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Comparative study of selected anthropometric measurement of inter-collegiate basketball and handball players

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Abstract

This study is to find out the differences between two game players on selected anthropometric measurement and find out the similarity between Handball and Basketball intercollegiate players. The study the selected anthropometric measurement if inter collegiate Handball and Basketball players. In this study compare the selected anthropometric measurement between Handball and Basketball players. It was hypothesis that there would be no significant difference in anthropometric measurement of handball and basketball players. The players who have participated in inter collegiate handball and basketball tournament of Sant Gadge Baba Amravati University, Amravati were the sources of data for the present study. The present study to participate in inter collegiate handball and basketball tournament of Sant Gadge Baba Amravati University, Amravati were selected 20 handball and 20 basketball players with simple random sampling method. The researcher some used tools for the present study Anthropometric measurement 1. Scale for measurement standing height 2. Measuring tape to measure girth of muscles and length of body parts. 3. Weaving machine to measure body weight. To test the hypothesis, level of significance at 0.05 level of confidence was considered adequate for the purpose of this study. While using analysis of variance, a value of $t=2.02$ was needed for being significant at 0.05 level of confidence for 38 degree of freedom. To obtain raw data, the present researcher selected 30 subjects of handball and basketball players. The raw data obtained for each group of anthropometric measurement were arranged in frequency distribution table. Then mean and standard deviation were calculated and 't' test was applied to find out significance level. The mean and standard deviation of anthropometric measurement were calculated. The mean height of basketball and handball players was 5.632 and 5.686 respectively and t value (0.467) appeared in significant. It can be conclude that due to same nature of the game handball and basketball there was significant difference found in Anthropometric measurement, basketball and handball players are same in height. There was significant difference in weight, leg length, thigh girth, arm length between basketball and handball players.

Keywords: Compare selected anthropometric measurement of inter-collegiate Basketball and Handball players

Introduction

Sports mean pleasure as well as competition. Sports mean competitive contest rather than recreate activity. As in other field of human activity, so in sports competition has become very intense and all individuals and nations are striving very hard to gain supremacy over other. The Olympic and other world competitions are a testimony to this fact. Sports field are no more pleasure resorts. They are not the promoters of international brother hood and good will, although everybody concerned with sports claims so but they have become arena of cut-throat competition where each individual's highly motivated by his political masters to 'win' at all casts.

"Sports" competition is nothing but the "violence of the cultured man" a war of nerves. The player lets himself go with in legitimate code of conduct as he would not dare to do anywhere but at the same time he remains master of himself. As a matter of fact, phenomenal changes have occurred in the use of methods of teaching. Training coaching and handing sportsmen.

More and more specialization is creeping in and now it is not a child's [lay for everyone to become an elite athlete without having an excellent combination of genetic endowment generally good environment and highly specialized training.

The world sports are derived from dies and porter meaning carrying away from work. In common pretence sports activities are relaxing in nature and done for seeking pleasure only.

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Basically sports are individual activities born out of natural urge for movement but now days. There is a tendency to include in it the team games which require some complex. Organization series and combined practice between various members of the team.

In fact sports in a wider prospective mean pleasure as well as competition. Modern competitive sports are an extremely complex behavior phenomenon psychology in sports operates in such areas of human behavior as are the outcome of growth and development with the rapid development of sports into highly organized and competitive social phenomena. There is a clear cut classification of sports, health and intensity of participation. Namely the recreation sports, health and conditioning sports and the competitive sports competitive. Sports are again ranked according to the level of competition involved considerable research required to identify factors. That will be predictive as achieving high level of skill on a given sport with proper coaching.

It is not possible for everyone to achieve world frame. However of one is determined to such heights of will become evident in early stage itself that the athlete person of sportsman was born with certain attributes and gifts, without which a really great success is not probable possible.

Physical Education and sports are a social culture phenomenon. Both the processes are integral part of general education and involve learning as well as performance. Inter disciplinary nature of physical education and the competitive natures of sports have almost compelled the classifiers of knowledge to consider them as 'emerging' disciplines which is perhaps. Anthropometric measurement is one of the most important tasks for physical educationist is to measure different part and components of human body. An anthropometric mean the measurement of main data back to ancient civilizations and is the oldest form of measurements. At least to a limited degree, weight, girth measures body composition and physique type may change as a result of muscle gain or fat has loose through exercise and nutritional practices. However body size and form definitely influence physical and motor performance. As a consequence, they should be considered in judging the potentialities of students for participation in physical; activities of many kinds. Many reports in these areas refer to anthropometric characteristics, which distinguish top class players, in a specific sport, however only a few studies have been carried on the size of selected anthropometric variables and body composition amongst handball and basketball players. So it reviews of the related literature to the present study. Mitra 1905, comparative putters and long jumpers regarding some selected anthropometric parameters. The study was conducted on 40 shot-putters and 40 long jumpers selected on the basis of their specific performance.

Statement of the Problems

Which distinguish top class players, in a specific sport, however only a few studies have been carried on the size of selected anthropometric variables and body composition amongst handball and basketball players? "Comparative Study of Selected Anthropometric Measurement of Inter-Collegiate Basketball and Handball Players.

Significance of the study

1. Significance of the study is to find out the differences between two game players on selected anthropometric measurement.
2. This study can find out the similarity between Handball and Basketball intercollegiate players.

3. Significance of the study can give some suggestions for the selection of Handball and Basketball players.
4. It would provide guideline to the coaches for the selection of Handball and Basketball players.
5. The finding of this study helps to suggest new coaching programmers as per need and interest of the players and coaches.
6. The study helps to give the new knowledge towards the achievement of performance of the Handball and Basketball players.

Objective

1. To the study the selected anthropometric measurement if inter collegiate Handball and Basketball players.
2. To compare the selected anthropometric measurement between Handball and Basketball players.

Hypothesis

1. It was hypothesis that there would be no significant difference in anthropometric measurement of handball and basketball players.

Sources of data

The players who have participated in inter collegiate handball and basketball tournament of Sant Gadge Baba Amravati University, Amravati were the sources of data for the present study.

Sampling procedure

The present study to participate in inter collegiate handball and basketball tournament of Sant Gadge Baba Amravati University, Amravati were selected 20 handball and 20 basketball players with simple random sampling method.

Collection data

The researcher some used tools for the present study

Anthropometric measurement

- I. scale for measurement standing height
- II. Measuring tape to measure girth of muscles and length of body parts.
- III. Weaving machine to measure body weight.

Collection of Data

Researcher collection data by administration test. After administration of each test raw score rated down separately for selected anthropometric measurement of handball and basketball players. In this way researcher collected the data for present study which was further put for analysis.

Analysis

Level of significance

To test the hypothesis, level of significance at 0.05 level of confidence was considered adequate for the purpose of this study. While using analysis of variance, a value of $t=2.02$ was needed for being significant at 0.05 level of confidence for 38 degree of freedom.

Statistical analysis of data

To obtain raw data, the present researcher selected 30 subjects of handball and basketball players. The raw data obtained for each group of anthropometric measurement were arranged in frequency distribution table. Then mean and standard deviation were calculated and 't' test was applied to find out significance level. The mean and standard deviation of anthropometric measurement were calculate

Table 1: Mean and t-ratio of height, weight, Leg length, thigh girth and arm length for Basketball and Handball players

| Variables | Group | Mean | SD | SE | MD | O` t` | T` t` |
|--------------|------------|---------|-------|-------|-------|--------|-------|
| H (In Feet) | Basketball | 5.632 | 0.433 | 0.116 | 0.054 | 0.467 | 2.09 |
| | Handball | 5.686 | 0.282 | | | | |
| W (in K.G.) | Basketball | 68.850 | 7.407 | 1.780 | 4.900 | 2.753* | 2.09 |
| | Handball | 63.950 | 2.911 | | | | |
| LL (in C.M.) | Basketball | 101.150 | 3.233 | 1.135 | 1.100 | 0.969 | 2.09 |
| | Handball | 100.500 | 3.913 | | | | |
| TG (in C.M.) | Basketball | 49.350 | 1.899 | 0.637 | 4.450 | 6.982* | 2.09 |
| | Handball | 44.900 | 2.125 | | | | |
| AL (in C.M.) | Basketball | 27.950 | 1.820 | 0.561 | 1.600 | 2.853* | 2.09 |
| | Handball | 26.350 | 1.725 | | | | |

*Significant at 0.05 level

Table-1 shows that basketball and handball players are same in height. The mean height of basketball and handball players was 5.632 and 5.686 respectively and t value (0.467) appeared insignificant.

Table-1 reveals that there is significant difference in weight between basketball and handball players. The obtained t-value of 2.753 is more than the table value of 2.09.

Table-1 reveals that there is insignificant difference in leg length between basketball and handball players. The obtained t-value of 0.969 is less than the table value of 2.09.

Table-1 reveals that there is significant difference in thigh girth between basketball and handball players. The obtained t-value of 6.982 is more than the table value of 2.09.

Table-1 reveals that there is significant difference in arm length between basketball and handball players. The obtained t-value of 2.853 is more than the table value of 2.09.

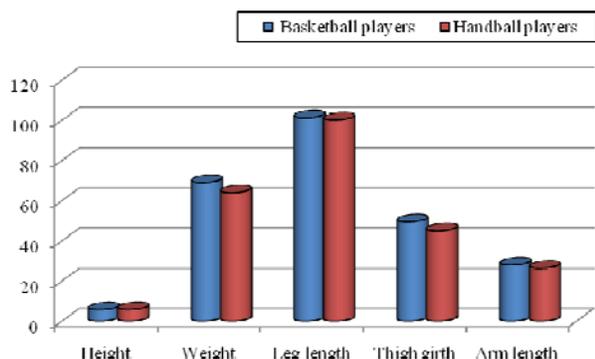


Fig 1: Mean difference of height, weight, Leg length, thigh girth and arm length for Basketball and Handball players

Conclusion

On the basis of finding and within the limitations of the present study following conclusion were drawn

1. It can be conclude that due to same nature of the game handball and basketball there was significant difference found in Anthropometric measurement
2. It shows that basketball and handball players are same in height.
3. It shows that there was Significant difference in weight between basketball and handball players
4. It shows that there was significant difference in leg length between basketball and handball players
5. It shows that there was significant difference in thigh girth between basketball and handball players.
6. It shows that there was significant difference in arm length between basketball and handball players.

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