

Comparison of Anthropometric Measurements among Selected Sports

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Abstract

Evaluating handball and volleyball players' anthropometric measures was the goal of the study. Twelve male volleyball players and twelve male handball players from LNIPE, Gwalior participated in the study. After the information needed to compare the anthropometric characteristics listed above was acquired, four anthropometric variables were chosen for this investigation. The anthropometric factors of volleyball and handball players did not differ significantly, according to the findings of the Independent t-test, which was used to determine if there was a difference between the two groups' anthropometric variables.

INTRODUCTION

Volleyball is a very dynamic sport since players often perform a range of sprints, hops, and high-intensity court maneuvers throughout competition. Anthropometric characteristics and physical performance are important in carrying out these movement patterns successfully. Anthropometric studies of handball players have frequently shown that height is essential for throwing and blocking, and that a slightly big body mass is required for one-on-one play. The better youth players as identified by selection were taller than the "nonelected" children, but there was no difference in size between the two groups. As a result, it is at best uncertain if handball players' height and weight have any bearing on their performance. Given that handball is a physically demanding sport, power, strength, speed, and endurance are considered to be important factors in performance. Comparing the individual player quality within a team (e.g., starters vs. non-starters) or the ranking of the different teams in a tournament can be used to assess the overall player quality in competitive athletics. When these variables are combined, the sensitivity of the evaluation of the overall skill level of athletes in sporting events is enhanced. The purpose of this study was to assess the anthropometric measurements of handball and volleyball players. The anthropometric measures of volleyball and handball players were expected to differ substantially, according to the study's premise.

METHODOLOGY

Twelve male athletes, aged between 18 and 24, who played handball and volleyball respectively, and belonged to their respective match practice groups at the LNIPE, Gwalior, were chosen as research subjects. Table 1 displays the anthropometric measures used in the investigation.

Table 1

Selected Variables	Test	Criterion measures
Anthropometric Measurements	Standing Height	Wall scale
	Weight	weighing machine
	Thigh girth	Gulic tape
	Calf girth	gulic tape

Anthropometric measurements tests suggested by Peter Hirtz were used to collect the data. All of the subjects were reviewed and shown before the exam started, giving students plenty of practice opportunities to get comfortable with the format. A complete warm-up preceded the acquisition of the data. The anthropometric measures of volleyball and handball players were evaluated using an independent t test. A significance level of 0.05 was established.

FINDING**Table 2****Anthropometric Measurements of Selected Players**

Variables	Volleyball			Handball			t-test
	Mean	S.D.	σ DM	Mean	S.D.	σ DM	
1. Height	165.83	4.77	1.40	160.91	4.10	1.18	1.23
2. Weight	64.41	4.34	1.31	64.58	7.40	2.13	.768
3. Thigh Girth	44.41	20.3	5.63	53.66	3.96	1.14	.563
4. Calf Girth	36.33	2.13	.63	37.25	2.66	.76	.368

$t_{0.05} (22) = 2.07$

Given that the computed value (1.23) was smaller than the tabulated value (2.07) at the 0.05 level of significance, Table 1 indicates that there was no significant difference in standing height between volleyball and handball players. The total body weight of handball and volleyball players did not differ substantially since the computed value (.768) was less than the tabulated value (2.07). At the 0.05 level of significance, there was no significant difference in thigh circumference between volleyball and handball players since the computed value (.563) was lower than the tabulated value (2.07). There was no statistically significant difference in the calf girths of the handball and volleyball players, as indicated by the computed value (.368), which was smaller than the tabulated value (2.07).

CONCLUSION

There are no noticeable differences between volleyball and handball players based on any anthropometric measure. In addition to their favourite sports, volleyball and handball, the students participated in a variety of activities. After almost three hours of general exercises, the patients played handball or volleyball for about an hour. The workout schedule of the professional physical education students must have contributed to the insignificant outcomes. This could be because the chosen subjects were physical education experts who spent most of the day engaging in a range of activities but just a little amount of time in the chosen sports. The impacts of participating in other sports have to be countered by handball and volleyball players, resulting in a statistically insignificant difference. The data suggests that there is no statistically significant difference in the anthropometric traits of volleyball and handball players.

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