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A comparative study of strength level among handball and basketball male players

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Abstrac

The purpose of the study was to compare strength level among handball and basketball male players. A total 60 subjects [30 from each game] were selected. In this study Pull ups, Sit ups, Broad jump and Softball Throw test were used to measure the Strength level of the players. The study had been analyzed with help of mean, SD and comparison between groups was done with the help of 't' test for equality of means. The study revealed that on the basis of the finding, Handball players were more superior than basketball players in Strength.

Keywords: Pull ups, sit ups, broad jump, softball throw, handball, basketball

Introduction

"Fitness is the state which characterizes the degree to which a person is able to function efficiently. Implies the ability of each person to live most effectively with his potentialities. Ability to function depends upon the physical, mental, emotional, moral and components of fitness; all of which are related to another and are mutually inter-dependent" [AAHPER] Physical fitness has been considered as one of the most important aspects of human existence a sound body and an active mind are inter-related. No education is completed without sound physical education. No education is completed without sound physical health as it makes a person efficient and fit to work in any area of human endeavour. Physical fitness is the state of body in which a person can carry his daily duties and responsibilities efficiently and with the energy left he can enjoy hobbies and other recreational activities. In other words physical fitness can be defined as that state of bodies in which a person can do work for a longer duration without undue fatigue.

Now a days in the present age of science and technology people are very alert about their health and physical fitness. Each nation is encouraging games and sports to get apex performance at international level. The standard of games and sports has gained new heights in every country. our country is also trying to get the good result, that is why physical education has been introduced as part of school curriculum, which will help the students to keep them healthy and physically fit (Kang & Deol)

physical fitness is a team, which has different meaning for different people. For a simple man to have a good physique(appearance) is a symbol of physical fitness. For a doctor proper functioning of various important systems of our body is physical fitness. Actually physical fitness of an individual may be explained as the capacity to do the routine activities without getting undue fatigue, to meet emergencies, to face stress situation and still have more energy to do some more work with better recovery process.

Importance of physical fitness is to meet the challenges of day to day life every one must keep himself physically fit. Physical fitness add to one's life. Many people think that physical fitness required only for the sports persons, but actually it is necessary for everyone to lead a healthy life. Development of personality fitness programmed helps an individual to maintain his physique which ultimately improves his personality (externally) and also help in avoiding various postural deformities. A physically fit person can concentrate well on his work which individual must know the importance of physical fitness. in other word, one must have a fundamental knowledge of anatomy and physiology.

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P.G.S. Govt. College of Physical Education Patiala, Punjab, India This fundamental knowledge enables person to understand physical fitness. Physical fitness is the capacity of a person to function steadily and smoothly when a situation arises. Physical fitness makes you feel mentally sharper, physically comfortable and more with your body and better able to cope with the demands that everyday life makes upon you increased. Physical fitness not only improves health but improves your performance at work. Hundreds of American companies have backed with the idea financially by employing full time direction of fitness for their work.

Physical fitness is not only one of the most important keys to healthy body. It is the basis of dynamic and creative intellectual activities. The relationship of body and the activities of the mind is subtle and complex. This is not yet understood but we do know that intelligence and skill can only function at the peak of their capacity when the body is healthy and stronger. In the sense physical fitness is the basis of all the activities of our society.

Physical fitness, as it relates to the concept of Total Force Fitness (TFF), is defined as a set of health or performance-related attributes relating to the activities and condition of the body. It was universally accepted that physical fitness is very important part of the universal growth and development of a child. Physical fitness can be defined as a way which helps in the successful completion of a work. Physical fitness cover organic fitness of individuals. The main components of physical fitness are Speed, Strength, Endurance, Flexibility, Agility, Cardio-vascular fitness and Coordinative ability.

Now a day's sports and games have taken various forms and they play important role in the life of human beings. Sports and games are thought of as products of culture of every society, sports and games reflect the culture of a society. Research in sports is important for talent identification and its improvement. In sports due to sudden increase in participation and performance density, which person have ability that person will stand a chance of winning award in an international competition.

Among various sports Handball and Basketball is an Olympic sports, in the ball games fast pace of offensive and defensive action is considered. To play team-handball, especially to control factors that influence performance is challenging, because playing handball is complex and multi-factorial. Handball players have to match up their movements with jumping, running, change of direction and specific movements of throwing, catching, checking, passing and blocking.

Basketball has extended global popularity and charmed players and viewers with its dynamic appearances as a team game. Basketball involves approximately 450 million registered participants from over 200 national federations belonging to the Federation International de Basketball (FIBA). In a 40-min game of basketball, players approximately run about 4-5km with a variety of movements such as dribbling, passing, throwing, feinting at variable velocities and jumping.

Objective of Study: To assess the significance difference in Strength level between handball and basketball male players.

Definition and Explanation of the terms Strength

Strength is the ability of the muscles to exert force during an activity. The key to making your muscles stronger is working them against resistance, whether that be from weights or gravity. If you want to gain muscle strength, try exercises such as lifting weights or rapidly taking the stairs.

strength is the ability of a sportsman to overcome resistance or act against it. Strength is not only product of the muscle but also of the nervous system which controls and regulates the muscular contractions.

Hypothesis

There is significant difference in strength level between handball and basketball male players. The handball possessing more strength than basketball players.

Procedure and method

Sampling- 60 subjects [30 from each group] of this study were selected with the cluster sampling technique from three teams of each game which were participated in inter-college level in Punjabi University Patiala i.e Khalsa College Patiala, Public College Samana, P.G.S. Govt. College of Physical Education Patiala.

Method: All participants were informed of the procedure and purpose the experiment and were criteria of availability, reliability and validity the following tools were used to collect the data. The selected physical fitness components – Strength were measured by different means and methods. Leg Strength was measured by Broad jump, Shoulder Strength by Softball throw, Arm Strength by Pull ups and Abdomen Strength by Sit ups.

Analysis of Data- In the present study analysis and interpretation of the data and result obtained through the application of statistics. The part is devoted to the comparative result of handball and basketball players of selected physical fitness components. The result has been discussed in below. The study had been analyzed with help of mean, SD and comparison between groups was done with the help of 't' test for equality of means.

Statistical Description of mean, SD and 't' test value of the tests of handball and basketball male players

Table 1: The table shows the mean, SD and 't' test value of broad jump among handball and basketball players.

Teams	Mean	Sd	'T' Ratio
Handball	7.6850	0.45368	-3.57
Basketball	7.2883	0.40534	

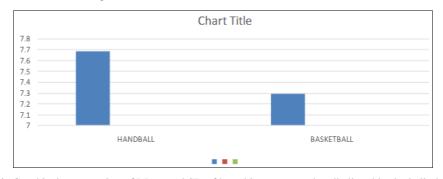


Fig 1: Graphical presentation of Mean and SD of broad jump among handball and basketball players.

Table 2: The table shows the mean, SD and 't' test value of pull ups among handball and basketball players

Teams	Mean	Sd	't' ratio
Handball	22.2333	2.88496	-8.36
Basketball	17.1000	1.72906	-8.30

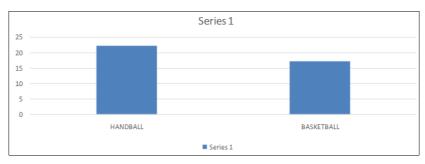


Fig 2: Graphical presentation of Mean and SD of pull ups among handball and basketball players.

Table 3: The table shows the mean, SD and 't' test value of sit ups among handball and basketball players

Teams	Mean	Sd	'T' Ratio
Handball	35.7667	3.19140	-1.3182
Basketball	34.7000	3.07549	

Table :4: The table shows the mean, SD and 't' test value of softball throw among handball and basketball players

Teams	Mean	Sd	't' Ratio
Handball	43.2667	2.28338	-2.358
Basketball	41.9817	1.94212	

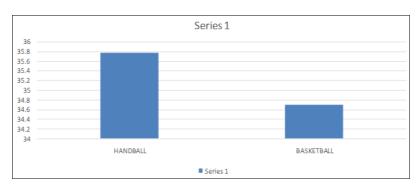


Fig 4: Graphical presentation of Mean and SD of softball throw among handball and basketball players.

Finding

't' test for equality for Means employed to find out the significance difference. The significance level was set at 0.5 levels.

1. There was a statistical difference in broad jump, sit ups, softball throw and pull ups among handball and basketball players. Therefore, hypothesis is accepted.

Conclusion

The finding of the study can be concluded as under:

 The Handball players of possessing high degree of strength level.

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