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A Comparative Study of Kinanthropometric Measurements of Judo and Wrestling Male Players of Sirsa

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Abstract

In the present study, an attempt has been made to compare the Kinanthropometric measurements of Judo and Wrestling male players. The study was carried out on 50 players (25 Judo and 25 Wrestling male players). The age of the selected subjects ranged from 19 to 27 years. Only sirsa district was selected for the study. To compare the skinfold measurements such as *Body density and Body fat weight* was selected for the study. The, "Lange skin fold caliper was used to measure various skin folds. The data was used to analyze by t-test.

Keywords: Judo, Wrestling, Anthropometry, Body density, Body Fat weight, male, Sirsa.

1. Introduction

Body composition is the term used to describe the different components which are when taken together, make up a person's body weight. The human body is composed of a variety of different tissue types including lean tissues (muscle, bone, and organs) that are metabolically active, and fat (adipose) tissue that is not. In physical fitness, body composition is used to depict the percentages of fat, bone, water and muscle in human bodies. Because muscular tissue occupied less space in our body than fat tissue, our body composition, as well as our weight, determines leanness. Two people of equal height and body weight may look completely different from each other because they have a different body composition. Body composition can be measured in different ways. The most widely used method is by using gun calipers to measure the thickness of subcutaneous fat in multiple places on the body. This involves the abdominal area, the subscapular region, arms, buttocks and thighs. These measurements are then used to estimate total body fat with a margin of approximately four percentage points. The body percentage fat is a measure of fitness level, because it is the only body measurement which directly calculates a person's relative body composition without related to height or weight.

Body density and Fat weight

It is a non invasive, quantitative technique for determining an individual's body fat composition by calculating the specific gravity of the subject. This involves comparing the weight of the body inside and outside of water. This indicates the weight in grams per cubic centimeter of body tissues. Body density is estimated from the sum of four skin folds measurements (Biceps, Triceps, Sub-scapular and Suprailiac). The percentage weight of a person's body that is not composed of water, muscle, bone, and vital organs. This is the weight of the overall body fat, which is deposited in the subcutaneous area of the body. About fifty percent of the depot fat is stored in specialized cells under the skin, the thickness of which depends upon the amount of fat in the body. This is calculated from the weight of the body and percent fat.

Objective of the study

- To compare the skin fold measurements such as body density and fat weight of Judo and Wrestling male players.

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Hypothesis

- There would be a great significant difference in skin fold measurement like body density and fat weight between Judo and Wrestling male player by skin fold calliper.

Delimitation

The present study was delimited to Judo and Wrestling male players of inter collage championship.

- Only fifty male players from each game of judo and wrestling were selected as the subject.
- The age group range from 18 to 28 years for the subject.
- Subjects were only measures by skin fold caliper.
- Fat and fat percentage was calculated only by siri equation (1956).
- The present study was delimited to the affiliated colleges of C.D.L.U. i.e. Govt. National college Sirsa, Shah Satnam Ji Boys College Sirsa, M.M. College Fatehabad and University Teaching Departments C.D.L.U.

5. Methods and Procedures

5.2 Sample

The present study was concerned with 25 male players of judo and 25 male players of wrestling with age level 19 to 27 years as the subject.

3.3 Tool Used

The weight of the subject was measured with the help of portable electronic weighing machine.

- The lange skin fold caliper was used to measure various skin folds.

3.4 Selection of Variables

- Body density
- Fat weight

3.5 Instrument Reliability

1. Lange skin fold caliper
2. Measuring Tape.

These instrument provided by department of Phy. Edu. Choudhary Devi Lal University Sirsa, These instruments were also utilized and accurate enough for the purpose of the study.

3.6 Statistical technique

For the present study, the mean value, Standard deviations, T-test was applies to analyze the data.

7. Analysis and Interpretation of Data

Analysis of data-the data of the present study is analysis and interpretation in different tables as follows:

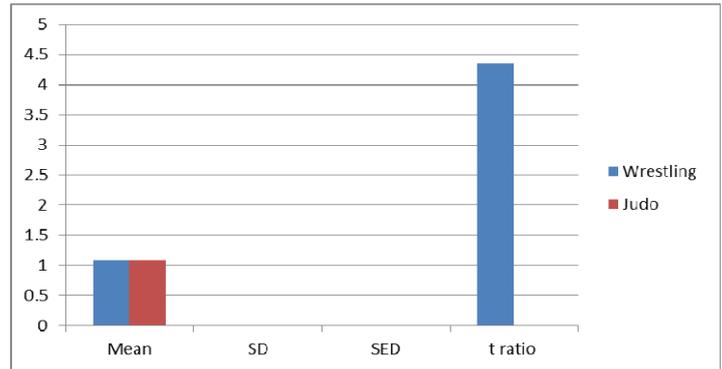
Table 7.1: Comparison of body compositions of body density of wrestling and judo male players

Variables	No. of players	Wrestling		Judo		S.E.D	T ratio
		Mean	SD	Mean	SD		
Body Density	25	1.08	0	1.09	0	0	-
	25	1.08	0	1.09	0	0	-4.36

No significant at any level.

Table no. 7 represent that the mean score of density of wrestling male players 1.08, SD 0 and the mean score of density of judo male player 1.09, SD is 0 and the SED is 0 and t-ratio score is -4.36 and not significant at any level. It means that there is similar difference in body density of judo male players and wrestling male players. In hypothesis there would

be a great significant difference in body density. But now the hypothesis was not significant at any level so the hypothesis was rejected.



No significant at any level

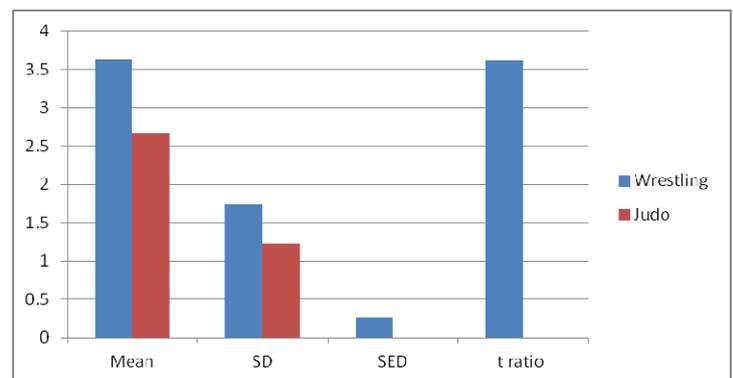
Graph-7.1: Graphical presentation of body compositions of body density of wrestling and judo male players.

Table 7.2: Comparison of body compositions of fat weight of wrestling and judo male players.

Variables	no. of players	Wrestling		Judo		S.E.D	T ratio
		Mean	SD	Mean	SD		
Body fat weight	25	3.62	1.74	2.67	1.22	0.26	3.61
	25	3.62	1.74	2.67	1.22	0.26	3.61

The significant at the 0.01 level of the confidence.

Table no.8 represent that the mean score of body fat weight of wrestling male players 3.62, SD is 1.74 and the mean score of body fat weight of judo male player 2.67, SD is 1.22 and the SED is 0.26 and t-ratio score is 3.61 and the significant at the 0.01 level of the confidance. It means that the wrestling players have been found better in density as compared to judo players. In hypothesis there would be a great significant difference in body fat weight. But now the hypothesis was significant at 0.01 level of the confidance so the hypothesis was accepted.



Graph-7.2: Graphical presentation body composition of fat weight of wrestling and judo male players.

8. Conclusion

In complete analysis of the finding of the present study that the It is also found that the fat weight of wrestling players is higher compared to judo male players. But there was similar difference between wrestling male players and judo male players in case of body density.

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