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Comparison of Selected Anthropometrical Characteristics between Basketball and Handball Players

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Abstract

In this context, the investigator made an attempt to compare the selected anthropometrical characteristics of basketball and handball players. To achieve the purpose of the study, 50 players (25 women basketball and 25 women handball players) were randomly selected as subjects from Sri Sarada College for Women, Salem. The age of the subjects were ranged from 18 to 21 years. The obtained data were statistically analyzed with independent 't' test. The level of confidence which was fixed at 0.05 levels was considered as an appropriate one for this study. The result reveals that there was significant mean difference found on both arm length and leg length among women basketball and handball players

Keywords: Arm Length, Leg Length, Basketball, Handball.

Introduction

Both education and physical education are doing phenomena. Modern educationists do not subscribe to the notion of epistemological development as the sole purpose of education. The stress is on " learning by doing" i.e. person-environment interaction. Physical education is an activity–oriented programme the main thrust of which is on "doing and learning". Activity is a binding buckle between education and physical education. The classroom academics and play-field athletics must complement and supplement each other for the balanced growth of human personality. Play fields, gymnasia, studio etc. are the temples of learning and laboratories of physical education where children acquire skills to face challenges of life. Not only do they improve their fitness, health and vigour but also learn to be resilient, confident, mentally tough, cooperative, tolerant and decisive. Physical education is no breathless repetition of physical skills and movements, it is education of man through activity programmes that are " physically wholesome, mentally stimulating and satisfying, and socially sound". Basketball and Handball are among the world's popular sports, played practically in every nation at varying levels of competence**.** Successful participation in these sports requires from each player a high level of physical and physiological capabilities and suitable anthropometric characteristics. All ball games require comprehensive abilities including physical, technical, mental, and tactical abilities. Among them, anthropometrical abilities of the players are more important as these have marked effects on the skill of players and the tactics of the teams because ball games require repeated maximum exertion such as dashing and jumping (Tsunawake, 2003). Such anthropometrical abilities are important for both basketball and handball players to achieve higher levels of performance. For optimal performance during play at an elite level a variety of areas must be addressed.

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Methodology

In this context, the investigator made an attempt to compare the selected anthropometrical characteristics of basketball and handball players. To achieve the purpose of the study, 50 players (25 women basketball and 25 women handball players) were randomly selected as subjects from Sri Sarada College for Women, Salem. The age of the subjects were ranged from 18 to 21 years. The obtained data were statistically analyzed with independent 't' test. The level of confidence which was fixed at 0.05 levels was considered as an appropriate one for this study.

Results

TABLE I
THE MEAN, STANDARD DEVIATION AND 'T' TEST VALUES BETWEEN WOMEN BASKETBALL PLAYERS AND HANDBALL PLAYERS ON ARM LENGTH

Groups	Mean	Standard Deviation	Mean Difference	Standard Error Difference	't' test value
basketball Players	108.46	1.93	4.65	0.55	8.51*
handball Players	113.11	1.92			

* Significant at .05 level of confidence.
(The table values required for significance at .05 level of confidence with df 48 was 2.01).

The table I shows that the mean and standard deviation values on arm length for women basketball players and handball players were 108.46 and 113.11 & 1.93 and 1.92 respectively. The obtained 't' test value on arm length 8.51 which was greater than the table value required for significance with df 48 was 2.01. The results of the study showed that there was a significant difference between women basketball and handball players on arm length.

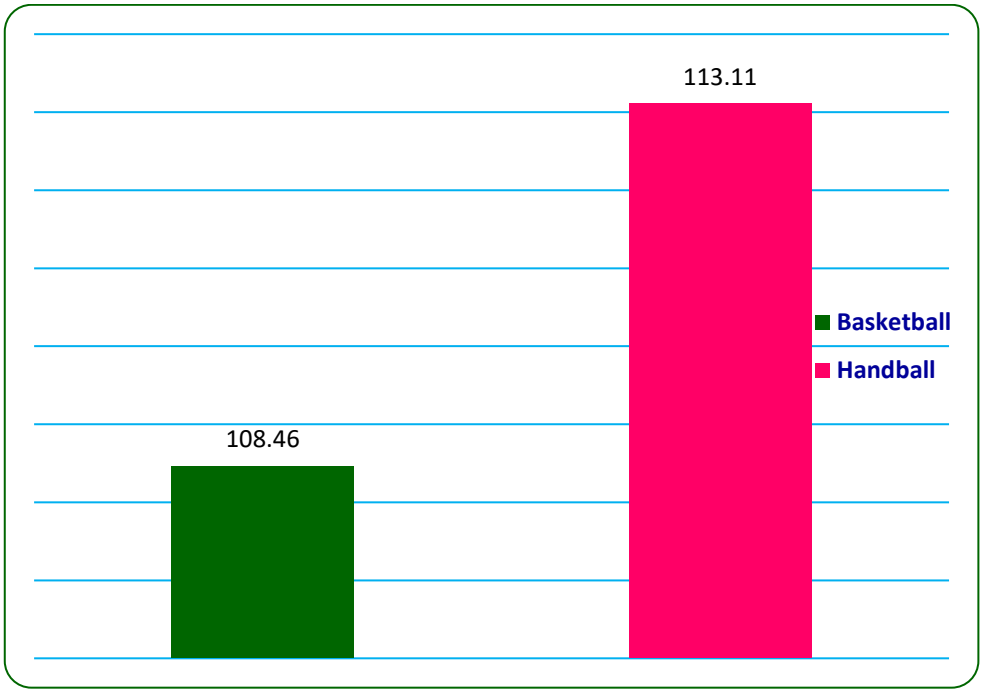

FIGURE I BAR DIAGRAM SHOWING THE MEAN VALUES OF WOMEN BASKETBALL AND HANDBALL PLAYERS ON ARM LENGTH

TABLE II
THE MEAN, STANDARD DEVIATION AND 'T' TEST VALUES BETWEEN WOMEN BASKETBALL PLAYERS AND HANDBALL PLAYERS ON LEG LENGTH

Groups	Mean	Standard Deviation	Mean Difference	Standard Error Difference	't' test value
basketball Players	116.16	2.18	1.16	0.56	2.05*
handball Players	117.32	1.79			

* Significant at .05 level of confidence.
(The table values required for significance at .05 level of confidence with df 48 was 2.01).

The table II shows that the mean and standard deviation values on leg length for women basketball players and handball players were 116.16 and 117.32 & 2.18 and 1.79 respectively. The obtained 't' test value on leg length 2.05 which was greater than the table value required for significance with df 48 was 2.01. The results of the study showed that there was a significant difference between women basketball and handball players on leg length.

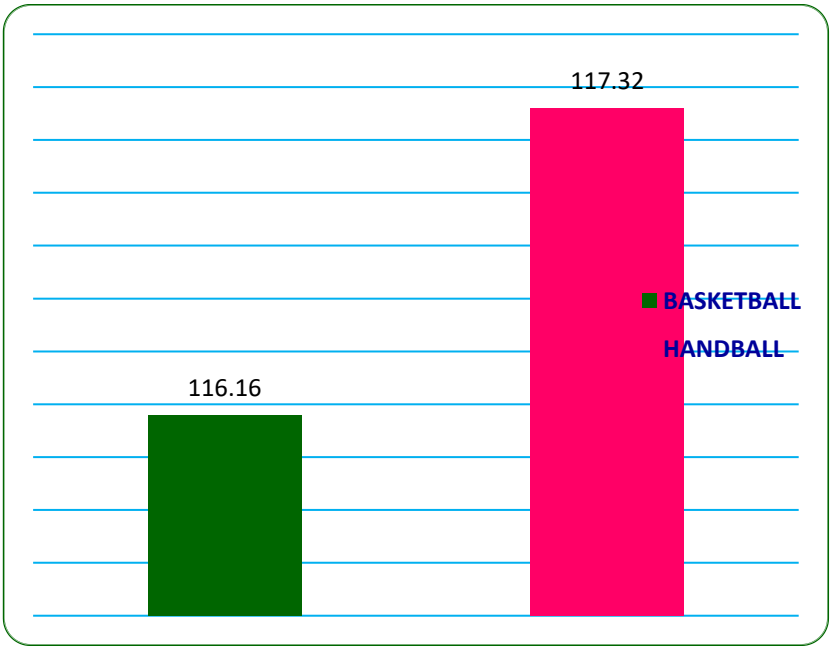

FIGURE II BAR DIAGRAM SHOWING THE MEAN VALUES OF WOMEN BASKETBALL AND HANDBALL PLAYERS ON LEG LENGTH

Conclusion

1. The result reveals that there was significant mean difference found on both arm length and leg length among women basketball and handball players.

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