiovascular Endurance (CD=0.28, p<0.05)
- b) Results on Scheffe's Post Hoc analysis for Personality Factors
- **"Yoga training"** helped to increase high score which was significantly superior to the "Control" in improving **Personality Factor A** (CD=0.34, p<0.05)
- "Yoga training" helped to increase high score which was significantly superior to the "Control" in improving **Personality Factor B** (CD=0.35, p<0.05)
- **"Yoga training"** helped to increase high score which was significantly superior to the "Control" in improving **Personality Factor C** (CD=0.32, p<0.05)
- **"Yoga training"** could show neither high score nor low score, whereas the "Control" group possess low score in **Personality Factor D** (CD=0.09, p>0.05)
- **"Yoga training"** could show low score than the "Control" group in **Personality Factor E** (CD=0.31, p<0.05)
- "Yoga training" helped to increase score than the "Control" in Personality Factor F (CD=0.29, p<0.05)
- **"Yoga training"** helped to increase high score which was significantly superior to the "Control" in improving **Personality Factor G** (CD=0.35, p<0.05)
- **"Yoga training"** helped to increase high score which was significantly superior to the "Control" in improving **Personality Factor H** (CD=0.37, p<0.05) (Fig. 4.15)
- **"Yoga training"** helped to inclined towards low score which was significantly superior to the "Control" in improving **Personality Factor I** (CD=0.36, p<0.05)
- **"Yoga training"** helped to inclined towards low score which was significantly superior to the "Control" in improving **Personality Factor J** (CD=0.34, p<0.05)
- **"Yoga training"** helped to inclined towards low score which was significantly superior to the "Control" in improving **Personality Factor O** (CD=0.32, p<0.05)
- **"Yoga training"** helped to increase high score which was significantly superior to the "Control" in improving **Personality Factor Q2** (CD=0.42, p<0.05)
- **"Yoga training"** helped to increase high score which was significantly superior to the "Control" in improving **Personality Factor Q3** (CD=0.35, p<0.05)
- **"Yoga training"** helped to inclined towards low score which was significantly superior to the "Control" in improving **Personality Factor Q4** (CD=0.29, p<0.05)

Conclusion

The result and its discussion as presented in the thesis help to draw the following conclusion:

- The Yoga module as developed in this study was found suitable for the school going Children.
- The Yoga module significantly helped to improve health related physical fitness of school going Children and also contributed for their personality development.

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A Comparative Study of BMI and Fat Percentage of Rural, Tribal and Urban School Going Boys

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Abstract

The purpose of the study was to find out the difference of **BMI** and **fat percentage** between Rural, Tribal and Urban School Going Boys aged 12 years in Ahmednagar district and to assess the status of **BMI** and **fat percentage** of 12 years school going boys from Tribal, Rural and urban school in Ahmednagar district. The investigator applied survey research designs for this study. With the help of random sampling technique researcher selected 3000 school going boys ages 12 years (6th std.) from about 67 schools of all 11 Talukas in Ahmednagar district, Maharashtra. For the collection of data, all students of performed standing Height which are easier to measure by meter tap in meter and weight is measured by Weighing Machine in Kilogram; therefore, it was included in this study. In statistical procedures, ANOVA employed for area-wise comparison of performance and the mean performance of descriptive statistic was also used in age groups 12years. On the basis of findings of the study, the result reveals that was significant effect (F=477.4673887, 568.3540106, 141.4116774, 197.5772548p<0.05) between rural, Tribal and urban 12years boys and urban boys had better body weight, BMI and Fat percentage than other area boys i.e. Rural and tribal area boys.

Key Words: Physical Fitness, BMI, Fat percentage, 12 years School going boys.

Introduction:

This study showed that in government and private schools; across Rural, Tribal and Urban areas and across gender there was a positive attitude towards physical education. There are several factors, which effect the physical fitness such as family background, school, available facility, interest, health ,diet economic condition of the student, environment etc. There is a need to undertake systematic research on school health initiatives. By testing we assess the status and achievement of learner. This study aims to assess the status of BMI and Fat percentage of school boys from Ahmednagar District.

Aim and Objective:

- 1. The purpose of the study was to find out the difference of BMI, Fat percentage between Rural, Tribal and Urban School Going Boys aged 12 years in Ahmednagar district.
- 2. To assess the status of BMI, Fat percentage of 12 years school going boys from tribal, rural and urban school in Ahmednagar district.

Hypothesis

Ho₁: There is no significant difference in BMI, Fat percentage of boys of 12 years age group from Urban, Rural and Tribal schools in Ahmednagar district.

Sample

Out of 1146 primary schools, 26 rural, 20 tribal and 21 urban schools were selected. From these 67 secondary schools all 12 years boys were the sample of this study. In the age groups of 12 years of sample for this study reached 3000 boys.

Research Methodology

The present research is a normative survey study that goes through a method of survey research under descriptive one. For the selection of sample simple random sampling technique was used. The data was collected taking in account Rural, Tribal and Urban schools of Ahmednagar District. The investigator hence proposed to randomly select 3000 students from each category i.e. Tribal, Rural and Urban schools from the age group 12 years from 11 Talukas in Ahmednagar District.

For the collection of data researcher was used standardized tool for research. The test item was conducted as the standard physical battery and the procedures described in the AAHPERED health related physical fitness test. Standing Height in meter and Weighing Machine in kilogram test was administered to assess body height and body weight. Formula for calculating BMI is *Wt (in Kg.)/ Ht(in meters)²

Statistical Analysis: In statistical procedures, ANOVA employed for area wise comparison of performance in age group 12 years. Statistical Package for social Sciences (SPSS) MS windows was used for statistical analysis. Descriptive statistics was also applied.

		Sum of Squares	Df	Mean Square	F	Sig.
	Between					
HEIGHT	Groups	3.705884411	2	1.852942206	477.4673887	0
	Within Groups	11.82471313	3047	0.003880772		
	Total	15.53059754	3049			

Table 1 ANOVA- Urban, Rural and Tribal area of 12 Years School Boys

ANOVA- Urban, Rural and Tribal area of 12 Years School Boys								
		Sum of Squares	Df	Mean Square	F	Sig.		
	Between	•						
WEIGHT	Groups	25528.16886	2	12764.08443	568.3540106	0		
	Within Groups	68429.4727	3047	22.45798251				

93957.64156

Table 2

Table 3
ANOVA- Urban, Rural and Tribal area of 12 Years School Boys

3049

		Sum of		Mean		
		Squares	Df	Square	F	Sig.
	Between					
BMI	Groups	1615.89166	2	807.9458299	141.4116774	0
	Within Groups	17408.82358	3047	5.713430778		
	Total	19024.71524	3049			

Total

		Sum of Squares	Df	Mean Square	F	Sig.
	Between	1				0
FAT %	Groups	4107.578518	2	2053.789259	197.5772548	0
	Within Groups	31652.3696	3045	10.39486686		
	Total	35759.94812	3047			

 Table 4

 ANOVA- Urban, Rural and Tribal area of 12 Years School Boys

Age group 12 years, variable wise descriptive analysis of Urban, Rural and Tribal area wise Comparison:

 Table 4

 Descriptive Statistics of variable height of 12 years age group boys

Area	Mean	Std. Deviation
Rural	1.38	0.06
Tribal	1.31	0.07
Urban	1.40	0.06

Table 4 indicates the mean performance of **body height** between rural, Tribal and urban **12** years boys as follows:

- **Body height** of *rural boys* was higher than *tribal and lower than urban boys*.
- **Body height** of *urban boys* was higher than *tribal and rural boys*.
- Body height of tribal boys was lower than the urban and Rural boys

r	riptive Statistics of variable weight of 12 years age group				
	Area Mean		Std. Deviation		
ſ	Rural	33	4.27		
ſ	tribal	28	4.62		
	Urban	35	5.29		

Table 5Descriptive Statistics of variable weight of 12 years age group boys

Table 5 indicates the mean performance of **body weight** between rural, Tribal and urban **12 years** boys as follows:

- Body weight of *rural boys* was higher than *tribal and lower than urban boys*.
- **Body weight** of *urban boys* was higher than *tribal and rural boys*.
- Body weight of tribal boys was lower than the urban and Rural boys

Table 6

Descriptive Statistics of variable BMI of 12 years age group boys

Area	Mean	Std. Deviation
Rural	17.25	2.25
tribal	16.37	2.38
Urban	18.16	2.54

Table 6 indicates the mean performance of **BMI** between rural, Tribal and urban **12** years boys as follows:

- **BMI** of *rural boys* was higher than *tribal and lower than urban boys*. ٠
- **BMI** of *urban boys* was higher than *tribal and rural boys*.
- **BMI** of tribal *boys* was *lower* than the *urban and Rural boys*

ti	tive Statistics of variable Fat percentage of 12 years age gro				
	Area	Mean	Std. Deviation		
	Rural	14.36	3.09		
	tribal	11.93	3.19		
	Urban	14.41	3.39		

Descrip oup boys

Table 7

Table 7 indicates the mean performance of Fat percentage between rural, Tribal and urban 12 years boys as follows:

- Fat % of *rural boys* was higher than *tribal and lower than urban boys*.
- Fat % of *urban boys* was higher than *tribal and rural boys*.
- Fat % of tribal boys was lower than the urban and Rural boys

Result:

- 1. From Table 1, 2, 3 & 4 F value of Urban, Rural and Tribal area wise comparison of all variables i.e. 477.4673887 for height, 568.3540106 for weight, 141.4116774 for BMI, 197.5772548 for fat, which are statistically significant at 0.05.
- 2. Therefore hypothesis (Ho_1) There is no significant difference in BMI, Fat percentageof boys of 12 years age group from Urban, Rural and Tribal schools in Ahmednagar district is rejected
- 3. Table 4 indicates the mean performance of **body height** of *rural boys* was higher than tribal and lower than urban boys.
- 4. Table 5 indicates the mean performance of **body weight** of *urban boys* was higher than tribal and rural boys.
- 5. Table 6 indicates the mean performance of **BMI**urban boys was higher than tribal and rural boys.
- 6. Table 7 indicates the mean performance of Fat percentage urban boys was higher than tribal and rural boys.

Conclusion:

- The result reveals that was significant effect (F=477.4673887, 568.3540106, 141.4116774, 197.5772548p<0.05) between rural, Tribal and urban 12 years boys
- The mean performance of **body height** of *rural boyshad* better than other area i.e. Rural and Urban and it was lower in tribal area boys.
- The mean performance of **body weight**, BMI and Fat percentage *urban boys* had better than other area i.e. Rural and tribal area boys. It was lower in tribal area boys

Contribution to the Knowledge

- 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.

• 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.

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Relationship of Emotional Intelligence and Health Related Physical Fitness of Junior Collegiate Students in Pune City

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Abstract

Finally, the above discussion reveals that both emotional intelligence and health related physical fitness are the blessings for the human generation. It seems emotional intelligence and health related physical fitness may have positive relationship. Thus, the present study seems to be justified. The purpose of the study was to investigate the Relationship of Emotional Intelligence and Health Related Physical Fitness of Junior Collegiate Students in Pune City. Total 210 junior college students (both male and female)were selected at randomly as the subjects of the present study. The limit of subjects was from 17 to 18 years. Mangal's Emotional Intelligence Rating Scale has been developed by Dr. S.K. Mangal (M.D. University, Rohtak) and Mrs. ShubhraMangal (C.R.S. College of education, NOIDA) Reliability of test is 0.92 and validity of this test are 0.71 and Health related fitnessdevelopedby Dr.T.K.Bera in 2005. The test reliability coefficient was 0.78 and Split half reliability was 0.81. Analysis of variance was applied to determine the significant relationship among the emotional intelligence and health related physical fitness. The data gathered were further analysed through Pearson correlation method used. The level of significance was set at 0.05 levels. The results obtained could reveal that there was low but positive relation was found in between of emotional intelligence and health related physical fitness of junior college's girls and boys.

Key words: Emotional Intelligence, Health Related Physical Fitness

Introduction

As we know that the smartest people are not always the most successful or the most fulfilled people in life. Sometimes we see that academically brilliant people become unsuccessful at work or in their personal or social relationships. Intellectual intelligence or IQ (*Intelligence Quotient*) is not enough on its own to be successful in life. It is emotional intelligence that can help us to manage in both social and personal relationships to become successful in life along with the other important aspects.

There is a common allegation among the elders that the present day environment of higher education has gone drastic changes. In their time the scenario was totally different in respect of the teacher pupil relation, interpersonal relations among the students etc. And according to them lack of value oriented education and moral education, students unrest bad impact of ICTs causes such differences. Thus, emotional intelligence has to play a significant role for human development.

Health related physical fitness explains a status of physical fitness, which has relationship of good health. In fact, in 1986, the WHO, in the Ottawa Charter for Health Promotion, said that health is "a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities".

Physical fitness is a dynamic construct in that it is continually growing in importance to everyday life and health. It may be defined as "the ability to perform moderate to vigorous levels of physical activity without undue fatigue and the capability of maintaining such ability throughout life" (ACSM, 2006).

Finally, the above discussion reveals that both emotional intelligence and health related physical fitness are the blessings for the human generation. It seems emotional intelligence and health related physical fitness may have positive relationship. Thus, the present study seems to be justified.

Methodology

Total 210 junior college student's one is 105 and another junior college students is 105 was selected at randomly as the subjects of the present study. The age limit of subjects was from 17 to 18 years.Mangal''s Emotional Intelligence Rating Scale has been developed by Dr. S.K. Mangal (M.D. University, Rohtak) and Mrs. ShubhraMangal (C.R.S. College of education, NOIDA) Reliability of test is 0.92 and validity of this test are 0.71 and Health related fitness developed by Dr.T.K.Bera in 2005. The test reliability coefficient was 0.78 and Split half reliability was 0.81. Analysis of variance was applied to determine the significant relationship among the emotional intelligence and health related physical fitness.The data gathered were further analysed through Pearson correlation method used. The level of significance was set at 0.05 levels.

Statistical Technique

The data gathered were further analysed through Pearson correlation method to investigate the existence of significant relationship on selected psychological and Health related Physical Fitness variables of Junior Collegiate students of Pune City of Maharashtra State. The level of significance was set at 0.05 levels. The results of the study showed positively significant relationship between science and Commerce students on Emotional Intelligence but the HRPF does not depend upon the students studying irrespective of any subjects.

Relationship of coefficient of HRPF and Emotional Intelligence				
		Correlation		
		HRPF	EI	
HRPF	Pearson Correlation	1	0.243698067	
	Ν	210	210	

 Table 1

 Relationship of coefficient of HRPF and Emotional Intelligence

Table value: 0.296

Table 13 shows that there was low but positive relationship was evident (r = 0.2437) p > 0.05 between HRPF and Emotional intelligence.



Fig: 01 Relationship of HRPF and Emotional Intelligence

Discussion of Findings

The correlation obtained from 105 students of different junior college students of Pune city on emotional intelligence and health related physical fitness among both groups showed positively significant relationship between Science and Commerce students on Emotional Intelligence but the HRPF does not depend upon the students studying irrespective of any subjects.Health related physical fitness status of male students is significantly related with the female students.

Emotional intelligence (EI) refers to the ability to perceive, control and evaluate emotions. It is the ability to identify, use, understand, and manage emotions in positive ways to relieve stress, communicate effectively, empathize with others, overcome challenges, and defuse conflict. Since 1990, Peter Salovey and John D. Mayer have been the leading researchers on emotional intelligence. In their influential article "Emotional Intelligence," they defined emotional intelligence as, "the subset of social intelligence that involves 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" (1990).

The first use of the term "emotional intelligence" is usually attributed to Wayne Payne's doctoral thesis, *A Study of Emotion: Developing Emotional Intelligence* from 1985. However, prior to this, the term "emotional intelligence" had appeared in Leuner (1966). Stanley Greenspan (1989) also put forward an EI model, followed by Salovey and Mayer (1990), and Daniel Goleman (1995). The distinction between trait emotional intelligence and ability emotional intelligence was introduced in 2000.

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Study of Cardiovascular Fitness of School Students from Nashik District

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Abstract

The purpose of the study was to study the Cardiovascular Fitness 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 (Cardiovascular Endurance) were taken. Descriptive statistics have been applied to process the data prior to employing inferential statistics One way 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: C.V. 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 items¹.

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

¹AAHPERD. (1984). *Health related physical fitness: technical manual.* Washington, D. C.: American Alliance of Health, Physical Education, Recreation, and Dance.

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 areas².

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 Cardiovascular Fitness 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 C. V. endurance. The data was collected administering 9 min. run or walk test.

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**).

Age Group	Test Items	Ν	Mean	Std. Deviation	Skewness	Kurtosis
11		3025	1301	262.18	0.31	-0.55
12	Run & Walk	3050	1436	289.00	0.87	2.05
13		3008	1641	315.79	0.53	0.69

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

From table 1, the mean scores & Standard deviation of 11, 12 and 13 years Rural, Tribal and Urban boys in9 min **Run and Walk** were 1301, 1436, & 1641 M (SD=262.18, 289, & 315.79 respectively.

²Ministry of Human Resource Development. (1986). *National policy of education programme of action*. New Delhi. Govt. of India.

Test Items	Comparison	Sum of Squares	df	Mean Square	F	Sig.
RUNWALK	Between Groups	278015528.3	8	34751941.03	476.8673915	0
	Within Groups	661272124.2	9074	72875.48206		
	Total	939287652.5	9082			

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

In fact, **Table 2** indicates that there is significant difference in **Cardiovascular Fitness**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 **Cardiovascular Fitness**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 cardiovascular fitness 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 cardiovascular fitness 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 cardiovascular fitness 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 cardiovascular fitness than the other Age Group Boys irrespective of different strata.

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Efforts Made by Government and Private Sectors in India for Scouting and promoting Sport Talent

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Abstract

The **Objectives** were to find out various schemes of preparation of sport talented children and youth in India and to analyze different sports training program in India. This descriptive research involves a comparison of the various schemes of sports talented children in India.**Procedure of the study** was analyzing five governmental, three public sector and two private sector schemes of sports talented children in India, researcher unfolds their specialties. **Results & Discussion was** in India, all sports talent children were spotted in school or education based organizations. But many talented children is Education based and biased also. The career in sports is just like dream without education in India. Also no scheme apply all sports science like Intelligence test, Personality test etc. and the entire entrance test were westernized. No scheme educates the parent attitude, sports player's knowledge about sports and integrated system of sports and education in one campus, one authority head. An age criterion was from 8 years onwards, but before 8 years, no scheme provides basic education. There were some recommendations like indigenous entrance test, after age 14 years structure and objective evaluation of scheme.

Key words: - sports talented children, sports school

Introduction

Talent Identification

To prepare an international athlete who will achieve high performance, sports talent has to be hunt in early stage. A diamond shines only when cut and polished. So are sports talents. It is drawn out that talent search is designed to identify promising young athletes or players (12 years and older) and prepare them for participation in domestic, national and eventually international competition. The program utilizes information across all disciplines of sports sciences to identify young athletes with characteristics associated with elite performance. Athletes are then guided to sports and games that best suit their attributes and provided with the opportunity to realize their potential in a high quality talent development program. Sports talent is the sum total of prerequisites and possibilities of their development possessed by a person which will enable him to achieve high performance in a sport in future. The pre-requisites include motor abilities, technical skills, tactical efficiency, physique, personality traits, motives, interests etc. (Singh H., 1983)

Talent identification process in India was initiated by Indian Sports Policies, some of which were stated below:

National Sports Policy, 2001, stated high priority will be accorded to the development of Sports in the rural areas to harness the available talent and potential. In this context, the Village Panchayats / Gram Sabhas as well as rural Youth and Sports clubs will be mobilized to facilitate development of the requisite infrastructure and for the identification of talent through an appropriate competition structure in the rural areas as also in the disadvantaged and remote parts of the country which appear to merit special consideration under various schemes

including for the North East. Efforts will also be made for tapping such potential as swimming in coastal areas and Archery in tribal areas. The available talent will be nourished and actively supported.

Comprehensive Sports Policy 2007

Excellence in Sports: To achieve the highest levels of performance at the highest levels of international competition, a well-formulated, target-oriented and need-based approach will be adopted incorporating the following elements:

Ensuring fair and reasonable opportunities to all talented young sportspersons, irrespective of economic background, social origin, gender or regional location, to fully realize their potential, and win laurels for themselves and glory for the nation. This would also enable sports administrators to cast their net wide enough to spot talented young persons of both genders in different age groups in different games and sports from all over the country.

Talent scouting pool: SAI and every State government, educational institution and sports federation would be encouraged to create and maintain a pool of seasoned talent spotters to identify talented youngsters in different age brackets from the sub-district and district level competitions. Special emphasis would be given to identifying the disciplines that are most popular in certain areas or regions due to geographical or cultural reasons, including indigenous sports and games. Special camps would be held to identify children below fourteen years of age with special motor and speed capabilities or with particular bone and muscle structure that is suitable for certain sports or games. It would be ensured that the selection base is kept large enough to cater for drop-outs.

Sports nurseries: Identified youngsters would be exposed to short-duration specialized coaching in sports nurseries in different disciplines to verify their potential and commitment, including the family support for a more structured and long-term training regime.

Significance of the study

In India various attempts have been made by Government bodies, Public and Private sector bodies, Non Governmental Organizations, Private Clubs and some schools to prepare sportsmen of national level in a limited number. These efforts or Sports Programs are as follows. For this purpose, researcher carried out "Study of the Preparation of Sport Talented Children and Youth in India."

The main **purpose of this study** was to find out various schemes of preparation of sport talented children and youth in India and to analyze different sports training program in India.

Method

This study was a descriptive type of research. It provides a method of investigation to study, describe and interpret what exists at present. This descriptive research involved a comparison of the various schemes of sports talented children in India.

Preparation of Sports Talented Children - Indian Scenario

Government Agencies

SAI Training Centres (Sports Authority of India, 2012)

The Governing Body started in May, 1995 'SAI Training Centre, (STC) Scheme'.

Objectives was to enable SAI to nurture junior sports talent scientifically who had attained excellence at Sub Junior level under NSTC Scheme and induct them into the STCs / Centres of Excellence, for further scientific and in-depth coaching on a long term basis. To attain these objectives, process was as follows.

- Selection of trainees is done on potential and performance basis. Trainees who are medal winners in State/National Level Competitions are automatically admitted into the Scheme subject to their being found medically fit. Trainees who are medal winners at District Level Competition or have participation in State Level Competitions are admitted, subject to their being found fit medically or physically and also have the required potential which is assessed by battery of tests.
- Facilities provided to the trainees were boarding, sports kit, stipend, competition exposure, education expenses, medical, insurance and others.
- Age Criterion: Sports persons of age group of 14-21 years.

National Sports Talent Contest Scheme (NSTC)

This Scheme was launched during 1985 for spotting talented young children in the age group of 8-14 years from schools and nurturing them by providing scientific training.

Objective of this scheme was to Play & Study in the same school with scientific scouting of talent at optimum age, essential for converting the genetically and physiologically gifted children into future medal hopes in various competitions at National and International levels. Under the Scheme, schools having good sports infrastructure and record of creditable sports performances are adopted by SAI. Trainees in the age group of 8-14 years are inducted under the scheme. Under this scheme, various sub- schemes were as follows

- Regular Schools (NSTC) Facility is provided to adopted schools
- Jawahar Navodaya Vidyalaya (JNV) To expand the coverage of sport talented sports in the age group 8-14 years
- Indigenous Games and Martial Arts (IGMA)

Objective of this scheme was to promote indigenous games and martial arts which are traditional, the schools in rural and semi urban areas are chosen for scouting of talent in these games. Under the Scheme, the scouting of talent in indigenous games and martial arts are done on the basis of open competitions organized for scouting and spotting of talent. The retention or weeding out of existing trainees was also on the basis of their performances in these competitions. For organizing competitions by adopted schools for scouting of talent, grant is made available by SAI towards meeting expenditure towards organizational expenses including rentals, medals, refreshments etc. In additional to this, the schools are also provided the services of experts for imparting training to the inmates subject to availability of coaches in the particular disciplines. Trainees in the Scheme are provided with stipend, Sports Kit, apart from an annual grant to the school for purchase of sports equipment and for organizing competition for scouting of talent as well as insurance for its trainees. Indigenous games and martial arts in the disciplines of Archery, Athletic, Kabaddi, Kho-Kho, Kalariapayatu, Mukna, Silambam, Thangta, Thoda and Wrestling.

• Akharas

Objective was keeping in view the peculiar nature of wrestling, Akharas having minimum specified infrastructure such as a hall for wrestling/ hostel accommodation etc. are being adopted on the recommendations of the concerned State Government and Regional Director of SAI. Based on laid down norms 15-20 wrestlers per Akharas are selected and admitted

They are given assistance in the form of Wrestling mat and/or multigym stipend per trainee per month to supplement their diet.

• Sports Centres on the Pattern of Akharas

Objective was to encourage sports centres across the North Eastern States, J&K and other scheduled tribes area where schools, colleges, voluntary bodies and other block and village level organizations are running sports centres specially for disciplines such as Athletics, Judo, Wrestling, Boxing, Swimming and other recognized martial arts, sports centres were started in 2006. The adopted Akharas, in addition to the services of an experienced coach, is also provided required equipment as per norms. Further monthly stipend is also paid to the selected trainees. Sports disciplines covered in Sports Centres on the pattern of Akharas under the Scheme are Football, Judo, Hockey and Taekwondo.

Army Boys Sports Company Scheme (Sports Authority of India, 2012)

The main objective of the Scheme was to achieve excellence at international levels by making use of good infrastructure and efficient administrative and disciplined environment of the Army. The Scheme is a joint venture of the Army and Sports Authority of India. Boys in the age group of 8-16 years of age are inducted under the Scheme. After attaining the required age of 17.5 years, the trainees are also offered job in the Army.

The selection of trainees was done on potential and performance basis.

- State or National Medallist and District Medallist and qualifying battery test.
- For selection of raw talent from remote, tribal & coastal areas the trainees are also selected by organizing competitions among participants. Under this criterion, for both team as well as individual games, the participants are made to play and selection done by a Selection Committee consisting of representatives of SAI, Army & SMC coaches.
- The sports persons are identified on the basis of the Specific games or Skill tests, Age between 8 to 16 years, Battery of tests and Medical examination.

At present, there are 15 Centres in India wherein trainees are being trained, in the above mentioned disciplines.

Army Sports Institute (ASI) (Army Sports Institute, 2012)

In July, 2001 Army Sports Institute was established to tap vast talent pool of the Army, located on acres of lust green landscape in Pune. The Army Sports Institute is a unique, multidisciplinary Sports Institute. The institute imparts training in seven sports: archery, athletics, boxing, diving, wrestling, fencing and weightlifting. Training is given by internationally renowned foreign & Indian coaches and qualified physical trainers of National Institute of Sports (NIS).

• Boys Sports Company (BSC)

At ASI the Boys Sports Company (BSC) enrols young talent. Children (10 to 16 years of age) are selected after series of tests. They are provided free boarding, lodging, kit and education with assurance of enrolment in the Army on coming of age.

• From Army & Selected Civilians

The Institute draws its talent from the various Training Centres and Regiments of the Indian Army. Proven civilian talent are also taken and directly enrolled as Havildar (National Medallists) and as Junior Commissioned Officer (International Medallists). At ASI, primary intention is to produce sports talent in the pursuit of creating sportsperson of international (Olympic) standards, through our sports science based program. Training was designed in such a way that every sportsperson receives the technical, tactical, physical and mental training with an optimum leaning environment to 'to win'.

Krida Prabodhini – **Maharashtra State** (Directorate of Sports and Youth Services Maharashtra State., 2008)

Under Governments of Maharashtra Sports Policy, to nurture the skills of various sports events, residential Krida Prabodhini was formed to provide the facilities to Students of 8-14 age groups. In this Krida Prabodhini, students are selected through Battery of Test, conducted

on District, Zonal, & State level. The objective of the Krida Prabodhini is to develop players of international standards. It is required to adapt the alternative recruitment process to attract hardworking and skilled players. To develop more and more players of International and Olympic level, selection of skilful players and providing Technical & Scientific training, appropriate diet & modern sports facility and to develop a culture of sports and planned efforts.

Public Sector Agencies

Andhra Pradesh Sports School (Andhra Pradesh Sports School, 2006)

Andhra Pradesh Sports School Established by the Govt. of Andhra Pradesh in November, 1993 at Singaipally and Thoomkunta (V) of Shamirpet, A.P.

Aims: To nourish the children to excel at National and International Competitions

Vision: To achieve excellence in coaching and teaching, to preserve and generate the knowledge and talent, to cultivate and resolute the moral values, to develop and enhance the human resources, to improve the quality of life and contribute a sustainable development of the Region and Nation in harmonious with our culture, heritage and environment. Motto was Service to the Society through Sports. The school is running on totally residential pattern from IV class to Intermediate with A.P. State Syllabus (English Medium). Teacher - Student ratio is 1: 20. Master Plan of Sports Training Program in this school consisted nine years overall plan from std 4th to std 12th (age 9 - 17).

Pimpri Chinchwad Municipal Corporation Krida Prabodhini.

P.C.M.C. has also residential sports school "Krida Prabodhini". It provides the academic & sports facilities to nearly 130 students.

Private Sector Agencies

The great reputed and well established institutions have safeguarded traditional practices. Since they are unaware of modern science they are lagging behind in the competitive world. All the autonomous and Government organizations have limited independence in the fast changing and unstable political situation of the country. It is a general opinion that they lag behind in extensive study, far sighted thinking, and selfless service. The resources are not utilized properly. A major portion of resources are spent on cricket which is played by only 12 countries in the world.

Usha School of Athletics (Usha School of Athletics, 2008)

Usha School of Athletics was formally inaugurated in May, 2002 at Koyilandy, Kerala.

The vision of U.S.H.A. was to nurture talent to achieve excellence in every field of athletics and to place India firmly on the international sports map.

Values were U.S.H.A. will pursue excellence while maintaining organizational and personal integrity and focusing on technological enhancement of talent. U.S.H.A. will develop talent based purely on merit, and will maintain transparency in all operations.

A 20 Crores Rupees project, the school, Usha says, would be the country's premier institute for training young talent. The Government of Kerala came out with an offer of 30 acres of land and a financial grant of 15 lacks for the project. Usha School was incepted in Koyilandy near Kozhikode on rented premises with twelve students. The students live and train under the guidance of P.T. Usha from day one based on a pre-planned time schedule in the school. At present, the school coaches eight trainees - all girls. The method of study, exercise, diet,

psychological counselling attitude building etc. are carefully planned and scientifically devised with the help of internationally acclaimed experts in the respective fields. Teachers who know and understand their students, know their sports, and possess developmentally appropriate philosophies help nurture the budding talents. A full time Certified Athletic Trainer provided medical care to their athletes.

Kridakul Program of Jnana Prabodhini, Pune

The Kridakul Program of Jnana Prabodhini, Pune is the Nursery of India's Future Gold Medallists which was started in 1998 at Jnana Prabodhini Navnagar Vidyalaya, Nigdi, Pune. It is a special sports school which is committed to prepare sportsmen of national and international calibre. This needs a separate education system. There are some limitations for the normal schools, as they have to maintain a balance in studies and sports. The Kridakul Program is trying to set up an independent educational system with the aim of grooming sportspersons. They have started from standard Fifth. There is a separate division of selected students and they are trying to keep all the obstacles away from their daily routine. To give minute attention towards all the students, the number of students selected in a class is restricted to 30.

Conclusions and Findings

- There is no sports scheme in India concentrating on cognitive development (i.e knowledge and understanding of sports) of an athlete.
- There is no integrated sports scheme available in India which caters education and sport for career in one campus under one authority head. Athlete needs to change institute for higher education as there is no facility available in campus.
- All schemes in India have common objective of producing sports talented players of international level.
- All government sports talent children training schemes are based on their school or organizational level structure like Army, for age group 8 to 14 years and country wide spread. (not local level)
- All schemes in India are having entrance test criteria like Battery test for Physical fitness, medical examination. But except Kridakul Program, no other schemes have Intelligence test.
- Major government schemes are only for sports medallist players at district, state or national level.
- All government schemes in India provide stipend, food, sports kit, training equipment and coaching with rewards also. Schemes from army provide service also.
- USHA scheme was for only athletics. It was focused scheme. (like private club)
- Major government schemes are residential type and funded strongly.
- All public and private sector schemes actually train from basics. As they nurture talented players and not directly admit the medallist players but the case is not same with the government schemes..

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Physical and Physiological Profile Status of Indian Elite Road Cyclists

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Abstract

The purpose of the present study was to determine physical and physiological profile status of elite road cyclists in order to provide baseline data for identifying talented athletes and prescribe training for elite cyclists towards specific goals. Twenty male cyclists were selected for the study who have exposure to a minimum 3 to 4 competition at National and International levels in a year. Some selected physical and physiological parameters were assessed tested and major results of the study are as follows; age (25 ± 05 years, mean \pm -SD), body height (173.9 ± 4.43 cm), body weight (68.11 ± 4.73 kg), explosive power of lower limb; standing broad jump (226.5 ± 15.65 cm), standing vertical jump (46.8 ± 6.44 cm), lower back & hamstring flexibility (19.05 ± 3.50 cm), hand grip strength Left (47.87 ± 5.25 kg) & Right (49.41 ± 5.96 kg), back strength (107.8 ± 16.79 kg), aerobic capacity VO2max (55.7 ± 3.80 mlkg⁻¹min⁻¹) and POmax (375 ± 24.70 watts). Road cycling is an extreme endurance sport that places high demands on the physiological status of Indian elite road cyclists, which are important for sports scientists, Coaches and cyclists as a baseline data to identify talented athletes and prescribe training for elite cyclists.

Keywords: Maximum oxygen uptake (VO2max), Anaerobic Power (POmax) Explosive power, elite road cyclists

Introduction

Cycling is used as sports, recreation or transportation. The sport of cycling consists of amateur and professional races all around the world. The cycling sport is governed overall by the Union Cyclist International (UCI) and by each country's cycling federation. Categories of competition include time trials, one-day races in which distances can vary between 200 to 280 km for professionals and 140 to 200 km for amateurs and stage races (Samuel Abt, 2013).

Historical Background of the Sport

Cycling as a sport officially began on 31 May 1868, with a race of 1200 m at Paris and James Moore was the winner of the race. In 1869, the first road race form city-to-city was held between Paris and Rouen and again James Moore was the winner who covered the distance of 135 km in 10 hours 25 minutes.

Cycling as a Olympic Sports

Road and Track races for men were held at the first modern Olympic Games in 1896. First time professionals were allowed to enter the road race and time trial competitions at Atlanta.

Indian Scenario in Cycling:

(a) A brief about past events and performances

Cycling as a sport was introduced in India with the efforts of Shri Janki Das in mid thirties and first time participated in the British Empire Games at Sydney (Australia) in 1938 with Swami Jagan Nath who accompanied as Manager. National Cyclists Federation of India was formed in

1946 and secured affiliation with Union Cyclists International (UCI). The 1st Asian Games were held at National Stadium, New Delhi in 1951, the Indian cycling team won Silver Medal in Team Pursuit, Bronze Medal in 1000 m Time Trial and secured 4th position in 120 miles road race.

(b) **Present Performances:**

The Indian Junior and elite track cyclists in both men and women categories have improved their performance in recent International competitions. But in endurance events, the Indian cyclists do not compete at the International Level. A question arises, *why our cyclists are lacking behind?*

Demands of the Sport

Road cycling is an extreme endurance sport that places high demands on the physical and psychological parameters of individual cyclists. The racing cyclist typically has low body fat, a maximum oxygen uptake, good anaerobic capacity and strong lower limb musculature (Mujika, I., Padilla, S. (2001).

Objectives of the Study:

The purpose of this study was to assess the markers of the performance and prepare the profile status of elite road cyclists in order to better identify talented athletes and also to prescribe training for elite cyclists towards specific goals.

Methodology:

Design of the study: Profiling study

Sample: 20 male elite road cyclists selected to participate in this study. Their age ranges between 21 to 30 years of age. All cyclists had competed in national and International events. Each cyclist read and signed a written informed consent prior to participation and was familiarized with the testing procedure and possible risks.

Collection of Data:

The data was collected by selected tools to measure the physical and physiological variables of elite road cyclists.

Table 1. Data Concellon 10018 to incasure selected variables						
Variables	Test Equipment	Unit				
Explosive power of lower limb	Standing Vertical Jump	Cm				
Back & Hip Flexibility	Sit & bent reach test (Acufex-I)	Cm				
Hand Grip Strength	Hand Grip Dynamometer	Kilogram				
Back Strength	Back Strength Dynamometer	Kilogram				
Maximum oxygen capacity (VO2 max)	20 M Stage Run Canadian Test	mlkg ⁻¹ min ⁻¹				
Maximum Heart Rate	Polar heart rate monitor	Beats/min				
Maximum Power Out put	Cycle ergo-meter	Watt				

Table 1: Data Collection Tools to measure selected variables

Analysis of Data: Statistical tools: Descriptive statistical tools were used to analyse the data. Table 2: Descriptive data of Physical and physiological variables of road cyclists (N=20)

Variables	Mean	SEM	Median	S.D.	Kurtosis	Skewness	Min	Max
Height (cm)	173.87	0.99	173.25	4.43	-0.13	0.05	164.5	183
Weight (kg)	68.11	1.06	69.25	4.73	-0.05	-0.14	59.2	78.2
SBJ(cm)	226.45	3.5	230	15.64	-0.95	-0.44	200	250
SVJ (cm)	46.8	1.44	45.5	6.44	4.08	1.63	39	67
Back flexibility (cm)	19.05	0.8	18	3.56	0.06	0.02	11	25
Left HGS (kg)	47.87	1.17	48.75	5.25	-0.81	-0.17	38.5	56.35
Right HGS (kg)	49.41	1.34	47.88	5.98	-0.26	0.74	41.4	62.25
Back strength (kg)	107.81	3.75	107.25	16.79	-0.9	-0.1	76.25	135.25
VO2max(mlkg- 1min-1)	55.7	0.85	57.9	3.8	-0.06	-1.13	48	58.6
POmax (watt)	316.25	5.52	325	24.7	0.5	0.44	275	375
HRmax (b/min)	192.95	2.02	193	9.03	0.8	-0.27	172	210

Discussion:

Road cycling is an extreme endurance sport that places high demands on the physical and physiological parameters of individual cyclists. The racing cyclist typically has low body fat, a maximum oxygen uptake, good anaerobic capacity and strong lower limb musculature (Mujika, I., Padilla, S. (2001). Professional elite road cyclists posses exceptional endurance. For competitive road cyclists, anaerobic power is also required for the mass start, hill climbing and a sprint finish. The result of this study shows the mean of selected parameters such as age 25 years, body height 173.9 cm, body weight 68.11 kg, explosive power of lower limb; standing broad jump 226.5 cm and standing vertical jump 46.8 cm respectively, lower back & hamstring flexibility 19.05 cm, Left and right hand grip strength 47.87 kg and 49.41 kg respectively, back strength 107.8 kg, aerobic capacity VO2max 55.7 mlkg⁻¹min⁻¹ and POmax 375 watts.

These results provide baseline data of physical and physiological parameters of elite road cyclists and can be used in prescription of individual training programs for cyclists.

This profiles status of elite road cyclists also can be useful to coaches and experts in better talent selection and optimal construction of training program to improve the cycling performance.

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Trends, and Future of Sports Associations in the State of Goa: An Analysis

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Abstract

Sports play a major role in providing opportunities for human contact which is necessary in modern days. The value of sports for health in now-a-days is so well recognized that, each nation has developed special organizations to involve larger and larger number of people into active recreation, keeping the human being /organism trim by regular exercises. The significance of sports is in its participation and in viewing of sports events regularly. Sports serve the social and psychological function by providing a sense of excitement, joy and diversion from daily routine of life to many people in the society. In this study, researcher has undergone the empirical data and find out the facilities which are provided by the sports organisation in order to uplift the sports field and provide the world wide participation.

Keywords: Sports, participation, facilities and sports organisation

Introduction

Development and progress are two dynamic forces that drives the human society. Scientific development in the present century has added much more to this phenomenon of rapid human progress. After the emergence of modern Olympic Games a tremendous developments have taken place in field of physical education and sports. A sport is an essential element of our culture. The role that sports play is vital in the modern era of high technology and increasing aspiration for better standard of living.

The importance of sports emerges on two counts. One, as participant in sports event and second participating as an observer of the event. In both cases participant derives the pleasure. Infact, sports serve the social and psychological function by providing a sense of excitement, joy and diversion from daily routine of life to many people in the society.

Sports is not only a matter of fun and recreation, it has important functions to perform. Few of the most important functions which Sports has to perform are:

- i) enable harmonious development of human being;
- ii) develop social values and national integration;
- iii) provide moral and aesthetic education;
- iv) provide total health;
- v) develop Physical fitness;
- vi) provide knowledge and experiences in motor activity, by way of accumulation and Transmission;
- vii) make best use of free time;
- viii) enable the individual to have national and international contacts; and
- ix) Inculcate sportsmen Sprit amongst people, etc.

Objective of the Study

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The main objective of this study is to find out the facilities that are exists with the State Sports Association and its role in promotion of participation of the sportspersons.

Limitations of the Study

The study is based on the data supplied by the respective sports Associations.

Delimitations of the Study

The study is delimited to Associations recognised by Sports Authority of Goa.

Methodology

The present study is the descriptive survey but it has a qualitative approach. Questionnaire, Interview and observation tools were used for data collection from various primary and secondary sources of data

Findings of the Study

Role of Sports Associations in Promotion of Sports

The sports Association of the respective game/sports event is a body to which the clubs at village level/in the specific area are affiliated. This association work as per its constitution. The association work for promotion the game and is the only body recognised by the respective federation. The association deputes state teams for participation in the National level tournaments organised by different agencies in coordination with the Game Federation at the different venues decided by the federation. The association for different games are registered under Societies Registration Act of 1860 as applicable to the state of Goa. The associations are recognised by the Sports Authority of Goa (SAG). The recognised Sports Associations receives grants from the State government through SAG for promotion of the game for which the association is created.

The broad general functions of the Associations are:

- Promotion of the game for which the Association is established.
- Organisation of competitions/tournament of game at different levels
- Conduct of selection trials, coaching camps, workshops Clinics etc.
- Deputation of the state teams for participation at the national level competitions organised by the Federation
- Recommendation of the sportspersons to the Federations for different awards and International level competitions.

The researcher made the study of various state sports association recognised by the SAG.

At present SAG has granted recognition to 42 associations of different games. A researcher has taken a sample of forty percent of the population that were randomly selected. The questionnaire was administered to the selected sports associations. The Secretary/ President of the association were requested to fill the responses to the questionnaire. The data collected was then subjected to various tools of statistical analysis for drawing meaningful conclusion and interpretation.

Sports Facilities with Associations

The researcher studied the existence of sports facilities required for the game/event of the association. The investigator inquired with the authorities of the associations about the existence of own facilities such as coaching facility, playgrounds and equipments. It was found that only 11.76 percent of the associations have their own playgrounds and equipment facilities.



Awareness and Schemes Availed from Government and non-governmental Agencies by State Associations

The State and national government has initiated a number of schemed for the development of sports in the state. The researcher has attempted to study as to how many sports associations in state are aware of the schemes that are floated by the Government/ non-state institutions. The study was also made by the investigator to know about the schemes availed by the associations. The study found that 94.12 percent of the associations are aware of the various schemes run by the government / non-state institutions for development of the Sports facilities in the State. However, it is found that only 41.18 percent of the associations have availed these schemes. Table 1 shows the schemes availed by the different sports associations in the sample.

	TABLE 1								
	Schemes Availed by Associations								
Sr.	Name of Schome	Percentage of							
No.	Name of Scheme	associations availed							
1.	Playground Preparation	00							
2.	Construction of compound for Playground	00							
3.	Construction of Gymnasium	00							
4.	Purchase of Sports Equipments/Apparatus	17.65							
5.	Purchase of Sports books, Magazines, Journals.	00							
6.	Any other Scheme like organisation of	23.53							
	Seminars/Workshop								
Source	Primary Source								

It is found from the above table that none of the associations have availed schemes for preparation of playgrounds, construction of compound for the playground, construction of Gymnasium and purchase of sports books, Magazine and Journals. Some associations has availed scheme for purchase of sports equipments/apparatus. The percentage of such association is 17.65 percent. The associations availing schemes existing for financial support towards organisation of Seminars/workshops etc. is 23.53%.

Sources of Income for Regular Activities of Association and Budget Preparation

The researcher made the study of the sources of income for running the regular activities of the association. The investigator also inquired about the budget of the associations. It was found that 94.12 percent of the associations prepare their annual budget. The sources of income for running the regular activities of the associations are presented in table no 2. The table shows that 82.35 percent of the associations take sponsorship from well wishers. This is considered to be one of the main sources of income for carrying on the regular activities of the respective association. However, it is found from the study that the associations that are recognised by the SAG receive grants from the state government for its regular activities. Number of associations that has the source of income as government grants is hundred percent. Therefore, it can be assumed that all the state association in the sample study depend mainly on government grants

	TABLE 2 Sources of Income of Associations							
Sr. No.	Sources of Income	Percentage of Associations						
1.	Club affiliation fees	58.82						
2.	Participation and entry fees	52.94						
3.	Sponsorships from Industrial houses.	41.18						
4.	Sponsorships from well wishers	82.35						
5.	Government Grants	100						
6. Any other 17.65								
Source:	Primary Source							

Suggestion for Increase of Funds for the Associations

The researcher requested the authorities of the associations to make suggestions for increasing the funds for the activities. The respondents made some suggestions for the increase in funds. The suggestions given by the respondents are presented in table 3

	TABLE 3							
	Suggestions of the Associations for Raising Fund							
Sr. Suggestion made Percentage of								
No.		Associations						
1	Increase participation fees	76.47						
2.	Increase club affiliation fees	70.59						
3.	Increase government grants	100						
4.	Get more sponsorships	76.47						
5.	Collect revenue by issuing Souvenir/Donation	76.47						
coupons								
6. Others (member contribution) 17.65								
Source	Source: Primary Data							

It is found from the table above that hundred percent of the associations in the sample study suggests that the government grants provided for the associations must be enhanced. It is also found that 76.47 percent of the office bearers of the associations suggested that the participation fees charged by the concerned sport association must be increased but sports clubs affiliated to the associations do not subscribe to this suggestion. About 76.47 percent of the respondent associations suggested that revenue should be increased by the issue of Souvenir/Donation

coupons etc. and 76.47 percent of the associations suggested for increasing revenue by sponsorship.

It is found from the table that 70.59 percent of the associations suggested for increase in club affiliation fees. The percentage of associations that suggested increasing of fund by other ways such as increased contribution from member are merely 17.65 percent.

Suggestions Made by Associations for Increase of Sports Participation

The investigator requested the authorities of the association, to make suggestions for increase of youth participation in sports activities. Some of the suggestions were listed in the questionnaire tool and the responses to the suggestions were requested from the respondents.

It is found from the study that, 94.12 percent of the respondents suggested that more grants from the State Government must be made available for promotion of sports activities. About 76.47 percent of the respondents suggested that, there must be provision of incentives to the sports persons and the incentives to be given in the form of marks at School/ College/University examinations. It is suggested by 88.24 percent of the respondents to award special Prizes for participation in the State level/National level/International level sports activities. The other suggestions like establishment of sports academy, and sports school has been made by the 76.47 percent of the respondents. However, it has been found, that hundred percent of the respondents suggests to increase the reservation quota for sportspersons in the government jobs.

Conclusion and Suggestions

It is found that all the associations depute their teams for participation in the National level competitions under the sub junior, junior and senior category. Further it is found that, only 11.76 percent of the associations have their own playgrounds and equipment facilities. The percentage of associations inviting SAG coaches regularly for training is merely 17.65 percent and those inviting coaches occasionally are 82.35 percent. It was also found from the study that 11.76 percent of the associations wish to develop their own sports facilities in future. It is also revealed by the study that all the associations in the sample are willing to develop their own playground and other sports facilities if 100 percent grants are given to the associations by the State Governments. However, 47.06 percent association wished to develop their own sports facilities through central government grants, and the donations collected from public donors. There are some associations that wish to develop their own sports facilities through the contribution from well wishers and sponsors. The percentage of such associations is about 64.71 percent. The percentage of associations wishing to develop their own sports facilities through Sponsorship is 82.35 percent. On the other hand the number of associations wishing to develop their own sports facilities through organisation of Charity shows is merely 23.53 percent.

The lack of their own sports infrastructure has not acted as a drawback because majority of these associations depend on SAG and DSYA facilities for organisation of their sports events which are available at the district, taluka and even at the village level.

The State Government has floated number of schemes for the development sports infrastructure through SAG and DSYA. These schemes can be availed by the clubs as well as by the Associations. But, this study points out that though 94.12 percent of the associations are aware of the schemes only 41.18 percent of the associations have actually availed these schemes. Further, it is also found that none of these associations have availed schemes for the construction of a playground, compound wall, construction of Gymnasium and purchase of sports books, Magazine and Journals etc. About 17.65 percent of the associations availed the scheme for the

purchase of equipments. The associations that have availed other schemes like financial support for organisation of Seminars or workshops etc are 23.53 percent.

It is found that 94.12 percent of the associations prepare their annual budget. The main source of income of these associations is Grants from the Government though 82.35 percent of the associations take sponsorship from community. Other significant sources of income of these associations are: club affiliation fees, participation and entry fees, etc.

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The Effect of Pranayama on Psycho-Physiological Aspects and Performance Ability of State Level Weightlifters

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Abstract

The present study was undertaken with a view to evaluate the efficacy of pranayama on psychophysiological aspects and performance abilities of state level weightlifters. To achieve the purpose of this study out of Sixty(n=60), Forty elite weightlifters (n = 40) from Marathwada Region of Maharashtra State, were selected randomly as sample by employing Fishers Random Table. The subjects' age group was ranged from 18 to 25 Years. This study was conducted with the following objectives in perspective: To assess status of psychological, morphological, physiological components and weight lifting performance of state level weight lifters. To design specific yoga training especially pranayama techniques considering the performance improvement in the weightlifters. To see the effect of pranayama practices on selected psychological, morphological and physiological of state level weight lifters. To see the effect of pranayama training on overall performance of weight lifters. Pranayama training contributes to improve body mass index, breath holding capacity, and circulo-respiratory function by reducing pulse rate and blood pressure, which are the attributing factors of weightlifting performance. Eight weeks intervention of Pranayama does not alter the personality profile of the weightlifters. Pranavama training improves both snatch as well as clean and jerk performance in weightlifting.

Key words: Weight lifting, Pranayama, Psycho-Physiological, Respiratory Function, Vital Capacity.

Introduction

Weight lifting is an arduous kind of event in sport, where a weightlifter has to lift heavy loaded iron plates. In addition, it is oblivious that before lifting any kind of weight, the lifter has to develop breathing techniques which are favorable to achieve best performance.

Further, controlled breath activates Cardiorespiratory functions, which is important for weightlifting. Cardiorespiratory fitness is the capacity of heart, lung, blood vessels to brought the oxygen and food for muscles during Specific time (Rogers *et al.*, 1990). Uncouthly, much of the victories and registration of records in sport competitions and also having physical healthiness is due to Cardiorespiratorty fitness which in directly related to efficiency of cardiorespiratorty and the rate of maximum oxygen consumption of person (Asadmanesh 1997). Cardiorespiratorty fitness and maximum oxygen consumptions are one the important and credible parameter of healthy, physical fitness and endurance capacity (Zahrayee 1996; Haghravan 1993).

The weight lifters must be aware of maintenance of their own health, fitness as well as their respiratory functioning and vital capacity to achieve success. Since weightlifting is an anaerobic type of activity, pranayama if performed as per the principles of classical yoga (founded by Maharshi Patanjali), may enhance performance. Hence, the investigator has planned this study.

This study was conducted with the following objectives in perspective:

To assess status of psychological, morphological, physiological components and weight lifting performance of varsity level weight lifters.

To design specific yoga training especially pranayama techniques considering the performance improvement in the weightlifters.

To see the effect of pranayama practices on selected psychological, morphological and physiological of state level male weightlifters of Marathwada Region,.

To see the effect of pranayama training on overall performance of weight lifters.

Delimitations

This study has been delimited to Anulom vilom, Ujjayi, Bhastrika and Bhramari pranayama practices.

This study has been delimited to State level male weightlifters of Marathwada Region, age group 18 to 25 years.

METHODOLOGY

The present study was undertaken with a view to evaluate the efficacy of pranayama on psychophysiological aspects and performance abilities of state level weightlifters. To achieve the purpose of this study out of Sixty (n=60), forty elite weightlifters (n=40) from Marathwada Region of Maharashtra, were selected randomly as sample by employing Fishers Random Table. The subjects' age group was ranged from 18 to 25 Years.

Design of Experiment A completely randomized group design (Rothstein, 1985) of two groups of equal numbers was adopted for this study.

Making use of table random numbers all the 40 subjects were divided randomly into two groups viz; Group -A (Pranayama; ; $n_1 = 20$) and Group -B (Control; ; $n_1 = 20$) with equal in numbers. **Pre-test (Phase – I)**

All the subject of different experimental and control groups were exposed to selected psychophysiological components and performance abilities to record the pre test data.

Treatment stimulus (Phase – II)

After the pre test was over, all the subjects of experimental group were exposed to eight weeks training of selected pranayama practices for one hour daily in the morning except Sundays and Holidays. Every day after completion of training the subjects of the experimental group were exposed to regular practice of weightlifting daily for one hour. The controlled subjects, although did not receive the above mentioned training, however, were kept busy with some recreational activities one hour daily in the morning except Sunday and holidays during the total period of experiment. After completion of daily one hour controlled period in the subjects of the control group were exposed to regular practice of weightlifting daily for one hour. For a total period of eight weeks one yoga teacher was appointed to conduct the specially designed pranayama training intervention under the overall supervision of present investigator.

Post test (Phase – III)

Finally, when the treatment or training period of eight-week was over, the post-test on psycho-Physiological aspects and performance in weightlifting was conducted for all the subject of both the control and experimental groups.

Selection of Variables

Measurement of variables							
Sr.	Name of Variables	Tools/ Method used	Criterion Measures				
No.							
A)	Morphological Aspects						
01	Height	Stadiometer	Nearest to 0.005 M.				
02	Body weight	Weighing machine	Nearest to 0.5 Kg.				
03	BMI (Body Mass Index)	Formula with the scores of	Nearest to 0.01 Pt.				
		body height and weight					
B)	Physiological Aspects						
04	Vital Capacity	Spiro Meter	Nearest to 0.05 Lit./min.				
05	PEFR	Peak flow meter	Nearest to 0.05 Lit./min.				
06	Breathing Holding	Stop Watch	Nearest to 0.05 Sec.				
	Capacity						
07	B.P. (Blood Pressure)	Sphygmomanometer	Nearest to 1 mmHg				
08	Heart Rate	Feeling of pulse and use of	Nearest to 1 beat/ min				
		stop watch					
B)	Psychological						
09	Personality	Personality test	Nearest to 1 point				
C)	Performance in Weightlif	ting					
10	Performance in	Snatch and Clean & Jerk	Lifted weight nearest to 1				
	Weightlifting		Kg.				

	Table 1
V	leasurement of variables

Collection of Data

The data were collected two times i.e., during pre-test and post-test for each variable by administering their respective tests. The tests were administered in a hall. To ensure the data collected was reliable each subject was given sufficient number of trials to perform the respective test for each variable. The tests used were explained to the subjects prior to their administration. The subjects were given chance to practice the tests and made them familiar with the same.

Reliability of Data

Reliability of data was ensured in establishing the instrument reliability, testers' reliability, and reliability of tests.

Statistical Analysis

Descriptive statistics was applied to process the data. Further, the efficacy of the pranayama training was evaluated by employing inferential statistics i.e., 2 x 2 x 12 Factorial ANOVA. The results of factorial ANOVA were then substantiated to Scheffe's post hoc analysis.

MAJOR FINDINGS

The result of factorial ANOVA followed by Scheffe's post hoc test revealed that -

Pranayama group could not show significant improvement in Personality score than the Control group (CD=0.16, p>0.05).

- Pranayama group could not show superiority over the Control group in altering Diastolic Blood Pressure (CD=0.15, p>0.05).
- Pranayama group showed no significant superiority over the Control group in body height (CD=0.06, p>0.05).
- Pranayama group showed significant increase in Breath Holding Capacity as compared to Control group (CD=0.38, p<0.05).
- Pranayama group showed significant superiority over the Control group in reducing Body Weight (CD=0.21, p<0.05).
- Pranayama group showed significant superiority over the Control group in improving Body Mass Index (CD=0.23, p<0.05).
- Pranayama group showed significant superiority over the Control group in increasing Vital Capacity (CD=0.25, p<0.05).
- Pranayama group showed significant superiority over the Control group for increase in PEFR (CD=0.30, p<0.05).
- Pranayama group showed significant superiority over the Control group in reducing Pulse Rate (CD=0.21, p<0.05).
- Pranayama group showed significant superiority over the Control group in reducing Systolic Blood Pressure (CD=0.24, p<0.05).
- Pranayama group showed significantly better improvement in Clean & Jerk event than the Control group (CD=0.31, p<0.05).
- Pranayama group showed significantly better improvement in Snatch event than the Control group (CD=0.28, p<0.05).

CONCLUSION

- Eight weeks intervention of Pranayama does not alter the personality profile of the weightlifters.
- Pranayama training contributes to improve body mass index, breath holding capacity, and circulo-respiratory function by reducing pulse rate and blood pressure, which are the attributing factors of weightlifting performance.
- Pranayama training improves both snatch as well as clean and jerk performance in weightlifting.

RECOMMENDATION

The results and conclusion recommends the followings:

- It is recommended that the coaches of weightlifting events must include selected Pranayamas in their regular training schedule.
- Pranayama training is recommended for the weightlifters because it helps to improve the morphological and physiological attributes of weightlifting performance.
- Since Pranayama cannot be separated from other yoga practices, some preparatory Asanas as suggested in the training intervention might be included to have a composite effect.

CONTRIBUTION TO THE KNOWLEDGE

Weightlifting is an international level of sports, where top performance is depending upon many strategies. Although application of yoga in sports is gradually recognized, the special impact of pranayama training on weightlifting performance is not known. The present investigation could

unfold the applicability of pranayama training especially in enhancing weightlifting performance. The result of this study could add a quantum of knowledge to the literature of world sports about the need of pranayama in the training schedule of weightlifters.

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A Comparative Study of Nutrients Value of Volleyball Players and Football Players of I.D.C.P.E at Inter Collegiate Level

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INTRODUCTION:

Health is a state of physical, mental, emotion and social well being, good health enables people to enjoy life and have the opportunity to achieve the goal, For good health needs proper nutrition.

NUTRITION:

Nutrition usually defined as the sum of total process involved in the intake and utilization of food substances by living organisms.

Nutrition play a vital role throughout the entire life of an individual, proper nutrition is importance for normal growth and development, maintains of disease. Individuals with good nutritional status perform better physically, mentally, cope better with environmental and occupational stresses. There are six major classes of nutrients founds in foods: carbohydrates, fats, protein, vitamin, minerals and water. This nutrients perform three major function:-

(1) They provide energy for human metabolism.(carbohydrates and fats).

(2) Nutrition's are used to promote growth and repair of muscles and other body tissues.(protein)

(3) They are used to help regulate metabolism or body processes.(vitamin, minerals, water)

CARBOHYDRATES: (a) Simple carbohydrates, (b) complex carbohydrates.

PROTIEN: (a) Non-essential protein (b) Essential protein.

FAT: (a) Saturated fats (b) Unsaturated fats.

VITAMIN :(a) Fat soluble(A.D.E.K) (b) Water soluble(B.C).

MINERAL: (a) Iron (b) calcium (c) phosphorus (d) potassium (e) sodium (f) Iodine (g) Fluoride (h) copper (i) Zinc (j) chloride.

SPORTS NUTRITION-

Sports nutrition is a relatively new area of study involving the application of nutritional principles to enhance sports performance, although investigators have studied. The interaction between nutrition and various forms of sports or exercise for more than hundred years, that extensive research has been undertaken regarding specially recommendation to athletes.

Sports and nutrition are directly related to each other taking into consideration the fact that sports persons need more energy to carry out their performance effectively it becomes of prime importance to take care and planning of the nutrition and implementation is required. Then it comes to sports to sports nutrition.

ROLE OF NUTRITION IN EXERCISE AND SPORTS-

Research on the role of nutrition in exercise and sports has increased dramatically over the last 15 years. Today there is no doubt that nutrition plays a vital role in exercise performance and training . Shows that carbohydrates are important for endurance exercise performance and during timed of high intensity training. Discusses the role fluid in take plays in both short term and endurance exercise. There is no question that competitive athletes can benefit from adequate energy, nutrient and fluid intakes hard nutrition can also help competitive or recreational athletes recover from strenuous physical activity.

OBJECTIVE: To compare nutrients value of volleyball players and football players.

NUTRITION VALUE: Food nutrition value measure raw food nutrition, which is the amount of nutrients given serving of food, nutritional value is measured in terms of a percentage, meaning how much of a particular nutrient your body gets from eating one serving of a given food.

NUTRITIENTS: Nutrients are chemical components of food that supply nourishment to the body. They are required by the body in the right amounts and they must be eaten regularly, Each nutrients proteins, carbohydrates, fats, minerals, vitamins and water performs a specific function in our body.

METHODOLOGY SELECTION OF SAMPLE:

The research scholar selected 60 football and volleyball players at inter collegiate level from Ishwar Deshmukh college of Physical Education which is affiliated to R.T.M. Nagpur University, Nagpur, using the purposive method.

DESCRIPTION OF SAMPLE:

The total 60 sample were selected from Ishwar Deshmukh college of Physical Education, out of 60 players 30 were football players and 30 were volleyball players. These two group were further divided equally into two group of 15 male and 15 female of each game of volleyball and football game.

COLLECTION OF DATA:

There was collected by means of questionnaire prepared by research scholar with the help of guide and expert in this field.

ADMINISTRATION OF QUESTIONNAIRE:

After the formulation of the questionnaire the research scholar took the permission from the Principal and made arrangement to meet both players of volleyball and football at a specific time. The questionnaire was given personally by research scholar to the selected players. A suitable time was given to the research scholar to give them instruction on the questionnaire so that they don't get any difficulty or problem to fill-up the questionnaire. The questionnaires were solved immediately at that time on the sports. The players were advised to take around 15 minutes to fill- up the questionnaire through there was no time limit set to respond to the question, the players were also advised not to copy friend and to give responses by themselves. After obtaining the 60 filled questionnaires. The questionnaire was analyzed.

STATISTICAL TREATMENT OF DATA:

The response obtained from the player analyzed and according to amount of food consumed by them, the calories values were calculated and taken as raw score for the study. Mean, Standard deviation and 't' ratio was used to found out the comparison of volleyball and football players.

ANALYSIS OF DATA:

The main objective of the present study was to know nutrients value of volleyball players and football players:-

After collection the inventory from all the subjects it is analysed according to amount of food consumed by the players. The calories value were calculated and taken as raw score for the study.

Table No. 1 Showing the score of nutrient value of male football players and female football players:

0		1 2		1 2
Team	Mean	DM	S.E	't' ratio
Male football team	3728.49	915.64	219.34	4.17
Female football team	2812.85			

The mean value of male football players and female football payers in nutrient value is 3728.49 cal and 2812.85 cal respectively, value is significant at 0.05 level because the value of 't' ratio is greater than 2.13.

Table no. -2 Showing the score of nutrient value of male volleyball players and female volleyball players:

players.						
Team	Mean	DM	S.E	't' ratio		
Male volleyball players						
	3732.23	906.15	216.43	4.18		
Female volleyball players	2826.08					

The mean value of male volleyball players and female volleyball payers in nutrient value is 3732.28 cal and 2826.08 cal respectively, value is significant at 0.05 level because the value of 't' ratio is greater than 2.13.

Table no.- 3 Showing the score of nutrient value of male volleyball players and male football players:

Team	Mean	DM	S.E	't' ratio
Male volleyball team	3732.23	3.74	189.69	0.02
Male football team	3728.49			

The mean value of male volleyball players and male football payers in nutrient value is 3732.23 cal and 3728.49 cal respectively, value is significant at 0.05 level because the value of 't' ratio is greater than 2.13.

Team	Mean	DM	S.E	't' ratio
Female football team	2826.08	13.23	241.94	0.05
Female volleyball team	2812.85			

Table no. - 4Showing the score of nutrient value of female football team and female volleyball team:

The mean value of female football players and female volleyball payers in nutrient value is 2826.08 cal and 2812.85cal respectively, value is significant at 0.05 level because the value of 't' ratio is greater than 2.13.

Conclusions:

In the light of the result of this study following conclusions can be drawn-

- (a) There was significant difference of nutrient value between male football players and female football players.
- (b) There was significant difference of nutrient value between male volleyball players and female volleyball players
- (c) There was no significant difference of nutrient value between female volleyball players and female football players.
- (d) There was no significant difference of nutrient value between male volleyball players and male football players.

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Genetics of Sports and Fitness

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Abstract

Physical fitness is a complex phenotype influenced by a myriad of environmental and genetic factors, and variation in human physical performance and athletic ability has long been recognized as having a strong heritable component. Recently the development of technology in the field of sports for rapid DNA Sequencing and genotyping has allowed the identification of some of the Individuals genetic variations that contribute to athletic performance. This review will examine the evidence that has accumulated over the last three decades for a strong genetic influence on human sports and fitness performance, with an emphasis different trajectories to achieving elite athletic performance in sports with respect to cardio respiratory and skeletal muscle function, which are particularly important for performance in a variety of sports. We will then review recent studies that have identified gene map for performance and fitness. Finally, we will explore the scientific implications of our rapidly growing understanding of the genetic basis of variation in performance and different ways of genetic testing.

Keywords: DNA Sequencing, Gene Doping, WADA

Introduction

Elite athletes who are competing at International level in their chosen sports represent a rare convergence of genetic potential and environment factors (Mybourgh,2003). There is no doubt that environmental factors such as training ,nutrition ,geographical conditions are essential for the development of an elite athlete .The emerging science of genetics / DNA testing identify the right diet and exercises for a person and predicts the disease that a person is likely to have in the future. Active DNA scan is to identify. Diet and nutrition, Sports and Exercise, Personality traits, Health and medicines, structure of muscles, physiology of the body etc.

We used to think our fate was in our stars. we know, in large measure, our fate is in our genes {James Watson, 1989 cited in Vitzthum (1) Our genes control our <u>biological systems</u> such as muscle, cartilage and bone formation, muscle energy production, <u>lactic acid</u> removal, blood and tissue oxygenation. Research by Kambouris (2011)^[2] identified that variations in the DNA sequence of these genes have an impact on an individual's <u>components of fitness</u> (endurance, speed, strength etc.), vulnerability to <u>sports injury</u> and <u>nutritional</u> requirements. Knowledge of the appropriate gene DNA structure suitable for an athletic event or sport and the athlete's gene DNA may allow an athlete to select the most appropriate sport for them and <u>plan their training</u> and nutritional programmes to optimise health and performance.

Mauffulli & Merzesh (2007) found that mutations in collagen called COL5A1 led to the structure that supports the tendon being more loosely connected, making the tendon less stable and perhaps more susceptible to injury.

Methodology

The goal of human gene map for fitness and performance is to review all genetic loci and markers shown to be related to physical performance or health –related fitness phenotypes in at least one study. Significant research studies shows effect of genes on structure, function and performance which is evident in the Table 1.

TABLE 1 Effect of Genes on Structure, Function and Performance				
Sr. No.	Characteristics	Effect of Genes		
1	Height, Length of Arms	Large		
2	Waist Girth	Small to Moderate		
3	Muscle Size	Large		
4	Muscle Fiber Composition (Fast and Slow-Twitch)	Large		
5	Mitochondria /Gram of Muscle	Small		
6	Heart Size	Large		
7	Lung Size and Volume	Large		
8	Activities of muscle Enzymes Used to Produce	Small to moderate		
	Energy			
9	Resting heart Rest	Large		
10	Blood Pressure	Moderate		
11	Air Flow in Lungs	Moderate		
12	Muscular strength	Large		
13	Muscular Endurance (Pushups,pull-ups)	Moderate to large		
14	Movement Speed	Moderate		
15	Balance	Small		
16	Flexibility of Joints	Large		
17	Reaction Time	Small to moderate		
18	Accuracy of Movement	Small to moderate		
19	Aerobic Endurance (eg :distance running or cycling)	Moderate to large		
20	Anaerobic Power (maximal cycling power output in 10 second)	Moderate		

The Dutch Minister of Sport, Ms. Ross-van Dorp, has asked the Netherlands Centre for Doping affairs for an inventory of the possible applications of genetic manipulation in sports. The various aspects of gene doping was studied:

Aspects of gene doping

- Potential to enhance athletic performance
- Potential health risks
- Applicability in an athletic setting
- Preventive measures

The fitness and performance map now includes 214 autosomal gene entries and quantitative trait loci plus seven others on the X chromosome. There are 18 mitochondrial genes that have been shown to influence fitness and performance phenotypes. And some genes are even used to repair the muscle damage.

Making of a Champion

Making of champion is not a product of nature and nurture but the science has gone far beyond this. The making of champion with predetermined skills set is chosen with the help of the following steps involved in it:

• Genetic Engineering

- Gene Therapy
- Gene Doping

Genetic Engineering

The Process of Genetic Engineering has Five Main Steps:

- Isolation of the gene of interest
- Insertion of the gene into a transfer vector, or carrier (e.g. virus, bacteria's)
- Transfer of the vector/carrier to the organism to be modified
- 4. Transformation of the cells of the organism (e.g. virus multiplies)
- Separation of the genetically modified organism from those that have not been successfully modified.

Gene Therapy

The human genome represents the whole genetic information of each individual. This information resides on the chromosomes (23 pairs), which are present in each nucleus of all the cells that make up the organs. The chromosomes contain DNA(Deoxyribonucleic Acid) which is a double helix composed of four bases (A=adenine=guanine, T=thymine and C=cytosine). The genetic information is determined by the sequence of these bases in a chain of nucleotides. This sequence determines the order of amino acids to create a specific protein, such as enzymes or structural proteins. The sequence information that is necessary to obtain one specific protein is called a gene.

Genomics is the study of genes and their function, which includes genome mapping, gene sequencing and gene function. One way to study the genome is by DNA chip or gene array; a microchip that holds DNA probes that form half of the DNA double helix and can recognize DNA from samples being tested. DNA chips are widely used to study the composition and activity of different genes under different circumstances, including disease and fitness. One such chip may hold up to 30000 genes and thus covers almost the complete human genome.

Gene Doping

According to WADA, gene or cell doping is defined as 'the non-therapeutic use of genes, genetic laments and/or cells that have the capacity to enhance athletic performance' [The World Anti-Doping Agency, 2001] this definition leaves room for questions. What exactly is non-therapeutic? In the future it may be possible to treat patients with muscle disorders by genetic medicines that will improve their muscle strength. Will these patients be allowed to perform? The same holds true for patients who were treated for cancer by chemotherapy and now receive a gene encoding Epos to boost recovery of the bone marrow but may also increase their haematocrit levels.

Studies have also been conducted to speed up wound healing and to ameliorate muscular soreness after exercise, a practice that might not be considered as 'therapeutic' by everybody and their performance enhancement properties might be questionable. Once genetic therapies have become commonplace, it will not be fair to deny these therapies to all athletes. From a clinician's point of view It would be better to specify the definition of gene doping so it will solely address the unapproved use of genetic transfer technologies.

The aspect of fair play might be compromised by gene doping in an especially deep and potentially disastrous way for the practice of sports. In the area of pharmacogenetics, which is

being developed rapidly by the combined efforts of science and the pharmaceutical industry, the objective is to develop 'tailor-made' medicines for individuals.

Discussion & Findings

Many genes that potentially have an effect on athletic performance are readily available. These genes are evaluated in clinical trials for the treatment of illnesses.

- 70 % Jamaicans habitants have the ACTN3 gene version that produce Actinin-3 protein
- 28 % of Jamaicans are heterozygous for ACTN3 gene, which has the same effect but to a lesser degree.
- The rest have the "null" form of the gene that produces no protein at all.
- Australians: only 30 % per cent were found with the speed protein Actinin-3
- At least one billion people worldwide must be completely deficient in Actinin-3

Conclusions

The athletic world will sooner or later be faced with the phenomenon of gene doping to improve athletic performance. The exact number of years that it will take for this method to enter the athletic arena is difficult to estimate, but it is most likely that this will happen within five years. Scientists around the world are searching for ways to use the information gained from the Human Genome Project.

- Gene therapies are designed to alter damaged or diseased genes and athletes will some day try to abuse these therapies to enhance their performance.
- Use of non-therapeutic gene transfer technologies solely for enhancement of performance contains many risks regarding the health of athletes.
- Governments and sports organization's should begin to work appropriate policies regarding the use of gene therapies by healthy athletes in order to increase their performance

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Trends, Issues and Future of Sports arena in the State of Goa: An analysis Ramlal Saji Vernekar⁴ and Vikrant V P Mudliyar⁵

Abstract

State Government Finances is one of the areas in Macroeconomic Management of Finances in general and public finance in particular. Political philosophy of the Government is always reflected through its budgets. Similarly, Financial Practices and policies have to operate in a given set up of political ruling party in any nation through their respective states. Therefore, it is very difficult to demark boundaries of economic and political science in macro-economic of an economy. Centre-State financial relations have created a tension for both the governments. Scientific studies are necessary for better management of developing countries like India in the field of physical education and sports. Now-a-days every State has financial problem to manage its budget deficit and to render welfare activities which includes Sports infrastructure and other modern equipment technology.

This study provides a self contained overview of the present problems of State finances in Goa with special reference to Sports facilities. The paper attempts to evaluate the State finances highlighting various schemes, facilities and various policies for the sports personalities in the state of Goa; the paper also gives details about the funds utilization and their positive impact on participation in various sports.

Keywords:- Deficit Finance, Sports facilities, infrastructure, Funds utilization.

Introduction

Sports play a major role in providing opportunities for human contact which is necessary in modern days. The value of sports for health in now-a-days is so well recognized that, each nation has developed special organizations to involve larger and larger number of people into active recreation, keeping the human being /organism trim by regular exercises. The significance of sports is in its participation and in viewing of sports events regularly. Sports serve the social and psychological function by providing a sense of excitement, joy and diversion from daily routine of life to many people in the society. In this study, researcher has undergone the empirical data and find out the facilities which are provided by the sports organisation in order to uplift the sports field and provide the world wide participation

Sports play a major role in providing opportunities for human contact which is necessary in modern days. The value of sports for health in now-a-days is so well recognized that, each nation has developed special organizations to involve larger and larger number of people into active recreation, keeping the human being /organism trim by regular exercises. The significance of sports is in its participation and in viewing of sports events regularly. Sports serve the social and psychological function by providing a sense of excitement, joy and diversion from daily routine of life to many people in the society.

Sports is not only a matter of fun and recreation, it has important functions to perform. Few of the most important Functions which Sports has to perform are:

1. enable harmonious development of human being;

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- 2. develop social values and national integration;
- 3. provide moral and aesthetic education;
- 4. provide total health;
- 5. develop Physical fitness;
- 6. provide knowledge and experiences in motor activity, by way of accumulation and Transmission;
- 7. make best use of free time;
- 8. enable the individual to have national and international contacts; and
- 9. Inculcate sportsmen Sprit amongst people, etc.

People participate in sports for various reasons like maintenance of health and fitness, social development, recreation, etc. The contribution of sports towards the welfare of society is as under:

- Sports provide means for recreation and relaxation of human body and mind, from daily exertions /tensions in life.
- It helps to provide opportunity for all round development of personality of an individual.
- It serves as effective means for rehabilitation in case of injuries and deformities of human body.
- It helps to provide peace and harmony amongst the people of different religion, race, caste and creed.
- It helps to prevent diseases by way of increasing physical fitness.
- It provides opportunity for individual, state, and the nations to compete with each other to achieve excellence without conflicting with one another.

According to Bengt, O.E. "Sport also has its drawback. It can give rise to injuries and illness, but actually many other activities are injurious/ hazardous to health, causing illness or can make the individual handicapped".

SPORTS ASSOCIATIONS AND PROMOTION OF SPORTS

The sports Association of the respective game/sports event is a body to which the clubs at village level/in the specific area are affiliated. This association work as per its constitution. The association work for promotion the game and is the only body recognised by the respective federation. The association deputes state teams for participation in the National level tournaments organised by different agencies in coordination with the Game Federation at the different venues decided by the federation.

The association for different games are registered under Societies Registration Act of 1860 as applicable to the state of Goa. The associations are recognised by the Sports Authority of Goa (SAG). The recognised Sports Associations receives grants from the state government through SAG for promotion of the game for which the association is created. The broad general functions of the Associations are: Promotion of the game for which the Association is established. Organisation of competition / tournament of the game at different levels. Conduct of selection trials, coaching camps, workshops Clinics etc. Deputation of the state teams for participation at the national level competitions organised by the Federation and recommendation of the sportspersons to the Federations for different awards and International level competitions.

The researcher made the study of various state sports association recognised by the SAG. At present SAG has granted recognition to 42 associations of different games. A researcher has taken a sample of forty percent of the population that were randomly selected. The questionnaire was administered to the selected sports associations. The Secretary/ President of the association
were requested to fill the responses to the questionnaire. The data collected was then subjected to various tools of statistical analysis for drawing meaningful conclusion and interpretation.

SPORTS FACILITIES WITH ASSOCIATIONS

The researcher studied the existence of sports facilities required for the game/event of the association. The investigator inquired with the authorities of the associations about the existence of own facilities such as coaching facility, playgrounds and equipments. It was found that only 11.76 percent of the associations have their own playgrounds and equipment facilities. The percentage of associations inviting SAG coaches regularly for training is 17.65 percent and those inviting coaches occasionally are 82.35 percent.

The researcher investigated about the associations plan for the development of their own sports facilities and the sources from which the associations wish to raise fund essential for the development of these facilities. It was found from the study that 11.76 percent of the associations wish to develop their own sports facilities. However, if funds are made available to them by various agencies then the associations responded that they would like to develop their own facilities. To the options put forth by the researcher the responses of the associations is depicted in the table 1.

TABLE 1				
FINANCIAL SOURCES FROM WHICH THE ASSOCIATIONS WISHES TO				
DEVELOP THE SPORTS FACILITIES				

Name of the financial source.	Percentage of Associations willing to take			
	support from the source.			
State Government Grants	100			
Central Government Grants	47.06			
Donations	47.06			
Contribution from Well wishers	64.71			
Contribution from Sponsorers	82.35			
Contribution through organising Charity	23.53			
show				

From the table 1, it is seen that the all associations in the sample are willing to develop their own playground and other sports facilities if 100 percent grants are given by the State Governments. The percentage of association that wishes to develop their own sports facilities through central government grants, and the donations collected from public donors are 47.06 percent. There are some associations that wish to develop their own sports facilities through the contribution from well wishers and sponsorship. The percentage of such associations is about 64.71 percent. The percentage of associations wishing to develop their own sports facilities through Sponsorship is 82.35 percent. On the other hand the number of associations wishing to develop their own sports facilities through organisation of Charity shows is only 23.53 percent.

AWARENESS AND SCHEMES AVAILED FROM GOVERNMENT/NON GOVERNMENTAL AGENCIES BY STATE ASSOCIATIONS

The Government of Goa and the Government of India has prepared number of schemed for the development of sports in the state/country. The researcher made a study to know whether the associations in Goa state are aware of schemes prepared by the Government/ non governmental agencies. The study was also made by the investigator to know about the schemes availed by the associations. The study found that 94.12 percent of the associations are aware of the various

schemes prepared by government / non governmental agencies for development of the Sports facilities. However, it is found that only 41.18 percent of the associations have availed these schemes. Table 2 shows the schemes availed by the different sports associations in the sample.

Sr. No.	Name of Scheme	Percentage of associations availed
1.	Playground Preparation	00
2.	Construction of compound for Playground	00
3.	Construction of Gymnasium	00
4.	Purchase of Sports Equipments/Apparatus	17.65
5.	Purchase of Sports books, Magazines, Journals.	00
6.	Any other Scheme like organisation of	23.53
	Seminars/Workshop	

 Table 2

 SCHEMES AVAILED BY ASSOCIATIONS

It is found from the table above that none of the associations have availed schemes for preparation of playgrounds, construction of compound for the playground, construction of Gymnasium and purchase of sports books, Magazine and Journals. Some associations has availed scheme for purchase of sports equipments/apparatus. The percentage of associations such association is 17.65 percent. The associations have availed other schemes like financial support for organisation of Seminars/workshops is 23.53 percent.

SOURCES OF INCOME FOR REGULAR ACTIVITIES OF ASSOCIATION AND BUDGET PREPARATION

The researcher made the study of the sources of income for running the regular activities of the association. The investigator also inquired about the budget of the associations. It was found that 94.12 percent of the associations prepare their annual budget. The sources of income for running the regular activities of the associations are presented in table no 3.

TABLE NO 3SOURCES OF INCOME OF ASSOCIATIONS.					
Sr.No.	Sources of Income	Percentage of Associations			
1.	Club affiliation fees	58.82			
2.	Participation and entry fees	52.94			
3.	Sponsorships from Industrial houses.	41.18			
4.	Sponsorships from well wishers	82.35			
5.	Government Grants	100			
6.	Any other	17.65			

It is evident from the above table 3 that 82.35 percent of the associations take sponsorship from well wishers. This is considered to be one of the main sources of income for carrying on the regular activities of the respective association. However, it is found from the study that the associations that are recognised by the SAG receive grants from the state government for its regular activities. Number of associations that has the source of income as government grants is hundred percent. Therefore, it can be assumed that all the state association in the sample study has a main source of income as government grants.

The percentage of association that has source of income as club affiliation fees is 58.82 percent. The percentage of associations that has source of income as participation and entry fees is 52.94 percent. It is found from the study that 41.18 percent of the associations receive sponsorship from the Industrial houses which serve as the important source of income of the association.

SUGGESTION FOR INCREASE OF FUNDS FOR THE ASSOCIATIONS

The researcher requested the authorities of the associations to make suggestions for increasing the funds for the activities. The respondents made some suggestions for the increase in funds. The suggestions given by the respondents are presented in table 4.

TABLE 4 SUGGESTIONS OF THE ASSOCIATIONS FOR RAISING FUND					
Sr.No.	Suggestion made	Percentage of Associations			
1	Increase participation fees	76.47			
2.	Increase club affiliation fees	70.59			
3.	Increase government grants	100			
4.	Get more sponsorships	76.47			
5.	Collect revenue by issuing	76.47			
	Souvenir/Donation coupons				
6.	Others (member contribution)	17.65			

It is found from the table above that hundred percent of the associations in the sample study suggests that the government grants provided for the associations must be increased. It is also found that 76.47 percent of the associations suggested that the participation fees charged by the concerned sport association must be increased. It is suggested by 76.47 percent of the associations to collect revenue by issuing Souvenir/Donation coupons and the percentage of associations suggesting to get more sponsorships is also 76.47 percent.

It is found from the table that 70.59 percent of the associations suggested for increase in club affiliation fees. The percentage of associations that suggested increasing of fund by other ways such as contribution from members of the associations is 17.65 percent.

SUGGESTIONS MADE BY ASSOCIATIONS FOR INCREASE OF SPORTS PARTICIPATION

The investigator requested the authorities of the association, to make suggestions for increase of youth participation in sports activities. Some of the suggestions were listed in the questionnaire tool and the responses to the suggestions were requested from the respondents.

It is found from the study that, 94.12 percent of the respondents suggested that more grants from the State Government must be made available for promotion of sports activities. About 76.47 percent of the respondents suggested that, there must be provision of incentives to the sports persons and the incentives to be given in the form of marks at School/ College/University examinations. It is suggested by 88.24 percent of the respondents to award special Prizes for participation in the State level/National level/International level sports activities. The other suggestions like establishment of sports academy, and sports school has been made by the 76.47 percent of the respondents. However, it has been found, that hundred percent of the respondents suggests to increase the reservation quota for sportspersons in the government jobs.

FINANCIAL ANALYSIS OF SOURCES OF INCOME AND EXPENDITURE OF ASSOCIATIONS:

ANALYSIS OF INCOME

For the development of any sports/ game the availability of infrastructure is one of the key factors. For the purpose of development of infrastructure and its maintenance the existence of funds is very essential. Funds are also required for the purchase of sports equipments, payment of TA and DA of the participants, officiating charges and other items. For incurring above mentioned expenditure the associations has to raise funds.

Funds raised by the Associations can be broadly classified into three heads: 1) Grants from Government and Federations; (2) Donations/ Advertisement / sponsorship from industry and well-wishers; 3) Other Income like affiliation fee, participation fee, gate collection and other income sources. The analysis of the selected associations shows that for the period 2007 to 2011, 69.8 percent of Income on an average for all Associations was contributed by primarily in the form of grants. Donations and advertisements on an average for all the Associations for the period under consideration contributed 16.5 percent of total income. Other income contributed during the said period is about 13.7 percent of the total income (see Graph IV). Further, analysis shows that the highest contribution of grants in percentage terms is seen in case of Goa Baseball Association (97.6 %), Goa Sapeatakraw Association (93.7 %), Goa Kabaddi Association (87.5 %), Goa Judo Association (78.0 %), Goa Swimming Association (74.5 %) and Goa Badminton Association (64.0 %) as an average for period 2007 to 2011. The lowest contribution of grants to the total income is seen in case of Goa Softball Association (35.2%), Goa Football Association (38.5 %) and Goa Kho-kho Association (59.2%) (see graph). As far as contribution of donations and advertisements are concerned the highest contribution is observed in case of the Goa Softball Association (64.5 %), followed by Goa Kho-kho Association (36.1 %) and Goa Football Association (25.0 %). For rest of all other associations the contribution of donations and advertisement is less than one percent. This indicates that these games are unable to attract sponsors', donors and advertisers mainly due to lack of popularity of these games in the State of Goa.



With respect to other income it is revealed that highest income is seen in case of Goa Football Association (36.5 %). For Goa Football Association the major part of the other income comes from gate collection. This is because football is one of the most popular sports in the State of Goa. The other Associations having higher contribution from other sources are Goa Badminton Association (35.3 %). It is to be noted here that this association earns huge margin on the retail sale of shuttle cocks and participation/ entry fee. The Goa Judo Association shows higher income from other income source which is about 22 %. This is mainly because their source of income is participation fees.



ANALYSIS OF EXPENDITURE

The expenditure pattern of all Associations in the sample study together indicates that 33.5 percent of the total expenditure is made by the Associations in organisation of events or games, 29.7 % of the expenditure is incurred on the participation in different national level events, 3.6 percent of total expenditure is spent on Coaching Camps. About 7.6 % of the total expenditure is incurred on consumable goods like Jerseys, track suits, shoes and other items. Other expenditure which includes publicity, professional charges, auditors fee, printing and stationary and other is 25.4 percent. This indicates that bulk of the expenditure is made by the Associations on organisation of events and administration and participation. Actual expenditure made on the training/ Coaching of participants and consumables is very low which is about 11.3 percent for the period 2007 to 2011.



Association wise expenditure analysis shows that the highest organisational expenditure to the total expenditure is incurred by the Goa Swimming Association (79.9 %) followed by Goa Football Association (68.1 %), and Goa Kho-kho Association (55.7 %). Other association spends less than 50 percent of the total expenditure on the organisation of the events. Further the study has also noted that Goa Sapaktakraw Association has not organised any event during the period 2007-11.

CONCLUSION & SUGGESTIONS

It is found that all the associations depute their teams for participation in the National level competitions under the sub junior, junior and senior category. Further it is found that, only 11.76 percent of the associations have their own playgrounds and equipment facilities. The percentage of associations inviting SAG coaches regularly for training is 17.65 percent and those inviting coaches occasionally are 82.35 percent. It was found from the study that 11.76 percent of the associations wish to develop their own sports facilities in future. It is also revealed by the study

that all the associations in the sample are willing to develop their own playground and other sports facilities if 100 percent grants are given to the associations by the State Governments. However, The 47.06 percent association wished to develop their own sports facilities through central government grants, and the donations collected from public donors are. There are some associations that wish to develop their own sports facilities through the contribution from well wishers and sponsorship. The percentage of such associations is about 64.71 percent. The percentage of associations wishing to develop their own sports facilities through Sponsorship is 82.35 percent. On the other hand the number of associations wishing to develop their own sports facilities through organisation of Charity shows is merely 23.53 percent.

The lack of their own sports infrastructure has not acted as a drawback because majority of these associations depend on SAG and DSYA facilities for organisation of their sports events.

The State Government has floated number of schemes for the development sports infrastructure through SAG and DSYA. These schemes can be availed by the clubs as well as by the Associations. But, this study points out that though 94.12 percent of the associations are aware of the schemes only 41.18 percent of the associations have availed these schemes. Further, It is also found that none of the associations have availed schemes for construction of playgrounds, compound for the playground, construction of Gymnasium and purchase of sports books, Magazine and Journals. Some associations has availed scheme mainly for the purchase of equipments (17.65 percent. The associations that have availed other schemes like financial support for organisation of Seminars or workshops is 23.53 percent.

It is found that 94.12 percent of the associations prepare their annual budget. The main source of income of these associations is Grants from the Government though 82.35 percent of the associations take sponsorship from well wishers. Other significant sources of income of these associations are: club affiliation fees, participation and entry fees, etc.

Funds raised by the Associations are broadly classified into three heads: 1) Grants from Government and Federations; (2) Donations or Advertisement or sponsorship from industry and well-wishers; 3) Other Income like affiliation fee, participation fee, gate collection and other income sources. The analysis of the selected associations shows that for the period 2005 to 2010, 70.0 percent of Income on an average for all Associations was contributed by primarily in the form of grants. Donations and advertisements on an average for all the Associations for the period under consideration contributed 21 percent of total income. Other income contributed during the said period is about 9.0percent of the total income (see Graph 4.25). Further, analysis shows that the highest contribution of grants in percentage terms is seen in case of Goa Baseball Association (97.6 %), Goa Sapeatakraw Association (93.7 %), Goa Kabaddi Association (87.5 %), Goa Judo Association (78.0 %), Goa Swimming Association (74.5 %) and Goa Badminton Association (64.0 %) as an average for period 2007 to 2011. The lowest contribution of grants to the total income is seen in case of Goa Softball Association (35.2%), Goa Football Association (38.5 %) and Goa Kho-kho Association (59.2%) (see graph 4.26). As far as contribution of donations and advertisements are concerned the highest contribution is observed in case of the Goa Softball Association (64.5 %), followed by Goa Kho-kho Association (36.1 %) and Goa Football Association (25.0 %). For rest of all other associations the contribution of donations and advertisement is less than one percent.

The study also depicts that other expenditure which is inclusive of administrative expenditure like salaries and wages for administrative staff, auditors fee, printing and stationary, administrative and other expenditure to the total expenditure is highest in case of Goa Sapaktakraw Association (56.1 %) followed by the Goa Judo Association (40.5 %) and Goa

Badminton Association (32.0 %). This study also indicates that the Goa Kho-kho Association's proportion of Other Expenditure to the Total Expenditure (9.8 %) is the lowest among all the associations.

From the expenditure analysis it is observed that major expenditure in the total expenditure is done on organisation of events, participation in events and on the administration and miniscule amount on training of players.

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Relationship between Anthropometric Variables and Medium Fast Bowling in Cricket

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<u>Abstract</u>

The purpose of the study was to determine the relationship between speed of delivery and anthropometric variables among medium fast bowlers. To achieve the purpose of the study, 20 men medium fast bowlers were selected as subjects from different College in Chennai. The age of the subjects were ranged between 18 to 25 years. The anthropometric variables such as height, weight, arm length, arm girth and the performance variable speed of delivery were selected as variables for this study. Pearson product moment correlation technique was used to find out the relationship between the variables and the level of significance was fixed as 0.05. It was concluded that there was a significant relationship between arm girth and the speed of delivery of medium fast bowlers in cricket.

Keywords: Arm length, Arm girth, Speed of delivery, Height, Weight

Introduction

"Sound body reflects the sound mind" is refers the good physic people will have balanced mind because of the fitness level they will have the confidence to do the daily routine with full energy level and also that kind of pupil will participate in the sports and games with full involvement and energetic level. Anthropometric Measurement is defined as set of noninvasive, quantitative techniques for determining an individual's body fat composition by measuring, recording, and analyzing specific dimensions of the body, such as height and weight, skin-fold thickness, and the bodily circumference at the waist, hip, and chest.

Physical educators have long realized that the performance of men and women is greatly influenced by such factors of age, height, arm length, leg length and body structure. The sculpture of Greece and Rome preserve the ideas of those civilizations concerning the ideal proportions of the human figure. It is interesting to see in their sculpture the swing of the pendulum of approval from athletes who were broad shouldered, thick set square cheated and very muscular, to athletes who are leaner, more supple, and whose figure are more representative of the skills of the finer coordination. Since the early times there has been continued use of anthropometric measurement to determine its relationship with performance in different games and sports.

Anthropometric variables such as weight, standing height, sitting height, foot length, arm length, arm girth, thigh length, leg length and shoulder width are related to optimum and skillful performance in a team as well as individual sports. (**David Miller, 2010**).

Statement of the problem

The purpose of the study was to find out the relationship of selected anthropometric variables on speed of delivery among medium fast bowlers in cricket

Significance of the study

The finding of this study may help full for asses the present status of anthropometric variables of the cricket players.

- a. The finding of this study would be significant in finding out the relation between selected anthropometric variables and speed of delivery among medium fast bowlers.
- b. The result of the study would be helpful for the coaches while selecting medium fast bowlers.
- c. The results of the study will create further research interest.

Hypothesis

It was hypothesized that there would be no significant relationship between selected anthropometric variables with speed of delivery among medium fast bowlers.

Delimitations

The study was delimited to the following aspects and while interpreting the result, it should be taken into consideration.

- 1. The study was delimited to 20 cricket players selected from south zone.
- 2. The age group of the subject were between 18 to 25 years.
- 3. In the study the following variables were selected,
 - a) Height.
 - b) Weight.
 - c) Arm length
 - d) Arm girth
 - e) Speed of delivery

Limitations

The study was Limited to the following aspects:

- 1. The investigator could not control the lifestyle and metabolic function of the subject.
- 2. Sociological aspect of their day-to-day life interaction with their environment could not be controlled.
- 3. The daily routine, climatic condition, nutrition aspect, motivation factors and socioeconomic factors, were not taken into consideration.

Review of related literature

Hatzimanouil Dimitris, (2005) determined to find out the relationship that anthropometry is a field of physical anthropology which studies the anthropometry characteristics, and contributes to the field of sport science. The aim of this study was to review the literature about somatotype and anthropometric characteristics of known elite athletes in team sports (waterpolo, handball, volleyball, football, basketball) and also to clarify the relation between these characteristics and athletic performance. The research findings showed that the athletes' somatotype and anthropometric characteristics are related to the type of each sport. In addition there is a relation between high athletic performance and physical characteristics like high height, low percentage of body fat and high muscle mass.

Stuelckena, et al., (2007) examined to describe the current anthropometric profiles of elite Australian female and male cricket fast bowlers and establish a set of reference values useful for future investigations on player selection, talent identification, and training programme development. The participants were 26 female (mean age 22.5 years, s = 4.5; height 1.71 m, s = 0.05; body mass 66.2 kg, s = 7.5) and 26 male (mean age 23.9 years, s = 3.5; height 1.88 m, s = 0.05; body mass 87.9 kg, s = 8.2) fast bowlers. The anthropometric profiles included the measurement of skinfolds, and segment lengths, breadths, and girths. A series of derived

variables assessing the distribution of subcutaneous adipose tissue, the bivariate overlap zone, relative body size and proportionality, and somatotype were also calculated. The male bowlers had larger length, breadth, and girth measurements than their female counterparts. There were differences in proportionality between the sexes, with only the male bowlers exhibiting characteristics that could be considered "large" relative to height. The female bowlers had a higher sum of seven skinfolds (P<0.001), were more endomorphic (F1, 50 = 30.18, P<0.001), and less mesomorphic (F1, 50 = 10.85, P<0.01) than the male bowlers.

Gopikrishna (1998) conducted a study on kinematic analysis of batting performance in cricket. For the purpose of the study he has selected 30 cricket batsman who participated in the South Zone inter University Championship at Hyderabad. For this study he has chosen, speed, force, power to collect the data. 50 meter run test was conducted to collect speed. To collect force, mass of body, acceleration by speed was used. The following results were obtained. There was significant positive correlation between performance and speed, power and force. There was also a significant positive correlation between performance and combined effect of the variables.

Methodology

Selection of subjects

To achieve the purpose of the study, the investigator selected 20 male medium fast bowlers from different Colleges in Chennai. The subjects selected were in the age group of 18 to 25 years.

Selection of variables

Based on these observations and availability the investigator selected the following variables for this study.

Criterion variable

Speed of delivery

Anthropometric Variables

- 1. Height.
- 2. Weight.
- 3. Arm length.
- 4. Arm girth.

Showing the Variables, Tests / Tools and the Unit of Measurement						
Variables	Test / Tools administered	Unit of measurement				
Height	Stadiometer	Centimeters				
Weight	Electronic weighing machine	Kilograms				
Arm length	Measuring tape	Centimeters				
Arm Girth	Measuring tape	Centimeters				
Speed of Delivery	software	mph				

TABLE- I

Instrument reliability

The required instrument such as the studio meter, electronic weighing machine, skin fold used for taken from YMCA College of physical Education Chennai. They were in good working condition and they were purchased from the reliable companies. Their calibration were tested and found to be accurate enough to serve the purpose of the study. The intra class correlation coefficient of independent variables obtained by test, retest method is presented in table II.

SN	Test	Coefficient of correlation
1	Height	0.98*
2	Weight	0.96*
3	Arm length	0.89*
4	Arm girth	0.95*
5	Speed of delivery	0.88*

 TABLE II

 The Coefficient of reliability on selected variables by test and retest method

Tester's reliability

The tester's competency was established together with reliability of test. To determine the reliability of the test, the performance of ten subjects was recorded twice under similar conditions by the investigator. This was done by the test and retest method on consecutive days. The repeated measurement of subjects was conducted on the selected predictor variables to determine reliability in a univariate situation.

Statistical analysis

The collected data were analysed by using pearson product moment correlation technique. The level of significance was fixed as 0.05.

Results and Discussion

The purpose of the study was to determine the relationship between speed of delivery and anthropometric variables among medium fast bowlers. To achieve the purpose of the study, a total of 20 men medium fast bowlers were selected as subjects from different College in Chennai. The age of the subjects were ranged between 18 to 25 years. The anthropometric variables such as height, weight, arm length, arm girth and the speed of delivery was selected as variables for this study. Pearson product moment correlation technique was used to find out the relationship between the variables and the level of significance was fixed as 0.05.

001	correlation seen con antin opometric variable and speed of derivery								
S.No	Variables Number of Subjects Mean		Mean	SD	ʻr'				
1	Speed of delivery	20	79.45	8.16	-				
2	Height	20	171	.062	.094				
3	Weight	20	65.46	7.49	173				
4	Arm length	20	68.5	3.57	.202				
5	Arm girth	20	11.85	3.92	.353*				

TABLE III Correlation between anthropometric variable and speed of delivery

*Significant at .05 level is 0.217

As shown in the Table III the correlation value between the speed of delivery and height, weight, arm length was not significant. Hence, the null hypothesis was accepted at 0.05 level of significance. The correlation value of 0.353 between arm girth and speed of delivery was significant, in this case null hypothesis was rejected. There would be significant relationship between arm girth and speed of delivery of medium fast bowlers.

Conclusions

- 1. There was no significant relationship between height of the subject and the speed of the delivery in medium fast bowling in cricket.
- 2. There was no significant relationship between weight of the subject and the speed of the delivery in medium fast bowling in cricket.
- 3. There was no significant relationship between arm length of the subject and the speed of the delivery in medium fast bowling in cricket.
- 4. There was significant relationship between arm girth of the subject and the speed of the delivery in medium fast bowling in cricket.

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Effect of Cycling and Swimming on Theselected Physiological Variables Among Long Distance Runners

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Abstract

The purpose of the study was to find out whether there would be any significant improvement on selected variables as a result of cycling and swimming training on selected physical fitness and physiological variables among long distance runners. To achieve the purpose of the study, 45 long distance runners from different colleges and SDAT trainees were selected within Chennai. They were selected randomly as subjects. The selected subjects were in the age group of 18 to 22 years. The subjects were randomly divided in to three groups of 15 subjects in each group. Group one acted as experimental group I and group two acted as experimental group -II and group- three acted as control group. Group three underwent routine without any special treatment and group I underwent cycling exercises and group II underwent Random group pre and post-test research design was swimming exercises for six weeks. followed in this study. Randomly selected (N=45) long distance runners were divided into three groups and assigned as cycling group, swimming training group and control group. Pre test scores were collected on selected criterion variables, namely, cardiorespiratory endurance and resting heart rate. After six weeks experimental treatments to the experimental groups, scores on selected criterion variables were obtained. The differences between the initial and final scores were the effect of respective experimental treatments. To test the statistical significance, the scores were subjected to ANCOVA. In all the cases, 0.05 level of confidence was fixed to test the significance. The results of the study proved that cycling and swimming exercises significantly altered selected physiological variables such as resting pulse rate and cardiovascular endurance of the long distance runners.

Key words: Cycling, Swimming, Resting pulse rate, Cardio-vascular endurance, Long Distance Runners

Introduction

Long distance runners require long term endurance to excel in long distance running. There are different training methods being following by these athletes to improve their long term endurance. Swimming is an excellent form of exercise. Because the density of the human body is approximately similar to that of water, the body is supported by the water and less stress is therefore placed on joints and bones. Resistance swimming is one form of swimming exercise. It is done either for training purposes, to hold the swimmer in place for stroke analysis, or to enable swimming in a confined space for athletic or therapeutic reasons. Resistance swimming can be done either against a stream of moving water (often termed a swimming machine) or by holding the swimmer stationary with elastic attachments.

An exercise bicycle is usually a special-purpose exercise machine resembling a bicycle without true wheels, but it is also possible to adapt an ordinary bicycle for stationary exercise by placing it on bicycle rollers or a trainer. Rollers and trainers are often used by racing cyclists to warm up before racing, or to train on their own machines indoors.. Most exercise bicycles provide a mechanism for applying resistance to the pedals which increases the intensity of the exercise. Resistance mechanisms include magnets, fans, and friction mechanisms. Some models allow the user to pedal backwards to exercise antagonist muscles which are not exercised in forward

pedaling. Many bicycles now include attached television screens. However, the effect of swimming and cycling in improving the long term endurance of long distance runners were not researched fully. Hence, the investigator selected this research topic. To test how far the long distance runners improved their physiological variables, the investigator selected resting heart rate and cardio respiratory endurance.

Materials and Methods

The purpose of the study was to find out whether there would be any significant improvement on selected variables as a result of cycling and swimming training on selected physical fitness and physiological variables among long distance runners. To achieve the purpose of the study, 45 long distance runners from different colleges and SDAT trainees were selected within Chennai. They were selected randomly as subjects. The selected subjects were in the age group of 18 to 22 years. The subjects were randomly divided in to three groups of 15 subjects in each group. Group one acted as experimental group I and group two acted as experimental group -II and groupthree acted as control group. Group three underwent routine without any special treatment and group I underwent cycling exercises and group II underwent swimming exercises for six weeks. Random group pre and post- test research design was followed in this study. Randomly selected (N=45) long distance runners were divided into three groups and assigned as cycling group, swimming training group and control group. Pre test scores were collected on selected criterion variables, namely, cardiorespiratory endurance and resting heart rate. After six weeks experimental treatments to the experimental groups, scores on selected criterion variables were obtained. The differences between the initial and final scores were the effect of respective experimental treatments. To test the statistical significance, the scores were subjected to ANCOVA. . In all the cases, 0.05 level of confidence was fixed to test the significance.

Results and Discussion

The results are presented in the following tables,

Results on Resting Pulse Rate

The statistical analysis comparing the initial and final means of, Resting Pulse Rate due to cycling and swimming exercises among long distance runner is presented in Table I

				Source					
	Cycling	Swimming	Control	of	Sum of		Mean	Obtained	
	group	group	group	variance	squares	Df	squares	f	
Pre Test	64.00	61 67	50.02	Between	124.93	2	62.47	0.04	
Mean	64.00	01.07	59.93	Within	2794.27	42	66.53	0.94	
Post Test	61.02	57.27	62.02	Between	274.44	2	137.22	2.04	
Mean	61.93	01.95 57.27	51.21	02.95	Within	2826.80	42	67.30	2.04
Adjusted Post	60 5 1	57.40	64.22	Between	346.82	2	173.41	4 50*	
Test Mean	00.51	37.40	04.22	Within	1581.67	41	38.58	4.30**	
Mean Diff	-2.07	-4.40	3.00						

Table IComputation of Analysis of Covariance of Resting Pulse Rate

Table F-ratio at 0.05 level of confidence for 2 and 42 (df) =3.22 and 41 (df) =3.23. *Significant

As shown in Table I, the obtained pre- test means on Resting Pulse Rate on cycling exercises was 64.00, swimming exercises was 61.67 was and control group was 59.93. The obtained pre- test F value was 0.94 and the required table F value was 3.22, which proved that there was no significant difference among initial scores of the subjects.

The obtained post- test means on Resting Pulse Rate on cycling exercises was 61.93, swimming exercises was 57.27 was and control group was 62.93. The obtained post- test F value was 2.04 and the required table F value was 3.22, which proved that there was no significant difference among post test scores of the subjects.

Taking into consideration of the pre-test means and post-test means adjusted post-test means were determined and analysis of covariance was done and the obtained F value 4.50 was greater than the required value of 3.21 and hence it was accepted that there was significant differences among the treated groups.

Since significant differences were recorded, the results were subjected to post hoc analysis using Scheffe's Confidence Interval test. The results were presented in Table II.

Means					
Cycling Group	Swimming Group	Control Group	Mean Difference	.CI	
60.51	57.40		3.11	5.87	
60.51		64.22	3.71	5.87	
	57.40	64.22	6.82*	5.87	

Table II					
Scheffe's Confidence Interval Test Scores on Resting Pulse Rate					

* Significant

The post hoc analysis of obtained ordered adjusted means proved that there was no significant differences existed between cycling group and control group (MD: 3.71). There was significant difference between swimming group and control group (MD: 6.82). There was no significant difference between treatment groups, namely, cycling group and swimming group (MD: 3.11). The ordered adjusted means are presented through bar diagram for better understanding of the results of this study in Figure I





The effect of cycling and swimming Resting Pulse Rate is presented in Table I. The analysis of covariance proved that there was significant difference between the experimental groups and control group as the obtained F value 4.50 was greater than the required table F value to be significant at 0.05 level.

Since significant F value was obtained, the results were further subjected to post hoc analysis and the results presented in Table II proved that there was no significant difference between cycling group and control group (MD: 3.71) and there was significant difference between swimming group and control group (MD: 6.82). Comparing between the treatment groups, it was found that there was no significant difference between cycling group among long distance runners..

Thus, it was found that swimming group was significantly better than control group in altering Resting Pulse Rate of the long distance runners.

Results on Cardiorespiratory Endurance

The statistical analysis comparing the initial and final means of, Cardiorespiratory Endurance due to cycling and swimming exercises among long distance runner is presented in Table III

	Cycling group	Swimming group	Control group	Source of variance	Sum of squares	Df	Mean squares	Obtained f
Pre Test	1922.22	1802.00	1956 67	Between	21723.33	2	10861.67	0.67
Mean	1655.55	1803.00	1830.07	Within	678307	42	16150.16	0.07
Post Test	2006.00	2011.00	1871.67	Between	187421	2	93710.56	6.02*
Mean		2011.00		Within	653303	42	15554.84	
Adjusted Post	2005 62	2005.63 2015.45	1967 50	Between	200389	2	100194	6 16*
Test Mean	2003.03		2015.45 1807.	2013.43 1807.39	Within	636175	41	15516.46
Mean Diff	172.67	208.00	15.00					

 Table III

 Computation of Analysis of Covariance of Cardiorespiratory Endurance

Table F-ratio at 0.05 level of confidence for 2 and 42 (df) =3.22 and 41 (df) =3.23. *Significant

As shown in Table III, the obtained pre -test means on Cardiorespiratory Endurance on cycling exercises was 1833.33, swimming exercises was 1803.00 was and control group was 1856.67. The obtained pre -test F value was 0.67 and the required table F value was 3.22, which proved that there was no significant difference among initial scores of the subjects. The obtained post -test means on Cardiorespiratory Endurance on cycling exercises was 2006.00, swimming exercises was 2011.00 was and control group was 1871.67. The obtained post -test F value was 6.02 and the required table F value was 3.22, which proved that there was significant difference among post test scores of the subjects. Taking into consideration of the pre -test means and post -test means adjusted post -test means were determined and analysis of covariance was done and the obtained F value 6.46 was greater than the required value of 3.21 and hence it was accepted that there was significant differences among the treated groups.

Since significant differences were recorded, the results were subjected to post hoc analysis using Scheffe's Confidence Interval test. The results were presented in Table IV.

MEANS							
Cycling Group	Swimming Group	Control Group	Mean Difference	.CI			
2005.63	2015.45		-9.82	117.73			
2005.63		1867.59	138.04*	117.73			
	2015.45	1867.59	147.86*	117.73			

 Table IV

 Scheffe's Confidence Interval Test Scores on Cardiorespiratory Endurance

* Significant

The post hoc analysis of obtained ordered adjusted means proved that there was significant differences existed between cycling group and control group (MD: 138.04). There was significant difference between swimming group and control group (MD: 147.86). There was no significant difference between treatment groups, namely, cycling group and swimming group (MD: 9.82).

The ordered adjusted means were presented through bar diagram for better understanding of the results of this study in Figure II.

Figure II Bar diagram on ordered adjusted means on cardiorespiratory endurance



Discussions on Findings

The effect of cycling and swimming Cardiorespiratory Endurance is presented in Table III. The analysis of covariance proved that there was significant difference between the experimental groups and control group as the obtained F value 6.46 was greater than the required table F value to be significant at 0.05 level.

Since significant F value was obtained, the results were further subjected to post hoc analysis and the results presented in Table IV proved that there was significant difference between cycling group and control group (MD: 138.04) and swimming group and control group (MD: 147.86). Comparing between the treatment groups, it was found that there was no significant difference between cycling group and swimming group in improving Cardiorespiratory Endurance of long distance runners..

Thus, it was found that cycling and swimming exercises was significantly better than control group in altering resting pulse rate and Cardiorespiratory Endurance of the long distance runners.

Conclusions

Within the limitations and delimitations of the study, the following conclusions were drawn

- 1. It was concluded that swimming exercises significantly improved resting pulse rate of the long distance runners. It was also found that there was no significant difference between cycling and swimming in altering resting pulse rate.
- 2. It was concluded that Cycling and Swimming exercises significantly improved cardiovascular endurance of the long distance runners. It was also found that there was no significant difference between cycling and swimming in altering cardiovascular endurance.

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Construction of Ball Badminton Skill Test

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Abstract:

The present study is carried out to construct the ball badminton skill test. In this study normative survey method was used. Age group was between 16 to 19 male ball badminton players of Pune district who have participated in state level ball badminton competition during 2011-2013 was the population of the study. The purposive sampling technique is used in this study. In Service test subject has to stand in a court and he has to service in opponent court. The opposite court was marked in different zone and each zone has given a point. The score of the test is the ball landed in the opponent courts marked zone will be consider as score. Players were given ten trials and the sum of the trials was the score of the test. The reliability of the ball badminton service skill test was 0.94 and the objectivity was 0.96 to 0.98 respectively and for ball badminton wall volley skill test three trials were given and the best among the three trials was 0.98 and the objectivity was 0.97 to 0.98 respectively. Face validity was used in this study. Thus the ball badminton skill test was highly reliable and objective as field test.

Keyword: Ball badminton, Validity, Reliability, Objectivity.

Introduction

Evaluation is essential in the process of teaching and coaching. Through evaluation, a teacher/coach can know the extent to which learning has taken place. Hence, the teacher/coach must be aware of some evaluation techniques, which will enable him to measure the student's/player's skill objectively and classify them initially as well as by measuring the progress made by them. There are few skill tests in various physical activities, which help to measure the playing abilities of the students/players in different games and sports.

Sports skill test are designed to measure the basic skills used in the playing of a specific sport. Because of the wide range of skills in most sports, a selection of the most important skill is invariably necessary. The skill test helps the students to evaluate their performance in the fundamental skills the game and to provide an incentive for improvement. The test also serves the purpose of helping the teachers/coach to measure player's performance and to evaluate their own teaching/coaching procedure and program.

Ball Badminton is basically a South Indian game. There is no exact record available, when and by whom this game was introduced. But there is evidence that before 1856 the rulers of Thanjavur played this game. It is learned that the royal family of Kerala played this game as a recreation sport. Some historians opined that the 'Ball Badminton' takes its name from the Badminton game because originally Badminton is an Indian game.

Method

The purpose of this study was construct the Service & Wall Volley test in Ball Badminton. In order to achieve this purpose two test items were designed after analyzing the various factors. The instructions and a demonstration of the test items were given properly to avoid any vagueness of the test. In order to find out the reliability, objectivity and validity correlation analysis was used.

Analysis of Data

To analyze the collected data Pearson product moment correlation was adopted in this study.

Scorer

Ball badminton Service Test

Purpose: To Measure the service accuracy of the ball badminton player.

Equipment: Ball badminton ground,

Ball, Racket, Marking tep, Score sheet.

Test Area: Fig. No. 1.1

Procedure:

The player will stand on the one side where he will serve form.

The player will attempt the serve, as soon as receive signal 'Start'.

The player must serve in the opposite ground and at the opposite side above the net.

The player should be asked to serve simply and high.

The player will be given 10 serving chances and the duration between 2 serve would be 10 to 20 seconds. So that the scorer gets time to enter the points.

If serving ball touches the net or goes

out of the marking ground the score will be zero.

After the service, if the ball exactly on the border line of the box, then the highest marks will be considered for counting the score.

Score:

After all 10 services the total points will be the final score of the player.

Ball badminton Wall Volley Test

Purpose: To Measure the tossing ability of the ball badminton player.

Equipment: Plan Wall, Ball, Racket, Marking tep, Score sheet, stop watch, marking chalk.

Test Area: Fig. No. 1.2

Procedure:

The player will stand before the line, which is marked exactly 1 meter length from the wall.

After receiving the 'start' signal, the player would toss the ball above the net line mark on the wall at 185 cm.

The player start tossing the ball the teacher will start the stop watch and stop after 30 seconds.

The player must toss the ball above the net line.



Fig. No. 1.2 Ball badminton Wall Vollery Test ground



Fig. No. 1.1 Ball badminton Service Test ground

If not, the score will not be counted.

If the ball drops down the player has to take another one ball from the balls kept on the floor and continue the tossing.

Every player will be given 3 chance would be 30 seconds each and 30 seconds rest between the two trials.

Score:

The maximum volley among the three trails was the final score of the player.

Table - 1								
Descriptive statistics for Reliability of the test								
Test Mean SD								
	Service	Test	38.23	3.936				
		Retest	40.23	3.839				
	Wall	Test	38.53	5.876				
	Volley	Retest	39.83	6.292				

Table - 2
Correlation Coefficients for Reliability of the test

r
0.939**
0.973**

** = 0.01 level of significance.

Table 3
Descriptive statistics for Objectivity of the test

Т	est	Mean	S D
Service	Tester -1	38.50	4.99
	Tester -2	38.23	4.93
	Tester -3	38.23	4.88
Wall volley	Tester -1	43.53	7.50
	Tester -2	43.50	7.56
	Tester -3	43.47	7.80

Table 4

Correlation Coefficients for Objectivity of the service test							
Tester -1 Tester -2 Tester -3							
Tester -1	-						
Tester -2	0.96**	-					
Tester -3	0.97**	0.98**	-				

Note: N = 30, ** = 0.01 level of significance.

Table 5Correlation Coefficients for Objectivity of the wall volley test							
	Tester -1	Tester -2	Tester -3				
Tester -1	-						
Tester -2	0.98**	-					
Tester -3	0.98**	0.97**	-				
Note: $N = 30$,	** = 0.01 level of	of significance.					

Finding & Conclusions

The results indicate that the Ball badminton service & Wall volley skill tests have shown to be most reliable and valid.

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Competition Anxiety among Batsmen and Wicketkeepers in Cricket – A Comparative Study

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Abstract

The aim of this study was to compare the competition anxiety among batsmen and wicketkeepers were participated in the 2012 Buck Cricket Tournament was conducted by YMCA College of physical education, Chennai. The study was administered on 20 batsmen and 20 wicketkeepers in the age group of 18 to 25 and completed the sport competition anxiety test questionnaire. The value of calculated t ratio was compared with the tabulated significant value at 0.05 level of confidence with 95 degree of freedom. The obtain T ratio value on the score of competition anxiety 3.33 was higher than the required table value of 2.023, which proved that there was significant difference on competition anxiety among batsmen and wicketkeepers in cricket. **Keywords:** Batsmen, Wicketkeeper and Competition Anxiety

Introduction

Elite batsmen and wicketkeepers are regularly put under extreme stress to perform. While a level of nervousness is always present when batting it is vastly heightened when the batsmen is not making runs or is perceived to be out of form, wicketkeeper missing the catch and stumping. Given these obstacles and the competitive nature of test match, one day match and T20 cricket this will produce a great deal of anxiety which will generate an adverse effect on performance. It is in this situation where anxiety has the highest relevance to batsmen and wicketkeepers. Establishing the correlation between anxiety and sports performance has been challenging and still remains indefinable (Jones & Swain 1992). However there can be no doubt that anxiety plays a critical role in determining if cricketer performs to their maximum capability.

In a study conducted (**Thelwell & Maynard, 1998**) semi-professional batsmen undertook a study to determine the correlation between anxiety and performance. The test was measured using a subjective criteria from elite cricket coaches. Results indicated a significant decrease in performance in both cognitive and physiological areas.

Studies to date have attempted to explain anxiety and have formed models that may be employed to measure anxiety and its relationship to performance (**Thelwell& Maynard, 1998**). These models will be discussed in subsequent blogs to depict how well anxiety is understood in relation to the performance of test match batsmen. Due to the imperfect understanding of cognitive processes future research is required to ascertain any specific method that can explain anxieties role in batting performance.

Methodology

Selection of the subjects

The purpose of the study was to find out the comparative analysis onCompetition anxiety among batsmen and wicketkeepers in cricket. To achieve the purpose of the study 20 batsmen and 20 wicketkeepers (age 18 to 25) were selected from the 2012 Buck Cricket Tournament was conducted by YMCA College of physical education, Chennai. More specifically, the matches according to the Inter College level Cricket tournament. The cricketers completed the questionnaire voluntarily.

Ouestionnaire

In SCAT questionnaire there are 15 questions. In the entire question have three options Rarely, Sometime, Often and players should fill the form, questions 1, 4,7,10 and 13 score zero regardless of the response.

Statistical Analysis

The data analyzed and compared with the help of statistical procedure in which arithmetic mean, standard deviation and t-test used to compare the data.

RESULT

The value of calculated t-test was compared with the tabulated significant value at 0.05 level of confidence with 95 degree of freedom. The details for comparative mean value and SD values on competition anxiety were tabulated and presented below:

X7 • 11.	Batsm	en (N	=20)	Wicketkeepers (N=20)			T	
variable							Katio	
	Mean	S.D	S.E	Mean	S.D	S.E		
Sport Competition Anxiety Test	18.80	1.82	0.41	20.70	1.78	0.40	3.33*	

*Significant at 39 df at 0.05 level 2.023

Table I reveals that the mean values on competition anxiety of the batsmen were 18.80 and wicketkeepers were 20.70 respectively. This shows that the wicketkeepers have more competition anxiety then the batsmen. The obtain T ratio value on the score of competition anxiety 3.33 was higher than the required table value of 2.023, which proved that there was significant difference on competition anxiety among batsmen and wicketkeepers in cricket.

Discussion on Finding

In the case of competition anxiety batsmenand wicketkeepers have an average level of anxiety. But the Table I showed that the wicketkeepers have more competition anxiety then the batsmen. The results of the study was well supported by (Balaji P, 2011) that the constructed gamespecific competitive anxiety questionnaire for Tamil Nadu state cricketers had significant relationship with the expert rating and with SCAT questionnaire.

Conclusion

There was a significant difference on competition anxiety between batsmenand wicketkeepers in cricket. Wicketkeepers have more competition anxiety than the batsmen. But both of them have an average level of anxiety.

Recommendations

In the light of the conclusion drawn, the following recommendations are made.

A. Recommendations for Government

- 1. It is recommended that coaches and physical education teachers shall maintain data bank of cricket players under their charge and work out profile to be used for cricket players for talent identification and also for training.
- 2. It is recommended that physical director and coaches should be appointed in all colleges according to the student teacher ratio.

B. Recommendations for Society

- 1. The colleges must give an opportunity to their students to play.
- 2. Parents should motivate the students to involve in sports
- 3. The coaches and physical director should play a vital role in bringing a good sports person among the students with the help of the organization and parents.

Suggestions for Further Research

- 1. It was suggested that a similar study may be repeated by selecting subjects belonging to lower age groups.
- 2. It was suggested to carry out similar study with national/international players.
- 3. It was suggested that a similar study may be repeated selecting other variables namely sociological, biochemical and bio-mechanical variables.
- 4. Intensive research study of this nature may be done in other games and sports where criterion used for measuring success will be performance in game / sport.

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Effect of Yogic Practices on Selected Football Skills of Intercollegiate Players

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Abstract

The aim of this study was to find out the effect of yogic practices on selected skills of the football players of college men students. To achieve this purpose, 26 men were selected from MIT College, Pune. Their age was under twenty one years. They were assigned to single group pretest-posttest experimental design. In this experiment, the group was assigned to one hour of yogic practices, every day for six weeks. The subject underwent the test namely, Mc Donald skill test, SAI Kicking Accuracy skill test and Ball Control skill test. The "t test" and "degree of freedom" was used to analyze the data. The study revealed that some of the above variables were significantly improved due to the influence of the yogic practices of college men students. **Key words: Yoga, football, football players, kicking accuracy and ball control tests.**

Background

Physical fitness is an extremely important factor in leading a happy and healthy life, and it can be achieved by a number of different exercise regimes. One of the routines that prove to be beneficial in achieving goals of physical fitness, is yoga. Yoga is a practice of the mind and body, with its roots deeply implanted in the ancient Hindu culture. Initially yoga was practiced mainly for meditative purposes, but it also provides strength and flexibility to the body while relaxing the mind. Nowadays most of the people practice yoga for the purpose of physical fitness. Yoga involves a combination of asanas and pranayamas that utilize various body parts to provide a lot of cardiovascular benefits. These poses and breathing techniques collectively lets the body reach its maximum level of physical health and well beings.

When we talk about Yoga and sports, they are both two different things. Yoga equals to the practice, especially for our mind control whereas sports equals to the training. But the one thing that connects these two together is the attainment of whatever aim one wants to achieve. As a matter of fact, Yoga can be a very helpful for training in sports. These days, more and more athletes are turning to Yoga to enhance their performance. No matter which type of sports you are into, you can be sure that Yoga can help you up your game.

Benefits of Yoga

- Yoga exercises can bring great flexibility to the spine and joints as well as help in improving the balance between your mind and body.
- Yoga will help you to prevent injuries by increasing flexibility and strengthening muscles. Yoga is recognized for preventive, promote and also curative aspect.
- Yoga can also help improve your mental aspect as concentration, physical aspect as strength and endurance as well as skillful aspect as footwork.
- Yoga teaches the discipline of physical postures mainly during asanas and breathing work during pranayamas.
- Yoga mainly helps to reduce stress from your body and mind.

Although Yoga provides a lot of benefits for an athlete, so practicing any type of Yoga, can ensure to improve their overall state of being as well as athletic performance. Hence yoga is also useful for integration of personality.

Our Indian people are full of talents with a great historical, cultural & sports background. Indian history is full of stories and awareness of physical fitness through sports. Sports like football are based on speed, agility, flexibility, strength & cardiovascular endurance of a player. Yoga is well known and proven therapy for all-round personality developments and the role of yoga in developing other skill in different

disciplines has already been proved by different research. So here, the researchers are trying to find its usefulness and get the benefits of yoga practice in sports like football. Yoga is a proven pill for mental and health fitness from ancient time, where enormous number of people have practiced it and billions among the world are practicing now. The aim of this research is to gain benefits from yoga for improving the skills of football players. This research will be useful to the future players and coaches to improve the sports skills. Good effects of yogic practice is not only limited to the physical fitness components but it is also observed that the effects are dripping down from mind to body and vice versa and to develop the overall personality of a person. The physical fitness through yoga is not merely limited to the benefits in sports but has a great positive effect on the lifestyle, overall success and happiness of a human being. Thus, its utility might be effective for enhancing performance of Football players.

Yoga is also a scientific discipline to realize the self-potentiality. Likewise, the Football players may improve their potentialities. Yoga practices begin to work at muscular level where stretching improves cellular diffusion that provides flexibility and strength at cellular level, ultimately resulting in flexibility and muscular strength. It also works at breathing level where pranayama improve lungs capacity and ultimate the result is endurance. Once yoga brings the physical fitness, which may be the key factor to improve football skills.

Method

Participants

Twenty six inter collegiate men football players of MIT college will be selected for the study by using convenient sampling technique. The age of players is under twenty one years.

Procedure

The researchers have chosen a single group pretest-posttest design for conducting experiment in the present study. This study consists of an experimental group. The subjects will be tested first which is named as pretest. In this the experimental group will be provided daily one hour yogic practice treatment for six weeks. Pretest and Posttest was conducted for the study of single group Pretest-Posttest design which was used for the present investigation.

Testing

Sr. No.	Name of the Test	Measuring Factor (Objective)
1.	Mc Donald Soccer Skill Test	Kicking accuracy, ball control and moving ball judgment
2.	SAI football Skill Test :-	
	i) Kicking Accuracy Testii) 30 meter run with ball test	Kicking efficiency Ball control

Results

Table no 1.2 Descriptive statistics of pretest and posttest of football skills.

Variable	Mean	N	Std. Deviation	Std. Error Mean
Mcdonald pre test	56.3462	26	11.78115	2.31047
Mcdonald post test	66.7308	26	10.94187	2.14588
Kicking Pre test	5.7692	26	2.02599	.39733
Kicking post test	7.6154	26	1.76809	.34675
Ball control pre test	5.5119	26	.48819	.09574
Ball control post test	5.3769	26	.57945	.11364

The table 1.2 shows the descriptive statistics of pre test and post test of football skill performance measured by Mc Donald, SAI kicking accuracy and ball control test. The mean score pre and post test of

mc Donald test was 56.34 and 66.73 (SD 11.78, 10.94) respectively. For SAI kicking accuracy test the mean of pre test and post test was 5.76 and 7.61(SD 2.02, 1.76) respectively and SAI ball control test the mean score of pre and post test was 5.51 and 5.37 (SD .48, .57) respectively.

Tuble 110 110 pun eu sumple t'test between pretest und post test									
Test		Sig.							
	Mean	Deviation	SEM	t	df	(2-tailed)			
Mcdonald pre - Mcdonald post	-10.38462	5.09962	1.00012	-10.383	25	.000			
Kicking Pre - kicking post	-1.84615	1.91191	.37496	-4.924	25	.000			
ball control pre - ball control post	.13500	.40998	.08040	1.679	25	.106			

-				-		
Fable No 1.	.3 paired sam	ple 't' test	between	pretest	and post test	

The table 1.3 shows that the mean differences of Mc Donald skill test and kicking accuracy test for the experimental group, between the pre and post- test were 10.38 and 1.84 respectively and degree of freedom, 25. The t value for both test were 10.38 and 4.92 which shows the significant difference between pre and posttest at 0.05 significance level (p=.000). The mean difference for the Ball Control Test was 1350 and degree of freedom, 25. The t value of pre and posttest was 1.679 which was not significant at 0.05 significant level (p=.106).

Discussion

This discussion evaluated the effect of yogic practices on improving the skills of football players. It also helped in the improvement of physical fitness components such as flexibility, C.V. efficiency and abdominal muscular strength (Chougule, S.N., 2006). The varied packages of yogic practices on selected biochemical variable such as Cholesterol, low density and high density lipo protein was significantly improved (Yograj, P. and Elangovan, R., 2011). In the present study the result shown the effect of yogic practices was found significantly better in improving the combined ball control, Kicking accuracy and moving ball judgment skills of football. But it was found that it did not significantly improve the isolated Ball Control skill. The pattern of movement showed the difference in the ball control skill. In the Mc Donald test subject has to do the three skills combined and the scoring was dependent on three skills therefore in that case the ball control skill merge with two other skills of football.

Conclusion

The purpose of this study to investigate the effect of yogic practices on selected football skills. The result and findings of this experiment, within limitations, helped to conclude that: The training intervention i.e. yogic practices, improved ball control, kicking accuracy and moving ball judgment football skills. But the yoga practices didn't bring much improvement in the isolated ball control skills of the players.

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A Comparative Study of Aerobic and Anaerobic Capacity of Athletes and Non-Athletes

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Introduction

Evolution of human life started with the movement. Human beings have been very active and creative by nature and physical activity has been part of their life all along since evolution. For primitive man, search for food and shelter was the first activity. This first physical activity was necessitated by his instinct for survival. Physical activity was also the first mode of communication; it was also a means of expression. As human beings evolved culturally, emotionally, and socially, physical education also evolved. As the society became more and more complex leading towards the modern age, physical activity came to be recognized as an organized and supervised form of education and was termed as physical education.

Generally physical education is misunderstood as merely physical activities or merely mass physical training or just drill. It is important to overcome this misconception of physical education. The newly born discipline of physical education should be put into proper perspective and thoroughly studied for the welfare of the humanity at large. The importance of physical education and activity was recognized by Plato when he said "Lack of activity destroys the good conditions of every human being, while movement and methodical physical exercise save it and preserve it" Physical education is rightly recognized as an integral part of education. The existence of man is primarily physical. The first lessons a human child learns are lessons of physical activity. No education howsoever ideal and exalted in its objectives is complete without emphasis on motor activity. The human body is a sacred gift of nature. Its growth, development and efficiency largely depend upon the quantity and quality of motor activities it performs. Compartmentalization of human personality into 'body, mind and spirit' is an oversimplification. The mind and spirit do not reveal themselves without body. The body, being observable material causes of mind, is an instrument through which man performs all mundane duties enjoined upon him by nature and society.

Aerobic capacity describes the functional capacity of the cardio-respiratory system, (the heart, lungs and blood vessels) A sound basis of aerobic endurance is fundamental for all events. Aerobic means 'with oxygen'. During aerobic work the body is working at a level that the demands for oxygen and fuel can be met by the body's intake. The only waste products formed are carbon dioxide and water. These are removed as sweat and by breathing out. It is developed through the use of continuous Running Training method (duration runs) to improve maximum oxygen uptake (VO2max) and interval training to improve the heart as a muscular pump.

Aerobic capacity is defined as the maximum amount of oxygen the body can use during a specified period, usually during intense exercise. It is a function both of cardio respiratory performance and the maximum ability to remove and utilize oxygen from circulating blood. To measure maximal aerobic capacity, an exercise physiologist or physician will perform a Vo2 max test, in which a subject will undergo progressively more strenuous exercise on a tread mill, from an easy walk through to exhaustion. More simply stated, the higher the aerobic capacity, the higher the level of aerobic fitness. The cooper and multi –stage fitness tests can also be used to assess functional aerobic capacity for particular jobs or activities. In simple words, an exercise where there is sufficient need of oxygen is continuously required. There are various exercises

which improves four heart rate and respiration like: - Rhythmic exercises, Aerobic dance, walking, Rope, Skipping, Running, Swimming, Bicycling, and Cross-country.

The benefits of aerobic exercises is it improves overall health and quality of life, Aerobic exercise burns fat, improves the strength of heart and lungs and four risk of diabetes. "Aerobic mean with oxygen." In sports where endurance is an important component in performance, such as cycling, rowing, cross-country, skiing, swimming and running, world-class athletes typically have high vo₂ maxima. Elite male runner can consume up to 85 ml/ (kg. min), and female elite runner can consume about 77 ml/ (kg. min). Five time tour de France winner Miguel indurain is reported to have had a vo₂ max 0f 88.0 at his peak, while cross-country skier Bjorn Daehlie measured at 96 ml/ (kg. min). Daehlie's result was achieved out of season, and physiologist Erlend Hem who was responsible for the testing stated that he would not discount the possibility of the skier passing 100 ml/ (kg. min) at his absolute peak. Norwegian cyclist Osker Svendsen is thought to have recorded the highest vo₂ max of 97.5 ml/ (kg. min), a "sensational" value in itself, made more remarkable by his young age (18 years old at the time). To put this into perspective, thoroughbred horses have a vo₂ max of around 180 ml/ (kg. min). Siberian dogs running in the Iditarod Trail Sled Dog Race have vo₂ values as 240 ml/ (kg. min).

The highest values in absolute terms for humans are often found in rowers, as their much greater bulk makes up for a slightly lower vo₂ max per kg. Elite oarsmen measured in 1984 had vo₂ max values of 6.1 $_{-}^{+}$ o.6 l/ min and oarswomen 4.1 $_{-}^{+}$ o.4 l/ min. Rowers are interested in both absolute values of vo₂ max and in lungs capacity, and the fact that they are measured in similar units means that the two are often confused. British rower Sir Matthew Pin sent is variously reported to have had a vo₂ of 7.51/ min or 8.51/ min, although the later may represent confusion with his lung capacity of 8.5 liters. New Zealand sculler Rob Waddell has one of the highest absolute vo₂ max levels ever tested.

Anaerobic means **'without oxygen'**, During anaerobic work, involving maximum effort, the body is working so hard that the demands for oxygen and fuel go above the rate of supply and the muscles have to rely on the stored reserves of fuel. In this case waste products gather, the main one being lactic acid. The muscles, being hungry of oxygen, take the body into a state known as oxygen debt. The bodies stored fuel soon runs out and activity cases painfully. Activity will not be resumed until the lactic acid is removed and the oxygen debt rapid. Fortunately the body can resume limited activity after even only a small amount of the oxygen debt has been rapid. Since lactic acid is produced the correct term for this pathway is lactic anaerobic pathway is the one in which the body is working an aerobically but without the production of lactic acid. This pathway can exist only so long as the fuel actually stored in the muscle lasts, approximately 4 seconds at maximum effort. Anaerobic exercise helps build lean muscle mass. Calories are burned more efficiently in bodies that have more muscle. Anaerobic exercise can also help to build endurance and fitness levels. It also helps in weight loss. It also gives strength to bones, tendons and ligaments while also improving joint function. This type of exercise doesn't require oxygen, and only burns carbohydrates as fuel.

Selection of Subject

The subjects for this study was randomly selected Athletes from Club and Non-Athletes from Rashtriya vidhyala Hanuman nagar Nagpur,15 female players from both side. Total was 30 players. The subject's age was ranged between 12-18 years.

Selection of Variables

The variables selected from the study are as follows:-

- Aerobic capacity
- Anaerobic capacity

Procedure and administration of test:

- Aerobic Capacity
- Anaerobic Capacity

Harvard Step Test. 60 yard dash.

Collection of Data

The data was collected for each variable by administering their respective tests. The test was administered in institution track. To ensure that the data collected was reliable. The subject were given a chance to practice the prescribed test so as to they might become familiar with the test and knew exactly what was to be done.

Findings

The Mean value of Athletes and Non-Athletes in 60 Yard dash is 9.03 and 11.38 respectively.

The difference between the mean is 2.35. This mean difference is significant as the value of "t" ratio is 5.10.

This shows that Anaerobic Capacity improves by regular participation in physical exercise. The Mean value of Athletes and Non-Athletes in Harvard step test is 117.40and 78.72 respectively.

The difference between the mean is 38.72. This mean difference is significant as the value of "t" ratio is 4.34.

This shows that the Aerobic Capacity improves by regular participation in physical exercise.

Conclusion

Within the limitation of the present study and on the basis of the findings, the following conclusions were drawn:

- i) On comparing the Aerobic Capacity of Athletes and Non-Athletes. It was observed that even though the averages Mean of Athletes were less than Non-Athletes, there was significant difference among the players. The analysis concluded that both Athlete and Non-Athlete players were not equal in Aerobic Capacity.
- ii) After comparing the Anaerobic Capacity of Athletes and Non-Athletes. It was observed that even though the average Mean of Athletes was less than Non-Athlete players, there was significant difference among the players.
- iii) The analysis concluded that both Athlete and Non-Athlete players were not equal in Anaerobic Capacity. Hence, the analysis concluded that both the Athletes and Non-Athletes were unequal in Aerobic and Anaerobic Capacity.

Recommendations

Based on the findings mentioned earlier, the present investigator offers the following problems of further study;

i) On the basis of findings of the study it is recommended that similar study may be conducted on Male Athletes and Non-Athletes.

- ii) Similar study may be conducted by taking other variables than those selected for the purpose of the study.
- iii) Similar study may also be conducted by takings subjects of different age groups than those selected for the purpose of the study.
- iv) Same type of study may be conducted on the players of another game.
- v) It is recommended that the findings of study should be given due consideration while selecting players for specific position in the game or event.

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Study of Correlation between Long Jump Performance and his Anthropometric Body Measurement

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Abstract

The purpose of this study was to measure the performance of long jump players with selected anthropometric measurement. Descriptive survey method was used for the study. Total of 70 male players (age 18 - 25years). Out of which 25 male players were selected from Maharashtra state open athletics association competition as the sample of the study. To measure the anthropometric measurement i.e. Height, weight, leg length, thigh circumference, calf circumference, and foot palm length selected and their competition performance was considered for the study. To analyze and interpret the data Pearson product movement coefficient correlation was used. Hence, the researcher conclude that there was no significant relationship between height, weight, leg length, calf circumference, foot palm length with the performance of long jump player at 0.05 level of significance ,were as there was significant relationship between the long jump players performance and thigh circumference at 0.05 level of significance. **Keywords:** Long Jump, Performance, Anthropometrics measurement.

Introduction

Playing is natural tendency of every person. From child to adults, everybody loves to play. People chose their games depending upon the culture of their country, time, place, situation, culture, environment. Playing is an art as well as science. If you want to progress in any field then you base should be scientific. It is just like a tree, if the roots of the tree goes deep inside the base, then the main branch of the tree becomes stable and strong. Physical activity is uttermost important in the athletics. If we understand the physical activity scientifically, then it will be easy and helpful to learn new skills in sports and also to make changes in the learnt skills through scientific knowledge. IN a scientific selection of the player, we must put aims in front us while choosing them as well as for athletes to know ability of the individual for particular games, demand and need of skills of sports. We must not give chance to a wrong person or a person not possessing those qualities to be able to excel in that particular sport. The future of sport is in the dreams like an idea, training is also similar to dreams because there are so many things which are new for the science and which are yet to be discovered and invented by the scientists. Sport is an event where different situations happen and sometime it is very difficult to understand the reasons behind these performances done by the players. If we go into the depths then we understand muscles micro defect and chemical reaction cells also effects on skins of a player. The aim of training is to realize athletes their hidden potential and take out the best out of them and for that purpose science plays a vital role. In today's modern scientific world in every step of success scientific knowledge, experience, understanding and use of all these factors will help to achieve the goals and objectives to excel more in the sports, games and physical education and reach to greater heights in the performance of the athletes.

In the present scenario all over the globe dominating countries in the sports are America, Russia, Jamaica, Germany and France. These countries have increased their sport performance so high

with the help of science and technology. It happens just because of research and use of knowledge and a vision for success.

Method

Researcher has used correlation research method from descriptive research method. The study has been conducted by choosing five tools to measure their anthropometric measurements and long jump performance tool to measure their performance and then used statistical tools for interpretation of the data.

Test name	Time / measurement
Standing height	Centimetres
Leg length	Centimetres
Foot palm length	Centimetres
Quadriceps circumference	Centimetres
Calf circumference	Centimetres
long jump performance	Meter

Population and sampling

Population of this study was 70 subjects amongst the 35 districts of Maharashtra and from population researcher has selected 50 students aged between 18 to 25 as a sample for study.

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Descriptive statistical a	nalvsi	1 a is of perfo	ole no. 2 ormance ar	nd hody me	asureme	nt
Name	N	Mean	Std.dev	Std.err	Mini	Max
long jump performance	50	5.91	0.41	0.09	5.10	7.01
Standing height	50	170	7.23	1.44	152	189
Leg length	50	99.0	5.70	1.14	86	110
Foot palm length	50	25.31	1.58	0.31	22.20	28
Quadriceps circumference	50	46.13	3.80	0.76	39.50	53
Calf circumference	50	31.44	1.91	0.38	27.50	34.50

Results

The above mentioned statistical data interprets mean of long jump performance is 5.91 and standard deviation is 0.41 and standard error is 0.09. Minimum performance is 5.10 m and maximum performance is 7.01 m.

Mean of standing height of long jump performance is 170, standard deviation is 7.23 and standard error is 1.44 minimum in standing height is 152 and maximum is 189.

Mean of leg length of long jump performance is 99.0, standard deviation is 5.70 and standard error is 1.14 minimum in leg length is 86 and maximum is 110.

Mean of foot palm length of long jump performance is 25.31, standard deviation is 1.58 and standard error is 0.31 minimum in foot palm length is 22.20 and maximum is 28.

Mean of quadriceps circumference of long jump performance is 46.13, standard deviation is 3.80 and standard error is 0.76 minimum in quadriceps circumference is 39.50 and maximum is 53.

Mean of calf circumference of long jump performance is 31.44, standard deviation is 1.91 and standard error is 0.38 minimum in is 27.50 and maximum is 34.50m.

Interpretation of long jump performance and body measurements				
Variables	Numbers	Pierson's co-efficient of correlation	Significance level	
Standing height	50	0.243	0.242	
Leg length	50	0.261	0.208	
Foot palm length	50	0.214	0.303	
Quadriceps circumference	50	0.624^{**}	0.001^{**}	
Calf circumference	50	0.303	0.140	

Table no. 3				
etation of	long jump performance and body measureme			

In the above table after interpretation of data the correlation between long jump performance and standing height is 0.243 and significance level is found 0.242 which states that there is no correlation between the two components and not significant at the 0.05 level of significance.

The leg length and performance of long jump is not significant at 0.05 level of significance as correlation found between the two components is 0.261 and significance level is found 0.208.

The foot palm length and performance of long jump is also not significant at 0.05 levels of significance as correlation of coefficient between the two components is found 0.214 and significance level is found 0.303.

There is good correlation found between the quadriceps circumference and performance of long jump as correlation of coefficient is found to be 0.624^{**} and significance level is 0.001 which is significant at 0.05 level

The calf circumference and performance of long jump is not significant at 0.05 levels as it showed correlation of coefficient 0.303 and significance level is found to be 0.140.

Conclusion

- Long jump performance and standing height has no significant correlation.
- Long jump performance and leg length has no significant correlation
- Long jump performance and foot palm length has no significant correlation
- Long jump performance and quadriceps circumference has significant correlation
- Long jump performance and calf circumference has no significant correlation
- Standing height, leg length, foot palm length, calf circumference has no significant correlation but quadriceps circumference has significance correlation with long jump performance

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The Study of Causes and Prevalence of Physical Injuries in Women Kabaddi Players

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Introduction

In a tropical country like India it is suitable in all seasons of the year. Kabaddi has many advantages over other sports. Players irrespective at age and sex enjoys it. Apart from improving fitness, as a recreational activity it is second to none. Since mud surface does not allow any sudden harmful movements, the risk of injury is lower but still it can be life threatening if one is careless. This research aims to study causes and prevalence of physical injuries of women Kabaddi players participating at state level Kabaddi competitions.

Significance of this study

The significance of this study is twofold. On the one hand, it may be of help in preventing spread and intensification of sport injuries which can disable Kabaddi players for life. On the other hand, presentation of rigorous, detailed statistics and data with regard to types of injuries in Kabaddi women is likely to be of use for those involved in planning and management of this sport.

Objective

The study aims to explore the prevalence and causes of physical injuries in women kabaddi players participating in Kabaddi in state competitions.

Definition

Injury was defined as "any mishap occurring during scheduled completions or practices that cause an athlete to miss subsequent competition or practice session" (*Gioftsidous, et al 2004*)

Methodology

Two hundred and forty women Kabaddi players (age range: 14-18 year) participated in state level Kabaddi state Championship in 2011 are studied. The competitions were held in kodoli. The main instrument of research was a questionnaire designed and used by Kazeme and Pieter (2004) in a study on sports injuries. This questionnaire included personal information, injury type, injury region, injury mechanisms, and other necessary data. The researcher gathered the data through this questionnaire. For the analysis of data descriptive statistics and Chi-square tests were used. The research was of the descriptive type. The level of significance for this research was p<0.05 and the software package SPSS 12 was used for statistical estimations.

Finding

Table 1. The data related to sustained injuries in kabaddi Game

Participants in the match	24
Number of sustained injuries	139
Number of Kabaddi players exposed to injury	494
Proportion of injuries in each 100 Kabaddi players	56.04
Proportion of exposure to injury in each 100 players	28
Proportion of injury in each 100 minutes	8.2

Table 1 shows the percentage of sustained injuries in terms of participants in the match, number of Kabaddi players exposed to injury, and overall duration of matches in minutes. The results

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showed that the proportion of injuries in each 100 Kabaddi players has been 56.04, in each 100 Kabaddi players exposed to injury 28.1, and in each 100 minutes 8.2

Region	Percent (%)	Cases
Lower extremities	61.9	85
Upper extremities	24.5	35
Head and neck	6.5	9
Trunk	5	7
Internal organs	2.2	3
Total	100	139

Table 2. Distribution of injuries per anatomic region

Table 2 indicates that injuries in lower extremities, 61.9% (85 cases), is significantly more than injuries to other parts of the body (X2=173.6, P<0.05).

Region	Percent (%)	Cases
Back of the feet	34.4	31
Thigh	26.7	24
Shin	18.9	17
Knee	11.1	10
Ankle	4.4	4
Toes	4.4	4
Total	100	90

Table 3. Cases and percentage of sustained injuries in lower extremities.

The table3 shows that in the lower extremities the back of the feet have suffered the highest percentage of injuries (34.4%). (X2=40.5, P<0.05).

Region	Percent (%)	Cases
Fingers	34.9	15
Palm	20.9	9
Wrist	14	6
Elbow	11.6	5
Forearm	11.6	5
Arm	7	3
Total	100	43

Table 4. Cases and percent of sustained injuries in upper extremities

The table 4 shows that in the upper extremities, fingers have suffered the highest percentage of injuries (34.9%). (X2=12.9, P<0.05)

Tissue injuries	Percent (%)	Cases
Muscle tendon injuries	42.4	59
Articular injury	33.1	46
Injury of skin	15.8	22
Injury of bone	6.5	9
Internal injuries	2.2	3
Total	100	139

Table 5 indicates that muscle tendon injuries 42.4% (59 cases) were significantly more than other injures (X2=82.9, P<0.05).

Tuble 0. Type of injuries					
Туре	Injuries (%)	Cases			
Contusion	32.4	45			
Sprain	30.9	43			
Abrasion	8.6	12			
Strain	7.2	10			
Laceration	4.3	6			
Fracture	4.3	6			
Spasm	3.6	5			
Bruise	3.6	5			
Dislocation	2.2	3			
Concussion	.7	1			
Internal injuries	2.2	3			
Total	100	139			

Table 6. Type of injuries

Table 6.Shows that the main injuries were contusion 32.4% (45 cases), sprain 30.9% (43 cases) and bruise 8.6% (12 cases).(X2=198, P<0.05).

Table 7. Causes of injuries

Causes	Injuries (%)	Cases
Opponent's attack	17.5	78
Kabaddi players misapplication of technique	11.7	52
Previous injury	11	49
Less than enough warming	9.9	45
Surface of ground	8.8	39
Less than enough fitness	7	31
Weight loss problems	6.1	27
Acute fatigue	5.6	25
Unsuitable protective gear	4.9	23
Low morale	4.9	22
Bad nutrition	4.9	22
Timing of the events	3.1	14
Lack of Preparation for mach	2.7	12
Kabaddi players age	1.3	6
Total	100	445

The table 7 indicates that opponent's attack (17.5%), Kabaddi players misapplication of technique (11.7) and previous injury (11%) have been the most significant causes of injuries.

Mechanism of Injury Sustenance	Injuries (%)	Cases
Dive/Dash	64	89
Kicking of the opponent	22.3	31
Hand touch of the opponent	4.3	6
Turn with slid	3.6	5
Toe touch of the opponent	3.6	5
Back hold engagement	2.2	3
Total	100	139

Table 8. Mechanisms of injury sustenance

The table 8 shows that the most significant mechanism of injury sustenance has been related to Dive/Dash (64%) and kicking of the opponent (22.3%).

Discussion on Findings

In general, the results of the present study indicates that the prevalence of injuries in the women Kabaddi players has been very high and most of the injuries are in the lower extremities and are of contusion and sprain types. Further, the findings showed that the major cause of injury was the opponent's technical foul, and that the most prevalent mechanism of injury sustenance was Dive/Dash.

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A Comparative Study on Anxiety Profile among Different Ball Games Players

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Abstract

Background: Anxiety is inter-related psychological variable and they have adverse effects in sports performance. **Purpose:** The purpose of the present study find out that the compare of anxiety profile of the different ballgames of players. **Methodology:** Total sixty (N=60) interuniversity players such as twenty footballers (n=20), twenty volleyball players (n=20) and twenty basket ballers (n=20) were selected at randomly as the subjects of the present study. The age limit of subjects was from 18 to 25 years. Sports competitive anxiety test (SCAT) developed by Rainer Martin, 1977 which was employed for all the subjects of all three groups. Analysis of variance was applied to determine the significant difference of the anxiety variable. Further Post Hoc test was applied in case of significant difference was found anxiety profile among three ballgames players. **Conclusion:** There was no significant difference was found anxiety profile among three ballgames players.

Keywords: Anxiety.

Introduction

Today's modern era of sports, psychological aspects of the player play a major role in training and giving high performance. Anxiety is always present in sports. In simple words it is a type of emotional disturbance. The level of anxiety and pulse rate may differ from individual to individual even among the players of different ball games.

Anxiety may be motivating force or it may interfere with successful athletic performance. As a positive motivating force it can be instrumental in motivating the athletes to work harder to find new and to help to set goals. As a negative motivation anxiety may interface with productive as well as constructive thinking. Athletes may attempt to handle anxiety by denying mistakes, denying their weakness and thus denying working hard. This can lead to the development of poor work habits, or athletic technique. These often lead to failure and in turn, lack of confidence and increased anxiety.

When an athlete is anxious, the heart rate increases; the blood pressure becomes elevated and the breathing becomes more rapid and oxygen consumption increases. He has feeling of fatigue or weakness etc., even he may yawn frequently, begin to tremble or engage in nervous activity (bite his nails wriggle his leg twin his hair act.) or he may sweat profusely, urinate frequently etc. The anxiety level of different people to the similar situation is entirely different.

Methodology

Total sixty (N=60) inter-university players such as twenty footballers (n=20), twenty volleyball players (n=20) and twenty basketball players (n=20) were selected at randomly as the subjects of the present study. The age limit of subjects was from 18 to 27 years. Sports competitive anxiety test (SCAT) developed by Rainer Martin, 1977 which was employed for all the subjects of all three groups. Analysis of variance was applied to determine the significant difference of the anxiety variable. Further Post Hoc test was applied in case of significant difference was obtained.

Anxiety	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	6.033	2	3.017	0.632	0.535
Within Groups	271.900	57	4.770		

Table: 1: Statistical Si	gnificant Difference	among the Ballgame	s Players on A	nxietv
Table I. Statistical Si	ginneant Difference	among the Dangame	5 I layer 5 011 / 1	unicity

In case of anxiety variable the statistical results collating on the 60 ballgames players showed that the Sum of square between the groups is 6.03, where the degree of freedom is 2 and mean square is 3.017. The Sum of square within group the group is 271.90, where the degree of freedom is 57 and mean square is 4.770. The obtained F value for anxiety is 0.632 which is insignificant as significant value is less than (P>0.05).

It is further interpreted that as the F value for anxiety (0.632) and resting heart rate (0.032) were found to be less to bring statistical significant difference among the ballgames players. Hence, the hypothesis constructed at beginning of the study that there would be no significance difference among the players of different ball games.



Fig 1: The mean graph of anxiety variable of selected ballgames players *.i.e.* football (20), basketball (20) and volleyball (20)

Discussion of Findings

The study was carried out with the aim to compare the selected psychological variables among the ball games players. The selected ball games were football, basketball and volleyball whereas; the variables were only anxiety.

The previous studied revealed that players with lower heart rate were able to perform well in the competition due to their control on cognitive ability. Where ever players feel highly tense or nerves his heart rate increase dynamicity which is having negative effects on the performance and similar vice versa were found.

In this study collating on 60 university ball games players shows that the F value for anxiety (0.632) were found to be less to bring statistical significant difference among the ballgames players. Hence, there was no difference were among the selected ball game players.

Conclusion

Under the conditions of the present study the results seem to conclude that

There was no significant difference found among inter-versity footballers volleyballers and basketballers in comparing anxiety profile.

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Effect of Cycling and Swimming on the Selected Physiological Variables among Long Distance Runners

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Abstract

The purpose of the study was to find out whether there would be any significant improvement on selected variables as a result of cycling and swimming training on selected physical fitness and physiological variables among long distance runners. To achieve the purpose of the study, 45 long distance runners from different colleges and SDAT trainees were selected within Chennai. They were selected randomly as subjects. The selected subjects were in the age group of 18 to 22 years. The subjects were randomly divided in to three groups of 15 subjects in each group. Group one acted as experimental group I and group two acted as experimental group -II and group- three acted as control group. Group three underwent routine without any special treatment and group I underwent cycling exercises and group II underwent swimming exercises for six weeks. Random group pre and post-test research design was followed in this study. Randomly selected (N=45) long distance runners were divided into three groups and assigned as cycling group, swimming training group and control group. Pre test scores were collected on selected criterion variables, namely, cardio-respiratory endurance and resting heart rate. After six weeks experimental treatments to the experimental groups, scores on selected criterion variables were obtained. The differences between the initial and final scores were the effect of respective experimental treatments. To test the statistical significance, the scores were subjected to ANCOVA. In all the cases, 0.05 level of confidence was fixed to test the significance. The results of the study proved that cycling and swimming exercises significantly altered selected physiological variables such as resting pulse rate and cardiovascular endurance of the long distance runners.

Keywords: Cycling, Swimming, Resting pulse rate, Cardio-vascular Endurance, Long Distance Runners

Introduction

Long distance runners require long term endurance to excel in long distance running. There are different training methods being following by these athletes to improve their long term endurance. Swimming is an excellent form of exercise. Because the density of the human body is approximately similar to that of water, the body is supported by the water and less stress is therefore placed on joints and bones. Resistance swimming is one form of swimming exercise. It is done either for training purposes, to hold the swimmer in place for stroke analysis, or to enable swimming in a confined space for athletic or therapeutic reasons. Resistance swimming can be done either against a stream of moving water (often termed a swimming machine) or by holding the swimmer stationary with elastic attachments.

An exercise bicycle is usually a special-purpose exercise machine resembling a bicycle without true wheels, but it is also possible to adapt an ordinary bicycle for stationary exercise by placing it on bicycle rollers or a trainer. Rollers and trainers are often used by racing cyclists to warm up before racing, or to train on their own machines indoors. Most exercise bicycles provide a mechanism for applying resistance to the pedals which increases the intensity of the exercise. Resistance mechanisms include magnets, fans, and friction mechanisms. Some models allow the

user to pedal backwards to exercise antagonist muscles which are not exercised in forward pedaling. Many bicycles now include attached television screens.

However, the effect of swimming and cycling in improving the long term endurance of long distance runners were not researched fully. Hence, the investigator selected this research topic. To test how far the long distance runners improved their physiological variables, the investigator selected resting heart rate and cardio respiratory endurance.

MATERIALS AND METHODS

The purpose of the study was to find out whether there would be any significant improvement on selected variables as a result of cycling and swimming training on selected physical fitness and physiological variables among long distance runners. To achieve the purpose of the study, 45 long distance runners from different colleges and SDAT trainees were selected within Chennai. They were selected randomly as subjects. The selected subjects were in the age group of 18 to 22 years. The subjects were randomly divided in to three groups of 15 subjects in each group. Group one acted as experimental group I and group two acted as experimental group -II and group-three acted as control group. Group three underwent routine without any special treatment and group I underwent cycling exercises and group II underwent swimming exercises for six weeks.

Random group pre and post- test research design was followed in this study. Randomly selected (N=45) long distance runners were divided into three groups and assigned as cycling group, swimming training group and control group. Pre test scores were collected on selected criterion variables, namely, cardiorespiratory endurance and resting heart rate. After six weeks experimental treatments to the experimental groups, scores on selected criterion variables were obtained. The differences between the initial and final scores were the effect of respective experimental treatments. To test the statistical significance, the scores were subjected to ANCOVA. In all the cases, 0.05 level of confidence was fixed to test the significance.

Results and Discussion

The results are presented in the following tables:

Results on Resting Pulse Rate

The statistical analysis comparing the initial and final means of, resting pulse rate due to cycling and swimming exercises among long distance runner is presented in table 1

Computation of Analysis of Covariance of Resung Pulse Rate									
	Cycling	Swimming	Control	Source of	Sum of		Mean	Obtained	
	group	group	group	variance	squares	Df	squares	f	
Pre Test	64.00	61.67	50.02	Between	124.93	2	62.47	0.04	
Mean	04.00	01.07	39.95	Within	2794.27	42	66.53	0.94	
Post Test	61.02	57.27	62.02	Between	274.44	2	137.22	2.04	
Mean	01.93	31.21 02	51.21	62.93	Within	2826.80	42	67.30	2.04
Adjusted				Between	346.82	2	173.41		
Post Test	60.51	57.40	64.22	Within	1581.67	41	28 58	4.50*	
Mean				vv itiiiii	1301.07	41	30.30		
Mean Diff	-2.07	-4.40	3.00						

 Table 1

 Computation of Analysis of Covariance of Resting Pulse Rate

Table F-ratio at 0.05 level of confidence for 2 and 42 (df) =3.22 and 41 (df) =3.23.

*Significant at 0.05 level

As shown in Table I, the obtained pre- test means on Resting Pulse Rate on cycling exercises was 64.00, swimming exercises was 61.67 was and control group was 59.93. The obtained pre-

test F value was 0.94 and the required table F value was 3.22, which proved that there was no significant difference among initial scores of the subjects.

The obtained post- test means on Resting Pulse Rate on cycling exercises was 61.93, swimming exercises was 57.27 was and control group was 62.93. The obtained post- test F value was 2.04 and the required table F value was 3.22, which proved that there was no significant difference among post test scores of the subjects.

Taking into consideration of the pre-test means and post-test means adjusted post-test means were determined and analysis of covariance was done and the obtained F value 4.50 was greater than the required value of 3.21 and hence it was accepted that there was significant differences among the treated groups.

Since significant differences were recorded, the results were subjected to post hoc analysis using Scheffe's Confidence Interval test. The results were presented in Table II.

Scheffe's Confidence Interval Test Scores on Resting Pulse Rate							
	Required						
Cycling Group	Swimming Group	Control Group	Mean Difference	. C I			
60.51	57.40		3.11	5.87			
60.51		64.22	3.71	5.87			
	57.40	64.22	6.82*	5.87			

Table II

The post hoc analysis of obtained ordered adjusted means proved that there was no significant differences existed between cycling group and control group (MD: 3.71). There was significant difference between swimming group and control group (MD: 6.82). There was no significant difference between treatment groups, namely, cycling group and swimming group (MD: 3.11). The ordered adjusted means are presented through bar diagram for better understanding of the results of this study in Figure I





DISCUSSIONS ON FINDINGS

The effect of cycling and swimming Resting Pulse Rate is presented in Table I. The analysis of covariance proved that there was significant difference between the experimental groups and control group as the obtained F value 4.50 was greater than the required table F value to be significant at 0.05 level.

Since significant F value was obtained, the results were further subjected to post hoc analysis and the results presented in Table II proved that there was no significant difference between cycling group and control group (MD: 3.71) and there was significant difference between swimming group and control group (MD: 6.82). Comparing between the treatment groups, it was found that there was no significant difference between cycling group and swimming group among long distance runners..

Thus, it was found that swimming group was significantly better than control group in altering Resting Pulse Rate of the long distance runners.

RESULTS ON CARDIORESPIRATORY ENDURANCE

The statistical analysis comparing the initial and final means of, Cardiorespiratory Endurance due to cycling and swimming exercises among long distance runner is presented in Table III

	Cycling group	Swimming group	Control group	Source of variance	Sum of squares	Df	Mean squares	Obtained f	
Pre Test	1022.22	1902.00	1056 67	Between	21723.33	2	10861.67	0.67	
Mean	1855.55	1805.00	1830.07	Within	678307	42	16150.16	0.07	
Post Test	2006.00	2011.00	1071 67	Between	187421	2	93710.56	6.02*	
Mean	2000.00	2011.00	18/1.6/	18/1.0/	Within	653303	42	15554.84	0.02**
Adjusted				Between	200389	2	100194		
Post Test	2005.63	2015.45	1867.59	Within	636175	41	1551646	6.46*	
Mean				vv itilli	030173	41	15510.40		
Mean Diff	172.67	208.00	15.00						

 Table III

 Computation of Analysis of Covariance of Cardio-respiratory Endurance

Table F-ratio at 0.05 level of confidence for 2 and 42 (df) =3.22 and 41 (df) =3.23. *Significant

As shown in Table III, the obtained pre -test means on Cardiorespiratory Endurance on cycling exercises was 1833.33, swimming exercises was 1803.00 was and control group was 1856.67. The obtained pre -test F value was 0.67 and the required table F value was 3.22, which proved that there was no significant difference among initial scores of the subjects.

The obtained post -test means on Cardiorespiratory Endurance on cycling exercises was 2006.00, swimming exercises was 2011.00 was and control group was 1871.67. The obtained post -test F value was 6.02 and the required table F value was 3.22, which proved that there was significant difference among post test scores of the subjects.

Taking into consideration of the pre-test means and post-test means adjusted post-test means were determined and analysis of covariance was done and the obtained F value 6.46 was greater than the required value of 3.21 and hence it was accepted that there was significant differences among the treated groups.

Since significant differences were recorded, the results were subjected to post hoc analysis using Scheffe's Confidence Interval test. The results were presented in Table IV.

	Means					
Cycling Group	Swimming Group	Control Group	Mean Difference	.CI		
2005.63	2015.45		-9.82	117.73		
2005.63		1867.59	138.04*	117.73		
	2015.45	1867.59	147.86*	117.73		

 Table IV

 Scheffe's Confidence Interval Test Scores on Cardio-respiratory Endurance

* Significant

The post hoc analysis of obtained ordered adjusted means proved that there was significant differences existed between cycling group and control group (MD: 138.04). There was significant difference between swimming group and control group (MD: 147.86). There was no significant difference between treatment groups, namely, cycling group and swimming group (MD: 9.82).

The ordered adjusted means were presented through bar diagram for better understanding of the results of this study in Figure II.



Figure II Bar Diagram on Ordered Adjusted Means on Cardiorespiratory Endurance

DISCUSSIONS ON FINDINGS

The effect of cycling and swimming Cardiorespiratory Endurance is presented in Table III. The analysis of covariance proved that there was significant difference between the experimental groups and control group as the obtained F value 6.46 was greater than the required table F value to be significant at 0.05 level.

Since significant F value was obtained, the results were further subjected to post hoc analysis and the results presented in Table IV proved that there was significant difference between cycling group and control group (MD: 138.04) and swimming group and control group (MD: 147.86). Comparing between the treatment groups, it was found that there was nosignificant difference between cycling group and swimming group in improving Cardiorespiratory Endurance of long distance runners..

Thus, it was found that cycling and swimming exercises was significantly better than control group in altering resting pulse rate and Cardiorespiratory Endurance of the long distance runners.

CONCLUSIONS

Within the limitations and delimitations of the study, the following conclusions were drawn

- 3. It was concluded that swimming exercises significantly improved resting pulse rate of the long distance runners. It was also found that there was no significant difference between cyclingand swimming in altering resting pulse rate.
- 4. It was concluded that Cycling and Swimming exercises significantly improved cardiovascular endurance of the long distance runners. It was also found that there was no significant difference between cycling and swimming in altering cardiovascular endurance.

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Construction and Standardization of Korfball Skill Test for Collegiate Women Players of Pune University

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The study titled **"Construction and Standardization of Korfball Skill Test for Collegiate Women Players of Pune University"** was done on female aged 18 to 29 years. The objective of the study was to Construct and standardized a suitable 'Test' to select Korfball women Players. This study was restricted for the Korfball women players of Pune University. A total of 200 subjects were chosen for the study.

This study was delimited to Skill test necessary for the excellent performance in korfball. After going through various reviews, books, and articles certain tests were not found in the any test battery. Researcher selected five major skills of korfball and constructed 4 korfball skill tests 1) Field Goal Test, 2) Speed Pass Test, 3) Footwork and Agility test and 4) Pivot Test. Construction of skill tests was done by reviewing following steps. In the beginning, purpose and format of the tests was decided by reviewing references and by discussion with the experts. Many criterions and literatures were reviewed and tests items were selected. Then the equipments and ground measurements were then decided after several experiments with the guidance of the experts. After the establishment of purpose of the test, proper procedure acquiring required equipment needed, a pilot study was conducted on the Korfball women players from Nashik and desired changes were made in the tests in order to make tests easier to administer. These constructed Korfball tests were then administered on the korfball women players from nashik District and to derive reliability, validity & objectivity.

Reliability, validity and objectivity was established by following procedure given in various books of tests, measurement and evaluation. A test is called reliable because there are reasons for believing the test to be stable and trustworthy. There are several methods of determining reliability of the test out of these; researcher used test-retest (repetition) method. The tests were given repeatedly on the same group and correlation computed between.

In this stage fifty (N=50) college level female (50 female) korfball women players from nashik zone s different colleges from Pune University between 18 to 29 years were tested primarily by administrating the newly constructed test on first try out basis for reliability. The limitation in administrating each test item was recorded for further improvement of the test. After one month, the test item administered for second try out. The test retest was assessed for each test item and also for a test battery a whole. The significant reliability coefficient ensured the priminialy form of the test for develop validity.

The validity of test depends on the fidelity with which it measures what it supposed to measures. Researcher referred many ways for validating the skill tests as determining validity by means of judgements (face validity), determining the validity experimentally, factorial validity etc. and from these methods, determining the validity experimentally was used to find out validity of all constructed skill tests. Total 50 women korfball players were selected and administered constructed skill tests on them. Also their rating of skill performance was done with the help of their coaches and teachers. Correlation between these skill tests scores and ranking was calculated to decide the validity of all constructed skill tests.

To decide the objectivity of all constructed skill tests, researcher took the help of experts from korfball field. Researcher administered all constructed korfball skill tests on 50 women players and made correlation between these two data sets to find out the objectivity of the tests.

Name of Test Item	Reliability	Objectivity	Validity
	coefficient	coefficient	coefficient
Field goal test	0.785	0.96	0.87
Speed Pass Test	0.852	0.97	0.83
Footwork & Agility Test	0.831	0.98	0.88
Pivot Test	0.819	1.00	0.85

 Table 1

 Reliability, Validity and Objectivity of Korfball test for Female Players.

The Validity of skill tests found .87, .83, .88 and .85 respectively. The Reliability of skill tests found .78, .85, .83 and .81 respectively. The Objectivity of skill tests found .96, .97, .98 and .1.00 respectively. Descriptive analysis was done by testing the Mean, Median and Standard Deviation. The normality of the scores was tested through skewness and kurtosis. The outliers from the scores were removed using the Boxplots. The present norms of 4 finally selected test items indicate that the distribution of scores of almost all the test-items resides in the normal range of probability curve. The performance norms of each skill test (items) were graded as poor, fair, average, good, and excellent on the basis of Rank order method..

The findings indicate that the Korfball Female players must be selected on the basis of following criteria. The 'Tests' can be successfully administered to discriminate between Korfball players for selection. Selection Committee and coaches can use these Tests as "selection criteria" for District, University, State, National and International Korfball Teams. This study will give players a guideline and target to prepare themselves for selection. Hence researcher recommends the use of tests, norms and grading prepared.

Koriban Marcanu Femarci nayers						
Test item	Poor	Fair	Average	Good	Excellent	
Field goal test	6 & below	7 to 9	10 to 11	11 to 12	13 & above	
Speed Pass	32 & below	33 to 36	37 to 39	40 to 41	42 & above	
Test						
Footwork &	20.11 & above	20.10 to	19.11 to	18.39 to	17.19 & below	
Agility test		19.12	18.40	17.20		
Pivot test	11.94 & above	11.93 to	10.76 to	10.13 to 9.41	9.40 & below	
		10.77	10.14			

 Table 2

 Grading Scale on Item-wise Performance for Selection of Korfball Male and Female Players

Conclusions

- Field goal skill test can measure the goal shooting skill of Female Korfball players.
- The field goal test is Valid, Reliable and Objective.
- Speed pass skill test can measure the passing skill of Female korfball Players.
- The Speed Pass test is Valid, Reliable and Objective.
- Foot work and Agility skill test can measure the Foot work and Agility skill of Female korfball players.

- The Foot work and Agility test is Valid, Reliable and Objective.
- Pivot skill can measure the Pivoting skill test of Female korfball players.
- The Pivot test is Valid, Reliable and Objective.
- The norms of the test are gradable and can be useful to distinguish Korfball Female players having a good level of skill performance.

Recommendations

As the results appeared are promising, this study recommended that-

- The "Korfball Skill test" can be used as an additional criterion for making decision in team selection in korfball game.
- Similar study on different age groups and different levels has been recommended.
- Further study on some psychological variables is suggested.
- This newly develop test may, reasonably, be applied as a kind of guide or research tool to develop insights among the coaches, selection committee and Korfball players in relation to game performance and even to search talents in this game
- The norms and standard scores can be used as criteria for selection of Collegiate Korfball player to compose a standard University level korfball team for the University of Pune.
- The Grading table prepared can be used but has to be updated time and again.
- The literature of physical education and sports is less informative with reference to the game "Korfball". The knowledge being evolved from the present piece of research could contribute a new direction by presenting a standardized "Korfball Skill Test" for the promotion of international game, which in turn could enrich the literature of physical education and sports.
- International Olympic association or international korfball association or sports scientist would get a proper insight for developing a nation wise norm of "Korfball Skill Test" which could be an additional contribution of knowledge to the sport literature.

To Korfball Clubs and teams

- The 'Test items' can be successfully administered to discriminate talented Korfball player.
- The score received using test items will help of the coaches to know the shortcoming of players in specific area and bring improvement.

To Selection Committee

- Selection Committee and coaches can use this Test items as a" selection criteria" Korfball players for the team.
- The test can be used as assessment tool and will help to adopt new strategies in training, coaching, and teaching so as to enhance the efficiency of players or Korfball team.

To Players

• This study will give players a guideline and target to prepare themselves for selection. Hence researcher recommends the use of test items, norms and grading prepared.

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Standardization of Wellness Inventory for Adolescent School Children

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Abstract

This paper reports on a wellness inventory, three point scale instrument that was designed to assess the wellness of adolescent children. The process of construction, validity and reliability is explained in this paper. The wellness Inventory tap into seven broad areas: physical, social, emotional, intellectual, spiritual, occupational and environmental wellness. The wellness Inventory is comprised of 38 stems. This study divided into three parts. For the development of this tool 160 sample were selected by convenient method of sampling. The test retest method was used to establish the reliability of wellness Inventory. The 32 subject age between 14-16 was selected by using the convenient sampling technique. The content validity of instrument was established with help of expert. The test retest coefficient of correlation was found (r = 0.97), which was statistically significant at 0.05 significance level. The Wellness inventory has high reliability and content validity.

Keywords: Wellness Inventory, Content validity, Reliability.

Background

Wellness is generally used to mean health balance of mind body and spirit that results in on overall feeling of wellbeing. We generally see a reference to state of wellbeing. Also frequently seen is a state of acceptance or satisfaction with our present condition (Fahey, Inset & Roth, 1996). The wellness movement began after the end of World War II largely because society's health needs changed, advances in medicines and technology meant vaccines and antibiotics reduced the threat of infectious disease, which until that time bad been the leading cause of death(Seaward, 2002). Instead, chronic and lifestyle illness (e.g. heart disease, diabetes, cancer) associated with numerous stressors in life and the workplace, become the primary health concepts. Larson (1999). states that the world health organisation (WHO) was first to introduce a holistic definition of health as "a state of complete physical, emotional and social wellbeing and merely the absence of disease and infirmity and many conceptualization of wellness include this central concept. The president council of physical fitness and sport for the US has been very involved in defining wellness and Oliphant (2009) explains that the suggestion by WHO that health has a positive component leading to the now widely used term beyond simply nonsickness, elaborating on the WHO Definition by emphasizing the varying degrees of wellness and its interrelated, ever changing aspects he detailed the interconnected nature of wellness of the mind, body and environment which exists as dynamic equilibrium as one tries to balance between each.

Egbert (1980) summarized the central areas of wellness as being a combination having strong sense of identity, a reality oriented perspective, a clear purpose in life, the recognition of a unifying force in one's life, the ability to manage one's affairs creatively and maintain a hopeful view and the capability of inspired, open relationships. Lastly, winter and Sweeney (1992) defined wellness in terms of life of tasks that include self-regulation, work, friendship, spirituality and love. Helter (1980) defined six dimension of wellness: Physical, Emotional, Social, Intellectual, Occupational and Spiritual. All these dimensions are interconnected. Making a change in one often affects same or all of others; for example regular exercise (Developing the

physical dimension of wellness) can be increases feeling of wellbeing and self-esteem (emotional wellness), which turn can increases feeling of confidence in school interactions and one's achievements at work or school (Social Wellness) every positive change is a step toward total wellness (Fahey & Roth, 1996). Many researchers have explored and defined the various components or inter relate areas that comprise wellness.

Physical wellness is the active and continues effort to maintain the optimum level of physical activity and focus on nutrition and includes self-care and healthy lifestyle choices. Emotional Wellness includes one's attitude and beliefs towards self and life. Definitions include a positive and realistic self-concept, identity and degree of self-esteem and the awareness and constructive handlings of feeling. Social wellness is broad scope because it includes the interaction of the individual with others, the community and nature. It includes the interaction with, and support of others, the community and the social and natural environment. Social wellness includes the motivation, action, intent and perception of interaction. Intellectual wellness is the perception of and motivation for, one's optimal level of stimulating intellectual activity by, the continual acquisition, use sharing and application of the knowledge in a creative and critical fashion. This is for both personal growth of the individual the betterment of the society. The key aspects of spiritual wellness seem to be purpose and meaning in life the self in relation to others, the community nature, the universe and some higher power, shared community and experience and the creation of personal values and beliefs. Occupational wellness is the extent to which one can express values and gain personal satisfaction and enrichment from paid and non-paid work, one's attitude toward work and ability to balance several roles, and the ways in which one can use ones skills and abilities to contribute to the community. Finally environmental wellness has broad dimensions that consider the nature of individual wellness has a broad dimension that considers the nature of an individual's reciprocal interaction with the environment on a global level (e.g. balance impact control). The environment includes home, work, community and nature.

Several authors have commented on the difficulty of capturing the dynamic nature of wellness and the inadequacy of the existing measures (Adam et.al. 1997 Renger et.al. 2000). Other researchers have conducted large scale studies using a variety of wellness related instrument. Several techniques have been developed to measure wellness at an individual level. These include the Life Assessment Questionnaire (LAQ; National Wellness Institute, (1983) developed to measure the six wellness dimensions outlined by Hettler (1980) and a modification called Test Well (Owen,1999); the Perceived Wellness Survey (PWS) (Adams et al., 1997); the Optimal Living Profile (Renger et al.; 2000); and, a Wellness Inventory (WI), developed by Travis (1981) to mention a few. Many wellness assessment tools are being restructured to be more effective. Allardt (1989) developed a wellness tool to assess the school setting. He identified four key components of: "having", i.e., school conditions such as surroundings and services; "loving", i.e., means for self-fulfilment such as value of student's work and increase self-esteem; and, finally, "health", i.e., health status such as the presence or absence of illnesses and psychosomatic symptoms.

Method

Participant

For the development of the Wellness Inventory, in the first pilot study participant (n=60) was there. They were selected by using convenient sampling technique. And the second study the participants (n=100) from target population. To established the reliability of wellness inventory

(n=32) adolescent students with an average age of 15 years, from English medium school from Pune city. They were by using non probable sampling technique. Both boys and girls were part of the sample.

Procedure

The researcher has done two pilot studies for the construction of Wellness Inventory. The first study was conducted on 60 students from the bachelor's degree. The sample was selected through purposive (convenient) sampling method, to know about the understanding of content and phrasing of stems. That time the wellness Inventory had 60 stems. After data collection the researcher has found that some stems had repetitive and difficult to understand hence 28 stems were eliminated. The next study was conducted on the target age group of present research. 100 samples were selected for this study. The purpose of this study was to knew the understanding and meaning of the stem, was they able to response them. In this process the two stems are quite difficult to response so researcher has change the framing of that stems. In this research the data collection tool was Wellness Inventory. With the help of 12 experts the content validity was established for this tool. In this process the content selected through the study review of related literature. The researcher found that the validity of previously established wellness Inventories were not suitable for present conditions of the characteristics of sample. The lifestyle, growth and development, psychological awareness, and the social activities were different. Participants started by completing a Wellness inventory. For this study participant records their responses two times. There was two days gap between both responses. Researcher has given same instructions while completing the inventory.

Wellness Inventory

The Wellness Inventory is 38 questions instrument which was used to assess an individual's wellness perceptions in all dimensions physical, emotional, social, intellectual, spiritual, occupational and environmental). Responses to the questions were given 3 point scale ranging from. (1= Never, 2= Sometimes and Always = 3).

Results

Table 1 Descriptive Statistics of test retest of wellness inventor					
		Mean	Std. Deviation	Ν	
	Test	81.1875	6.63538	32	
	Re test	81.1875	4.69342	32	

Table 2		
Correlations of test retest of v	velln	<u>ess inve</u> ntory
	Test	Re test
Test Pearson Correlation	1	$.970^{**}$
Sig. (2-tailed)		.000
Ν	32	32

**. Correlation is significant at the 0.01 level (2-tailed).

Table no 1.1 shows the descriptive statistics of 32 participant response to the wellness inventory the mean score of first test was 81.1875 and standard deviation 6.6353. And the mean score of

retest was 81.1875 with standard deviation of 4.6934. Table no.1.2 shows the correlation between test and retest. The coefficient of correlation was found (r=0.97) which was significant at 0.01 significance level. It shows that between two tests there was high positive correlation.

Discussion

The wellness inventory was developed to measure the wellness of adolescent school children from English medium school. The framings of stems are depending on the regional circumstances. The stems framing was design to understand the actual perspectives of respondent. Some stems are quite negative at a glance but the response of that conveys the true behaviours. Responses were recorded in three scale pattern. After the reviewing of literature this target group was not able to make the difference between 5 scale responses so the scale was reduce in three points. The wellness inventory has content validity. With the help of expert team researcher has to convey that all the dimensions are included and taken consideration while developing the Inventory. The proportion of the dimensions are not equal, they varied according to the age of the target group. Researcher focussed on physical, social, emotional and intellectual wellness. The expectation from this target groups are surrounded by these domains of life. The present findings suggest that this tool is reliable for implementing on students. The result shows that the consistency of the developed inventory. The reliability may differ when the intention and the sample will change. Respect to validity of this tool the expert from same field they were satisfied with current tool.

Conclusion

The purpose of this study was to develop, validate and to establish reliability of the Wellness Inventory. The current result conveys the content validity of this tool. The reliability score was good enough to said the reliability of this tool was good. The understanding level of the stems was quite simple and easy to respond.

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Effect of Educating and Involving Parents to Enhance Outlook of Parents towards their Child Participation in Physical Activity

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Abstract

The purpose of this study was to design a questionnaire to examine parents' outlook towards physical activity. Outlook means parents attitude, perception, behavior, awareness, motivation and knowledge towards their child physical activity. After participation in the physical activity program and workshop researcher was expected to examine the effect on parental outlook and their children's regularity in physical activity. The developed questionnaire was given to parents of control and experimental group for pre test and post test. Parental education based workshop and 8 week physical activity program for children is given to experimental group. Information about task sheets, worksheets, Demonstration of exercises, information about importance of physical activity, how parent's involvement in child physical activity is important, information on exercise intensity and nutritional diet is given to parents in workshop. The results show significantly increase in parent's outlook t = 5.377 at (p = 0.001), parent's attitude t = 3.770 at (p = 0.001) and activity preferences t = 3.876 at (p = 0.001). Results shows that no significant improvement in awareness and knowledge towards physical activity t = 2.445 at (p = 0.017) and school help for motivation t = 1.799 at (p = 0.077). Significant correlation was not found in parent's outlook and children physical activity score. Scores from this scale indicate that we can measure parent's outlook towards child physical activity participation and the designed program can change the outlook of the parents towards physical activity.

Introduction

Parents have the central role in encouraging their children to do physical activities. Their attitudes, views and performances toward physical activities can have strong effects on their children attitudes, views and performances (Ramezani-Nezhad et al., 2009). Kahn and Ramsey (2002) concluded that parents can encourage and create positive attitudes in their children to do or continue doing physical activities through regulating time and number of physical activities sessions, improving their practice knowledge, increasing their support and creating self-esteem and confidence in their children to do physical activities. In another study (Zamatkin et al., 2004) reported that parent' attitudes toward physical activities have effects on children attitudes about their active participation in different types of physical activities. Li et al. (2007) found that parent's life-style has effect on healthy behaviors of their children and thus on some levels of their physical activities. They also reported in the study that parent's attitudes are one of the most effective factors in determining children attitudes toward physical activities (Li et al., 2007). Clement, (2009) in a study reported a positive relation between parent's attitudes and children attitudes and behaviors.

Research Objectives

The purpose of this study was to improve parent outlook towards physical activity. This study aimed:

• To design a Questionnaire to examine parents' outlook towards physical activity.

- To develop a workshop based parental education program for enhancing parents' outlook towards physical activity.
- To develop physical activity program for students to be conducted by parents.
- To conduct pre test and post test of parents' outlook towards physical activity through questionnaire.
- To examine the outlook of parents towards physical activity.
- To study the impact of physical activity program on students' regularity in participation in physical activity.
- To study the effect of the workshop based parental education program on the parents' outlook towards physical activity.

Hypotheses of the research

- H_{1:} Parental education and involvement in the intervention program significantly increase the parent outlook towards Physical Activity.
- H₁: Parental education and involvement in PA program leads to significant increase in regularity in doing PA of children.

Research Questions

Does involving parents with children in PA make difference in parent outlook and students regularity in doing physical activity every day?

Research method

For this research the researcher used experimental method. Treatment was given by using physical activity program. Pre test and post test was taken by using questionnaire about parents outlook towards physical activity.

This study used Pre-experimental design, in that pre-test - post-test non- equivalent group design. This design is often used in classroom experiments when experimental and control groups are approximately similar.



O₁ O₂ O₃ and O₄ and O3 were the observations X- Treatment C- Control group

Variables of the study

Independent variables – students PA program, workshop for parents, gender. Dependent variables – outlook, parent involvement.

Population

Present study will provide valuable information about parents of kindergarten students. For the current study the population was kindergarten students from Pune city. Population for this study is approximately 20000.

Sample of the study

For the current study Non-probability method is used in which purposive sampling technique is used. Researcher has selected students from Vidya valley school consisting 90 students from both Jr. KG and Sr. KG. For experimental and control group simple random sampling technique was used.

Initial stage I have selected 100 students out of which due to mortality and absentee in the final stage the total population remain in the sampling for analysis is 90.

Procedure

Consent of school and parents-Tool development procedure-develop physical activity program and conduct workshop-Pre test-Daily physical activity program for students conducted by parents-Post test: (Parents will again fill up Physical activity questionnaire for post test)-Data Analysis

Table 1: Factor wise outlook scale

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SN	Factor	Sub factor	No. of Questions
1	Attitude and perception	Parents attitude towards PA	18
		Parents attitude towards their child PA	
		Parents perception towards PA	
2	Awareness, Knowledge,	Parents Awareness, Knowledge, Motivation	10
	Motivation	towards their child PA	
3	Activity Preferences	-	6
4	School help for Motivation	-	5

Pilot study: The purpose of the pilot study was to find out validity and reliability of the instrument. The instruments were checked by the primary investigator, and instrument that were incomplete or were clearly not completed were discarded. Further corrections were made and the scale was refined.

Validation study

Data analysis for validity evidence based on internal structure

Data from the collected 51 items were entered into an excel worksheet. Incomplete and unusable items will be discarded. Negatively coded items were reverse-coded before uploading data into SPSS.

Content validity evidence

Six physical education teacher educators (PETE) professors were asked to complete a content validity study. Percentages agreement with the proposed factor was calculated for each item.

Reliability

Twenty five teachers were asked to complete a reliability study. Test retest method was used to calculate the reliability of the scale. Correlation between pre test and post test is 0.87.

	Table 2. Independent Samples Test.							
Change in		t-test for Equality of Means						
performance in	ce	Т	Df	Sig (2-tailed)	Mean Difference			
outlook sco	re Equal variances assumed	-5.304	88	0.001	-5.54743			
Factor 1	Equal variances assumed	-3.698	88	0.001	-2.45158			
Factor 2	Equal variances assumed	-2.405	88	0.018	-0.86364			
Factor 3	Equal variances assumed	-3.818	88	0.001	-1.56028			
Factor 4	Equal variances assumed	-1.773	88	0.080	-0.71542			

Table 2: Independent Samples Test:

Discussion

Parents thought about the program

73% parents said that tasks and range of exercises is satisfactory. The parents feel that no change is required and the program is very good as it is or at the most it could changes according to their need and stamina and more specific child centric.

87% of the parents said that this is very good initiative by the school of bring exercise and sports to our everyday life and it is a perfect combination of parents involvement with children, helping parents connecting with the child. This is a good way for parents to think about their physical activity. It could act as a guide for parents who haven't been involved with their kid's physical activity. These activities will help children overall development. Parents feel that mental fitness only comes if you are physically fit. This program will develop the habit and interest in physical activities right from their childhood and it will becomes the foundation for their healthy life. This program will help kids to be physically active and fit.

Parent's participation and activities

Most of the parents (67%) assisted in doing the entire task given to them. The parents did all tasks given to them at home in the rainy season. They were involved in outdoors as well as indoor activities. Parents were involved in activities like cycling, walking, running and in ball games. Some parents played football, did swimming and mountain climbing with their child. Activities like Frisbee, cricket, jumping, simple exercises were shown least interest and showed less participation from the parent's side.

Effect of program

Parents feel this program has defiantly brought a change. This brought a systematic approach and made her activities all round. Because of this program my child physical activity has improved. This will help him a lot in long run. Children are excited and it is easier to coax him to do physical activity. Of all the parents 58.69% of them feel this program is a success. 39.13% parents said that Child physical activity has increased. 60.86% their involvement in their child's physical activity has increased. 32.60% parents feel that their physical activity has increased due to this initiative.

Parents view about how the school can motivate

To motivate children school can do the following things .School should organize after or before school activity classes. Organize small races, events on monthly basis in school for parents and children team. Tell children about importance of physical activity, show news of current sports

affairs, and show movies related to sports, lectures on benefits of sports, school should give directions to children to be physically active. They can also call sportsman to visit school as a role model. School should send activity report more often and also offer school ground and premises for play in weekends.

Parents feel school should encourage a healthy lifestyle which is eating healthy, regular physical activity and understanding the importance of being healthy. School should also talk about limitation on watching TV, strict ban on mobile or gadgets. All these things when told in school make a big difference in the children's behavior and they tend to follow it.

To make physical education and sports more important school can conduct regular sporting events for encourage child. This will also bring more cohesiveness in their nature and to make them friendlier and open with unknown people let them play with other classes/ sections in the school. School can target one sport a month and parents could support that practical sport by taking about it at home and even playing it over the weekend. PE should have regular tests and like other subjects it should be given equal weight age and marks/grade.

How can school increase parents involvement

Parent's involvement is very important, school can involve parents by holding once a month or weekend Physical activity or competition for parents, parents-child mix teams and children cheering for them. School should encourage parents to attend weekly sports days. School can also organize workshops during weekends. Update parents and child for Physical activity, sports and games and give sports homework involving sports and physical activity.

Parents can do these exercises with their child

Parents should take their child to sports club for various Physical activities, try and involve themselves in games and activities like tennis, table tennis, badminton, basketball, yoga, steps up and down, jumping, skipping, dancing, playing in the park, suryanamaskar, stretching with kids and set good example for their children.

Conclusion

- Parent's outlook towards physical activity can be measured by using developed questionnaire.
- It can be also concluded that the develop program consisting of workshop monitored child Physical activity program can enhance parents outlook towards physical activity.

Recommendations

- The program should have more lectures related to diet, exercise and physical activities and more informative workshops.
- Informative videos should be sent so parents can understand how to do proper exercises.
- Take physical activity test of parents and students before and after the program and workshop.
- Instead of weekly physical activity worksheets provide daily and detail worksheet. Arrange task to be more groups oriented and more enjoyful

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Application of Bahiranga Yoga in the Tribal Students, Healthy Social Life

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Abstract

The physical, psychological and spiritual health of the students is on decline due to their hectic life-style school education is the one of the important aspects of socialization. The social maturity steadies the life of individual Yoga play on important role in the balanced development of character and behavior of an individual social maturity includes personal Adequacy, Interpersonal Adequacy and Social Adequacy, social maturity is a healthy social life. Patanjali Yoga's Yama, Niyama, Asana and Pranayama can play a significant role to develop social life among the students. The present research attempts to study Application of Bahiranga Yoga in The Tribal Students, Healthy social life, using standardized paper pencil tests developed by Nalini Rao to measure social maturity an experimental study was conducted on forty boys of Jai hind residential school for Tribal students, Kolwade, Tal- Sangamner, Dist- Ahmednagar (M.S.) The data was analyzed by using statistical methods of mean, standard deviation and paired 't' test. The results of the post-test, prove that there is positive effect of the training programme in Bahiranga Yoga on the tribal students.

Introduction

The physical, psychological and spiritual health of the students is on decline due to their hectic life-style school education is the one of the important aspects of socialization. Food education makes on individual responsible citizen of the Nation. This socialization controls the social behavior of the individual. Social maturity is developed internally in an individual since in social maturity rules and values are internalized, it becomes a prohibitory way to for social control. The social maturity steadies the life of an individual. It provides security and it also benefits economically It also helps also understand expectations of the society from an individual social life. Social maturity consists of personal Adequacy 1) The components of personal Adequacy are work irritation self direction and ability to take stress. 2) The components of Interpersonal Adequacy are communication Enlightened Trust and cooperation. 3) The components of Social Adequacy are social commitment, social Tolerance and openness to change.

The tribal students fail to fulfill the social expectations since the students are not interested in seeking education, they fail to complete their education. They are fed up with the environment of residential school The belief of tribal students in superstitions, difficulty in adjustment with others, their shyness, stress, negative attitude, similarly factors like poverty and the circumstance have impact on their school life. The study of their school life may be of immense help to understand the healthy social life and social maturity of tribal students.

The Problem:

The present study was undertaken to know Application of Bahiranga Yoga in the tribal students, Healthy social life. The educational progress of the tribal students depends on their healthy social life & maturity. It is expected that the life-style of a student should be suitable to society.

Objectives:

- 1) To prepare a training programme in Bahirang Yoga
- 2) To measure social maturity under healthy social life.
- 3) The test the usefulness of training in Bahiranga Yoga

Assumptions:

The Social-Psychological test use for data collection will be standard.

Hypothesis:

There will be positive application of Bahiranga Yoga In the tribal students healthy social life.

Scope:

- 1) The present research is limited to the students of Jai Hind Adivashi Ashram School, Kolwade, Tal-Sangamner, Dist-A'Nagar
- 2) Only boys between age-group 14 to 16were selected for the present study.
- 3) The present study is limited to the training in select yogic processes in Bahiranga Yoga.
- 4) The duration of the present study is limited to three months
- 5) The present research is limited to counseling, group discussion, value education and prayer under Bahiranga Yoga training programmed.

Delimitations:

The factors like students family environment everyday life in school, tribal culture and their beliefs cannot be kept under researcher's control

Definition of Major terms:

Yoga:

Yoga it is a science which helps to maintain the balance of body, mind and brain along with the physical, mental, social and spiritual adjustment.

Bahiranga Yoga Training :

The process of Inoculation on mind and body the Yogic processes like Yama, Niyama, Asana and Pranayama included in Maharshi Patanjali's Asana Yoga and counseling related to prayer and values in Bahirang Yoga training.

Social Maturity :

The Physical, psychological and social abilities of an individual develop with the age while acquiring life skills an individual observes and responds to the social reactions behaves and responds to the social reactions accordingly. This is called social maturity.

Research Methodology:

The experimental Method was used for the present study. **Sample Size :** Random sampling 14 to 16 age group

Tools of Research :

Standardized paper pencil tests developed by Nalini Rao to measure social maturity were used for the present study.

Counseling :

The student under study were trained with the help of Maharshi Patanjalis Yama, Niyama, Asana, Pranayama etc. Through demonstration, significance of ideal values, social maturity, development of life skills, etc. were inculcated on mind and body through counseling, group discussions and interactions.

Before the commencement of the training program in Bahiranga Yoga, the pre-test was conducted for the single experimental group. The training programme was implemented for three months continuously for five days in a week from 6.30 am to 8.00 am. Every Sunday counseling, dialogue and group discussion were arranged. At the end the post test was given to this group Bahiranga Yoga Training programme included prayer, asanas, Pranayama, Mudra's Pandhas, Purification Processes etc.

Statistics : Paired samples statistics :

Social Maturity							
Sr.No.	Mean	Ν	Standard Deviation	Standard Error mean			
1	pre-test	186-950	40	18.272	2.889		
2	post-test	254.675	40	20.632	3.262		

Toble No 1

Table No.2					
Paired samples correlations					
Pre-Test & Post-Test	Ν	Correlations	Significance		
	40	0.645	0.001		

Table No.3Paired Samples Test

Pre-test	Paired Differences							
and	Mean	SD	Std. Error	95 % confidence		't'	df	sig-2
Post-			Mean	interval of the				tailed
test				difference				
				Lower	Upper			
	67.725	16.528	2.613	52.439	73.010	25.915	39	0.001

Analysis :

According to table no.01, social maturity test mean of pre test 186.950 while standard deviation in 18 :L 272 similarly, in post test mean is 254.675 while standard deviation in 20.632.

According to Table No.2 social maturity test the correction between the pre test and post test is 0.645 while the significant is 0.001 at the significant level.

According to Table No.3 social maturity test the deference between the mean of pre test and post test is 67.725 when this difference was checked with the help of paired 't' test the value of 't' was 25.915. This 't' value 0.001 is significant at the significant level (p = 0.001)

Based on this statistical analysis it can be said that there is positive effect of the training programme in Bahiranga Yoga on the social maturity.

Discussion :

There is positive effect of Yama, Niyama, Asana, Pranayama (components of Bahiranga Yoga) on social maturity's component personal Adequacy, Interpersonal Adequacy and social Adequacy, Healthy social life was developed through the practice of Yama, Niyama,. The

practice of Pranayama led to stress management consequently there was over all positive effect on social maturity of Bahiranga Yoga.

According to the research conducted by subramanyam (1989) on Yoga for social health. Yoga helps for unity of body and mind and social unity. Yama-produces social control, Niyama produces individual discipline pranayama helps to know 'self and steadies' body and mind yoga produces physical, psychological and social organization.

Palsane (1998) has studied mental & social benefits of yoga. Benefits at mental level raise the social level automatically. The stage of life, objectives, internal processes, experiences, sufferings and happiness affect social life. The factors like family, neighbor, friend, school and education effect personality.

The self-concept and self direction of individuals are developed through these factors.

These two aforementioned studies show that there is close relation between the applications of Bahiranga Yoga on the healthy social life of tribal students.

The above discussion shows that there is posit effect of Bahiranga Yoga on the social maturity social healthy life of tribal students.

Contribution of present research to knowledge :

It is important for every individual to remain healthy on the physical, psychological, social and spiritual levels. This study examined the social maturity of the tribal student. There was positive effect of the training programme in Bahiranga Yoga on the students. As a result of this, it is possible to develop qualitative active and responsible students at the school level it self. Yoga is an invaluable treasure of Indian culture and it is quite sale is flying that this research has contributed to knowledge. The study will be useful for the all round development of the students.

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Effect of individual Asanas on blood pressure Post Aged Adults

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Abstract

Eighty four Blood Pressure subjects between the age group of 40-59 years were studied to see the effect of 120 days of Yoga asanas. The experiment was conducted on the veteran males with one type of disorders i.e. hypertension. The subjects of the hypertensive patients were divided into three groups (viz. yoga, self learning, and control). This research included 28 subjects of yoga group, 28 subjects of self learning group and 28 subjects of control group. In this research subjects who suffering from blood pressure for last 1 to 5 years are selected. The yoga and self learning groups was realized six days a week, over a period of 4 month, and duration of each individual exercise was 60 minutes in evening time and was given training by the Yoga expert. The basic descriptive statistic parameters were calculated for all the result, and the difference between pre, mid and post measuring was determined by ANOVA (Analysis of Covariance) and Scheffe's post hoc test. The study of individual Asanas was undertaken to understand the effect of changing postures on the blood pressure. The result revealed that yoga (i.e. asanas) training continued to bring down the systolic and diastolic blood pressure to a normal range among the hypertensive.

Keywords: Blood pressure, Asanas.

Introduction

During exercise the strain on muscles increases, the requirement for blood and oxygen increases but in Yogasana the requirement gores done as there are no strains and every muscles is relaxed, the requirement for blood and oxygen gores down. This also reduces the strain on mind; the mind also becomes stables and focused. Also because of twists and stretched postures, the functioning of endocrine glands, digestive organs, heart and organs improves. To achieve this even simple Yogasanas are helpful, one can easily practice these yogasanas and get the best for himself.

However, the asanas are to be performed without strain, undue stretching in some ananas may do more harm than benefit. Old reports have indicated that some asanas are harmful for heart disease and hypertensive and should be performed with caution. This study of individual Asanas was undertaken to understand the effect of changing postures on the blood pressure.

Methodology

Eighty four subjects age 40-59 years randomly selected form Karvenager, Pune (India). The subjects were divided randomly in three equal groups. (viz. yoga, self learning, and control). This research included 28 subjects of yoga group, 28 subjects of self learning group and 28 subjects of control group. In this research subjects who suffering from blood pressure for last 1 to 5 years are selected. The yoga and self learning groups followed the program of instruction for the period of six times a week, over a period of 4 month, and duration of each individual exercise was 60 minutes in evening time and was given training by the Yoga expert. The data was collected before, after 2 months and after 4 months of experimental period. The yoga asanas regime included the *Suryanamaskar, Yogmudra, Matyasana, Siddhasana, Padmasana, Pashimottansana, Sarvangasana, Vajrasana, Pawanmuktasana, Dhanurasana, Bhujangasana,*

Supta-Vajrasana, Mayurasana, Shirshasana, Shavasana. Every one received personalized attention and supervision of a yoga expert during yoga sessions.

Results

Thus, the information, obtained from the measures of central tendency and dispersion, as presented in Tables 1, revealed that all the training interventions i.e., 'Yoga' and 'Self Learning' may have the treatment effect in controlling the Blood pressure among the patients with hypertension.



The **overall result revealed that** all the training interventions **could** record reduction in *systolic blood pressure* during mid test. However, during post test the trend of improvement in *systolic blood pressure* was evident especially among the subjects of **yoga** group only, whereas **the self learning** and **controlled subjects** did not show any change in systolic blood pressure. Finally, on post-test, the result revealed that yoga (i.e., asanas) training continued to bring down the **systolic blood pressure** to a normal range among the hypertensive. (Fig.1)



The **overall result revealed that** all the training interventions **could** record significant reduction in *diastolic blood pressure* during mid test. However, during post test the trend of reduction in *diastolic blood pressure* was evident especially among the subjects of **yoga** group only, whereas **the self learning** and **controlled subjects** did not show any change in systolic blood pressure. Finally, on post-test the result revealed that yoga training (i.e., asanas) helped to bring down the **diastolic blood pressure** to a normal range among the hypertensive. (Fig. 2)

Discussion of Result

Health and natural remedies among people by yoga has been proven an effective method for improving health in addition to prevention and management of disorders. Yoga is reported to reduce stress and anxiety, improves autonomic functions by triggering neuro hormonal mechanisms by the suppression of sympathetic activity.

The results of this study revealed that yoga practices introduced to the subjects with hypertension could significantly reduce the systolic and diastolic blood pressure to the normal level. The results are in line with the previous findings (McCaffrey *et al.*, 2005; Bijlani *et al.*, 2005; Latha *et al.*, 1991; Vijayalakshmi *et al.*, 2004; Damodaran *et al.*, 2002; Murugesan *et al.*, 2000; Selvamurthy *et al.*, 1998). Other studies have also observed that Yoga lowers systolic pressure (Selvamurthy *et al.*, 1998; Patel and North, 1975; Sunder *et al.*, 1984; Okonta, 2012;). In the case of stress related hypertension, Yoga might modify the states of anxiety (Patel, 1975), thus reducing hypertension. The present study dealt with the impact of the asanas training and the result revealed that such intervention was helpful to reduce blood pressure to the normal level.

Conclusion

The 'self-learning intervention' could reduce blood pressure during mid-test (i.e., after 2 months of experiment), whereas no change in blood pressure is evident during post-test (i.e., after 4^{th} month of experiment). However, the schedule of 'asanas' for 4 months (i.e., 1^{st} 2 months and 2^{nd} 2 months of experiment) brings significant trends of reductions in blood pressure in hypertensive. Thus, yoga training (i.e., asanas) was found better than 'self-learning' and 'control' groups respectively in controlling blood pressure among hypertensive.

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Impact of Aerobic Dance Intervention on Self-concept in Adolescent Girls

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Introduction

Adolescence is the developmental period of transition between childhood and adulthood; it involves biological, cognitive and socio-emotional changes. These changes transform the young person's vision of the self into more complex, well- organized and consistent picture. Self-conception of adolescents changes in structure as well as content. Structurally it becomes more differentiated and organized. Adolescents are more likely to employ complex, abstract and psychological self- characterization. Self-esteem, the evaluative side of self-concept is also modified during these years. Adolescent's well organized self-description and expanded sense of self-esteem provide the cognitive foundation for constructing an identity.

In adolescence, school/college experience plays an important role in the development of selfperception and can have powerful and long lasting effect on the self-esteem of the adolescents. Women in our society are judged on the basis of their physical beauty and attractiveness. Intelligence, academic excellence is considered less appropriate criteria for assessing women. In major review of research studies, the consensus is that physical attractiveness is of great importance for women than for men. (Feingold, A. (1990) Young adolescent girls are very much aware of the prevailing cultural standard of attractiveness. When they meet these standards, their self-esteem is enhanced. If they are not able to meet the standards, their self- esteem is harmed. (Feingold, A. 1990) They face formidable challenges in meeting the punishing cultural standards of attractiveness. During early adolescence, sometimes there is a decline in the self-esteem of girls for negative body image. Thus, proper self concept of adolescent girls is highly essential for their daily walks of life.

Objectives of the study: To determine the effect of dance aerobic intervention on Self Concept of adolescent girls.

Method of Research For the study experimental method was used. The design of the experiment is repeated test random group design and has been planned as per given below:

Phase I	:	Pretest.
Phase II	:	Dance aerobic Intervention (12 week)
Phase III	:	Mid test after 6 week
Phase IV	:	Posttest.

Subjects: Population for the study will be the girls between the age group of 13-15 years studying in Pravara Kanya Vidyamandir, Loni. By taking height and weight, the BMI was calculated of whole population. The convenient sample technique was used to select 80 girls as participants for the study. The girls who are having higher BMI level were selected. They were randomly divided into two equal groups; one is control and another is experimental group. Each

group was consisting of 40 subjects. Participants were required to be able to read and understand English.

Tools

Paper pencil test Self concept questionnaire of R. K. Saraswat was used for the collection of data.

Procedure of the Study

All the 80 subjects were randomly divided into two equal groups; one was control and another was experimental group. Pre test was administered for the body image, self concept, cardiovascular fitness, and body composition on both the groups. Aerobic dance intervention was given to the experimental group only for a total period of 12 weeks on alternate days; whereas control group will not participate in any training program. Mid test was administered after six weeks of aerobic training. And post test was administered after twelve week.

Training intervention was conducted as follows:

The aerobic exercise group completed 12 weeks of aerobic dance, three times per week. Each session was 25 to50 minutes in duration. The 10 minutes each given for the warm-up & cooling down. Participants were urged to adjust exercise intensity to maintain a heart rate of 60-90% of their age-predicted maximum, and recorded their heart rates on a chart at least once per class session to insure that they were exercising at the prescribed intensity. To maintain the heart rate the music is played 120 to 150 beats per minute accordingly. The instructor demonstrated variations in exercise to accommodate for individual differences in fitness levels; therefore, all participants were able to exercise within the recommended intensity.

Statistical tool

Descriptive statistics and inferential statistics have been utilized to analyze the data. The Aerobic training intervention was an independent variable and Self Concept was the dependent variable. This dependent variable was measured for three times periodically for twelve weeks with six weeks gap. Therefore, researcher applied "Repeated Measure ANOVA"

Results on Self Concept

Tests of Between-Subjects Effects: Self Concept

'F' value for group comparison was 8.803 which was statistically significant at 0.05 significance level (p = 0.004). Mean difference between experimental & control group self concept was 6.975 (Experimental group Mean = 191.292, Control group Mean = 184.317) which was statistically significant at 0.05 significance level (p = 0.004). This indicates that self concept of experimental group was better than control group self concept.

Discussion

The growth spurt and increase in body fat that occurs with puberty may predispose the adolescent girl to weight preoccupation, body shape dissatisfaction and harmful weight control practices. Dieting during the teenage years has been associated with anxiety, depression, and low self esteem, nutritional decencies, impaired concentration, as wel as inhibited growth. In extreme cases dieting has been linked to the development of eating disorders. (Gardner, R. M. et al. 1999) In this study disturbance in perception of body shape was associated with younger age, as in

earlier studies that have pointed out that body weight, shape and size preoccupation was pronounced in early adolescents.

The results of this study about the **self concept** is in correspondence with the studies of Asci (2003), Annisson and Muller (2003), Goni and Zulaika (2000), Stein, Motta (1992), Schneider & Dunton (2008). Schneider and Dunton studied the effect of a physical exercise session on self-concept of schoolchildren. The results of this research showed that physical exercise has a positive effect on various components of adolescent's self-concept. The results also revealed that physical exercise has a positive effect of physical exercise on children's physical fitness improves their perception of self and consequently their self-concept. Although each of the above mentioned researchers used different programs with different time and intensity, they all showed the direct relation with physical training and self concept. The significant improvement observed in the self concept data of the adolescent girls in the present study.

Psychologists believed that if the physical training occurs in healthy situation, it will effect on person's state on mind. Girls in the athletic environments develop their social awareness, controlling feeling, understanding their own social weaknesses, gaining new experiences, adjusting their past experiences and their social features. It seems that the Dance Aerobic exercises can provide the person with positive feelings about his physical abilities and positive effects of aerobic exercises. It can be said that participating in physical training causes the person's physical ability which itself causes the change in evaluation of physical abilities which leads to increase in self-concept.

Conclusion

The observation of the experimental data, within limitations, help to conclude that -

• Through the Aerobic dance program there was significant and useful improvement in self concept of adolescent girls.

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Effect of Yoga Exercises on Self Concept of High School Girls

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Introduction

Young girls are within the stages of adolescence which is the developmental phase between childhood and adulthood characterized by rapid changes in physical, physiological, moral and cognitive growth,

Yoga have more impact on various physiological systems. Now a day's woman are suffered from many common and severe ailments due to lack of exercise, healthy and nutritious food and hygiene. So yoga focuses on concentrating the mind, body and spirit of high school girls. One of the most simple and effective way to achieve their desire is yoga an important form of Exercise, yoga has spiritual roots, with the main aim of helping mankind to realize true happiness, freedom or enlightenment. This is one of the exercise types which have been developed in India. Yoga is said to be a group of spiritual practices which are ancient as well. It is general but an important term in Hinduism.

Self concept means what you understand about yourself, social character or abilities, physical appearance and body image. Self concept is composed of relatively permanent self assessments, such as personality attitudes, knowledge one's skills and abilities, one's occupation and hobbies. "Psychology is the study of the soul or study of the mind is an academic and applied discipline which involves the scientific study of mental functions and behaviour.

Procedure :- Children's self concept scale Questionnaire was distributed to all the subjects, the direction was read by the researcher as a diction speed to make the subjects understand about what they exactly do with the questionnaire. The subjects has to tick each question either yes or No. The bellow table I (a) indicates maximum and minimum possible scores.

N	Maximum and minimum possible score of children's self concept,						
SN	Area	Possible Score					
		Maximum	Minimum				
Ι	Behaviour	16	0				
II	Intellectual and School Status	18	0				
III	Physical Appearance And attributes	12	0				
IV	Anxiety	12	0				
V	Popularity	12	0				
VI	Happiness and Satisfaction	10	0				
	Total Score	80	0				

Table 1 (a)Maximum and minimum possible score of children's self concept,

Scoring :- The Scores obtained by subjects on each statement were added up, which was represents one's total score of girls self concept. The scale items were scored in a positive or negative direction, a maximum score was indicate favorable self concept, higher the score, higher the self concept.

Methodology:-

Design the study – The experimental method was used for the present study. The study was conducted on thirty girls subjects, their age ranged between 13 to 16 years and they were selected randomly from Dnyaneshwar Vidyalaya Alandi, Dist- Pune, Maharashtra.

Before beginning the process of the yoga exercises program S. P. Ahluwalia Children's self concept scale (CSCS) questionnaire was administered. These questionnaires consist of 80 questions, the subjects have tick all questions either yes or no, the maximum score was presumed to indicate favourable self concept. The selected subjects were trained yogic exercises for duration of 35 minutes, 5 days a week and a period of 12 week. After training program the subjects were retested to collect post test on self concept.

Analysis of data :- General descriptive statistics like mean, standard deviation and standard error of mean has been computed. The paired t-test has been carried out to find out the difference between the means for arriving of the results.

Table – 1 Faireu – 1- Test of Denaviour								
Sub. Scale	Mean	Std. Dev.	Std. Error Mean	Std. Dev	P-Value			
Behaviour	-2.47	1.51	.26	28	.00*			

Table 1 Daired T Test of Debarriour

*Indicate Significant (P- Value < 0.05)

Table -1 Indicate that since p- Value is < 0.05, there is a significant difference in behaviour between pre and post test. This showed that yogic exercises have enhanced the behave

Table – 2 Faireu – Test intellectual and school status									
Sub Scale	Mean	Std. Dev.	Std. Error mean	Mean	Std. Dev.	P-Value			
Intellectual School Status	-5.25	.83	.16	-34.08	28	.00*			

Table 2 Daired Test intellectual and school status

*Indicate Significant (P-Value < 0.05)

Table -2 – Shows that since P-Value is <0.05, concluded that there is significant difference in intellectual and school status between the pre and post test. This concluded that yogic exercises have enhanced the intellectual and school status.

Table -5 Faired F-fest of Finyslear Appearance And Attributes.									
Sub Scale	Mean	Std. Dev.	Std. Error mean	Mean	Std. Dev.	P-Value			
Physical app&attri.	-3.45	.67	.11	-26.87	-28	.00*			

Table -3 Paired T-Test of Physical Annearance And Attributes

*Indicate Significant (P-Value < 0.05)

Since P-Value is < 0.05, there is significant difference in physical appearance and attributes between the pre and post test. This concluded that yogic exercise has enhanced the physical appearance and attribute.

Table – 4– Paired I – Test of Anxiety.									
Sub Scale	Mean	Std. Dev.	Std. Error mean	Mean	Std. Dev.	P-Value			
Anxiety	4.70	.94	.15	26.98	28	.00*			

*Indicate Significant (P-Value < 0.05)

Table -4 shows that since P-Value is < 0.005. There is significant difference in anxiety between the pre and post test. This result that yogic exercises have decreased anxiety.

Table – 5– Paired T- Test of Popularity.								
Sub Scale	Mean	Std. Dev.	Std. Error mean	Mean	Std. Dev.	P-Value		
Popularity	-2.20	.70	.11	-17.20	.28	.00*		
				ΨT 1' 4	C ' 'C'	$(\mathbf{D}\mathbf{V}\mathbf{I})$		

*Indicate Significant (P-Value < 0.05)

Table -5 shows that since P-Value is < 0.005, concluded that there is significant difference in popularity between the pre and post test. This result that yoga has enhanced the popularity.

Table -0 – Pared 1- Test of Happiness And sausfaction.									
Sub Scale	Mean	Std. Dev.	Std. Error mean	Mean	Std. Dev.	P-Value			
Happiness and satisfaction	-2.40	.64	.10	-21.07	27	.00*			

Table -6 - Paired T- Test of Hannings And satisfaction

*Indicate Significant (P-Value < 0.05)

Table - 6 shows that, since P-Value is < 0.05, conclude that there is significant difference in happiness and satisfaction.



Bar Plot of Pre and Post – Test mean Self concept.

<u>Conclusion</u> – The result of the study, it is concluded that yoga exercises helped to develop selfconcepts among Behavior, intellectual and School Status, Physical Appearance and Attributes, Popularity, Happiness and Satisfaction, and decreased Anxiety. There is significant improved due to the twelve weeks of yoga exercises. The yoga exercises practice makes the body more flexible. The slow and deep abdominal breathing is also beneficial for the respiratory system and helps relaxation. Yoga is a part and parasol way of everybody's life.

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Ability to Cope with Problem Emotions (ACPE)

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Introduction

Like various other aspect of personality emotions play a vital role in the manifestation of the individuals behaviors. Situation stimulates emotion and emotion not only colour but also generate situations. Emotions can be considered as ultra conservative, evolutionary behavioral adaption that really helps in increasing the chances of survival for the individual. The evaluation of stimuli and subsequent emotions are strongly influenced by individuals estimate of his own capabilities involving social and cultural factors. Through emotion and self are intimately linked but self in the most global organization subsuming all other structures and function. It influences both elicitation and expression of emotions as an impulse towards definite form behavior, may arouse, sustain and direct activity and play an energizing role in the undaunted expression of behavior.

A sense of human and the ability to both give and receive love are related to the sphere of emotions, that are not provided as gift but are to be developed by the individuals as their own characterizes pattern of emotional reactivity which may contribute to or detract from mental and physical health and effectiveness of the individual adequate expression and control of emotions refer to a tendency marked by adequate emotional expressiveness based on fulsome expression and control of emotions or control of emotions may lead to uncontrolled and disorganized emotionally. Ability to cope with problem emotions is one of the components of emotional competence. It is sometimes difficult to carry out even routine work when one finds himself face to face with a highly emotional situation. Emotional competence requires that the individual should develop a characterize pattern of emotional reactivity which should not let him be influenced in his adequate mode of functioning that helps him in performing actions of daily routine properly.

In the domain of emotions clearly indicates that this aspect of personality plays a vital role in the manifestation of human behavior by which one attempts to deal with different emotive situations and meet his needs to maintain a harmonious relationship with the environment.

Aim of Study

The purpose of the study was to examine the effect of Yoga training and Aquatic training on "Ability to cope with problem emotions" among the school girls between 14 to 16 years.

Objective of Study

The study was carried out with the following objectives.

- To prepare training programme of aqua exercises and Yoga training in experimental set up
- To study the effect of aqua exercises training on the ability to cope with problem emotions.
- To study the effect of Yoga training programme on ability to cope with problem emotions.

Hypotheses of Study

The study was conducted with the following hypotheses

- It is hypothesized that selected aqua exercises will significantly improve ability to cope with problem emotions.
- It is hypothesized that selected yoga training programme significantly improve ability to cope with problem emotions.

Assumptions

- The school going girls take part actively and enthusiastically in whole programme.
- It is assumed that aqua exercise and yoga training would help to improve certain emotion traits of school going girls.
- School going girls those who are selected training programme they might not know aqua exercise and yoga training programme.

Delimitations

- The study was delimited to the girls of Pravara Kanya Vidya Mandir, Loni.
- The study was delimited to the age group of 14 to 16 yrs.
- The intervention was delimited to selected aqua exercises.
- The intervention was delimited to selected yoga training programme.
- The experimental period was delimited to 12 weeks.

Scope and Limitation

This study has a very wide scope because it has been designed in such a way so that it will help other researchers, Sport scientists, yoga trainer and swimming coaches, physical education teachers to conduct similar studies. This study has further scope to conduct the same on a large sample and for longer duration. While conducting the actual experiment the researcher has come across many limitations as follows.

- The researcher could not control the habits, the daily routine and living style of the subjects.
- The follow up study of the experiment could not be extended further due to the paucity of the time.
- The subjects of both experimental groups were totally ignorant and have no background of aqua exercises and yoga training.
- The present investigator could not conduct the experiment of the large sample due to insufficient man power and limited time.

Methodology of Study



Experimental with pre test and post test equal group design was used. 60 girls of age 14 to 16 years were select and they are divided equally random method into two groups in which one undergoes the yoga training and other to aquatic training. Both the training programs were administered for the 12 weeks. Six days in week. Both the classes training lasted in between 60

to 90 minutes. Yoga training programme includes prarthana, sitting, standing and sleeping asanas with kriya and pranayamas. Aqua training programme includes shallow water exercises i.e. walking, floating, butterfly, kicking, jumping, fly kicking etc. Before and after each girl underwent the paper pencil scale of emotional competencies. Dr. R. Bharadwaj and Dr. H. Sharma in which the ability to cope with problem emotions is one of the component.

Result

Since there is one dependent and one independent variable and pre test, post test was taken in data were analyzed by independent 't' test.

Group Statistics								
Group	Ν	Mean	Std deviation	Std error mean				
1	30	9.47	3.683	0.673				
2	30	5.10	4.866	0.888				

Independent sample 't' test for equality of means										
	F	Sig.	t	df	Sig (2 tailed)	Mean difference	Std error difference			
Equal variable assumed	0.994	0.323	3.919	58	0.00	4.367	1.114			
Equal variable not assumed			3.919	54.019	0.00	4.367	1.114			

 Table 2

 Independent sample 't' test for equality of means

From the between group comparison mean for yoga training group was 9.47 and that for aqua exercise group it was 5.10. This indicates that yoga training group was for better than the aqua exercise group. 'F' value the group comparison (i.e. Yoga and Aqua exercise group) is 0.994 which is statistically significant at 0.01 significance level. This indicates that there was statistical difference between two group means.

Conclusion

The observation of the experimental data within limitation helps to conclude that through the yoga training programme. There was useful improvement in ability to cope with problem emotions of the girls aged between 14 to 16 years than the yoga training programme.

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Focus On "WHAT" You Can Control – To Improve Your Sports Performance

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Abstract

In sports today, everyone knows the best training methods has access to the best facilities and most nutritional food. Often the difference between the good and the elite is the mental qualities of the athletes. How can our physical abilities like strength, speed & stamina remain consistent, and the answer liesin working at the mind – which we need to FOCUS on. Our minds do more than just telling how to carry out sporting activities; they also guide us to fast range at motions, attitudes & sensation that impact greatly on our sporting performance. The focus of the study is to assistance the athlete's level of psychological skills and some of the ways coaches & psychologists can influence in athletes mind so as to maximise sporting performance. Psychological skills include controlling arousal, developing mental Imagery, concentration, self-confidence, motivation and goal setting. Different athlete Have different ways of learning psychological skills. Athlete must be happy in mind & body to train and compete well to be a better athlete. To prevent the fluctuation in psychological regulation the athletes need to develop psychological skills - strategies to manage anxiety, stress, negative thoughts and emotions. The athlete must learn to take responsibility and focus on recognizing their arousal mechanism and to perform with it under control.

Key Words: Focus, Psychological Skill, Coach's

Introduction

Focus On "WHAT" You Can Control – 'What' here is referred to the psychological skills. The study is about focusing on the development of the psychological skills so as to master the mind and improve sports performance. An elite athlete is a rare combination of talent, hard work and right psychological profile. For a coach to help their athlete develop the "What" factor i.e. the psychological skill its essential they understand their athlete as a whole person rather than a sports person alone.

The first phase in developing psychological skill is the educational phase. In this phase the coach talks to the athlete and assess the source of psychological skills they currently using.

In the second phase the acquisition phase, the coach focuses on the specific skills that are to be acquired by the athlete. Skills to be acquired may include controlling arousal levels so as to produce peak performance, if an athlete is over aroused they may lose focus &perform badly, if under aroused their energy level and concentration will be lowand they may be unable to perform well. Another skill is using mental imaginary to create positive sporting experience. Athletes can develop skills in visualizing their event so as to mentally prepare themselves for the challenges that lie ahead.

During the acquisition phase – coach must take into account that every athlete has different ways of learning new skills, some learn by listening some by watching and some by doing.

The third phase is the practice phase, here the psychological skill to be learned becomes an integral part of training.

With the help of coaches and sports psychologist athletes can train their body and their mind to achieve improved sporting success. However it is important to remember that like everyone athletes need complete and fulfilling life. If they are not happy on personal level their sporting performance may suffer greatly.

Decreased concentration, decreased motivation, depression and anxiety are all psychological symptoms of over training. A situation in which athletes can't keep up with the demands of sports. Psychological causes of this may be poor living arrangements, work problems, family problems or relationship problems, in these instances athletic training must be reined in and personal problem addressed.

Method

Motivation:

In competitive world of sport an athlete cannot win without motivation put simply motivation is an individual's personal drive to succeed. Motivation is known to have 2 forms of drivers namely: Intrinsic & Extrinsic

Extrinsic drivers are those external that may lead an athlete to desire success for example a medal, money, fame or sponsorship. Setbacks are however common in sporting world. Success medals & money can take long time to achieve but these reason extrinsic drivers can be relied upon to maintain motivation. Intrinsic drivers are much more personal & have greatest staying power most athletes are motivated by a mix of extrinsic & intrinsic drivers.

Coaches may choose to develop an athlete's motivational level by inspirational or pep talks in which the value of victory is highlighted. However care must be taken while using that form of speeches. Incentives for good performance & punishment for bad performance can also be used to enhance the athlete's motivation. These methods should be used with caution. Goal setting & feedback from coaches are both effective ways to maintain athlete's motivation. Goal Setting is effective as it provides clear objective to be reached, giving the athlete solid objective to work towards. Feedback from coaches is effective that gives the athlete a sense of bold motion in their training. So being instructed how to improve their performance good results come quicker leading to positive emotions & a positive attitude.

Arousal:

Athletes need to be mentally & physically ready when called upon to play sport. This sense of readiness is referred to as arousal and has three different forms.

Physical Arousal - it is the extent to which the body is physiologically ready to play sport. Physical arousal takes into consideration muscle activation & adrenal levels.

Mental arousal – it relates to clarity of mind focus & attention levels.

Emotional arousal – it relates to athlete emotional readiness to perform. Emotional states can swing from strong competitive aggression to calm removed sense of composure.

Different sports require different level of arousal; gymnastics is a lower arousal sport as best result is achieved with high level of mental composure and precise attention to detail & movements. Team sports are of higher arousal sports as they can require extreme physical effort in short sharp bust as well as strong competitive aggression. While different sport generally require different levels of arousal there is vast variation in terms of level of arousal that works best for different individual within that sport.

Some athletes naturally perform better when they are calm & composed others are able to channel better performance in highly arousal state.

Over arousal causes problem due to muscles tensing up & the inability to make the most split second decisions. Under arousal causes problems as concentration drops, the body becomes less responsive.

Athletes can learn specific techniques for controlling their arousal levels - listening to dynamic music, short-sharp breaths & fast sprints can help lift arousal level. Muscle relaxation, relaxed breathing &focusing on sports itself rather than your competitors or spectators can help reduce arousal levels.

Mental Rehearsal Imagery:

The human mind has vast potential to visualize to imagine & to create mental imagery. Athletes can use this ability to great effect. By using mental imaginary they can have imaginary rehearsal of the race, match or competition. In doing so they preparing themselves for challenges ahead.

Consider the challenges of major sporting events, the crowed is huge the level of competition is very strong & emotional stakes are high. All these things can distract an athlete from achieving best performance.

Mental imaginary however allow an athlete to prepare for this experiences; there by enhancing the chance of success. While mental imagery & rehearsal can be used to overcome the distraction of game day, they can also be used to prepare for the specific skill based challenges of match conditions. Athletes can use imagery to rehearse the specific new skill as well as rehearse just how avoid the competitor. This form of imagery can be used as pure mental activity or in conjunction with physical training.

Importantly mental imagery can also be used to visualize exactly the kind of performance the athlete would like to have. By visualizing a focused performance or a victory the athlete can built confidence & make it more likely to happen.

Kinesthetic imagery is the style of imagery that allows an athlete to conceptualize the feeling of successful performance. Kinesthetic senses are those senses that allow us to feel our body as it carries out different actions. This sensory perception is possible as the sensory nervous in our muscles, joints & tendons are constantly giving us feedback. Using kinesthetic imagery the athlete can rehearse the body sensation of a successful performance making it easier to recreate in match conditions. This style of imagery is particularly useful for sport like Gymnastics as it allows for a very thorough rehearsal in your mind of complicated body movements.

Simulation is similar to imagery& mutual rehearsal in that it prepares the mind for competition. It's different through in that it doesn't ask the mind to imagine match conditions. Simulation makes training conditions for example by using real competitions & training in front of spectators in doing so the mind is made ready for competition.

Goal Setting, Concentration & Confidence:

Goals are an important part of an athlete's file, providing clear points of achievement to be reached by a said time. This helps to focus & organize the athlete's attention, encourages pursuance, contributes to a positive psychological state & helps to develop motivation. Goals are best achieved when divided into short, medium & long term goals. This system provides a realistic part for the athlete to travel down when working towards their long term goal. Athletes can pursue different kinds of goals depending of objectives.

Process goals focus on improving physical movements & game strategies.

Performance goals focus on improving individual performance level independent of performance of the other competitors.

Outcome goals focus on winning. These are the most difficult goals to obtain as it's not possible to control the competitor's performance.

Concentration is a key skill in supporting success. Concentration allows an athlete to selectively direct their attention & focus on what's most important. Maintain focus for long period & to make good strategic decisions. Concentration is a skill that can be developed with practice. If during their event an athlete focuses their attention on past failure or repercussions of failure in future their best efforts cannot be directed to the task in hand.

Confidence is a state of positive mind in which an athlete shows their ability. Confident athletes are more likely to stay calm under pressure, work to achieve their goals & achieve success. Success in training situation &than in match or race conditions helps develops an athlete's confidence. Positive feedback from coaching staff also helps develop an athlete's confidence. For optimum performance athletes need to reach their optimum confidence level by focusing on specific detail of their race and what they need to do to succeed.

DISCUSSION

Motivation is an individual athlete's drive to succeed motivation drivers can be extrinsic or intrinsic most athletes are driven by both. Coaches can enhance an athlete's motivation with pep talks, incentives & punishments goal setting is effective for enhancing motivation as it provides objective to work to odds. Feedback is effective for enhancing as it helps the athlete improve performance thereby improving their attitude.

Arousal defines an athlete's level of readiness to play sport. Arousal can be physical, mental & emotional; different sport requires different levels of arousal; different athletes function best at their specific arousal levels. Under arousal & over arousal lead to poor performance; arousal levels can be managed with specific exercises.

Mental Imagery & mental rehearsal is visualization of sporting activity. Mental imagery assists in practicing new skills; Preparing for match day & visualizing success. Kinesthetic imagery is conceptualization of felling of successful performance. Simulation makes training conditions as close as possible to match conditions.

Goals offer targeted point of achievement & help develop motivation. Goals can be divided into short medium & long term goals. Goals can be focused on process, performance or outcome.

Concentration is an athlete's ability to focus; loosing concentration can lead to chocking in movements of pressure

Confidence is a positive state of mind. Over confidence & under confidence both lead to poor performance.

Conclusion

Top sport performance is not possible without a finely focused body. But a finely focused mind is equally important as everything we do in life including our performance on sporting field is controlled by our mind.

Sports psychology offers athletes the tools they need to control their minds, make the most of their physical ability &head towards by level of success.

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Sports and Media

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Abstract

The purpose of this article is to promote and spread sports through media. There are various aspects of media for the promotion of sports. The evolution of corporate sports is interviewed with the various stages of the communication revolution from the print through the electronic age. The public relation media refers to all the ways, means, techniques and strategies-both verbal and non-verbal, which aim to develop pro-active relationship between the sports organization or institution and the community ranging from students to the general public. The public relation media for sports are Parent-Teacher Meetings, Public Speaking, Activity Display, Exhibition, Activity Competition, Play-Days, Rallies, Conclaves, Print Media, Electronic Media, etc. Sports marketing is possible due to mass media. It promotes sports as well as sports product and sports services. In this article the research scholar found that sports and mass media have a various symbolic relationship. Keywords - Sports, Media, Promote, Spread.

Introduction:

Sports and media have a very symbolic relationship is many countries. Media attention fans the flames of interest in sports and increased interest in sports warrants further media attention.

The nature of sports media relationship has been distinctly shaped by the emerging contours of American capitalism since the 1830s. The symbolic relationship between sports and media is evident in the large chunks of broadcast time allocated to sports coverage and the generous coverage of sports news in daily news papers. The link between television and sports is even stronger than with newspapers in the sense that television buys, supports and controls sports events in subtle and not so subtle ways. Corporate sport has clearly become branch of the entertainment industry. Evidently, the television audience agrees that big time sport is good entertainment.

Sports marketing is possible due to media. It is a subdivision of marketing which focuses both on the promotion of sports events and team, as well as the promotion of other products and services through sporting events and sport teams. Sports marketing is also designed the needs and wants to consumer through exchange process. These strategies follow the traditional four 'P's of general marketing i.e. product, prize, promotion and place. Another four 'P's are added to sport marketing i.e. planning, packing, positions and perception. The promotion of sports by newspaper, writers and radio announcers played a large part increasing the attendance at sports events.

Public Relation Media:

Public Relation Media refers to all the ways, means, techniques and strategies – both verbal and non-verbal – which aim to develop pro-active relationship between the institution/organization and the community ranging from students to the general public. A thorough analysis of Public Relation Media reveals some important facts. First, direct and indirect public relation indicates formal and informal approaches to it. Second, Personal contact and reciprocal visits aim at two-way warm and closer. Third, what people observe with their own-eyes and ears has a lasting

effect on their mind than what they monitor through media. A brief discussion on each of the media of public relation may be useful to the reader.

I) Public Speaking –

Public speaking is an art but unfortunately few physical educators are good at it. More often than not they feel shy of facing audience; they are not too articulate resulting in not-so-good public relation. People would not appreciate unless physical educators speak out about objectives, programmes, achievements, constraints and limitations of physical education. Good oral messages are very effective means of developing a lasting relationship between the institution and the public at large. Physical educators should learn to be good speakers but avoid indulging in Jargon.

II) Parent-Teacher Meetings -

Many parents are caring and enthusiastic about their children's progress. A few good physical educators squeeze some time from their busy schedule to personally visit a few caring parents to apprise them of the school activity programmes and seek their help in bringing about improvement in their department. In fact, frequent meetings of parents and physical educators are the finest means of public relation. The purpose of this meeting is the children especially those with health and fitness problems and promising or talented athletes – in particular may be the subject of thorough discussion and understanding of each other's view point. In schools/colleges where parent-teacher association exists, public relation work may be carried out more succinctly wherein physical education programme must be a regular agenda for discussion.

III) Exhibition –

In comparison to activity display, an exhibition is a passive and indirect public relation strategy. Through a display of pictures, charts, graphs, drawings, diagrams, objects, artifacts, models, sketches, paintings etc. various aspects of physical education viz. activity programmes developmental performance records, achievements, inter-departmental and inter-disciplinary relationship etc. Exhibitions should be planned well in advance, publicized and organized meticulously and without much financial burden. Each item or section at the exhibition should be managed by a knowledgeable item and competent individual or a group of students to explain the details and depictions there at.

IV)Activity display –

More than adequate information is given elsewhere in this text about the functions of activitydisplays in the total scheme of physical education. Frequent organization of mass activity displays will attract large number of parents and public to the institution. This is a very useful means of public relation because it offers the public first hand opportunity to judge a progress of the institution for themselves. Activity displays are lively and active media of publicity and public relation upto the high school level.

V) Activity Competitions-

Intramurals, extramurals in regular sports and games and inter-class, inter group competition in recreational activities are yet another effective and direct means of public relation. Such occasions offer more than adequate opportunity to the outsides to see children actively engaged

in the live-show of their abilities and qualities of head and heart. Well spaced competitions help to maintain a sustainable relation between the institution and parents and important persons. Inviting the past and current outstanding sports persons on those occasions serves as a great motivation to students, adds to the significance of the occasions attracts larger crowd of people to come in contact with the institution, and finally bring big publicity to physical education programmes.

VI) Play-days-

As already pointed out elsewhere, play-days are a highly important educational experience. They are also an excellent medium of public relation. Informal, rejuvenating and recreating as they are, they bring the school authorities, teachers, parents and the public on one forum enabling them to interact with one another more meaningfully for the good of the institution. The general public must get an opportunity, as far as possible to know about the programmes and practices and offer their suggests for improvement.

Rallies –

To project the programme of physical activity mass rallies are organized on large scale at various levels - city, district, regional and national Rally should be planned carefully and much in advance. It must involve large number of children. The higher the level and greater the dimension of the rally, the more elaborate the arrangements in terms of programme, accommodation, transport, facilities, equipment, refreshment, publicity etc. are required to be made. It needs full financial support from the Government. Apart from projecting physical education, rallies promote communal harmony, national and emotional integration.

VII) Conclaves –

Conclave includes parent and public meeting, assemblies and core group discussion at the institution with certain specified objectives. The institution can at times, create core groups of teachers and parents or specific situations and subjects. A core group of physical education and sport may thoroughly discuss the current situation, financial status, infrastructure, etc. and suggest ways and means to improve them.

VIII) Print Media-

Bulletins, newsletters, newspapers, magazines, graphics, pictures, posters, brochures, pamphlets etc, comprise print media that are used by the institution directly as an instrument of publicity and indirectly as a technique of developing rapport between the institution and general public. Bulletins and newspaper, when published regularly, spread information on the student's achievement. The institution keeps in constant touch with the parents and important people through these media. Annually published school magazine must contain vital information about the institution and student's achievements in physical education, games and sport apart from contribution from the teachers and students.

The magazine should also contain photographs, graphs, charts, statistical tables etc. depicting performance on various fronts. At times, the magazine serves as a true testimonial of student's abilities, creativity and accomplishments. The beautiful format and attractive get up make these media a powerful instrument of public relation. The institution in general and the physical education teachers in particular must have a good rapport with the newspaper correspondents and feed them with important information about the institution from time to time.

IX) Electronic Media –

Television, video, films and radio constitute electronic media. Television and videography have given a new direction to publicity media. One can receive information on almost anything and everything happening in the world within minutes or even instantly through satellite technology. Radio has certain constraints. We can hear about what is happening but not watch action. The Olympics, worlds cups and all important sports events are televised, direct or in capsule form so that even a man in the street know aobut the fixtures, encounters, occurrences and events. The sports competitions have found potential sponsors and have become money spines because they serve as a medium of publicity. The role of electronic media as a publicity – viz; in sports is really great and important. There are exclusive sports channels in the television network and big time-slots provided on main regular channels covering sports events. All this is very encouraging and heralds an era of awakening and enlightenment about sport. To great extent, the public relation in sport depends upon the initiatives, enthusiasm and ingenuity of the sports personnel or organizers, media in sports presentation Glossary content. Accumulated influence as integrated marketing.

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Need and Role of Psychological Preparation for Sports

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Introduction

Sport psychology is an interdisciplinary science draws on knowledge from the fields of kinesiology psychology. It involves the study of how psychological factor affect performance and how participation in sports affect psychological and physical factors. In addition to instruction and training of psychological skills for performance improvement, applied sport psychology may include work athletes, coaches and parents regarding injury, rehabilitation, communication, team building and career transitions.

Sportsman gives outstanding performances not simply due to their hard work and effort of their trainers but also due to the active part played by scientists who generally remain in the background. Today no young talented kid can be into a star performer without assistance from different of science such a physiology, bio-mechanics, nutrition, health, medical sciences etc. from a play generally called motor skill performing at the Olympic games and winning gold is a result of the inter play of numerable visible and invisible factors and forces that influence training human muscle and mind over time for such endeavors.

It is well know that psychology has grown out of the method of philosophy. In the 19th century, as hinted above, psychology broke away from philosophy, become a science and incorporated the method of scientific inquiry. William James (1890), Edward Thorndike (1898), Sigmund Freud (1900) and John Watson (1920) contributed a lot to making psychology truly a study of behavior a distinct discipline bordering on science. Science then there has been greatest emphasis on explaining and dealing with behaviour in its multifaceted from.

Need of Sport Psychology

Sport psychology is the science decided to understanding the psychological factors that lead to maintaining and improving performance in sports and the psychological efforts of participation in various sport. As such, it is a basic aspect of all coaches effectiveness, whether they have studied psychology.

Coaches should not criticize players after a loss. Instead he should point out thir mistakes Coaches who know more about psychology will be more effective in achieving the desired change in player behavior and performance.

Various sport and games participants also have their own goals, such as better skill performance, better self image and higher levels of physical conditioning. A coach can better help players personal goals by using sport psychology.

Role of Sport Psychologist

Sport psychologist studies psychological factors affect the learning and performance of motor skills. We attempted to explain the phenomenon of learning and to such question as how it best takes place and what are the laws under which it operates. So some of the important roles are described in points which are helpful to the sportsman to give top performance.

Sport psychologists prescribe several techniques for improving concentration, these include yogic meditation, Zen meditation, concentration training, thought stopping, deep breathing exercises etc.

Psychology Concerning with Players

Improving consistency of quality performance. A coach can use some avenues to move consistent play.

- 1. Mentally preparing for matches
- 2. Self teaching and self correcting with videotape
- 3. Controlling the match winning stress
- 4. Building self confidence
- 5. Positive visualization
- 6. Positive self talk and coping with performance error.
- 7. Risk taking
- 8. Team leadership and player to player communication
- 9. Improving the adjustment power

Psychological Preparation

Psychological preparation of player take place in three phase.

A. Pre Competition phase

The start of the phase can be months in advance and the main aim is to develop in player the ability to cope with unexpected circumstances and progress towards the final goal.

- 1. Training of some psychological qualities need in competition. E.g. will power, understanding, co-ordination etc.
- 2. All round and progressive appraisal of opponent and myself
- 3. High level strict demand training program
- 4. Players psychological adjustment traiing
- 5. Cultivate and arouse motivation for sports
- 6. Cultivate a sense of collective honor, achievement and success
- 7. Education and dialecties
- 8. Cultiviating and psychological habits
- 9. Establishing a correct attitude toward victory or defeat
- 10. Memory and thought training

B. During Competition Phase

This is the period when actual competition takes place. The player is under the control of officials up tyo the end of the match.

- 1. Use the mental practice during competition
- 2. Communicating effectively during pre match meetings at time-out, player changes between games
- 3. Steady, stable, high spirited mood
- 4. Indomitable fighting spirit
- 5. Confidence and determination to win
- 6. Quick, sharp qand in depth thinking ability
- 7. Counter balance of psychological qualities of in court player

- 8. Motivation to match win
- 9. Co-ordination to match play time

C. Post Competition Phase

This is the period foe evaluation where analysis of success or failure in the competition is to be done. This is a period of resolution and direction of attention should be on key point of the game where modifications are necessary for future improvements and communicative effectively during post game meeting and helping players handle outcomes.

Conclusion

On the basis of above discussion and facts, we can say that the role of sport psychology and psychologist in the various games and sport got too much important without the training of sport psychologist or their advices the performance of player is not possible to achieve better form. In India day by day Sport psychology is gaining importance. But in comparison to advance sporting countries like USA, Germany, China, the psychological preparation of our sportsman is lagging for behind. Today the quest for excellence in Olympic, World Cup competition no longer work allowance for haphazardly constructed coaching a\or competition plan. Overall sound psychological preparation of our sportsman is greatly needed and important.

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Sport and Physical activity is a new lease of life for People with Disabilities

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Introduction:

The World Health Organization estimates that 650 million people live with disabilities of various types, and the number is increasing due to the rise of chronic diseases, injuries, car crashes, falls, violence and other causes such as ageing. Of this total, 80% live in low-income countries; most are poor and have limited or no access to basic services, including rehabilitation facilities.

This rising incidence of disability, particularly in developing countries has the potential to place further burdens on governments and health care systems. Sport can be a low-cost and effective means to foster positive health and well-being, social inclusion and community building for people with a disability.

Definitions:

The language of disability sport differs in some parts of the world and an overview of the latest definitions and terminology is provided.

What is 'disability'?

Anyone may experience disability at some point in his/her lifetime. Disability is a normal part of the human experience, and people with disabilities are part of all sectors of the community: men, women, and children; indigenous and non-indigenous; employers and employees; students and teachers; consumers and citizens.

There are numerous definitions of disability and the debate surrounding appropriate definitions of disability have evolved over time. The World Health Organisation(WHO) states that "disability (resulting from an impairment) is a restriction or lack of ability to perform an activity in the manner or within the range considered normal for a human being."

What is 'disability sport'?

Disability sport is a term that refers to sport designed for, or specifically practiced, by people with disabilities. People with disabilities are also referred to as athletes with disabilities. Deaf sport is distinguished from other groups of people with disabilities and in some countries deaf people prefer not to label deafness as a disability. The rules of deaf sport are not altered, only instead of whistles and start guns, athletes and officials communicate through signs, flags and lights. In many developing countries deafness is still considered a disability.

What is 'Adapted Physical Activity' (APA)?

Adapted physical activity is the profession, the scholarly discipline or field of knowledge, and the service delivery, advocacy and empowerment systems that have been created specifically to make healthy, enjoyable physical activity accessible to all and to assure equal rights to sport instruction, coaching, medicine, recreation, competition and performance of persons with disabilities.

The Role of Sport and APA for People with Disabilities:

Sport can have a positive impact on the lives of people with disabilities but many face challenges to getting involved in sport, especially in developing countries. Sport can play a key role in the lives and communities of people with disabilities, the same as it can for people without a disability. Scientific research has been conducted across disability groups that reveal

participation in sport and physical activity leads to improved levels of physical health and wellbeing.

Sport and physical activity has also been shown to improve physical fitness and general mood in psychiatric patients with depressive and anxiety disorders. Additionally, sport and physical activity has been linked to improvements in self-confidence, social awareness and self-esteem and can contribute to empowerment of people with disabilities.

Barriers to Participation:

On an individual level, people with a disability may face a number of additional barriers to participation in sport compared with people without a disability. Some common barriers include:

- Lack of early experiences in sport (this varies between individuals and whether a disability is from birth or acquired later in life)
- Lack of understanding and awareness of how to include people with a disability in sport
- Limited opportunities and programmes for participation, training and competition
- Lack of accessible facilities, such as gymnasiums and buildings
- Limited accessible transportation
- Limiting psychological and sociological factors including attitudes towards disability of parents, coaches, teachers and even people with disabilities themselves
- Limited access to information and resources

Breaking the barriers to participation:

There is limited research that explores the specific barriers to participation in sport for people with a disability in developing countries. Much more evidence is needed along with financial support to ensure that people with a disability have both the opportunity and the choice to participate in sport regardless of which country they live in.

Opportunities for Participation:

Since the 1970s, the number of international organisations and associations serving athletes with disabilities has increased dramatically. In some countries there are increased opportunities for people with a disability to participate in school-based physical education, clubs and community associations and casual recreation.

Competitive sport:

Opportunities for athletes with a disability range from sport and disability specific world championships, regional multi-sport tournaments such as the Parapan American Games, selected events for athletes with a disability in Olympic and Commonwealth Games and some athletes with a disability also compete in mainstream competitions against able-bodied athletes. There are now more than 17 international games for athletes with disabilities.

Special Olympics, Paralympic Games and Deaflympics:

The three largest international disability sport competitions are the Special Olympics, Paralympic Games and Deaflympics. Special Olympics provide year-round training and competition opportunities for people with intellectual disabilities at all levels. The Paralympic Games provide international competition for six different disability groups including amputee, cerebral palsy, visual impairment, spinal cord injuries, intellectual disability and les autres (those that do not fit into the other groups). The Deaflympics provide competition for athletes who are deaf or hard of hearing.

The Paralympics Games cater for elite athletes with intellectual disabilities while Special Olympics offer sporting opportunities to all persons with intellectual disabilities from elite to those with severe and profound challenges. Since 2001 athletes with an intellectual disability have been unable to participate in the Paralympics Games. This is due to the suspension of their representative body, the International Sports Federation for Persons with Intellectual Disability (INAS-FID), from the International Paralympics Committee while the classification system is reviewed.

Tools and Practice:

More and more coaching resources and materials are emerging that focus on including people with a disability in sport. The principles of adapting and modifying activities to include people with a disability are constantly developing as research and programme development continues. Key Tips for Including People with a Disability in Sport:

• Treat people with disabilities who participate in sport as athletes;

- Focus on what the athlete can do and has the potential to do. A lack of skill does not necessarily indicate the lack of potential ability;
- Teaching or coaching style, rules, equipment and the environment can all be adapted and modified to promote active participation from every person;
- Use the athlete as a resource of information on themselves, and ask them what they can do and how specific tasks may be modified to suit their skill level;
- Whether a disability is acquired from birth or later in life may have an impact on a person's basic skill level;
- Including people with disabilities is simply good coaching.

Future priorities:

Discourse in Sport & Disability has advanced significantly compared to other areas in Sport & Development. Many experts in the area of sport and disability have developed a consensus on the future priorities for research, policy development and advocacy in this area.

These priorities include:

- Increase support and funding to conduct empirical studies on topics of disability sport and adapted physical activity in developing countries including, participation levels, attitudes, legislation, barriers and benefits of sport and physical activity.
- Develop further studies of mental health and psychological well-being as an outcome of sport participation for people with a disability.
- Create affordable technologies, and increasing accessibility and universal designs in both the environment and the structures/rules of sports.
- Produce inclusive coaching manuals and educational material in multiple languages and formats to make it accessible to developing countries
- Research and develop monitoring and evaluation tools to ensure quality sport programmes are being implemented effectively and meeting target outcomes.
- Explore qualitative research into disability sport participation in developing countries such as case studies in specific countries and regions, necessary in order to direct and consolidate development efforts.
- Create opportunities to share knowledge, experiences and best practice.
- Utilise new technologies and online communication to enhance collaboration between development organisations, researchers and programme staff.

• Widely promote the United Nations Convention on the Rights of Persons with Disabilities to policy-makers in developing countries and lobby for national policy developments to improve access to sporting opportunities for people with a disability.

Equipment and Technology:

Sports equipment and technology is an issue for developing countries and will continue to restrict participation and performance in sport.

Equipment:

Some adaptive equipment is required for some athletes to participate in sport and include things like throwing frames for athletes, crutches, sport-specific wheelchairs (such as those used in basketball, tennis and rugby). In developing countries athletes, often lack access to things such as crutches, everyday wheelchairs and additional limited basic sporting equipment. A lack of facilities or limited access to existing facilities is often problematic in developing countries and with limited means to host large sporting events, the onus is on local and national governments to maintain and develop sporting facilities. Some organizations focus on providing much needed equipment to people with disabilities in developing countries and prosthetic limbs, wheelchairs and crutches are sometimes the focus of equipment donations.

Technology:

The introduction of new materials for prosthetic devices such as carbon flex-fibre, along with new developments in wheelchair technology is impacting on the performance of many sports.

A recent example is the quest of South African Paralympic sprinter Oscar Pistorius who had ambitions to compete in the Olympic Games. Research conducted by the International Association of Athletics Federations (IAAF) ruled that his 'cheetah' blades gave him mechanical advantage and led to controversy on his eligibility to participate in the Beijing Olympic Games.

As technology and assistive devices continue to advance, the gap between participation and performance of developed and developing countries is likely to continue. One innovative project is underway to provide a low-cost universal sports wheelchair for developing countries. The Motivation Trust in the United Kingdom is pioneering and testing a new design that is hoped to fill a much needed gap in the provision of affordable sports wheelchairs in developing countries.

At the grassroots level, expensive equipment and technology is not required in order for people with a disability to participate and through inclusive coaching everyone can be encouraged to actively participate in sport. Many games and activities can be designed or adapted to require minimal or no equipment. If individuals require assistive devices (prosthetics, orthotics, wheelchairs), the ideal situation is to have these items made and maintained locally. There have been many innovative solutions, such as crutches made from bamboo in remote village communities.

International Organizations:

Following organizations are involved in disability sport and development.

• Handicap International

Handicap International is an international organisation specialised in the field of disability. Non-governmental, non-religious, non-political and non-profit making, it works alongside people with disabilities, whatever the context, offering them assistance and supporting them in their efforts to become self-reliant.

• International Federation of Adapted Physical Activity

The International Federation of Adapted Physical Activity (IFAPA) is a cross-disciplinary professional organisation of individuals, institutions, and agencies supporting and promoting adapted physical activity, disability sport, and all aspects of sport, movement, and exercise science for individuals with disabilities.

• International Paralympic Committee

Situated in Bonn, Germany, the International Paralympic Committee (IPC) is the international governing body of the Paralympic Movement. The IPC supervises and coordinates the Paralympic Summer and Winter Games, as well as World Championships and other competitions.

• Special Olympics

Special Olympics is an international nonprofit organisation dedicated to empowering individuals with intellectual disabilities to become physically fit, productive and respected members of society through sports training and competition.

• International Committee of Sports for the Deaf

The International Committee of Sports for the Deaf is the governing body for the summer and winter Deaflympics. The headquarters are located in Frederick, Maryland USA and for that reason the English name is used in place of the French name, Comité International des Sports des Sourds (CISS).

Conclusion:

Sport can help reduce the stigma and discrimination associated with disability because it can transforms community attitudes about persons with disabilities by highlighting their skills and reducing the tendency to see the disability instead of the person. Through sport, persons without disabilities interact with persons with disabilities in a positive context forcing them to reshape assumptions about what persons with disabilities can and cannot do.

Sport changes the person with disability in an equally profound way by empowering persons with disabilities to realize their full potential and advocate for changes in society. Through sport, persons with disabilities acquire vital social skills, develop independence, and become empowered to act as agents of change. Sport teaches individuals how to communicate effectively as well as the significance of teamwork and cooperation and respect for others. Sport is also well-suited to reducing dependence and developing greater independence by helping persons with disabilities to become physically and mentally stronger. These skills can be transferred into other new arenas including employment and advocacy work further helping to build self-sufficiency.

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आीीं. झीषर्शीीी, उअउझए, झींपश - ३७

सारांश

प्रस्तुत संशाधिन हर्िशक्षक प्रेशक्षणार्थींचीि आराग्यिसेंधत शारीपरक तंदुरूस्ती व सर्जनशीलता यांतील सहर्सेंध शाधिण व सहर्सेंधाच विश्वविण करण ियावर असून प्रस्तुत संशाधिनात संशाधिकान सिर्वेक्षण द्वितीमध्य सहर्सेंधात्मक संशाधिन द्वितीचा अवर्ले कला आहा. यासाठी संशाधिकान पिर्णि वद्यातितील अध्याकि शक्षण महोवद्यालयाच्या एकूण मेहला संख्यानुसार - ३२७२ वद्यार्थ्यांकि ४३२ (मेहला) वद्यार्थी ह विर्गीकृत यादृच्छिक न्यादर्श (डीरींळषळशव ळपवे रिश्विजपस) द्वितीन निवड कली प्रस्तुत संशाधिनासाठी मङ्ख्या संख्याशास्त्रीय कि जचा वारि कला. त्यात मध्यमान (चशरप), प्रमाणेवचलन सहर्सेंध ओण सार्थकता ठरेवण्यासाठी टू टल्डि 'टी' रिक्विकचि (द्वे 'रळत्रशव मीर्फाशी') वारि कला. निष्कर्ष :- शक्षक प्रेशक्षणार्थींची आराग्यार्सेंधत शारीपरक तंदुरूस्तीच निवडक घटक व सर्जनशीलता (तशीनस्त्र उशरीळींळूं) यांतील सहर्सेंध हा धनात्मक असून वचाराधीन आहा. महत्वाचिया संकलीन 9. आराग्यियर्सेंधत शारीपरक तंदुरूस्ती २. सर्जनशीलता

प्रस्तोवक

ेशक्षण ह िसमाजपिरवर्तनाच िसाधन आही. सर्वांना जोणवच्या कक्षति घऊिन संस्कृतीच्या देशनि वाटचाल करणारी ती एक प्रेक्रया आही. शक्षणातून मानवी जीवनाला समतचिा, न्यायाचा, धुभावाचा, शांततचिा, आराग्यिसंक्षितचिा, गुणवत्तचिा ओण सुसंस्कारांचा पिरसर्स्श झाला ीहिज. शक्षण ओण जीवन यांचा एकमकिाशी मळि हवा. शक्षणातून जीवन स्वावलें, समृद्ध, स्वोभमानी ओण भावमय झाल ीिहज. अशा या वचाररिंरिच्या शिर्वभूमीवर शक्षणातून औिंक्षत समाजेनेर्मती घडावी हाच शक्षणाचा मुख्य हति आही. यातूनच उत्तम मानव संसाधनाचा वकास घडून दशि व वश्वेवकास साधणा श•य आही. सध्याच्या पिरस्थितीनुसार शक्षणात शक्षकास भेवष्यकाळाच शिवधनुष्य उचलाव लागणार आही. त्यासाठी शक्षकांमध्य किाही गुणवत्तांची व क्षमतांची आवश्यकता आही. जस रुपद्धमत्ता, आराग्यि संन्निता, चापरत्र्य, शारीपरक सुदृढता, सामोजक दृेष्टकानि, ज्ञान, कौशल्य इ.गुणवेशष्ट्यांद्वार शिक्षक हा एकेवसाव्या शतकातील शक्षणातील नवीनआव्हान ीिलिण्याची जींंदारी रूपिणि िसांभाळू शक्ति. यासाठी शासन,संघटना, स्वयंसवी संस्था यांच्या द्वाकारान शिक्षकांच्या अनुभवाच्या कक्षा रुद्वावल्योशवाय राहणार नाहीत.

आराग्यि ही सुखी जीवनाची गुरुकेली आहा. 'आराग्यि म्हणज कि वळ रागि किंवा अश•तता यांचा अभाव नव्ह तिर शारीपरक, मानेसक, सामोजक सुस्थिती हायि.' (जागेतक आराग्यिसंघटना) कौट्रेंक व सामोजक र्जींदाऱ्या पि डिण्यासाठी व्य•ती शारीपरक व मानेसकदृष्ट्या कणखर असली पिंहज. अस म्हटल जात की (र्डेपव ळपव ळप डेंपव लेवू). आराग्यि उत्तम असलि तर शारीपरक क्षमता 'मळेवता व टकेवता यति. 'सुदृढ शरीरात सुदृढ मन असत.' मन ओण शरीर या एकाच नाण्याच्या दानि र्रेजू आहति. एक र्रेजू कमकुवत असलि तर दुसऱ्या र्रेजूवरही त्याचा पिरणाम हातिा. आयुष्यात भरावयाच्या बिद्धक, मानेसक, सामोजक अशा वेवधांगांनी प्रगतीच ति साधन आहा. ''शरीरमाधं खलु धर्मसाधन्म'' अस म्हिटल जात. तव्हा काणिताही व्यवसाय करण्यासाठी कविळ बिद्धक क्षमता असून भागणार नाही तर तीर् ुद्धी उयागित आणण्याच सिमर्थ साधन म्हणज उत्तम शरीर हायि. 'शक्षकालाही अशाच अनकिानकि क्षमतांची आवश्यकता असती. म्हणून व्य•तीच आराग्यि चांगल तिर त्याच स्वास्थ्य चांगली. ज्यांच स्विस्थ्य चांगल त्यांच अध्यानिकार्य चांगल असत अस म्हणता यर्ड्ल.

सर्जनशील शिक्षकांची गरज

या बाबतीत गिल्फर्ड म्हणतो, ङ्गव्हश लशीींशी शिरलहशीी हरींश रश्रुरी रवशीश लेपीळलींळेपी ळप हिशीश वळीशलींळेपी. जप ींहश ोंहशी हरपव ोि ोंशरलहशीी हर्रींश ारपू ींळाशी मििींहश लीरज्ञशी ेप वर्शींशश्रीशिपीं ोुंरीवी लीशरींळींळीं.इ सर्जनशीलतेची संकल्पना सर्जनशील प्रक्रीयेचे स्वरूप, सर्जनशीलतेच्या विकासाची शक्यता व विकासाचे महत्व या सर्व बाबींची यथार्थ जाणीव त्यांना हवी, सर्जनशीलतेबद्दल आस्था हवी, सर्जनशीलतेकडे पाहण्याचा अनुकूल व विधायक द्वष्टिकोन हवा. तरच ते विद्यार्थ्यांच्या सर्जनशीलतेची योग्य ती दखल घेऊन तिला प्रोत्साहन देण्याचा प्रयत्न करतील. सर्जनशीलतेला प्रोत्साहन देणाऱ्या शिक्षकांमध्ये कोणती वैशिष्ट्ये आढळून येतात यासंबंधी बऱ्याच संशोधकांनी माहिती गोळा केली. त्यातून निघणारे निष्कर्ष सारांशरूपानं टॉरन्सने पुढील शब्दात व्यक्त केले आहेत. ङ्मअश्रश्वेष हिशा रीश हळसहश्री शपीळींळींश, शिगीीलशर्षीश्र, षश्रशळलश्रश रपव ीळीींळपस ों मसशी षष हिश लशरींशप ीरलज्ञ.फझशीहरी लररिलळीं ों बींग सेव शिश्वरींळेपीहळ लिंह ींहश लीशरींळींश गिविशपी. हु म्हणजे हे शिक्षण अत्यंत संवेदक्षम, उपक्रमशील व लवचिक वृत्तीचे असतात, ठराविक पठडीच्या बाहेर जाण्याची तयांची इच्छा असते, तयारी असते. ते सामान्यांपेक्षा वेगळे, वेगळ्या दिशेने विचार करणारे असतात व मुख्य म्हणजे ते सर्जनशील विद्यार्थ्यांशी जिव्हाळ्याचे संबंध प्रस्थापित करू शकतात. बहुसंख्य शिक्षकांना आज्ञाधारक, अभ्यासू व परंपरागत पध्दतीने विचार करणारे विद्यार्थी अधिक प्रिय असतात. उलट सर्जनशील विद्यार्थी नावडते डेव्हिड डेनीच्या मउश्ररीोी उशरीर्ळीळी लिर्शीरीळेप डलहशर्वीश्रशफच्या साहाय्याने शिक्षकांच्या पाठांचे अध्यापनाचे जे निरीक्षण करण्यात आले ते निराशाजनक आहे. शिक्षकांना विद्यार्थ्याकडून स्वतंत्र विचारांची, नवीन कल्पनांची मूळीच अपेक्षा नसते. अशा विचारांची, कल्पनांची ते दखलही घेत नाहीत. उलट त्याबद्दल प्रतिकूलच अभिप्राय व्यक्त करतात असे आढळून आले आहे. अशा शिक्षकांकडून विद्यार्थ्यांच्या सर्जनशीलता विकासाची आपण काय अपेक्षा करणार? म्हणून खरी व प्रथम गरज आहे ती सर्जनशील शिक्षकांची तेच आपण या अध्यानातून, विविध कार्यक्रमांतून व विद्यार्थ्याबरोबरच्या सुयोग्य संबंधांतून अनुकूल वातावरण निर्माण करू शकतात. अर्थात शिक्षण किंवा शिक्षणसंस्था या व्यापक समाजव्यवस्थेच्या घटक आहेत. शिक्षण ही एक उपव्यवस्था (र्ड्डल-ग्रीांशा) आहे व शिक्षकही त्याचाच एक घटक आहे. तेव्हा सामाजिक वातारणाचा व प्रशासकीय व्यवस्थेचा प्रभाव शिक्षण व शिक्षक यांच्यावरही पडणारच. म्हणून शिक्षणातून काही अपेक्षित फलनिष्पत्ती व्हावी असे वाटत असेल तर एकूण सामाजिक वातारण व प्रशासकीय यंत्रणा सर्जनशीलतेला पोषक असणे आवश्यक आहे.

संशाधिन द्विती :- प्रस्तुत संशाधिनात संशाधिकान सिर्वेक्षण द्वितीमध्य सिहर्सेधात्मक संशाधिन द्वितीचा अवर्लें कला आह.

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यासाठी संशाधिकान ुणि विद्यागितील अध्याकि शक्षण महोवद्यालयाच्या (एकूण मेहला संख्यनिुसार - ३२७२ विद्यार्थ्यौंकि ४३२) विद्यार्थी ह विर्गीकृत यादृच्छिक न्यादर्श (डीरींळषळशव ठ्यपेव राश्रिळपस) द्धितीन निवड कली म्हणूने नवडल आहति. प्रस्तुत संशाधिनासाठी मझ्झड्फ (डीरींळींळलरश्र झरलज्ञरसश षो बिंहश डेलळरश्र डलळशपलश) या संख्याशास्त्रीय किंजचा वारि कला. त्यात मध्यमान (चशरप), प्रमाणेवचलन (डीरपवरीव उर्शींळरींळेप) सहर्सेंध ओण सार्थकता ठरेवण्यासाठी टू टल्डि 'टी' रीक्षिकचि (द्वीरळश्रशव शिणों) वारि कला.

शाब्दीक सर्जनशीलता कसोटी (तशीलरश्र उीशरींळींळीं दशीों) डॉ.बकार मेहदी (१९८५) यांनी विकसीत केलेल्या शाब्दीक कसोटीचा वापर या अभ्यासक्रमासाठी करण्यात आला आहे. या कसोटीत चार उपकसोट्यांचा वापर करण्यात आला आहे. त्या पुढीलप्रमाणे.१.परिस्थिती (ड्यीरींळेपी) २. नाविन्यपूर्ण उपयोग (जीशी) ३. साधर्म्य ४. वस्तूंना रूचीपूर्ण व उपयोगी बनविणे.

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* सहर्सेंधसहगुणक ओण ०.०५ या सार्थकता स्तर टू टल्डि टी रीक्षिक ा

ेनष्कर्ष

ेशक्षक प्रेशक्षणार्थींच आराग्यिार्सेंधत शारीपरक तंदुरूस्तीच िनवडक घटक, व शाप^{ब्द}क सर्जनशीलता (तशीलरश्र उीशरीर्ळीळीं) यांतील सहर्सेंध हा धनात्मक असून वचाराधीन आह.ि

ेशक्षक प्रेशक्षणार्थींच िआराग्यिार्सेंधत शारीपरक तंदुरूस्ती ओण अशाप^{ब्द}क सर्जनशीलता (छेप तशीलरश्र उीशरींळींळीं) यांतील सहर्सेंध हा धनात्मक व अत्यंत अत असून वचारात घण्यिाजागि। नाही.

ज्ञानात्मक यागिदान

- 9. आराग्यिर्सेंधत शारीपरक तंदुरूस्ती व सर्जनशीलता यांच्यातील धनात्मक सहर्सेंध या अभ्यासाद्वार िसमारि आला आह.ि आराग्यिर्सेंधत शारीपरक तंदुरूस्ती ओण सर्जनशीलता यांच्यामध्य िसहर्सेंध ह िसंशाधिन दर्शेवत.ि योवषयी अधक शास्त्रीय संशाधिन निहा निहा आवश्यक असल्याच िया अभ्यासातून जाणवत.
- २. ेशक्षकाची आराग्यिार्सेंधत शारीपरक तंदुरूस्तीच विवध घटक व सर्जनशीलता यांच्यातील सहर्सेंध मांडला आह. शिक्षक प्रेशक्षण क्षत्रिात सर्जनशीलता विकासासाठी अभ्यासक्रम नश्चित करताना तसचि सविार्त्वि सवाअंतर्गत प्रेशक्षण नयोजित करताना या सहर्सेंधात्मक ज्ञानाचा नश्चित उयागि हार्डिल.

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क्रिकेट मधील गोलंदाजी करणा-या खेळाडूंच्या कार्यमानाचा भाला फेकीतील कार्यमानाशी सहसंबंध

संदिप चांदूजी लोंढेः पी.एच.डी विद्यार्थी, डॉ.बा.अ.म.वि.औरंगाबाद. डॉ. महेश देशपांडे सहा.प्राध्यापक, चंद्रशेखर आगाशे शारीरिक शिक्षण महाविद्यालय

संशोधन सारांश

संशोधन करण्यासाठी पुणे शहरातील महाराष्ट्रीय मंडळ क्रिकेट नेकस्ट ॲकॅडमी, गुलटेकडी, पुणे येथील १५ ते २० वर्षे वयोगटातील नियमीत सराव करणारे गोलंदाज ही सदर संशोधनाकरीता जनसंख्या निश्चित करण्यात आली आहे.त्यात वेगवान गोलंदाजी करणा-या २५ खेळाडूंची न्यादर्श म्हणून निवड केली होती. येथे सुरूवातीला सप्टेंबर महिन्यात गोलंदाजांच्या गोलंदाजीचे अंतर मापन केले व नोंद घेवून त्यांना पुढील कसोटी साठी भाला फेक प्रशिक्षण दिले व प्रत्येकी तीन संधी देवून त्यांची भाला फेक अंतर मापन कसोटी घेतली, नंतर गोलंदाजीच्या कृतीचे विश्लेषन करण्यासाठी गोलंदाजीच्या कौशल्ये पद्निश्चयन श्रेणीच्या सहाय्याने तसेच तज्ज्ञांच्या हाताने निरीक्षण केले व गोलंदाजांना श्रेणी दिली. तसेच मिळालेल्या प्राप्तांकांचे विश्लेषण करण्यात आले. गोलंदाजी व भाला फेकीचे कार्यमान यामध्ये सार्थक सहसंबंध आढळला, तो सकारात्मक व उच्च प्रतीचा असल्यामुळे असे सिध्द होते की दोन टप्प्यांमध्ये जास्तीजास्त अंतर गाठणारा गोलंदाज जास्तीजास्त दूर भाला फेकू शकतो.

महत्वाचे शब्दः गोलंदाजीचे अंतर मोजणे (मीटर मध्ये), भाला फेकीचे कार्यमान (मिंटर), गोलंदाजीची कौशल्ये पद्निश्चयन श्रेणी

प्रस्तावना

शाळांमधुन क्रिकेट खेळाच्या निवडीकरीता अनेक विद्यार्थी तयार असतात मात्र भाला फेक सारख्या बाबी मध्ये सहभागी होण्यास त्यांची फारशी तयारी नसते.जर गोलंदाजी व भाला फेक यांच्या कार्यमानामध्ये सहसंबंध आढळला व गोलंदाजी करणा-या खेळाडूंच्या क्षमतांचा भाला फेकीकरीता वापर करता आला तर भाला फेक या बाबीकरीता उत्तम खेळाडू शोधता येतील.त्यामुळे क्रिकेट मधील गोलंदाजाची कृती व भाला फेकीची कृती यांच्यात साम्य आहे त्यामुळे गोलंदाजीच्या कार्यमानाचा भाला फेकीच्या कार्यमानाशी सहसंबंध आहे का? हे शोधणे संशोधकास गरजेचे वाटते.

संशोधन पध्दती

सदर संशोधनासाठी संशोधकाने वर्णनात्मक सर्वेक्षण (सहसंबंधात्मक) संशोधन पध्दतीचा अवलंब केला आहे. सदर संशोधनासाठी महाराष्ट्रीय मंडळ क्रिकेट ॲकॅडमीतील १५ ते २० वर्षे वयोगटातील (मुले) क्रिकेट मधील गोलंदाजी करणा-या खेळाडूंची निवड केली व गोलंदाजीतील कार्यमान आणि भाला फेकीतील कार्यमान यांचा सहसंबंध तपासण्यासाठी त्याच गोलंदाजीचे अंतर (एकूण अंतर,पहिला टप्पा, पहिला टप्पा ते दुसरा टप्पा) व खेळाडूंचे भाला फेकीतील कार्यमान तसेच गोलंदाजीच्या कृतीचे विश्लेषण करण्यासाठी पदनिश्चयन श्रेणी हया साधनांचा वापर करण्यात आला.

जनसंख्या

पुणे शहरातील १५ ते २० वर्षे वयोगटातील क्रिकेट खेळातील गोलंदाजांवर प्रस्तुत संशोधनाचे निष्कर्ष लागू होणार आहे. तेंव्हा १५ ते २० वर्षे वयोगटातील नियमीत सराव करणारे गोलंदाज ही सदर संशोधनाकरीता जनसंख्या निश्चित करण्यात आली आहे.

न्यादर्श

प्रस्तुत संशोधनामध्ये महाराष्ट्रीय मंडळाच्या क्रिकेट नेक्स्ट ॲकॅडमीतील १५ ते २० वर्षे वयोगटातील (मुले) २५ गोलंदाजांची सहेतूक पध्दतीने न्यादर्श म्हणुन निवड केली आहे.

कार्यपध्दती

प्रस्तुत संशोधनासाठी पुणे शहरातील महाराष्ट्रीय मंडळाच्या क्रिकेट नेकस्ट ॲकॅडमीतील गोलंदाजांपुरतेच मर्यादित आहे. एकूण १०० गोलंदाजांपैकी संशोधनासाठी १५ ते २० वर्षे वयोगटातील (मुले) गोलंदाज यांची सहेतूक पध्दतीने न्यादर्श म्हणुन निवड केली आहे.येथे सुरूवातीला गोलंदाजांच्या गोलंदाजीच्या टप्प्याचे अंतर मोजण्यात आले व नोंद घेवून त्यांना पुढील कसोटी साठी भाला फेकचे अध्यापन करण्यात आले व प्रत्येकी तीन संधी देवून त्यांचे भाला फेकीचे अंतर कार्यमान तपासले गोलंदाजीच्या कृतीचे विश्लेषण करण्यासाठी पदनिश्चयन श्रेणीच्या सहाय्याने गुणदान करण्यात आले तसेच तज्ज्ञांच्या मदतीने निरीक्षण केले व गोलंदाजांना गुणदान करण्यात आले.

कोष्टक क्र.१ गोलंदाजीचे कार्यमान व भाला फेकीचे कार्यमान माहितीचे संख्याशास्त्रीय विश्लेषण व अर्थनिर्वचन

सांख्यिकी	गोलंदाजीचे कार्यमान पदनिश्चयन श्रेणी गुण	गोलंदाजीचे एकूण आंतर	भाला फेकीचे कार्यमान
मध्यमान	96.26	२९.१५	२६.४६
मध्यगा	٩ <i>८</i>	૨७.५	२६
मध्यमानाची प्रमाण त्रुटी	०.६४	०.९७१	9.२३
प्रमाण विचलन	३.२	8.64	६ .۹८
विषमियता	०.७२८	०.५३०	०.६२३
शिखरदोष	-0.062	-०.६९३	-0.849
विस्तार	9२	9६.५	२ १.७
किमान	93	२२	96.3
कमाल	२५	36.4	४०

कोष्टक क्र.१ वरून असे आढळून आले की,गोलंदाजीचे पदनिश्चयन मध्यमान १८.२८मी, मध्यगा १८, मध्यमानाची प्रमाण त्रुटी .६४, प्रमाण विचलन ३.२०, विषमियता .७२८ शिखरदोष -.०८२, विस्तार १२ किमान १३ व कमाल २५ याची माहिती कोष्टकात दिलेली आहे. कोष्टक क्र.१ मध्ये दाखविल्याप्रमाणे भाला फेकीचे कार्यमानाचे मध्यमान २६.४६ मी, मध्यगा २६ आहे. मध्यमानाची
प्रमाण त्रुटी १.२३ च्या वर आहे. प्रमाण विचलन ६.१८, विषमियता .६२३ (की जी -३ व +३या दोहोंच्या मध्ये आहे) शिखरदोष -.४५९, विस्तार २१.७०, कमीत कमी १८.३० व जास्तीत जास्त ४० इतका आला आहे.

कोष्टक क्र.२ गोलंदाजीचे कार्यमान व भाला फेकीचे कार्यमान यातील सहसंबंधाचे विश्लेषण

सांख्यिकी	सांख्यिकीय आकडेवारी
स्पियरमन सहंसंबध	0.946
सार्थकता स्तर	0
प्रतिसादक संख्या	25

कोष्टक क्र.२ वरून दोन्ही चलांमधील सहसंबंध सहगुणक हा स्पियरमन पध्दतीने काढला असून तो गोलंदाजीचे कार्यमान व भाला फेकीचे कार्यमान यातील सहसंबंध दर्शवितो. गोलंदाजीचे कार्यमान व भाला फेकीचे कार्यमान यातील सहसंबंध सहगुणक (r = .९४६) (p = .०००) ०.०१ या सार्थकता स्तरावर संख्याशास्त्रीय दृष्टिकोनातून सार्थक आहे. याचाच अर्थ गोलंदाजीचे कार्यमान व भाला फेकीचे कार्यमान यांतील सहसंबंध सहगुणक धनात्मक असून तो उच्च दर्जाचा आहे.

कोष्टक क्र.३ भाला फेकीचे कार्यमान व गोलंदाजीच्या टप्याअंतर्गत कार्यमानाचा सहसंबंध

	गोलंदाजीचे कार्यमान मध्यमान (मी)	भाला फेकीचे कार्यमानासी सहसंबंध (M =२६.४६)
एकूण अंतर	२९.१५	0.990
पहिला टप्पा	93.03	-0.338
पहिला टप्पा ते दुसरा टप्पा	१५.४२	०.९५८
गोलंदाजीची पदनिश्चयन श्रेणी		0.98

**. Correlation is significant at the 0.01 level (2-tailed). b. Listwise N=25

कोष्टक क्र. ३ मध्ये पियरसन संख्याशास्त्रीय तंत्रानुसार सहसंबंध काढला असुन गोलंदाजीचे एकूण अंतर व भाला फेकीचे कार्यमान यातील सहसंबंध हा ०.९१० आला असुन हा उच्च दर्जाचा सहसंबंध सहगुणक आहे.गोलंदाजीचा पहिला टप्पा व भाला फेकीचे कार्यमान यातील सहसंबंध हा -०.३३४ आला असुन कमी दर्जाचा सहसंबंध सहगुणक आहे.

गोलंदाजीचा पहिला टप्पा ते दुसरा टप्पा यातील अंतर व भाला फेकीचे कार्यमान यातील सहसंबंध हा .९५८ आला असुन तो ०.०१ या स्तरावर सार्थक असुन उच्च दर्जाचा सहसंबंध सहगुणक आहे. याचाच अर्थ जो गोलंदाज गोलंदाजीचे एकूण अंतर व चेंडूच्या दोन टप्प्यांमध्ये जास्त अंतर पार करतो त्याच्या भाला फेकितीचे कार्यमान देखील जास्त असते.गोलंदाजीच्या कृतीवरुन पदनिश्चयन श्रेणीनुसार दिलेले गुण व भाला फेकीचे कार्यमान यातील सहसंबंध हा ०.९४ आला असुन उच्च दर्जाचा सहसंबंध सहगुणक आहे.यावरुन ज्याची गोलंदाजीची कृती योग्य त्याचे भाला फेकीचे कार्यमान चांगले असते असे दिसते.

प्रमुख निरीक्षणे

- गोलंदाजीचे एकुण अंतर व भाला फेकीचे कार्यमान यामध्ये सार्थक सहसंबंध आढळला त्यांच्यातील हा सहसंबंध सहगुणक (r = .९४६) (p = .०००) इतका असुन हा सहसंबंध सकारात्मक व अतिशय उच्च प्रतीचा आहे.
- गोलंदाजीचा पहिला टप्पा ते दुसरा टप्पा यातील अंतर व भाला फेकीचे कार्यमान यातील सहसंबंध सहगुणक हा .९५८ आला असुन तो ०.०९ या स्तरावर सहसंबंध सार्थक असून तो सकारात्मक व उच्च प्रतीचा सहसंबंध आहे.
- याचाच अर्थ जर वेगवान गोलंदाज असेल तर तो भाला फेकीचे कार्यमान चांगले देवू शकतो.

निष्कर्ष

- जो गोलंदाज चेंडूच्या दोन टप्प्यामध्ये जास्त अंतर पार करतो त्याच्या भाला फेकितीचे कार्यमान देखील जास्त असते.
- याचाच अर्थ जर वेगवान गोलंदाज असेल तर तो भाला फेकीचे कार्यमान चांगले देवू शकतो.

शिफारशी

- ज्या गोलंदाजांच्या गोलंदाजीचा दुसरा टप्पा जास्त लांबपर्यंत जातो त्यांना भाला फेकीचे प्रशिक्षण देऊन त्यांच्या कार्यमानात होणा-या फरकाचा अभ्यास करता येईल.
- वेगवान गोलंदाजी व भाला फेकीचे कार्यमानाचा सहसंबंध तपासता येईल
- भाला फेकीमध्ये खेळाडूंची निवड करतांना गोलंदाजीच्या कार्यमानाचा विचार करता येईल.
- गोलंदाजांना भाला फेकिचे प्रशिक्षण दिले तर भाला फेकिच्या कार्यमानात काय परिणाम होईल याचा अभ्यास होवू शकतो.
- गोलंदाजीचे कार्यमान व भाला फेकिचे कार्यमान यांच्या आधारे संशोधनासाठी प्रेडिक्शन रिग्रेशन ॲनालिसीस करता येईल.

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विदयार्थ्यांचे मधल्या सुटट्ीतील शारीरिक उपक्रम व हालचालींचा प्रकार आणि स्तर यांचा विश्लेषणात्मक अभ्यास

अक्षय विलास भुजबळ, विद्यार्थी,चंद्रशेखर आगाशे महाविद्यालय,पुणे डॉ. शरद आहेर, चंद्रशेखर आगाशे महाविद्यालय,पुणे

सारांश

मधली सुट्टी हि विदयार्थ्यां साठी शारीरिक उपक्रमात सहभागी होण्याचा सर्वात मोठा कालावधी असतो.प्रस्तावित अभ्यासामधुन संशोधकाने ,मधल्या सुटट्रीतील विदयार्थ्यां चे शारीरिक उपक्रम व हालचालींचा प्रकार आणि स्तर किती असतो ?याचा विश्लेषणात्मक अभ्यास केला आहे. यामध्ये 'बहुस्तरिय न्यादर्श' पद्धतीचा वापर करुन संशोधकाने एरिन नगरवाला स्कुल,पुणे या शाळेतील २० विदयार्थी व २० विदयार्थीनी यांची निवड करुन त्यांच्यावर संशोधन केले. 'ओमरॉन एचजे १० १ पेडोमीटर' या उपकरणाचा वापर करुन संशोधनपद्धतीचा वापर करुन गुणात्मक विश्लेषण आले.तसेच, सोपार्क या नैसर्गिक निरीक्षण संशोधनपद्धतीचा वापर करुन गुणात्मक विश्लेषण करण्यात आले.त्यानुसार असे निष्कर्ष आले कि, संख्यात्मक निकालाचा विचार करता मुले हि मुर्लीपेक्षा जास्त हालचाली करतात व जास्त शारीरिक उपक्रम करतात तसेच, गुणात्मक निकालाचा विचार करता, मुले हि मुर्लीपेक्षा बसणे (Sedentary) या प्रकारामधे कमी उत्साहि दिसले.परंतु, चालणे व हृदयाचे ठोके जास्त असलेल्या (Walking &Vigorous) प्रकारामधे मुले हि मुर्लीपेक्षा खुप जास्त उत्साहि दिसले तसेच, मुले मधल्या सुटट्रीत हृदयाचे ठोके जास्त असलेले(Vigorous)शारीरिक उपक्रम करण्यास जास्त प्राधान्य देतात. व मुली (Sedentary) उपक्रम करण्यास प्राधान्य देतात.

Key Words :मधली सुट्टी,शारीरिक उपक्रम,पेडोमीटर,सोपार्क

पार्श्वभुमी

शारीरिक शिक्षणाची सुरुवात हि शक्यतो शालेय जीवनातच चांगली झाली तरपुढे जाऊन त्याचा चांगला फायदा होतो म्हणजेच,हालचालींचा दर्जा,प्राथमिक सुदृढता त्याच वयात सुधारणे आवश्यक असते ज्या शाळेतील विदयार्थी सुदृढ असतील त्या शाळेचा दर्जा उच्च असलेला आपणास पहावयास मिळतो कोणत्याही खेळामध्ये उच्च कार्यमान करावयाचे असेल तर प्राथमिक हालचाली व सुदृढता चांगले असणे आवश्यक असते पण आज सर्व शाळांमध्ये हिच स्थिती आहे, असे नाहि काही शाळेत मैदाने,साहित्य उपलब्ध नसते तर काहि ठिकाणी असुन सुदधा त्यांचा योग्यतो वापर केला जात नाहि व विदयार्थी मात्र यापासुन वंचित राहतात.शारीरिक शिक्षण हे शालेय अभ्यासक्रमाचा एक अविभाज्य घटक आहे.ते राबविल्यास विदयार्थी सर्वोतोपरी परिपुर्ण म्हणुन गणला जातो.

विदयार्थ्यां साठी मधली सुट्टी म्हणजे स्वतःच्या आवडिच्या किंबहुना स्वतःला येणाऱ्या गोष्टी करण्याची वेळ होय.त्या काळात शालेय विदयार्थी हे मनसोक्त खेळतात व शारीरिक हालचाली करतात त्यावेळेस केलेल्या हालचाली व उपक्रम त्यांच्या सुदृढतेसाठी फार महत्वाच्या असतात.त्याचप्रमाणे विदयार्थी मधल्या सुटट्ीत काय करण्यास प्राधान्च देतात हे बघणे देखील फायदेशीर असेल जेणेकरुण याचा उचित फायदा त्यांना मिळेल.

समस्येचे स्पष्टिकरण

शाळेत विदयार्थी जास्तीत जास्त शारीरिक उपक्रम व हालचाली हयामधल्या सुटट्ीत करतात. मधली सुट्टी हि विदयार्थ्यां साठी शारीरिक उपक्रमात सहभागी होण्याचा सर्वात मोठा कालावधी असतो.अगदि उत्साहाने विदयार्थी या काळात शारीरिक उपक्रम करताना आढळुन येतात.यामधे ते वयानुसार त्या-त्या खेळांना अथवा उपक्रमांना प्राधान्य देतात.तसेच लिंगाप्रमाणे देखील त्या उपक्रमात विभिन्नता आढळुन येते. रॉबर्ट वुड जॉन्सन यांच्या म्हणण्यानुसार,(२००७)शकयतो शाळेतील दिवसाच्या एकुण ४२% उपक्रम विदयार्थी मधल्या सुटट्ीत करताना आढळतो.म्हणजेच साधारण एक विदयार्थी शारीरिक शिक्षण तासाला ३२%, शाळेनंतरच्या उपक्रमांना २६% व मधल्या सुटट्ीत ४२% असे शारीरिक उपक्रम एका दिवसाला करतो.यामध्ये विदयार्थी कश्याप्रकारे कोणकोणत्या उपक्रमांना प्राधान्य देतो हे पाहणे महत्वाचे ठरेल. संशोधकाने एरिन नगरवाला स्कुल, पुणे या शाळेवर राबविण्याकरीता विदयार्थ्यां चे मधल्या सुटट्ीतील शारीरिक उपक्रम व हालचालीचा प्रकार आणि स्तर यांचा विश्लेषणात्मक अभ्यास हि समस्या निवडलेली आहे.

संशोधन साधन व पदध्त

प्रस्तावित अभ्यासामधुन संशोधकाने ,मधल्या सुटट्ीतील विदयार्थ्यां च्या शारीरिक उपक्रमाचा स्तर किती असतो ?विदयार्थीमधल्या सुटट्ीत कोणकोणत्या प्रकारच्या हालचाली करतात ? तसेच मधल्या सुटट्ीत मुले व मुली यांचा कोण-कोणत्या शारीरिक उपक्रमांना प्राधान्य देतात ?याचे संशोधन केले आहे. यासाठी 'बहुस्तरियन्यादर्श' पद्धतीचा वापर करण्यात आला. बहुस्तरिय न्यादर्शन म्हणजे न्यादर्शात पुनःन्यादर्शन असणे होय.या पद्धतीचा वापर करण्यात आला. बहुस्तरिय न्यादर्शन म्हणजे न्यादर्शात पुनःन्यादर्शन असणे होय.या पद्धतीचा वापर करुन संशोधकाने एरिन नगरवाला स्कुल,पुणे या शाळेतील २० विदयार्थीव २० विदयार्थीनी यांची निवड केली. 'ओमरॉन एचजे १०९ पेडोमीटर' या उपकरणाचा वापर करुन संख्यात्मक विश्लेषण करण्यात आले.या मार्फत विद्यार्थ्यांच्या हालचालींचा स्तर तपासण्यात आला विद्यार्थ्यांनी यामध्ये सलग ७ दिवस घेतलेली पावले याची सरासरि काढुन ते गुणांकन म्हणुन घेतले. तसेच, विद्यार्थी मधल्या सुटट्ीत कोणते शारीरिक उपक्रम करतात, यासाठी सोपार्क या नैसर्गिक निरीक्षण संशोधन पद्धतीचा वापर करुन गुणात्मक विश्लेषण करण्यात आले. आला यामध्ये ७ दिवस सलग सर्व जनसंख्येचे छायाचित्रण करुन विद्यार्थ्यांने केलेले उपक्रम पाहुन सोपार्क च्या कोडस् नुसार त्याचे गुणांकन केलेते कोड्स खालीलप्रमाणे,

- Sedentary (S) : झोपणे,बसणे व जागेवर उभे राहणे.
- Walking (W) : चालणे.
- Vigorous (V) : असे उपक्रमकि ज्यामध्ये हृदयाचे ठोके जास्त असतील.

संख्याशास्त्रीय विश्लेषण

मध्यमान, प्रमाणविचलन, कमालसंख्या, किमानसंख्या हे सर्व वापरुन मिळालेल्या माहितीचे संख्याशास्त्रीय विश्लेषण करण्यात आले.

चर्चा आणि निष्कर्ष

	7	कोष्टक. १		
विद्याथ्य	र्गं ची आठवडाभराच	वीसरासरिपाउ	न्लसंख्या (पेडोम	नीटर)
		मुले	मुली	
	मध्यमान	ረ६৭	६२९.०५	
	प्रमाण विचलन	१५५.२०	909.08	
	किमान पावले	६२६	୪୩७	
	कमाल पावले	१०८२	9776	

वरीलप्रमाणे, विद्यार्थ्याची सरासरी पाऊलसंख्या मुले ८६१,व मुली ६२९.०५ इतकी आली.तसेच प्रमाण विचलन, मुले १५५.२० व मुली १०१.०४ असे आले.मुलांनी किमान पावले ६२६ तर मुलींनी ४१७ घेतली.तसेच मुलांनी कमाल पावले १०८२ तर मुलींनी ७८८ कमाल पावले घेतली.

कोष्टक.२ ७ दिवस शा<u>रीरिक क्रीयाशीलतेच्या विविध स्तरावर असलेल्या विद्यार्थी संख्येची</u> टक्केवारी.

स्तर	मुले	मुली
Sedentary	29.90%	२६.०९%
Walking	20.98%	6.93%
Vigorous	२७.७३%	<u> </u>

वरती नमुद केल्याप्रमाणे ,७ दिवस Sedentary उपक्रम मुले २१.९७% तर २६.०९% मुली करतात. Walking उपक्रम मुले २०.१४% व मुली ७.९३% करतात.त्याचप्रमाणे, Vigorous उपक्रम मुले २७.७३% तर मुली १५.७४% करतात.

चर्चा

प्रस्तुत संशोधनाचे उद्दिष्ट हे मधल्या सुटटीतील विदयार्थ्यांचे शारीरिक उपक्रम व हालचालींचा प्रकार आणि स्तर किती असतो याचा अभ्यास,हे होते यामध्ये असे निष्कर्ष आले कि,संख्यात्मक निकालाचा विचार करता मुले हि मुलींपेक्षा जास्त हालचाली करतात व जास्त शारीरिक उपक्रम करतात. आणि गुणात्मक निकालाचा विचार करता,मुले हि मुलींपेक्षा बसणे (Sedentary) या प्रकारामधे कमी उत्साहि दिसले परंतु,चालणे व हृदयाचे ठोके जास्त असलेल्या (Walking &Vigorous) प्रकारामधे मुले हि मुलींपेक्षा खुप जास्त उत्साहि दिसले तसेच,मुले मधल्या सुटटीत हृदयाचे ठोके जास्त असलेले(Vigorous)शारीरिक उपक्रम करण्यास जास्त प्राधान्य देतात.व मुली (Sedentary) उपक्रम करण्यास प्राधान्य देतात.प्रस्तुत संशोधन करताना शाळेतील मधल्या सुटटीचा कालावधी हि संशोधकासाठी मर्यादा होती.तसे पाहता मुले आणखीन जास्त क्रीयाशील राहु शकली असती पण शाळेच्या नियमांमुळे व वेळेमुळे ते जास्त क्रीयाशील नव्हते.

ॲमेंलिया वुड्स (२०१२) यांनी केलेल्या तत्सम विषयाच्या संशोधनात असे निष्कर्ष आले होते कि,मुले हि मुलींपेक्षा जास्त वेळ Vigorous शारीरिक उपक्रम करतात.तसेच,क्रीडाविषयक बाबी करण्यास जास्त प्राधान्य देतात व मुली Sedentary उपक्रम करण्यास प्राधान्य देतात आणि मुले व मुली दोघेही मधल्या सुट्टीचा वेळ आपापल्या मित्र-मैत्रिणींसोबत घालवण्यास पसंदी देतात.

दोन्हींची तुलना करताना असे लक्षात येते कि,जर विदयार्थ्यांना मधल्या सुटट्ीत शारीरिक उपक्रम करण्याची अनुमती दिली तर ते आपल्या शारीरिक उपक्रम व हालचालींचा स्तर वाढवू शकतात.त्याचप्रमाणे साहित्यानिशी त्यांना खेळायची अनुमती दिल्यास विद्यार्थी आणखीन चांगल्या प्रमाणात मधल्या सुटट्ीत शारीरिक उपक्रम करतील.

निष्कर्ष

मुले हि मुलीपेक्षा जास्त हालचाली करतात व जास्त शारीरिक उपक्रम करतात.(कोष्टक १ प्रमाणे) तसेच,मुले हि मुलीपेक्षा बसणे (Sedentary) या प्रकारामधे कमी उत्साही दिसले.परंतु,चालणे व हृदयाचे ठोके जास्त असलेल्या (Walking &Vigorous) प्रकारामधे मुले हि मुलीपेक्षा खुप जास्त उत्साहि दिसले.त्याचप्रमाणे,मुले मधल्या सुटट्ीत हृदयाचे ठोके जास्त असलेले(Vigorous)शारीरिक उपक्रम करण्यास जास्त प्राधान्य देतात.व मुली (Sedentary) उपक्रम करण्यास प्राधान्य देतात. (कोष्टक २ प्रमाणे)

जर विदयार्थ्यांना मधल्या सुटट्ीत शारीरिक उपक्रम करण्याची अनुमती दिली तर ते आपल्या शारीरिक उपक्रम व हालचालींचा स्तर वाढवू शकतात.त्याचप्रमाणे साहित्यानिशी(Equiped) त्यांना खेळायची अनुमती दिल्यास विद्यार्थी आणखीन चांगल्या प्रमाणात मधल्या सुटट्ीत शारीरिक उपक्रम करतील.

संदर्भ

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भारीविक सुदुढता मापनासाठी 'श्रॅंड्रॉइड मोषाइल थ्रॅंप'

डॉ. भी. उज्यला याजे. गुनाको भाषीतिक भिष्माम स्टामिट्रग्रन्म एपो

चंढ्रशेखर आगाशे शारीरिक शिक्षण महाविढ्यालय पुणे.

शारीविक शिक्षण अभ्याभकमाचा आढाणा घेतला अभता मुल्यमापनामध्ये शारीविक भुढुढता मापन हा भक्तीचा भाग दिभून येतो. शारीविक भुढृढता मापानाचे ध्येय हे अभ्याभकमाची निष्पत्ती अभ्याभणे अभून कभोटी मापन भातत्याने केल्याने पिढ्यार्थी शिक्षक मुख्याध्यापक प पालक यांना पिढ्यार्ध्यांचा भुढृढता भ्तन्न भमजतो.

गञ्चज ঃ

शारीविक शिक्षण हा पिषय शिकपिणावे शाळेतील शिक्षक व पिढ्यार्शी यांचे प्रमाण अघितले तब प्रत्येक शाळेमध्ये एक किंवा ढोनच शारीविक शिक्षण शिक्षक ढिसून येतात. शार्वीविक शिक्षण शिक्षकावब आपल्या पिषयाखवोखवच शाळेची शिव्त व्यर्धा व आमने अशा इतव जखाखढावया मोठया प्रमाणावव ढिसून येतात. शार्वीविक शिक्षण शिक्षकाला कोणाच्याही मढ्तीशिवाय प्रत्येक विढ्यार्थ्याच्या किमान ढ्हा तवी अुढुढता कशोटयांच मापन करून त्याच्या कार्यमानाची नोंढ ठेवणे मानकांप्रमाणे गुणांकन हे वर्ष कार्य एकटयालाच कवावे लागते.या भगळयांमधे शिक्षकाचे लिखाणकाम वाढते व खवाच कालावधी खर्च होतो.प्रत्येकाला योग्य पेळी लगेचच झुढूढता क्रतव आंगणे शक्य होतेच असे नाही.मग प्रगतीचा आढावा घेणे अवघडच असते.त्यामुळेच शावीविक शिक्षणाचे शिक्षक झुढुढता कशोटीखाखत विशेष उत्सुक ढिसत नाहीत. या भर्व लब्दयपविक्थितीचा संशोधिकेने जवळुन अभ्यास करून शावीविक शिक्षण झुढुढता कशोटी मुल्यमापनासाठी 'ब्रॅड्रॉइड मोखाइल व्रॅप' विकासित केले आहे.

पध्ढती ः

- महाचाष्ट्रातील विविध शाळांमधून विविध शाविचीक शिक्षण क्रभोटया त्या क्रभोटया घेण्याची पध्ढती लागणाचा वेळ यांची माहिती गोळा केली.
- अँप खनवण्यासाठी आवश्यक माहिती अँप डेक्हलपर्स्तला पुरुविली.
- चाचण्यां भाठी ययोगटानु भाव आवश्यक मानकांचा अभ्याभ केला.
- आत्रिवीक शिक्षणाच्या शिक्षकांशी चर्चा केली.
- शिक्षकांना अँपची माहिती देऊन त्यांच्या भुचनांचा पिचार करून आपश्यक खढल करून अँपला अंतिम न्यरूप देण्यात आले.

'ब्रॅंड्रॉइड मोषाइल व्रॅंप' ची ठळक प्रैशिष्ट्ये ः

- ॲप' वापरण्यास सोपे
- 'क्लाउङमुळे' कुठुनही यापवता येईल
- शिक्षकाला मैढ्रानायञ्च यापञ्ता येते.
- मैढ्रानापञ्च कार्यमानाची नोंढ् घेतांना इंटञ्नेट कनेक्शन आपश्यक नाही.
- आवश्यकतेनुभाव मानके व कभोटयांमधे खढल कवणे शक्य.
- त्यं वित ढोन्ही अत्रांचा क्यतंत्र य एकत्रित निकाल काढता येतो.

- येळेची खचत व वाबंवाब मुल्यमापन कवणे शक्य
- शाळेचा सुदुढता आलेख उंचायण्यास मढत
- प्रत्येक विदयार्थ्याचे शाभीभिक भुदुढता प्रगतीपुभ्तक

अंपच्या वापन्नासाठी आवश्यक गोष्टी ः

- 'ब्रॅंड्रॉइड मोषाइल'
- इंटरनेट कनेक्शन
- पिढ्यार्थ्यांची माहिती ः अनुक्रमांकानुभाष नापाची याढी जन्मताश्रीख लिंग
- शाळेची माहिती ः नाय शाळेचा लोगो पत्ता फोन नंषञ
- मुख्याध्यापकांचे नाव वर्गाच्या कीडा शिक्षकांचे नाव
- कभोटयांची माहिती ः नावं इयत्तेप्रमाणे कभोटया
- मानकेः क्रभोटयांप्रमाणे. इयत्तेनुभाव मानके.

'अँड्रॉइड मोषाइल ॲप' चे फायदे ः

- शिक्षकाला मैढानावव मोषाईलवव एकढाच कार्यमानाची नोंढ घ्यावी लागेल.
- नोंढींमधील चुका टाळता येतील.
- मानकांप्रमाणे गुण थोणी थोशा ऑफ्टवेश्वर मार्फत दिले जाऊन विदयार्थ्याला ्रिक्षिकाला व पालकांना त्वरित विदयार्थ्याच्या सुद्धुढता क्रभोटीचा क्तर क्षमजेल.
- शिक्षकाला व मुख्याध्यापकांना प्रत्येक वर्गातील किती विदयार्थ्यी ५० पेक्षा जाश्त गुण मिळवणावे आहेत ते ञमजेल.
- यर्गातील ञर्प पिढ़रार्थांच्या कार्यमानाची य गुणांची एकत्रित राढ़ी.
- कोणत्या पिढ्यार्थ्यीने पर्गाने कशामध्ये सुधावणा कवणे गवजेचे आहे ते देखील
- अमजेल.शिक्षकाचे मापनाचे कार्य ओपे होईल.

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मोषाईल फोनवन 'फेच डेटा' केल्यावन इयत्तेप्रमाणे भवी माहिती भंगणकावरून मोखाईल फोनवच येईल नंतच पुढील माहिती मैढानावचच मोखाईल फोनवच येईल ਅਕਾ.

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शोवटी मेन क्विनवर पुश डेटा केले की. माहिती संगणकावर जाऊन निकाल प्राप्त होतील.

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	Teacher Name		M	SURVIA R	0.0	-	School Timmin	1			10am	
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		Rame 1	Anuit					Name	Agulh			
Class	11	Division	A	Roll No.	1 1	Class	13	Division	A	- I -	Roll No.	1
D.O.8	d1-05-1990	Age	24	HR(1 Min)	6.2	0.0.8	91-05-1990	Ase	24		HE(1 Min	62
Height(cm)	146	Weight/kg)	8	BRS WHE	14.68	Height(cm)	166	Weight(kg)	0 55		BM	34.68
Te SR sps B 12m	s't Name ent Enee(1 Min 3 n. Ren/Walk	2 12	M mance Marts 1 5 00 2 21 7	Grade	Remarks LOW Needs to Improve	Te Stops &	st Name Int Kneel1 Min.1 Total	SEN Perform	nance P	Marks 4.5 4.5	Grade E E	Remarks Needs to Intero- Needs to Impro
Note for	Improvement :	51 ups B	eri Kriet (1 Min.) 12	mn. Ret/W	Wk	Note for	Improvement	Sit ups Br	nt Khoel	Min.1		
	Texche's Sign Principet's Sign (Mis Ujavla Nuja) Mr.Urmal			s's Sgn tma:	Teachar's Sign (Mis Ujwala Rajr) (Mr. Uuna)					ikra Sign Joma)		

			day					
		Fitnes	ss Report	2014 -	2015			
	Teacher Name				M	Irs Ujwala F	Raje	
	School Timmin	g	10am					
Phone No	020 25	5880123		Ema	dl .	akibjavee	d2010@gmall.com	
Date	2015	-02-22		Tim	e		11:20 pm	
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Class	13	DIVI	ision	A		ROII NO	1 63	
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12mi	12min. Rur/Walk				2	E	Needs to Improve	
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Te	st Name		Perform	nance	Marks	Grade	Remarks	
Sit ups B	ent Knee(1 Min.)		19		4.5	E	Needs to Improve	
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			Final R	esult	-			
Те	ist Name			Marks		Grade	Remarks	
Sit ups B	ent Knee(1 Min.)			4.5		E	Needs to Improve	
12mi	in. Rur/Walk			2		E	Needs to Improve	
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			1992	1.584.0004				
	Teacher's	Sign				Principa	als's Sign	
	(Mrs Ujwala	Raje)				(Mr.)	Uzma)	
		1000			1			

मिळेल.

शिक्षकाला य मुख्याध्यापकांना प्रत्येक यगतिील किती यिढ्यार्थ्यी ५० पेक्षा जाञ्त्त गुण मिळयणाबे



क्रभोटीप्रमाणे जगतिील भूर्व विद्यार्थ्यांचे कार्यमान

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1389	8.03	1	0.85	9.96	-9	5
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कार्यमानावरून आलेले वर्गातील भवी विदयार्थ्यांचे मानकांप्रमाणे गुण. भेणी. शोश यांची यादी

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संखंधित अपचे संशाधिकेने कॉपीशाईट घेतलेले आहे.

''फर्ग्युसन महाविद्यालय, पुणे येथील खो-खो चे उगमस्थान''

संशोधकाडॉ. मोहन नामदेव आमृळेाशारीरिक शिक्षण संचालकअधिव्याख्याताबी.एम. कॉलेज, पुणेचंद्रशेखर आगाशे शारीरिकशिक्षण महाविद्यालय, पुणे

प्रस्तावनाः

सन १९१४ मध्ये महाराष्ट्रातील पुण्याच्या डेक्कन जिमखान्यामार्फत विविध संस्थांना आमंत्रित करून सामने भरविले गेले. त्याप्रसंगी काही नियमांची निर्मिती करण्यात आली. इ. स. १९१७ मध्ये अधिक प्रमाणात लोकप्रिय झाला. १९२४ मध्ये बडोदे येथील 'हिंद विजय जिमखाना' मार्फत काही नियमांची निर्मिती व जुन्या नियमात दुरुस्ती करण्यात आले. इ. स. १९३१ मध्ये 'अखिल महाराष्ट्र शारीरिक शिक्षण मंडळा' द्वारे तज्ज्ञ व अनुभवी लोकांची समिती बोलावली आणि या खेळाचे सुधारित नियम बनविले. इ. स. १९४७ पासून आंतरमहाविद्यालयीन खो-खो सामने पुरुष गटासाठी भरवण्यात आली. इ. स. १९५६ मध्ये भारतीय खो-खो फेडरेशनची स्थापना झाली. (बोर्जेस, २००८)

संशोधनाची उद्दिष्ट्ये :

फर्ग्युसन महाविद्यालय, पुणे येथील खो-खो या खेळाच्या उगमस्थानाची माहिती क्रीडा क्षेत्रातील व्यक्तीसमोर, समाजासमोर मांडणे.

संशोधन पद्धती :

ऐतिहासिक संशोधन पद्धतीत व्यष्टी अध्ययन संशोधन पद्धतीचा उपयोग या संशोधकाने संशोधन केला आहे. फर्ग्युसन महाविद्यालयाची नियतकालिके व छायाचित्रे या प्राथमिक स्रोत व फर्ग्युसन महाविद्यालयामधील स्मरणिका, डेक्कन एज्युकेशन सोसायटीने फर्ग्युसन महाविद्यालयावर प्रकाशित केलेली पुस्तके, खो-खो या खेळावर लिहली गेलेली पुस्तके या दुय्यम स्रोतामार्फत संकलन केले आहे. संकलन माहितीची मिमांसा पुढील प्रमाणे-**आंतरिक मिमांसा** : फर्ग्युसन महाविद्यालयावरील लिहलेली पुस्तके, स्मरणिका, नियतकालिका, छायाचित्रे हे डेक्कन एज्युकेशन सोसायटी व फर्ग्युसन महाविद्यालयाने अधिकृत प्रसिद्ध केली आहेत. मिळालेली माहिती वैध आहे. **बाह्य मिमांसा** : संशोधकाने मिळालेल्या माहितीची प्रत्यक्ष छायाचित्रे, लिखाणातील कागद, रंग, शाई याची प्रत्यक्ष माहिती घेवून वैधता तपासली आहे.

माहितीचे संकलन व विश्लेषण :

फर्ग्युसन महाविद्यालयामध्ये खो-खो खेळाच्या आंतरवर्गीय स्पर्धा सर्वप्रथम सन १८९५ साली दसऱ्याच्या दिवशी संपन्न झाल्या. (Limaye, 1935) सन १८९५ पूर्वीपासून फर्ग्युसन महाविद्यालयामध्ये खो-खो खेळाचा सराव होत असावा. फर्ग्युसन महाविद्यालयामध्ये खो-खो खेळाचा प्रचार, प्रसार, सराव, स्पर्धा इत्यादी सन १८९५ पूर्वीपासून चालू केल्या होत्या. आंतर महाविद्यालयीन स्पर्धांच्या पूर्वी अडीच दशके व भारतीय खो-खो फेडरेशनची स्थापना होण्यापूर्वी पाच दशके अगोदरपासून खो खो खेळास पोषक वातावरण निर्माण करणारे पुण्यातील फर्ग्युसन महाविद्यालय हे पहिले महाविद्यालय होय. (वखारकर, १९७३)

फर्ग्युसन महाविद्यालयाचे सन नियतकालिके (मॅगझिन), छायाचित्रे यांवरून माहिती मिळवून असे लक्षात येते की सन १९१४ मध्ये डेक्कन जिमखान्याने विविध संस्थांना आमंत्रित करून खो-खो खेळाचे सामने भरविले. त्या प्रसंगी खो-खो खेळांच्या नियमांची निर्मिती केली. त्या स्पर्धेत फर्ग्युसन महाविद्यालयाच्या संघास उपविजेतेपद मिळाले होते. स्थानिक क्लब बरोबर खो-खो खेळाचे सामने खेळत. आंतर महाविद्यालयीन खो खो मुलींच्या संघास सन १९२३-२४ मध्ये पहिले अजिंक्यपद मिळाले व सन १९२४-२५ च्या आंतर महाविद्यालयीन खो खो स्पर्धेत मुलांच्या संघास प्रथम अजिंक्यपद मिळाले. त्याचबरोबर मुलींच्या संघास सन १९२४-२५ व सन १९२७-२८ साली व मुलांना सन १९२९-३० मध्ये अजिंक्यपद मिळाले.

डेक्कन जिमखान्याने सन १९१४ मध्ये खो खो खेळांच्या स्पर्धा घेऊन नियमावली तयार केली. त्या स्पर्धेत सहभागी होऊन द्वितीय क्रमांक फर्ग्युसन महाविद्यालयाच्या संघाने मिळविला. खो खो खेळाचे नियम तयार करण्यास मदत केली. निष्कर्षः

डेक्कन जिमखाना, पुणे यांनी सन १९१४ मध्ये खो खो खेळाच्या सर्व प्रथम स्पर्धा घेतल्या व नियम तयार केले. परंतु त्यापूर्वी फर्ग्युसन महाविद्यालयात १९ वर्षे आधीपासून दरवर्षी दसऱ्याला आंतरवर्गीय खो-खो खेळाचे सामने घेत होते. यावरून खो-खो खेळाचे उगमस्थान व मूळ प्रसार फर्ग्युसन महाविद्यालयाने केला आहे.

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महाराष्ट्र कॉस्मोपोलिटन एज्युकेशन सोसायटी पुणे या संस्थेतील खेळाडूंनी राष्ट्रीय स्तरावरील विविध प्रकारच्या क्रीडा स्पर्धैंमध्ये घेतलेल्या सहभाग आढावा

लाडलेसाहेब अल्लीसाहेब मोमीन.

एस.एम. चोकसी हाय. ॲन्ड ज्युनिअर कॉलेज. पुणे.

कै. श्री. शिवरामपंत दामले यांनी देशातील तरूण पिढी केंद्रबिंदू ठरवून त्यांना शारीरिक व मानसिक दृष्टया सुदृढ करणे असा उद्देश समोर ठेऊन इ.स.१९२४ साली महाराष्ट्रीय मंडळ नावाची संस्था पुणे शहरामध्ये स्थापन केली.

कै. श्री. अनंत कृष्णा आणि अंबादास कृष्णा या वैद्य बंधूनी देशातील नागरिकांमध्ये विशेषत: तरूण पिढीमध्ये धर्म, जात आणि वंश यांऐवजी शारीरिक शिक्षण आणि क्रीडा क्षेत्राबद्दल जागृती निर्माण करणे, त्यामध्ये रूची वाढविणे, त्याचबरोबर शारीरिक शिक्षण, आरोग्य, आहार, मनोरंजन, क्रीडा इत्यादींसारख्या क्षेत्रामध्ये संशोधन कार्य राबविणे यांसारखे उद्देश समोर ठेऊन कार्यरत असलेल्या श्री. हनुमान व्यायाम प्रसारक मंडळ या क्रीडा संस्थेची स्थापना इ.स. १९१४ साली अमरावती शहरामध्ये स्थापन केली.

वरील क्रीडा संस्थाप्रमाणेच पुणे शहरात महाराष्ट्र कॉस्मोपोलीटन एज्युकेशन सोसायटी ही एक शैक्षणिक संस्था कार्यरत आहे. या महाराष्ट्र कॉस्मोपोलीटन एज्युकेशन सोसायटी पुणे या संस्थेने शैक्षणिक क्षेत्रात मोलची कामगिरी बजावित साठ वर्ष पूर्ण केली आहे.

आझम कॅम्पसची सुरूवात एकशेतीस वर्षापुर्वी एक अरेबीक, (धार्मिक शाळा) म्हणून सुरूवात झाली. या शाळेचे पहिल्या बॅचचे विद्यार्थी स्वर्गीय सर मोहम्मद रफिउद्दीन होते. जे.की. व्हिक्टोरिया राणीचे शिक्षक होते. या शाळेतून बाहेर पडलेले विद्यार्थी, शिक्षणतज्ञ, अनेक सामाजिक कार्यकर्ते तसेच सुरतचे व्यापारी स्वर्गीय श्री. हाजी गुलाम मोहम्मद आझम व स्वर्गीय खान अब्दुल कदीर खान जे की पुण्याचे त्या काळातील नामांकित वकील होते. तसेच अँग्लो उर्दु बॉईज हायस्कुलचे पहिले मुख्याध्यापक स्वर्गीय खान बहादूर हिदायतुल्लाह हे होते. तसेच यांच्या सर्वांच्या प्रयत्नाने आजचा फुललेला कॅम्पस आपण आझम कॅम्पस या नावाने पाहत आहोत.

सध्या आझम कॅम्पसमध्ये बालवाडी ते पदव्युत्तर पर्यंत १७००० पेक्षा जास्त विद्यार्थी व विद्यार्थीनी विविध शाखांमध्ये इंग्रजी व उर्दु माध्यमात शिक्षण घेत आहेत. तसेच मुलींसाठी विशेष सवलती या संस्थेत पुरविल्या जातात. व मुलींच्या शिक्षणासाठी तीन स्वतंत्र असे वेगवेगळे कॉलेज व एक उर्दु शाळा आहे. महाराष्ट्र कॉस्मोपोलीटन एज्युकेशन सोसायटी हया संस्थेची स्थापना सन १९४८ साली झाली. हया संस्थेचे पहिले अध्यक्ष स्वर्गीय खान अब्दूल कदीर खान हे होते. कदीर खान व इतर सदस्यांनी मिळून ही संस्था स्थापन केली.

संशोधनाची उद्दिष्टये :

महाराष्ट्र कॉस्मोपोलीटन एज्युकेशन सोसायटी या संस्थेच्या शाखांच्या एकूण विद्यार्थी व क्रीडा सहभाग आढावा घेणे.

महाराष्ट्र कॉस्मोपोलिटन एज्युकेशन सोसायटी या संस्थेच्या विविध शाखेतील २००१ ते २००८ डिसेंबर शिक्षण घेत असलेल्या विद्यार्थी व विद्यार्थीनींचा आढावा घेणे.

संशोधन पध्दती :

प्रस्तुत संशोधन अध्ययनासाठी संशोधनकर्त्याने व्यक्ती अभ्यास पध्दतीचा उपयोग केला आहे.

संशोधन साधने ः

दस्तऐवज अभ्यास :

यामध्ये महाराष्ट्र कॉस्मोपोलीटन एज्युकेशन सोसायटी या संस्थेच्या क्रीडाशी संबंधित मासिके, वार्षिक अहवाल, विविध स्पर्धांचा अहवाल, विविध वृत्तपत्रातील बातम्या, छायाचित्रे आणि सभांचे इतिवृत्त यांच्या आधारे माहिती गोळा केली.

प्रश्नावली ः

पथदर्शी प्रश्नावली :

प्रश्नावली पथदर्शी अभ्यासाकरिता महाराष्ट्र कॉस्मोपोलीटन एज्युकेशन सोसायटीतील शारीरिक शिक्षक, प्रशिक्षक व खेळाडू इत्यादी एकूण २० व्यक्ती कडून भरून प्रश्नावलीची पूर्व तपासणी केली आणि त्यानंतर प्रश्नांच्या रचनेत मार्गदर्शकांनी सुचविल्याप्रमाणे आवश्यक फेरफार करण्यात आला. अशा रितीने अंतिम प्रश्नावली तयार करण्यात आली. या अंतिम प्रश्नावलीची विश्वसनियता तपासण्याकरिता पुर्वी भरून घेतलेल्या सभासदां कडूनच प्रश्नावली पुन्हा एकदा भरून घेण्यात आली.

अंतिम प्रश्नावली : संशोधनकर्त्यांने आपल्या संशोधन समस्येसंबंधी माहिती एकत्र करण्याकरिता 'प्रश्नावली' हे एक साधन निवडले. माहिती संकलनासाठी प्रश्नावलीच्या विविध प्रकारांपैकी मिश्रित प्रश्नावली या प्रकाराचा उपयोग करण्यात आला. एका निश्चित प्रकारच्या प्रश्नांद्वारे विविध प्रकारची तथ्ये प्राप्त होत नाही म्हणून संशोधन विषयाच्या आवश्यकतेनुसार या प्रश्नावलीमध्ये बंदिस्त आणि मुक्त अशा दोन्ही प्रकारच्या प्रश्नांचा समावेश करण्यात आला.यामध्ये महाराष्ट्र कॉस्मोपोलीटन एज्युकेशन सोसायटी या संस्थेच्या क्रीडाशी संबंधित मासिके, वार्षिक अहवाल, विविध स्पर्धांचा अहवाल, विविध वृत्तपत्रातील बातम्या, छायाचित्रे आणि सभांचे इतिवृत्त यांच्या आधारे माहिती गोळा केली.

मुलाखतः संशोधनकर्त्याने आपल्या संशोधन समस्येसंबंधी माहिती एकत्र करण्याकरिता

प्रश्नावलीबरोबर मुलाखत या तंत्राची देखील निवड केली. सामाजिक संशोधनात मुलाखत हे तथ्य संकलनाचे एक अतिशय महत्त्वपूर्ण असे तंत्र आहे.

राष्ट्रीय स्तरावरील सहभाग

राष्ट्रीय स्तरावरील सहभाग तालीका

सहभाग सन २००१ ते डिसेंबर २००८ एकूण २५२

राष्ट्रीय स्तरावरील सहभाग तालीका १ अ.न २ Э 8 ų E ৩ 6 २००१ २००२ २००३ २००४ २००५ २००६. 2009 एप्रिल सहभाग एकूण .. ०४ | .. ०५ | .. ०६ 2005 सन .. ०२ .. ०३ .. 09 .. 0८ डिसेंबर 2005 २१ १६ 48 सहभाग १३ १९ १७ 48 ६१ २५२ संख्या

राष्ट्रीय स्तरावरील विद्यार्थी खेळाडू सहभाग तालीका

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निष्कर्षे व शिफारशी :

- महाराष्ट्र कॉस्मोपोलीटन एज्युकेशन सोसायटी. पुणे या संस्थेत एकूण २९ शाखा कार्यरत आहे.
- क्रीडा सुविधांचे सर्व हक्क व अधिकार आझम स्पोटर्स ॲकॅडमीला देण्यात आले आहे.
- विदयार्थी व विदयार्थ्यीसाठी सकाळच्या वेळी व्यायाम करून घेण्याची सुविधा आहे.
- महाराष्ट्र कॉस्मोपोलीटन एज्युकेशन सोसायटी पुणे व आझम स्पोटर्स ॲकॅडमी यांनी दिलेल्या क्रीडा सुविधाच्या जोरावर कामगिरी केलेली दिसून येते.

- महाराष्ट्र कॉस्मोपोलीटन एज्युकेशन सोसायटी पुणे या संस्थेच्या शाखातून इ.सन २००१ पासून ते २००८ पर्यंत विविध शाखांतुन २५२ खेळाडूंनी राष्ट्रीय स्तरावर स्पर्धामध्ये सहभाग नोंदविला.
- २५२ खेळाडूंपैकी १६६ मुलींनी राष्ट्रीय स्तरावर तसेच ८६ मुलांनी राष्ट्रीय स्तरावर सहभाग नोंदविला.
- आज पर्यंत हया संस्थेच्या विविध क्रीडा सुविधांचा खेळाडूंनी वापर केलेला दिसून येते.
- श्री हाजी गुलाम मोहम्मद आझम व कदिर खान व इतर सदस्य यांच्या मार्फत शैक्षणिक बरोबर खेळांची आवक निर्माण व्हावी. आंतरराष्ट्रीय क्रीडा स्पर्धामध्ये भाग घ्यावा तसेच व्यायाम, खेळ, खिलाडूवृत्ती याची जोपासना व वाढ व्हावी व गरीब स्तरातील विद्यार्थ्यांना उच्च स्तराचे शिक्षण देण्यासाठी सोयी उपलब्ध करून देणे इ. मुळ उद्देश समोर ठेवून सन १९४८ साली पुणे शहरातील कॅम्प परिसरात महाराष्ट्र कॉस्मोपोलीटन एज्युकेशन सोसायटी. पुणे संस्थेची स्थापना झाली.

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पुणे शहरातील ५ ते ६ वर्षे वयोगटातील विद्यार्थ्यांच्या स्थानांतरणीय कौशल्याच्या दर्जाची सद्यस्थिती तपासणे व विशिष्ठ प्रशिक्षण कार्यक्रमांचा स्थानांतरणीय कौशल्यांवर होणाऱ्या परिणामांचा अभ्यास

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१ प्रास्ताविक

प्राचीन भारतातील शिक्षणाचा अभ्यास करत असताना आपणास असे दिसुन येते की त्या काळात शिक्षण व शारीरिक शिक्षण यात फरक किंवा भेदभाव दिसत नाही. शिक्षणाचा एक घटक म्हणुनच शारीरिक शिक्षणाकडे पाहिले जात असे. प्राचीन काळामध्ये शिक्षणाबरोबर मुलांना खेळण्यास सांगितले जात असे तसेच त्यांची कवायतही (ड्रिल) घेतली जात असे परंतु शारीरिक शिक्षण म्हणुन त्यांचा उपयोग काय यांची कल्पना शिक्षकांना नसे, परंतु आजच्या शिक्षणामध्ये शारीरिक शिक्षणाच्या आभ्यासास महत्वाचे स्थान देण्यात आले आहे. शिक्षणाच्या नव्या दृष्टीकोना नुसार शिक्षण म्हणजे केवळ ज्ञान नसुन बालकांचा सर्वांगिण विकास म्हणजे शिक्षण होय असा अर्थ आज प्रस्तुत आहे शारीरिक शिक्षण हा शिक्षणाच्या एक घटक आहे ही कल्पना आज सर्वमान्य झाली आहे.

२ संशोधन पध्दती

प्रस्तुत संशोधन अभ्यासाठी वर्णनात्मक संशोधनातील सर्वेक्षण पद्धत व प्रायोगिक संशोधन पध्दत या दोन संशोधन पध्दतीचा वापर करण्यात आला आहे (Best j. w & kahan j. v. २०११).

३ जनसंख्या

प्रस्तुत संशोधन अभ्यासाची जनसंख्या ही पुणे शहरातील (गुलटेकडी, कॅम्प, लष्कर विभाग, अरण्यश्वैर विभाग समावेश असणाऱ्या) मराठी व इग्रजी माध्यमाच्या अनुदानित व विनाअनुदानित प्राथमिक शाळेत जाणारी ५ ते ६ वर्षे वयोगटातील मुलेमुली सर्व होती (N=५०००)

४ न्यादर्श

प्रस्तुत प्रायोगिक संशोधनासाठी एकुण जनसंख्येतुन संभाव्य पद्धतीतील वर्गीकृत यादृच्छिक न्यादर्श पद्धतीचा अवलंब करुन ८० विद्यार्थ्यांची दोन समान गटात विभागणी केली त्यापैकी एक प्रायोगिक गट ४० विद्यार्थी व दुसरा नियंत्रित गट ४० विद्यार्थी अशी केली. (n=८०)

५ मुल्यमापनाची साधने

पदनिश्चयन श्रेणी विद्यार्थ्याचे गुणात्मक मापन करण्यासाठी शारीरिक शिक्षण आणि क्रीडेमध्ये जी मुल्यमापनाची साधने आहेत त्यात पदनिश्चयन श्रेणी हे क्रीडा कौशल्यांचे मापन करण्यासाठी अतिशय उपयुक्त व विश्वसनीय साधन मानले जाते. या द्वारे विद्यार्थ्याचे कृती मुल्यमापन केले जाते (आहेर श. शं. २००९).

६ संख्याशास्त्रीय साधने

प्रस्तुत संशोधनाचे संख्याशास्त्रीय विश्लेषण करण्यासाठी वर्णात्मक सांख्यिकी मधील पुढील साधनाचा उपयोग केला आहे. मध्यमान, प्रमाण विचलन, सहसंबंध सहगुणक , स्वाश्रयी " टी " परीक्षिका

कोष्ठक क्र.९:- स्थानांतरणीय कौशल्य प्राप्तांकांचे वर्णनात्मक सांख्यिकीय विश्लेषण

गट	स्थानांतरणीय कौशल्य	एकुण विद्यार्थी	पश्चात चाचणी व पुर्व चाचणी मध्यमानातील फरक	प्रमाण विचलण
प्रायोगिक गट	उभ्याने लांब उडी मारणे	80	१६.०२	8.63
नियंत्रित गट	-	४०	१.३२	୪.ୡ७
प्रायोगिक गट	चालणे	80	98.30	५.३४
नियंत्रित गट		80	3.00	8.77
प्रायोगिक गट	धावणे	80	9६.३७	४.५६
नियंत्रित गट		80	२.४२	3.90
प्रायोगिक गट	लंगडी	80	१६.२५	४.६५
नियंत्रित गट		80	૧.૭५	३.९५
प्रायोगिक गट	ढांगा टाकणे	80	୩२.७७	५.४५
नियंत्रित गट		80	-3.30	३.९३
प्रायोगिक गट	स्किपिंग	80	१२.६५	५.५६
नियंत्रित गट		80	-२.७२	3.87
प्रायोगिक गट	घसरणे	80	१८.५२	६.४३
नियंत्रित गट		80	.७७	५.२९
प्रायोगिक गट	घौडदौड	80	१९.६७	4.&9
नियंत्रित गट		80	રૂ.૧५	४.१३

स्थानांतरणीय कौशल्यच्या प्रायोगिक व नियंत्रित गटाची पश्चात चाचणी व पुर्व चाचणी मध्यमानातील फरक दर्शविणारा आलेख



कोष्ठक क्र.२:- स्थानांतरणीय कौशल्याच्या प्रायोगिक आणि नियंत्रित गटाच्या प्राप्तांकाची 'टी' परिक्षिकेद्वारे तुलना, DF = ७८.

	स्थानांतरणीय कौशल्य	Levene's समांतर प्रसरण कसोटी		मध्यमानाच्या समनतेसाठी टी कसोट			न्सोट
		एफ मुल्य	सार्थक स्तर	टी मुल्य	स्वाधिनता मात्रा	सार्थकता स्तर	मध्यमानातील फरक
समान प्रसरण गृहीत धरलेले असताना	उभ्याने लांब उडी मारणे	0.278	०.५९६	93.69	50	0.09	98.0
समान प्रसरण गृहीत धरलेले नसताना				93.69	७७.९०	0.009	98.0
समान प्रसरण गृहीत धरलेले असताना	चालणे	୧.୪६७	0.920	98.28	50	0.09	୩ୡ.३७
समान प्रसरण गृहीत धरलेले नसताना				98.29	७७.३७	0.09	୩ୡ.३७
समान प्रसरण गृहीत धरलेले असताना	धावणे	୧.୪६७	०.१२०	98.28	96	0.09	9६.३७
समान प्रसरण गृहीत धरलेले नसताना	-			98.&८	७६.२१	0.09	૧૨.૬૫
समान प्रसरण गृहीत धरलेले असताना	लंगडी	૧.૦૧૫	0.390	૧५.૦૧૪	90	0.09	98.40
समान प्रसरण गृहीत धरलेले नसताना				94.098	હદ્	0.009	98.40
समान प्रसरण गृहीत धरलेले असताना	ढांगा टाकणे	३.८२३	०.०५४	१५.१९५	96	0.09	૧૬.૧૫
समान प्रसरण गृहीत धरलेले नसताना				१५.१९५	60	0.009	૧૬.૧૫
समान प्रसरण गृहीत धरलेले असताना	स्किपिंग	99.009	0.09	१४.८०२	७८	0.09	૧५.३७
समान प्रसरण गृहीत धरलेले नसताना				१४.८०२	દ્વપ	0.009	૧५.३७
समान प्रसरण गृहीत धरलेले असताना	घसरणे	૧.૬૪૫	०.२०३	୩३.୪७५	90	0.09	૧७.७५
समान प्रसरण गृहीत धरलेले नसताना				୩३.୪७५	હવ	0.009	૧७.७५
समान प्रसरण गृहीत धरलेले असताना	घौडदौड	୩.୧६७	०.१६९	98.682	66	0.09	૧૬.५૨
समान प्रसरण गृहीत धरलेले नसताना				98.682	७१	0.009	૧૬.५૨

७ सारांश

प्रस्तुत संशोधनात संशोधकाने ''पुणे शहरातील ५ ते ६ वर्षे वयोगटातील विद्यार्थ्यांच्या स्थानांतरणीय कौशल्यांच्या दर्जाची सद्यस्थिती तपासणे व विशिष्ठ प्रशिक्षण कार्यक्रमांचा स्थानांतरणीय कौशल्यांवर होणाऱ्या परिणामांचा अभ्यास''. हे उदिष्टे ठरवले होते. प्रथम पुणे शहरातील ५ ते ६ वर्षे वयोगटातील विद्यार्थ्यांच्या स्थानांतरणीय कौशल्यांच्या दर्जाची सद्यस्थितीचे मुल्यमापन केले व विशिष्ठ प्रशिक्षण कार्यक्रम देण्यापुर्वी पूर्व चाचणी घेतली नतंर प्रशिक्षण दररोज एक तास दिले आणि बारा आठवडचाचे प्रशिक्षण संपल्यावर पुन्हा उत्तर चाचणी घेण्यात आली. नियंत्रीत गटावर सार्थक परिणाम आढळुन आला नाही, प्रायोगिक गटावर सार्थक परिणाम झालेला दिसुन आला.

८ निष्कर्ष

- 9. पुणे शहरातील ५ ते ६ वयोगटातील विद्यार्थ्यांच्या स्थानांतरणीय कौशल्यांच्या दर्जाची सद्यस्थिती तपासली असता उभ्याने लांब उडी मारणे, चालणे, धावणे, लंगडी, ढांगा टाकणे, स्किपिंग, घसरणे आणि घौडदौड स्थानांतरणीय कौशल्यांची सद्यस्थितीचा स्तर हा साधारण, कमी व कमीत कमी होता.
- विशिष्ठ प्रशिक्षण कार्यक्रमाचा पुणे शहरातील ५ ते ६ वर्षे वयोगटातील विद्यार्थ्यांच्या उभ्याने लांब उडी मारणे या स्थानांतरणीय कौशल्यामध्ये विकासात्मक परिणाम झाल्याचे आढळुन आले.
- विशिष्ठ प्रशिक्षण कार्यक्रमाचा पुणे शहरातील ५ ते ६ वर्षे वयोगटातील विद्यार्थ्यांच्या चालणे या स्थानांतरणीय कौशल्या मध्येविकासात्मक परिणाम झाला.
- विशिष्ठ प्रशिक्षण कार्यक्रमाचा पुणे शहरातील ५ ते ६ वर्षे वयोगटातील विद्यार्थ्यांच्या धावणे या स्थानांतरणीय कौशल्यामध्ये विकास झाला.
- प. विशिष्ठ प्रशिक्षण कार्यक्रमाचा पुणे शहरातील ५ ते ६ वर्षे वयोगटातील विद्यार्थ्यांच्या लंगडी या स्थानांतरणीय कौशल्यामध्ये विकासात्मक परिणाम झाल्याचे आढळुन आले.
- ६. विशिष्ठ प्रशिक्षण कार्यक्रमाचा पुणे शहरातील ५ ते ६ वर्षे वयोगटातील विद्यार्थ्यांच्या ढांगा टाकणे या स्थानांतरणीय कौशल्यामध्ये विकासात्मक परिणाम होतो.
- ७. विशिष्ठ प्रशिक्षण कार्यक्रमाचा पुणे शहरातील ५ ते ६ वर्षे वयोगटातील विद्यार्थ्यांच्या स्किपिंग या स्थानांतरणीय कौशल्या मध्ये विकासात्मक परिणाम झाल्याचे आढळुन येते.
- ८. विशिष्ठ प्रशिक्षण कार्यक्रमाचा पुणे शहरातील ५ ते ६ वर्षे वयोगटातील विद्यार्थ्यांच्या घसरणे या स्थानांतरणीय कौशल्या मध्ये विकासात्मक परिणाम झाल्याचे आढळून आले.
- विशिष्ठ प्रशिक्षण कार्यक्रमाचा पुणे शहरातील ५ ते ६ वर्षे वयोगटातील विद्यार्थ्यांच्या घौडदौड या स्थानांतरणीय कौशल्या मध्ये विकासात्मक परिणाम झाला.

९ शिफारशी

- 9. प्रमाणित केलेली पदनिश्चयन श्रेणीचा पुढील संशोधनासाठी वापर करावा.
- २. विशिष्ठ प्रशिक्षण कार्यक्रम स्थानांतरणीय कौशल्याच्या विकासासाठी वापरण्यात यावा.

पुणे शहरातील पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या पुरुष यांच्या पुरुषांचे बी.एम.आय, बॉडी फॅट परसेंट व शारीरिक स्वसंकल्पनांचा तुलनात्मक अभ्यास

डॉ. श्रीकांत महाडीक , सहा.प्राध्यापक चंद्रशेखर आगाशे शारीरिक शिक्षण महाविद्व्यालय,गुलटेकडी,पुणे. अमोल घोडके,एम.फिल् विद्वार्थी

संशोधन सारांश

समाजातील व्यक्ती अरोग्य चांगले राहण्यासाठी प्रेरित झालेला आहेत. तसेच व्यक्ती जवळ असलेल्या जीम व निसर्गरम्य ठिकाणी व्यायाम करण्यासाठी जात आहेत. अशीच परंमपरा पुण्यामध्ये दिसत आहे त्यामुळे पुणे शहरातील पर्वती व सारसबाग येथे व्यायाम करण्यासाठी ओळखली जात आहे. त्यामुळे संशोधकाने पुणे शहरातील पर्वती व सारसबाग या ठिकाणी व्यायामांला येणाऱ्या पुरुषांची अभ्यासासाठी निवड केली आहे.

पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या ६६ पुरुषांची एैच्छिक पध्वतीने निवड करण्यात आली. तसेच पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या ६६ पुरुषांची बी.एम.आय व बॉडी फॅट परसेंट मापन करण्यात आले. व शारीरिक स्वसंकल्पना चाचणी प्रश्नावली घेण्यात आली, या नंतर संख्याशास्त्रीय विश्लेषन करण्यासाठी संख्याशास्त्रीय साधनांचा वापर केला तसेच मिळालेल्या प्राप्तांकांचे विश्लेषन करण्यासाठी मध्यमान, प्रमान विचलन, टी मुल्ये, मध्यमानातील प्रमाण त्रुटी पध्वती वापरण्यात आली आहे. यावरुन पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या पुरुष यांच्या शारीरिक स्व:संकल्पना कसोटीतील मध्यमानात संख्याशास्त्रीय दृष्टीकोनातुन ०.०५ सार्थकता स्तरावर फरक दिसुन आला. तसेच पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या पुरुष यांच्या बी.एम.आय व बॉडी फॅट परसेंट मधील मध्यमानात संख्याशास्त्रीय दृष्टीकोनातुन ०.०५ सार्थकता स्तरावर फरक दिसुन येत नाही असे सिध्द झाले.

महत्वाचे शब्द : पर्वती व सारसबाग , बी.एम.आय ,बॉडी फॅट परसेंट व शारीरिक स्वसंकल्पना चाचणी प्रश्नावली

प्रस्तावना

पर्वतीची समुद्र सपाटीपासूनची उंची सुमारे २१०० फूट व पूणे शहर समुद्र सपाटीपासून २६० फूट आहे व पर्वतीवर जाण्यासाठी १०३ दगडी पायऱ्या आहेत. दगडकामाचा एक उत्कृष्ट नमूना म्हणून या पायऱ्यांच्या बांधकामाकडे बघता येईल. त्यांची लांबी,रुंदी,उंची यांच्या लयबध्द रचनेमुळे वृध्द व्यक्तीही या पायऱ्या हळुहळू चढून वर जाताना दिसतात. यावरुन चढणे - उतरणे किती सुखद असू शकते हे आपल्या लक्षात येईल. त्यामूळेच तर पर्वती सलग कित्येक तास कित्येक वेळी चढणे - उतरणेचा विक्रम करणारि अनेक "विक्रम वीर" या पुणे शहरात निर्माण होऊ शकले. पुणेकर नागरिकांचा दिनक्रम येथे भेट दिल्याशिवाय सुरुच होत नाही. तसेच एकाच वेळी निसर्ग, आरोग्य व अध्यात्म या मानवी जीवनासाठी आवश्यक असलेल्या त्रिसूत्रीचा उत्तम मेळ घातले गेलेले असे हे ठिकाण म्हणजे ऐतिहासिक पर्वती टेकडी.(ढवळे,२००२) तसेच सारसबागेत चालण्यासाठी ८०० मी सपाट टूॅक आहे. सारसबागेतील निसर्गमय वातावरणात चालण्याचा सुखद आनंद घेणारे नागरिकांच आपणास दिसतील. आबालवृध्दांनी भेट दचावी व एक निसर्गरम्य टिकाण पुण्यामध्ये असून व्यायामाच्या निमित्ताने या सारसबागेत वर्षानुवर्षे भेट देणारे अनेक पुणेकर नागरिकांचा दिनक्रम येथे भेट दिल्याशिवाय सुरुच होत नाही. पुण्याची सारसबाग म्हणजे सर्वसामान्य नागरिकांचे सहज फिरण्याचे ठिकाण असून,येथील हिरवीगार वृक्ष, निसर्गमय वातावरण,आल्हाददायक वारा, स्वच्छ हवा व तळचातला सिध्दिविनायक असा कित्येक गोष्टी झटकन नजरेसमोर येतात. सारसबागेत भेट दिली नाही. असा पुणेकर नागरिक शोधूनही सापडणार नाही या सारसबागेचे वैशिष्टचे म्हणजे शहराच्या वेगवेगळचा भागांतून व्यायामाचा आनंद घेण्यासाठी मोठ्या प्रमाणात सकाळ व संध्याकाळी गर्दी दिसते (नूलकर, १९६६) त्यामुळे संशोधकाने पूर्ण शहरातील पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या पूरुष यांच्या बी.एम.आय, बॉडी फॅट परसेंट व शारीरिक स्वःसंकल्पना या घटकांचा तुलनात्मक अभ्यास केला.

संशोधन पध्दती

सदर संशोधनासाठी संशोधकाने वर्णनात्मक सर्वेक्षण (सहसंबंधात्मक) संशोधन पध्दतीचा अवलंब केला आहे. पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या ६६ पुरुषांची एैच्छिक पध्दतीने निवड करण्यात आली. तसेच पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या ६६ पुरुषांची बी.एम.आय व बॉडी फॅट परसेंट मापन करण्यात आले. व शारीरिक स्वसंकल्पना चाचणी प्रश्नावली घेण्यात आली,

न्यादर्श

पुणे शहरातील पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या पुरुष या व्यायाम प्रेमीची जनसंख्या जास्त आहे. या जनसंख्येतील ६६ पुरुषांची प्रस्तुत संशोधनात समावेश केला आहे. पर्वती वरिल ३३ पुरुष व सारसबाग मधील ३३ पुरुष असे एकुण ६६ पुरुषांची ऐच्छिक पध्दतीने न्यादर्श निवड करण्यात आली.

सामुग्रीचे संख्याशास्त्रीय विश्लेषण

प्रस्तुत संशोधनात संशोधकाने पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या व्यक्तीच्या स्थुलतेचा व शारीरिक स्व:संकल्पनेच्या घटकांच्या कसोट्चांच्या आधारे आलेल्या प्राप्ताकाचे सादरीकरण कोष्टक क्र १.१ ते १.४ मध्ये केले आहेत.

कोष्टक क्र १.१

पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या पुरुष यांच्या बी.एम.आय कसोट्यांच्या प्राप्ताकाचेटी मुल्ये.

	मध्यमान	-1	स्वाधीनता	सार्थता
	फरक	टा मुल्य	मात्रा	स्तर
बी.एम.आय कसोटी	9.968	०.८५६	६४	०.८८५

कोष्टक क्र २.१ मध्ये पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या पुरूष यांच्या बी.एम.आय कसोटीच्या प्राप्ताकांच्या संख्याशास्त्रीय विश्लेषणावरुन लक्षात येते की दोन्ही गटांच्या बी.एम.आय कसोटीच्या मध्यमानात १.१८४इतका फरक आहे.परंतु हा फरक सार्थक आहे का नाही हे तपासण्यासाठी टी टेस्ट परिक्षेकेचा वापर केला. बी.एम.आय कसोटीचे प्राप्त टी मुल्ये ०.८५६ इतके आहे. या वरुन असे निष्कर्ष काढता येतो की पर्वती व सारसबाग येथे चालणाऱ्या पुरूष यांच्या बी.एम.आय कसोटीच्या मध्यमानात सार्थक फरक नाही. t(६४)= ०.८५६, p = ०.८८५. (i.e p**>**0.०५)

कोष्टक क्र १.२

पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या पुरुष यांच्या बॉडी फॅट परसेंट कसोट्यांच्या प्राप्ताकाचे टी मुल्ये.

	मध्यमान फरक	टी मुल्ये	स्वाधीनता मात्रा	सार्थता स्तर
बॉडी फॅट परसेंट कसोटी	०.९६०	०.५९९	६४	૦.५५૧

कोष्टक क्र 9.२ मध्ये पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या पुरूष यांच्या बॉडी फॅट परसेंट कसोटीच्या प्राप्ताकांच्या संख्याशास्त्रीय विश्लेषणावरुन लक्षात येते की दोन्ही गटांच्या बी.एम.आय कसोटीच्या मध्यमानात ०.९६० इतका फरक आहे.परंतु हा फरक सार्थक आहे का नाही हे तपासण्यासाठी टी टेस्ट परिक्षेकेचा वापर केला. बॉडी फॅट परसेंट कसोटीचे प्राप्त टी मुल्ये ०.५९९ इतके आहे. या वरुन असे निष्कर्ष काढता येतो की पर्वती व सारसबाग येथे चालणाऱ्या पुरूष यांच्या बॉडी फॅट परसेंट कसोटीच्या मध्यमानात सार्थक फरक नाही. t(६४)= ०.५९९, p=०.५५٩. (i.e p**>**0.०५)

कोष्टक क्र १.३

पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या पुरुष यांच्या शारीरिक स्वःसंकल्पना कसोट्यांच्या प्राप्ताकाचे टी मुल्ये.

	मध्यमान		स्वाधीनता	सार्थता
	फरक	टी मुल्ये	मात्रा	स्तर
शारीरिक स्वःसंकल्पना कसोटी	-3.30	-3.008	६४	.008

कोष्टक क्र 9.३ मध्ये पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या पुरूष यांच्या शारीरिक स्व:संकल्पना कसोटीच्या प्राप्ताकांच्या संख्याशास्त्रीय विश्लेषणावरुन लक्षात येते की दोन्ही गटांच्या शारीरिक स्व:संकल्पना कसोटीच्या मध्यमानात -३.३० इतका फरक आहे.परंतु हा फरक सार्थक आहे का नाही हे तपासण्यासाठी टी टेस्ट परिक्षेकेचा वापर केला. शारीरिक स्व:संकल्पना कसोटीचे प्राप्त टी मुल्ये -३.००४ इतके आहे. या वरुन असे निष्कर्ष काढता येतो की पर्वती व सारसबाग येथे चालणाऱ्या पुरूष यांच्या शारीरिक स्व:संकल्पना कसोटीच्या मध्यमानात सार्थक फरक आहे. t(६४)=-३.००४, p=0.00४. (i.e p<0.04)

कोष्टक क्र १.३

पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या पुरुष यांच्या शारीरिक स्वःसंकल्पना कसोट्यांच्या प्राप्ताकाचे टी मुल्ये

	मध्यमान फरक	टी मुल्ये	स्वाधीनता मात्रा	सार्थता स्तर
शारीरिक स्वःसंकल्पना कसोटी	-3.30	-3.008	६४	.008

कोष्टक क्र 9.३ मध्ये पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या पुरूष यांच्या शारीरिक स्व:संकल्पना कसोटीच्या प्राप्ताकांच्या संख्याशास्त्रीय विश्लेषणावरुन लक्षात येते की दोन्ही गटांच्या शारीरिक स्व:संकल्पना कसोटीच्या मध्यमानात -३.३० इतका फरक आहे.परंतु हा फरक सार्थक आहे का नाही हे तपासण्यासाठी टी टेस्ट परिक्षेकेचा वापर केला. शारीरिक स्व:संकल्पना कसोटीचे प्राप्त टी मुल्ये -३.००४ इतके आहे. या वरुन असे निष्कर्ष काढता येतो की पर्वती व सारसबाग येथे चालणाऱ्या पुरूष यांच्या शारीरिक स्व:संकल्पना कसोटीच्या मध्यमानात सार्थक फरक आहे. t(६४)=-३.००४, p=0.00४. (i.e p<0.04)

प्रमुख निरीक्षण

- पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या पुरुष यांच्या बी.एम.आय कसोटीतील मध्यमानात संख्याशास्त्रीय दृष्टीकोनातुन ०.०५ सार्थकता स्तरावर फरक दिसुन येत नाही. म्हणजे हे दोंन्ही गट बी.एम.आय कसोटीच्या कार्यमानाबाबतीत संख्याशास्त्रीय दृष्टीकोनातुन समान नाहीत.
- पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या पुरुष यांच्या बॉडी फॅट परसेंट कसोटीतील मध्यमानात संख्याशास्त्रीय दृष्टीकोनातुन ०.०५ सार्थकता स्तरावर फरक दिसुन येत नाही. म्हणजे हे दोंन्ही गट बॉडी फॅट परसेंट कसोटीच्या कार्यमानाबाबतीत संख्याशास्त्रीय दृष्टीकोनातुन समान नाहीत.

 पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या पुरुष यांच्या शारीरिक स्व:संकल्पना कसोटीतील मध्यमानात संख्याशास्त्रीय दृष्टीकोनातुन ०.०५ सार्थकता स्तरावर फरक दिसुन आला. म्हणजे हे दोंन्ही गट शारीरिक स्व:संकल्पना कसोटीच्या कार्यमानाबाबतीत संख्याशास्त्रीय दृष्टीकोनातुन समान आहेत.

चर्चा

प्रस्तुत संशोधनामध्ये पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या पुरूष यांच्या बी.एम.आय व बॉडी फॅट परसेंट संख्याशास्त्रीय सार्थक फरक दिसुन आला नाही. ढमढरे पल्लवी हिने ३० ते ४० वयोगटातील शिक्षकांचे असाच प्रकारचा अभ्यास केला व त्यांच्या बी.एम.आय व बॉडी फॅट परसेंट मध्ये सार्थक फरक दिसुन आला ,कारण कि संशोधकंने पुरुष व महिला यांचे बी.एम.आय व बॉडी फॅट परसेंट यांचा तुलनात्मक अभ्यास केला आहे.तसेच संशोधक अजय गायकवाड यांनी शालेय तांक्योंन्दो खेंळाडूंचा शारीरिक स्व:संकल्पना अभ्यास केला व त्यांची शारीरिक स्व:संकल्पना योग्य प्रमाणात दिसुन आली पंरतु प्रस्तुत संशोधनामध्ये असे तपास करण्यात नाही आले.

शिफारशी

- पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या व्यक्तीच्या स्थुलता या घटकावर अधीक लक्ष केंद्रित करावे.
- पर्वती व सारसबाग येथे व्यायामांला येणाऱ्या व्यक्तीच्या शारीरिक स्वसंकल्पना या घटकावर अधीक लक्ष केंद्रित करावे.

संदर्भ सूची

अजय रामचंद्र गायकवाड(२०११) "पुणे शहरातील तायक्वोंदो फेडरेशन ऑफ इडीयाशी संल्लग्न असलेल्या व नसलेल्या संस्थाच्या खेळाडुंच्या कारककौशल्य, स्वसंकलपना व शैक्षणिक कार्यमान यांचा तुलनात्मक अभ्यास" अप्रकाशित एम.एड(शा.शि) पुणे विद्यापिठास सादर.

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नूलकर.व.कृ(१९६६) सारसबाग मंदीर व इतिहास.पुणे.

आहेर शरद शंकर (२००८) *स्थुल मुलांच्या मानसिक आरोग्य, शैक्षणिक कामगिरी आणि शारीरिक सुदृढता घटक या मध्ये असणाऱ्या संबंधाचा अभ्यास*.पी.एच.डी.(शारीरिक शिक्षण) पदवीकरीता पुणे विद्यापिठास सादर केलेला प्रबंध.

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ढमढेरे पल्लवी(२००९) *पुणे शहरातील उच्च माध्यमिक शाळेतील ३० ते ४० वयोगटातील शिक्षकांच्या शरीर संघटनेचा अभ्यास.* अप्रकाशित एम.एड(शा.शि)पदवीकरीता पुणे विद्यापिठास सादर केलेला प्रबंध, पुणे.

सचिन पिंगळे(२०११) *पुणे शहरातील २० ते २५ वर्ष वयोगटातील कराटे खेळाडूच्या शरीर संघटनेचा अभ्यास*, अप्रकाशित एम.एड(शा.शि) पुणे विद्यापिठास सादर केलेला प्रबंध. दांडेकर,वा.ना.(१९७०) *"शैक्षणिक व प्रायोगिक मानसशास्त्र "* पुणे आणि कोल्हापूर.

विक्रमसिंह नागरे(२०१०) *पुणे शहरातील कुस्ती गिराच्या शरीरातील चरबीचे प्रमाणाचा व कुस्ती* खेळातील नैपुण्याचा सहसंबंधात्मक अभ्यास.अप्रकाशित एम.एड(शा.शि)पदवीकरीता पुणे विद्यापिठास सादर केलेला प्रबंध.

शिंदे अनंद(२०१०) *निवडक व्यायाम प्रशिक्षणाचा स्थुल व्यक्तीच्या स्थुलतेवर होणारा परिणामाचा अभ्यास,* अप्रकाशित एम.एड(शा.शि)पदवीकरीता पुणे विद्यापिठास सादर केलेला प्रबंध.

शिवाजी विद्यापीठ आंतरविभागीय फुटबॉल खेळाडुंच्या स्पर्धेपुर्वीच्या चिंतेचा अभ्यास

जितेंद्र राजाराम चौगुले एम.पी.एड. एम.फिल. क्रीडा शिक्षक, सिंहगड संस्थेचे, आर.एम.डी. स्प्रींगडेल स्कूल वारजे पुणे. प्रशांत बिभीषण पाटील एम.पी.एड. एम.फिल. शारीरिक शिक्षण संचालक, श्री. शहाजी छ. महाविद्यालय, कोल्हापुर

प्रास्ताविक

यशाचा होकारात्मक व अपयशचा नकारात्मक परिणाम खेळाडुंचा कार्यमानावर दिसुन येतो. अपेक्षित ध्येय गाठता आले नाही. त्यानंतर मनाचा ताणही कमी झाला नाही. तर त्यांची कार्याची प्रेरणाच निघुन जाते. तो इतरासमोर खेळायला किंवा क्रीडाप्रकार सादर करायला नको म्हणु लागतो. आधुनिक युगातील स्पर्धात्मक वातावरणामुळे चिंतेची पातळी खुपच वाढलेली आहे.म्हणुनच २०व्या शतकाला 'चितेचे (काळजीचे) युग'असे संबोधले जाते. मनाची बिघडलेली अवस्था, बिघडलेला भावनिक प्रतिसाद असमाधान, काळजीयुक्तता म्हणजेच चिंता होय. कोणत्याही स्पर्धेमध्ये यशस्वी होण्यासाठी चिंतेची गरज ही असतेच. पण ती एका ठराविक काळापर्यंतच! ती पातळी जर चिंतेने ओलांडली तर खेळाडुला अपयशाला सामोरे जावे लागण्याशिवाय पर्याय राहत नाही.

संशोधनाची उद्दिष्ट:

शिवाजी विद्यापिठांतर्गत्ंतरविभागीय फुटबॉल खेळाडूंचा स्पर्धेवेळी रेनर मार्टीन्स यांची प्रमाणित कॉम्पिटेटिव्ह एंझायटी इन्व्हेंटरी चाचणीद्वारे चिंतेचा स्तराचा अभ्यास करणे.

संशोधनाची परिकल्पनाः

शिवाजी विद्यापिठांतर्गत आंतरविभागीय फुटबॉल खेळाडुंची स्पर्धेपुर्वी असणारी बोधात्मक चिंता कमीत-कमी असेल.

संशोधनाची परिकल्पनाः

शिवाजी विद्यापिठांतर्गत आंतरविभागीय फुटबॉल खेळाडुंची स्पर्धेपुर्वी असणारी बोधात्मक चिंता कमीत-कमी असेल.

संशोधनाची पद्धत:

प्रस्तुत संशोधनात संशोधकाने 'शिवाजी विद्यापीठ आंतरविभागीय फुटबॉल खेळाडुंच्या स्पर्धेपुर्वीच्या चिंतेचा अभ्यास.'या समस्येचा अभ्यास करताना वर्णनात्मक संशोधन पद्धतीतील सर्वेक्षण पद्धतीचा अवलंब केला आहे.

जनसंख्या आणि न्यादर्श:

प्रस्तुत संशोधनासाठी संशोधकाने 'शिवाजी विद्यापीठ आंतरविभागीय फुटबॉल खेळाडुंच्या स्पर्धेपुर्वीच्या चिंतेचा अभ्यास.' या अभ्यासासाठी आंतरविभागीय फुटबॉलचा नऊ संघांचा व त्या संघातील १४० खेळाडूंची निवड केली आहे.

संशोधनाची साधने:

प्रस्तुत संशोधनासाठी संशोधकानेरेनर मार्टीन्स यांची प्रमाणित कॉम्पिटेटिव्ह स्टेट एंझायटी इन्व्हेंटरी चाचणीचा उपयोग माहिती संकलनासाठी केला. ही माहिती इंग्रजी भाषेत असल्यामुळे तिचे मराठीकरण करण्यासाठी शिवाजी विद्यापीठचा तीन मानसशास्त्रज्ञांची मदत घेतली. संशोधकाचा मार्गदर्शकाच्या मते त्या चाचणीला अंतीम स्वरुप देण्यात आले. याचाचणीमध्ये बोधात्मक चिंतेचा ९ घटक शोधिका आहेत. प्रत्येक शोधिकेचे उत्तर अजिबात नाही (Not at all) थोड्या प्रमाणात (So much) बऱ्यापैकी प्रमाणात (Moderately so) खुपच प्रमाणात (Very much) अशा स्वरुपात संकलन केले.

					1 404
अ.	মনক	अजिबात	थोड्या	बऱ्यापैकी	खुपच
न.		नाही	प्रमाणात	प्रमाणात	प्रमाणात
٩	मला या स्पर्धेविषयी काळजी वाटते.	٩	ર	Ş	8
ર	मला निराशा वाटते.	٩	2	3	8
Ş	मला निवांत वाटते.	٩	2	3	8
8	मी स्वत:बद्दल साशंक आहे.	٩	2	3	8
બ	मला घाबरल्यासारखे वालते.	٩	ર	3	8
દ્દ	मला सुखावह वाटते.	٩	ર	3	8
	मी जेवढे करू शकतो तेवढे				
9	स्पर्धेत मी करु शकेन का? या	9	२	3	8
	विषयी मला काळजी वाटते.				
L	मला शरीराला ताण वाटतो.	9	ર	3	8
٩	मला आत्मविश्वास जाणवतो.	٩	ર	3	8

रेनर मार्टीन्स यांची कॉम्पिटेटिव्ह स्टेट एंझायटी इन्व्हेंटरी या शोधिकेतील घटक

सांख्यिकी:

प्रस्तुत संशोधनात संशोधकाने निवडलेला चाचणीद्वारे माहितीचे विश्लेषण करण्यासाठी मध्यमान, मध्यगा, प्रमाण विचलन, वारंवारीता या केंद्रीय प्रवृत्तीचा परिणामांचा एस.पी.एस.एस या सॉफ्टवेअर प्रणालीद्वारे उपयोग केला आहे.

१४० खेळाडुंचे चिंतेचे प्राप्तांकाचे पृथकरण बोधात्मक चिंता:

मध्यमान	२०.२९
मध्यगा	२० _. ००
कमीत-कमी	8.88
जास्तीत-जास्त	38.00

परिकल्पनांचे परिक्षण व चर्चा बोधात्मक चिंता:

शिवाजी विद्यापीठ आंतरविभागीय फुटबॉलचा १४० खेळाडूंपैकी १३० खेळाडूंना बोधात्मक चिंता आढळुन आली. त्यामधिल ११५ खेळाडूंना मध्यम स्वरूपाची. १५ खेळाडूंना उच्च स्तराची, बोधात्मक चिंता आढळुन आली. केवळ १० खेळाडूंना कमी स्तराची चिंता आढळुन आली.

परिकल्पनेचे परिक्षण:

वरील विश्लेषणाद्वारे ''आंतर विभागीय फुटबॉल खेळाडुंची स्पर्धेपुर्वी असणारी बोधात्मक चिंता कमीत-कमी असेल या परिकल्पनेचा त्याग केला आहे''.

प्रमुख शोध

बोधात्मक चिंता:

शिवाजी विद्यापीठ आंतरविभागीय फुटबॉलचा १४० खेळाडूंपैकी १३० खेळाडूंना बोधात्मक चिंता आढळुन आली. त्यामधिल ११५ खेळाडूंना मध्यम स्वरूपाची. १५ खेळाडूंना उच्च स्तराची, बोधात्मक चिंता आढळुन आली. केवळ १० खेळाडूंना कमी स्तराची चिंता आढळुन आली.

निष्कर्ष:

प्रस्तुत संशोधनात शिवाजी विद्यापीठ आंतरविभागीय फुटबॉल खेळाडूंचा स्पर्धेपुर्वी असनारा चिंतेचा स्तर तपासण्यात आला. संशोधन अभ्यासातुन असे निदर्शनास आले की, शिवाजी विद्यापीठ आंतरविभागीय स्पर्धेतील फुटबॉल खेळाडूंची स्पर्धेपुर्वीची बोधात्मक चिंतेचा स्तर, उच्च स्तरावर आढळून आला.

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