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Comparison of Explosive Strength Between Handball and Badminton Players

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Abstract

This study was to compare the explosive strength between handball and badminton players of state level or national level. For this study 30 players was selected, which consist of 15 players each from both the games. Independent't' test was employed as statistical tool for finding the statistical significant difference among handball and badminton players of state and national players. The age of the players were ranging from 18 to 25 years. The data pertaining to this study were collected by using suitable test for explosive strength namely vertical jump on the selected subjects. To calculate an analysis data, independent't' test was employed and the finding of the study revealed statistically that, there was insignificant in variable of explosive strength between the handball and badminton players of state level or national level players. Hence, the hypothesis was rejected.

Introduction

Sports is all forms of usually competitive physical activities which through casual or organized participation, aim maintain or improve physical ability and skills while providing entertainment to participants, and in some cases, spectator. Every human being has a definite level of motor abilities. He/she is able to carry some weight to certain distance in a definite period of time. The motor abilities are the precondition for the physical Games and sports are very useful for health. Every human being has a definite level of motor abilities. He/she is able to carry some weight to certain distance in a definite period of time. The motor abilities are the precondition for the physical performance. The motor abilities of man are different in nature, which means that different events of the some movement have different motor abilities are interrelated and as a rule if somebody demonstrate one of them in highest degree, he cannot have a great success in another ability. Man has to participate in activities in order to achieve growth and development and also to maintain good health, muscular strength and flexibility and needed

for a good physique as well as excellence of the performance in any activity. The skill related physical fitness include physical qualities that enable a person to perform in sport activities, skill related physical fitness is strongly influenced by genetic make-up. Synonymous with skill related fitness is athletics fitness or motor fitness. The specific components of skill related physical fitness are agility, balance, coordination, power, speed and reaction time. Skill related fitness has been acclaimed as on his essential requirement. It is equally required for every human being and all spheres of life physical, emotional, mental and social factors which influence the health fitness and good health. It is generally related to good physique, good health and good organic developmental. Health related fitness really implies more than ability to do work without much effort, physical narrow process.

Badminton is a racquet sport played using racquet to hit a shuttle cocks across a net. Although it may be played with larger teams, the most common forms of the game are "singles" (with one player per side) and "doubles" (two players per side). Badminton is often played as a casual outdoor activity in a yard or on a beach; formal games are played on a rectangular outdoor court. Points are scored by striking the shuttlecock with the racquet and landing it within the opposing sides half of the court.

Handball is a team sport in which two teams of seven players each pass as ball using their hands with the aim of throwing it into the goal of the other team.

The world of games and sports has crossed many milestones, as a result of different achievements in general and their application in the field of sport in particular scientific investigation performance role to attain excellence of performance in different sports. Now the sportsman have been able to give outstanding performance because of involvement of new scientifically sustained training methods and means of execution of sports exercise such as sports techniques and tactics, improvement of sport grass, and equipment, as well as other components and condition of the system of sports training. The sports scientists and coaches are demanding full time involvement and round the year dedicated practice of sports to reach the pinnacle of their performance.

In this game and sports movement patterns characterized as intermittent and change continuously in response to different offensive and defensive situation in which anthropometric characteristic and high level of muscle of strength, muscle power, endurance capacity are the most important factors that give a clear advantage for successful participation in handball and badminton players. So the researchers wanted to Compare of explosive strength between handball and badminton players.

Statement of the Problem

From the above surface of literature and background the researcher was interested to state the study as "Comparison of explosive strength between handball and badminton players."

OBjective of the Study

The main objective of the study was to find out the explosive strength on the handball and badminton players.

Hypothesis of the Study

The study might be significantly difference between the badminton and handball players on explosive strength.

Delimitation of the Study

The study was delaminated to 30 male players i.e. 15 players each from handball and badminton players. Further the subject was range between 18-25 years of age.

The study was delimitated further on explosive strength.

Limitation of the Study

- ❖ Some of the subject might be lack of motivation to perform the explosive strength ability was considered as limitation of the study.
- ❖ Desire fitness may not be available to the subject it was also considered as limitation of the study.
- ❖ Some of the subject may not be available it was also considered as limitation of the study.

Definition and Explanation of the Term

Explosive Strength

Standard explosive exercise use large muscle movement such as squats, power cleans, weighted or un- weighted vertical jumps and heavy ball throws or even hill sprinting smaller exercises likes bench presses or push-ups can also be used to build power but will limit the overall results to those muscle groups.

Badminton

Badminton is a racquet sport played using racquet to hit a shuttle cocks across a net. Although it may be played with larger teams, the most common forms of the game are "singles" (with one player per side) and "doubles" (two players per side). Badminton is often played as a casual outdoor activity in a yard or on a beach; formal games are played on a rectangular outdoor court. Points are scored by striking the shuttlecock with the racquet and landing it within the opposing sides half of the court.

Handball

Handball is a team sport in which two teams of seven players each pass as ball using their hands with the aim of throwing it into the goal of the other team.

Modern handball is played on a court 40 by 20m with a goal in the centre of each of end. The goals are surrounded by a 6 meter zone where only the defending goalkeeper is allowed; the goal must be scored by throwing the ball from outside the zone or while "jumping" into it the sport is usually played indoors, but outdoor variants exist in the forms o field and Czech handball. The game is quite fast and includes body contact as the defenders try to stop the attackers from approaching the ball.

Significance of the Study

1. The finding of the study may help to see the explosive strength ability of the badminton and handball players:
2. The finding of the study may help to find the exact figure of the explosive ability to the badminton and handball players.
3. The finding of the study may help to the coach and players regarding on the explosive strength ability.
4. The finding of the study may help to draw out remedial measures for the poor performance of explosive strength to the badminton and handball players.
5. The finding of the study may be help to the similar study of research.

Procedure Selection of the Subject

For this study 30 subjects was selected as the subject of the study; 15 players each from handball and badminton who have represented state level or national level.

Selection of Variable

The following variable was selected from the comparison between handball and badminton players on explosive strength.

Vertical Jump and Reach Test

Administration of test and collection of data

The research scholar was administrated to the selected subject for the collection of data to the 30 subjects separately 15 from each game i.e. handball and badminton players, the vertical jump was administrate for the comparison of the explosive strength between handball and badminton players. Three trials are given to the selected subject. The best one will be recorded for the purpose of the study.

1. **Purpose:** To measure the power of legs in jumping vertically.
2. **Facilities and Equipment:** wall, marker (usually chalk on the finger tips

will do) and measuring tape.

3. **Procedure:** In this method the athlete stand straight beside a high wall and raises their hand up. To measure their standing reach, then touch the wall as high as they can with their fingers. The chalk on the fingertips will leave a temporary mark on the wall.

The athlete then jumps as high as they can from a flat footed position and tries to touch the highest point on the wall they can.

4. **Scoring:** The distance between the first mark on the wall (standing reach) and the highest point on the wall (point of highest jump) is the athlete's standing vertical jump height. The jump height is usually recorded as the score.

Statistical Procedure

To compare the handball and badminton players on explosive strength t- test will be employed, the level of significance difference will be chosen 0.05

Analysis of Data, Results and Discussion

Statistical Analysis of Data

The statistically analysis of the data was collected from 30 players, which is 15 players of each game who had participated in state level or national level. The statistical technique independent't' test was adopted for finding the difference between the group means, independently.

Level of Significance

To test the hypothesis, the level of significance was chosen at 0.05 level of confidence, which was considered most adequate and reliable for the purpose of the study.

Findings

The data collected on 30 players, 15 each from handball and badminton, finding of the explosive strength between the players through pertaining data have been presented in the tables.

Table -1

Descriptive Analysis of Vertical Jump (Explosive Strength) Between Handball and Badminton Players

Group	N	Range	Max	Min	M	Sd
Handball	15	15.24	60.96	45.72	51.05	4.02
Badminton	15	13.97	59.69	45.72	52.02	4.71

From the above table -1, it reveals that the mean, standard deviation and range of vertical jump of handball and badminton were 51.05+_ 4.02, 15.24 and 52.02+- 4.71, 13.97 respectively.

Table -2

Group	N	M	Sd	Md	SED	T
Handball	15	51.05	4.02	0.97	1.60	0.61
Badminton	15	52.02	4.71			

Mean difference (independent t- test)

Insignificant at0.05=2.048

Discussion of Findngs

The main purpose of the study was to compare the explosive strength between handball and badminton players. It has been observed the result of the study that there was insignificant difference on variable of explosive strength (vertical jump) among these two groups.

The insignificant result is due to the similar nature of the game and utility of explosive strength in vertical jump by the players of these two games. Hence, there was insignificant difference in vertical jump (explosive strength) between the handball and badminton players of state level or national level.

Discussion of Hypothesis

In the beginning of the study it was hypothesized that there would be insignificant difference of explosive strength between handball and badminton players.

Further from the elaborate statistical analysis of the study revealed that, statistically there was insignificant in variables of explosive strength i.e. vertical jump between handball and badminton players of state level or national level. Hence, the hypothesis was accepted.

Summary

The aim of this present study was to compare the explosive strength between handball and badminton players of state level or national level. For this study 30 players was selected, which consist of 15 players each from both the games. Independent't' test was employed as statistical tool for finding the statistical

significant difference among handball and badminton players of state and national players. The age of the players were ranging from 18 to 25 years.

The data pertaining to this study were collected by using suitable test for explosive strength namely vertical jump on the selected subjects. To calculate an analysis data, independent't' test was employed and the finding of the study revealed statistically that, there was insignificant in variable of explosive strength between the handball and badminton players of state level or national level players. Hence, the hypothesis was rejected.

Conclusion

Recognizing the delimitations and limitations of the present study and on the basis of statistical findings the conclusion can be drawn that there was insignificant in vertical jump between handball and badminton players in state level or national level players.

Recommendations

After recording the results of the study, the researcher was able to provide the following recommendations for the future replica of the study.

- Similar study may be undertaken selecting other fitness components.
- A similar study may be conducted on trained athletes of different games and sports of state or national level.
- Similar study may be carried out by selecting of different ages and sexes other than those adopted in the study.
- Instead of taking normal condition taking during competition to make this study more study attractive and interesting.
- To make the study more detailed and valid the study may repeated on large samples.
- From the finding of the study it is also recommended that a study may be carried out with others players.
- It is also recommended that a similar study may be on high school level.
- It is recommended that similar study may be conducted on a large population for the other parts of the country.

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