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An Impact of six week workout on the physical fitness of Boys hockey players of Rohtak

Parul

Junior Lecturer, Shri Baba Mastnath Public Sr. Sec. School, Rohtak, Haryana, India.

Abstract
The purpose of the current study was to discover out the impact of six week workout on the physical fitness of boys hockey players of Rohtak. To attain the purpose of the study total 50 boy's state level players were selected on a random basis. The age limit of the subjects was from 18 to 22 years. To examine the impact of six week workout on physical fitness, AAHPER physical fitness test was managed to the subjects. Further the subjects were specified workout for six week during the morning and evening sessions. After the workout, physical fitness is again deliberated in terms of performance of the players in all the five physical fitness tests used in pre-training condition. Thus the performance of subject's pre and post workout are engaged to assess the physical fitness. 't' test was functional to the examination data. The level of significance judged at 0.05 levels. Results show that the significant difference was found in 50 meter dash, sit and reach, flexed arm hang, 12 min. cooper run and walk test except agility. Hence there is a significant impact of six week physical fitness of boy's players under 18 to 22 years of Rohtak. It is finished that physical training must be specified by coaches to hockey players to get better the quantities such as speed, flexibility, agility, strength & endurance to attain excellence in sports.

Keywords: Physical Fitness, Hockey Players, Workout etc.

Introduction

Physical fitness is a general state of health and well-being and, more specifically, the ability to perform aspects of sports or occupations. Physical fitness is generally achieved through correct nutrition, moderate-vigorous physical activity, exercise and rest. It is a set of attributes or characteristics seen in people and which relate to the ability to perform a given set of physical activities.

Before the industrial revolution, fitness was the capacity to carry out the day's activities without undue fatigue. However with automation and changes in lifestyles physical fitness is now considered a measure of the body's ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypo kinetic diseases, and to meet emergency situations.

Physical fitness has confounded exercise physiologists and fitness organizations for decades who have tried to respond with an equally simple answer. More recently, the answer has been reduced to the following simple definition:

"Physical fitness – A measure of the body's ability to function efficiently and effectively in work and leisure activities, resist hypo kinetic diseases (diseases from sedentary lifestyles), and to meet emergency situations."

Sometimes added to this definition is the ability to transmit genes to the next generation.

While this is the short answer for "What is Physical Fitness", there is a longer and more interesting answer when you dig deeper. By looking at the individual components of physical fitness, we can get a better picture of what physically fit means in terms of how to identify it, measure it, and assert its significance.

The following are the top 10 facets of physical fitness that are adapted from sources that include President's Council on Fitness, Sports & Nutrition, Cross fit, and the National Strength & Conditioning Association. The first 5 facets are health-related and can be improved through proper training and the last 5 are skill related, which can be improved through practice of motor skills – aside from power 9 and speed 10, which require both.

Physical fitness

- **Body Composition:** The relative amount of fat, muscle, bone, and other vital parts of the body.
- **Strength:** The ability of a muscle group to exert force.
- **Cardiovascular Fitness:** Ability of the circulatory systems and respiratory systems to supply oxygen during sustained physical activity.
- **Flexibility:** The range of motion at a joint.
- **Muscular Endurance:** The ability of muscles to continue to perform repeated contractions against sub maximal resistance.

Skill related physical fitness

- **Agility:** The ability to rapidly change the position of the entire body in time and space with speed and accuracy.
- **Balance:** The ability to maintain equilibrium while moving, or stationary.
- **Coordination:** The ability to use the senses, such as sight and hearing, together with body parts in performing motor tasks smoothly and accurately.
- **Power:** The ability of muscular unit or a combination of muscular units to apply maximum force in minimum time.
- **Speed:** The ability to perform a movement within a short period of time.

Methodology

Statement of the problem

An impact of six week workout on the physical fitness of boy's hockey players of Rohtak.

Hypothesis of the study

1) There would be a significant difference on the physical fitness performance of boy's hockey players in pre and post workout.
2) There would be a significant impact of workout on the physical fitness test performance of boy's hockey players.

Materials and Methods

Subjects: The subjects for the current study consist of 50 boy's hockey players within the age of 18-22 years who have contributed in Haryana School State Hockey Tournament. The selected subject's physical fitness was considered in five motor tests-speed, flexibility, agility, strength and endurance. Further the sample was specified workout for six weeks during the morning and evening sessions. After the workout, physical fitness is again calculated in terms of presentation of the players in all the five physical fitness tests which were used in pre workout condition.

Statistical Analysis

To attain the purpose of the study the data were statistically delighted and inferred in agreement with the rule. The Mean, Standard deviation and t-test is considered and data analyzed.

Table 1: Physical Tests Performance of Hockey boy's in two conditions (Pre and Post)

Tests	Condition	Mean	S.D	't' value
Speed	Pre	11.83	0.623	4.285
	Post	9.38	0.537	
Flexibility	Pre	15.59	5.746	5.273
	Post	21.91	5.938	
Agility	Pre	13.53	0.827	2.567
	Post	12.21	0.712	
Strength	Pre	10.41	6.839	7.356
	Post	17.49	9.273	
Endurance	Pre	3296.56	639.393	6.883
	Post	3583.73	686.921	

Significant level at 0.05

Analysis and Interpretation of Result

Table 1 show that the pre test mean value of speed test performance of the pre test is 11.83 and post test is 9.38. The mean value illustrates that the hockey boy's have engaged more time to whole the given task in pre training while less time is taken in post workout condition. The standard deviation of speed in pre and post is 0.623 and 0.537 respectively. Whereas the 't' value is 4.285. The difference in mean score is significant at 0.05 level.

The mean value of flexibility test performance is 15.59 and post test is 21.91. The results demonstrate that flexibility is established to be enhanced after post workout. The S.D. of pre and post training is 5.746 and 5.938 respectively. Whereas the 't' value is 5.273 which is significant at 0.05 level.

The pre test mean value of agility test performance is 13.53 and post test mean value is 12.21. It illustrates that boy's have engaged more time to whole the given task in pre training while less time taken after pre workout condition. The S.D. of pre and post is 0.827 and 0.712 respectively. Whereas the 't' value is 2.567. Hence there was no significant difference was found in regard of agility.

It is also evident that the pre test mean value of strength test performance is 10.41 and post test mean value is 17.49. It designates that the hockey boy's strength is found better after post training condition. The S.D. of pre and post is 6.839 and 9.273 respectively. Whereas the 't' value is 7.356 which is significant at 0.05 level.

The pre tests mean value of 12 min. cooper run & walk test performance is 3296.56 and post test mean value is 3583.73. It specifies that hockey boy's have covered less distance in pre training while more distance is covered in post workout conditions. The standard deviation of endurance in pre and post is 639.393 and 686.921 respectively, whereas the 't' value is 6.883 significant at 0.05 level.

Conclusion

Within the limitations of the current study, the following conclusions are drained on the basis of attaining results.

There is a significant difference in physical fitness test performances of speed, flexibility, agility, strength and endurance.

There is no significant difference was found in the physical fitness test performance of agility test performance between pre and post workout condition.

There is a significant impact of six week physical fitness workout on the performance of boy's hockey players of Rohtak.

Recommendations

It is suggested that physical fitness workout must be specified by coaches to hockey players to get better the major quantities such as speed, flexibility, agility, strength and endurance to attain excellence in sports. Similar studies can be behaviour on other games and sports at the main level.

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