

Effect of Hockey Multi-Compo Fitness (MCF) Program on Physical Fitness & Performance of Hockey Players

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ABSTRACT

To be successful in field sports such as hockey, players need to be enhancing some multicompo fitness like strength, speed and agility. The purpose of this study was to investigate the effect of hockey multi-compo fitness program on physical fitness & performance of hockey players. Twelve female subjects (aged 17 to 21) participated in this study. 30-meter sprint, 1RM Bench Press, explosive power, handgrip strength, SBJ, 505 agility, bent sit ups were measured. And In skill test 20 meter dribbling g, 505 agility with ball, push pass distance, scoop distance were measured. At the end of measurements, there was a significant differences in all test except 2 tests i.e 20 meter dribbling and push pass. Results suggest that regular participation to hockey training programs improves speed, agility and lower- and upper-extremity strength in young females.

Keywords : Fitness program, performance, hockey

Introduction

Field hockey, or simply hockey, is a team sport of the hockey family. The game can be played on a grass field or a turf field. The game of field hockey is played between two teams of eleven players including the goalie Short sticks made out of wood or fibre glass are used to hit a round, hard, rubber like ball. There are no left hand sticks in field hockey, and only one side of the stick is allowed to be used. The uniform consist of shin-guards, cleats, skirts or shorts, and a jersey. At the turn of the 21st century, the game is played globally, with particular popularity throughout Western Europe, Asia, Argentina and Oceania - in addition to being the national sport of

Pakistan. Hockey is assumed to be India's national sport as stated in some books however officially India does not have a national sport. The term "field hockey" is used primarily in Canada, the United States, Eastern Europe and other regions of the world where the sport of ice hockey is more popular.

During play, goal keepers are the only players who are allowed to touch the ball with any part of their body (the player's hand is considered 'part of the stick'), with this only applying within the shooting circle (also known as the D, or shooting arc, or just the circle), while field players play the ball with the flat side of their stick. The team that scores the most goals by the end of the match wins. If the score is tied at the end of the game, either a draw is declared or the game goes into extra time and/or a penalty shootout, depending on the competition's format.

Field hockey requires speed, quickness, explosive power, as well as strong aerobic endurance. A solid aerobic endurance base will help a field hockey player with the repetitive series of high intensity movements and exercise required to play at a high level.

In MM.JJ Hockey Academy girls seem lack in their ability to hit, push, scoop and drag the ball with strength for a distance. That seems to be one of the issues which need to be addressed to with regards to improving the performance of the girls of MM.JJ Hockey Academy. So the researcher has intended to develop an eight weeks Hockey Multi-Compo Fitness (MCF) Program to improve the physical fitness and performance of hockey girls' age between 17 to 21.

Procedure of the study

It is an experimental research which is going to conducted with the purpose to find out the effect of 8 weeks hockey Hockey MCF Program on Hockey player age between 17 to 21 year old.

The researcher selected 12 female hockey players from Maharashtra Mandal JJ hockey Academy, Pune and going to conduct pre-test then going to implement 8 week teacher made hockey Hockey MCF Program on selected women hockey player.

The researcher going to take one group pre-test post-test by using tool of the test.

On completion of training program post-test will be conducted on the players.

After Collection of data it will be analysed statistically to see the effect of 8 weeks Hockey MCF Program.

Analysis and Interpretation

The collected data was analyzed with the help of statistical techniques such as descriptive statistics.

Table No.1.1 : (Fitness Test)

	30m Dash		505 Agility		Hand grip Right		Hand grip Left		Bent Knee Sit-ups		1RM Chest Press (Kg)		SBJ	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Mean	5.8	5.5	3.5	3.3	18.3	21.6	17.4	20.5	25.3	28.3	12.5	17.0	1.6	1.7
Median	5.8	5.3	3.6	3.3	18.5	23.5	18.0	20.5	26.0	28.5	12.0	17.5	1.6	1.7
S D	0.6	0.5	0.4	0.3	4.6	5.5	5.7	6.7	4.5	5.4	2.3	4.4	0.2	0.2
Min	5.0	4.9	3.0	2.9	10.0	13.0	8.0	10.0	19.0	21.0	7.5	7.5	1.4	1.4
Max	7.4	6.5	3.9	3.8	24.0	29.0	27.0	29.0	32.0	37.0	15.0	22.5	2.0	2.1

Table No.2.1 : (Skill Test)

	20m Dribbling		505 Agility Turning with ball		Push Pass		Scoop	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Mean	4.81	4.73	4	3.8	50	52	10.5	14.4
Median	4.75	4.57	4.1	3.9	49.8	51	11	14
S D	0.66	0.62	0.6	0.5	13.4	14	7.76	5.51
Min	4.1	4.11	3.3	3.1	32	35	0	8
Max	6.32	5.91	5	4.8	71.2	74	20.8	22.6

Major Findings

- Improvement is dependent variable which speed, Agility, Strength & Power is improves because of independent variables which were Hockey Multi-Compo Fitness (MCF) Program.
- In training program players fitness, speed, ball carrying, ball controlling and passing skill was improved.

Discussion

The purpose of this study was to find out the Effect of Hockey Multi-Compo Fitness (MCF) Program on Physical Fitness & Performance of Hockey Players. The results from the hockey player study of 12 girls from Maharashtra Mandal's JJ Hockey Academy, Pune. There was improvement in the interest of the students who took part in the Hockey MultiCompo Fitness (MCF) Program. Based on the data analyzed and interpreted it was inferred that there was Increase in the performance of fitness variables in the post-test i.e. 30m dash that measures speed, 505 agility that measures agility, Hand Grip Strength that measures Muscular Strength, Bent knee sit ups that measures muscular strength and endurance, 1RM Bench Press that measures Power of upper body and Standing Broad Jump that measures power. The findings showed an increase in skill test performance in 505 Agility with ball, Push Pass distance, Scoop distance. And not skill performance increase in 20m dribbling test for controlling the ball.

In the period of Hockey Multi-Compo Fitness (MCF) Program Training researcher noticed positive change in strength and skill of the players during hockey matches and also researcher noticed girls who were absent in training their performance is decreased and those girls who were present everyday in training program their fitness, speed, ball carrying, ball controlling and passing skill was improved.

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