



A Comparison Of Anthropometric Variables Between Winner And Loser Volleyball Players

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ABSTRACT

The purpose of the present study was to find out the comparison between selected Anthropometric Variables between winner and loser Volleyball players. 96 University Volleyball players from different universities, age ranging from 17 to 25 years having minimum North Zone Inter University level participation or position holders in Volleyball competitions have been selected. The random sampling technique has been used to collect the required data. The comparison between winner and loser Volleyball players on selected Anthropometric variables were established, for each variable, After statistical analysis, the value of mean and standard deviation of the anthropometric variables were computed and 't' test was applied to find out the significance of difference between the scores of winners and losers on anthropometric variables. The study was tested at .05 level of significance.

Finding: The study revealed that winner group among winner- loser category was better than other groups on anthropometric variables.

Keywords: Anthropometric Variables, Winners, Losers

INTRODUCTION

Sports and Athletes have been a part of the world culture for several centuries. Over the centuries players have been trained to compete in sporting events that have required them to put their bodies through painstaking training. The training that the athletes underwent years before, evidently will be sufficient for the athletes of that time phase, but today's athletes have to do follow training which is more efficient, more effective training techniques, to surpass athletes of previous times, thanks to present day science.

Performance in any sports depends upon certain factors i.e. physique and body composition, physiological and psychological etc. out of these physique and body composition are most important. Similarly, many researches have been conducted in Volleyball showed that it dependent upon physiques, general physical fitness, specific physical fitness, skill involved in the game, tactical jollities and competitive abilities etc. of players (Milvi 2007). From these studies it is concluded that physique, body

composition and physical fitness are essential ingredients for excellence performance at different levels of participation in Volleyball. Since physique and body composition provide a suitable raw material for specific game and sports, without proper parameters of size, shape and body composition, it is useless to spend lot of money and time on such type of Volleyball players for their conditioning and training programs who are not suitable for this game. The selection and training can be done better with adequate knowledge of Anthropometric measurements of the successful Volleyball players. The present study was attempted to provide guidelines about the relationship of selected Anthropometric variables and Volleyball performance so that physical education teachers and coaches can be benefited to inform their trainees about the specific qualities that should possess for each Volleyball player.

OBJECTIVES OF THE STUDY

The present study has the following objectives.

1. To find out significant differences between total sample of winner and loser volleyball players on the Anthropometric variable Height.
2. To find out significant differences between total sample of winner and loser volleyball players on the Anthropometric variable Weight.
3. To find out significant differences between total sample of winner and loser volleyball players on the Anthropometric variable BMI.

METHODOLOGY

For the present study 96 University Volleyball players, age ranging from 17 to 25 years having minimum North Zone Inter University level participation or position holders in Volleyball competitions have been selected. The random sampling technique has been used to collect the required data. Various Anthropometric variables, i.e. Height, Weight, BMI were assessed. Top four teams in North Zone Volleyball tournament were considered as winner and four teams who lost in first round were declared as losers.

STATISTICAL ANALYSIS

The data obtained through test was compiled and tabulated. After the statistical analysis, the value of mean and standard deviation was computed and 't' test was applied to find out the significance of difference between the scores of winner- loser on anthropometric variables. The study was tested at .05 level of significance.

RESULTS AND DISCUSSION

Difference between winner and loser volleyball players on anthropometric parameters

Table 1. : Mean Height(cm.) of athletes according to their playing outcome

Playing outcome	N	Mean	Standard deviation	Mean difference	t	df	p- value

Winner	48	196.56	3.32	2.397	2.794	94	0.006 ^S
Loser	48	194.17	4.93				

S –Significant (p<0.05)

Mean Comparison of athletes according to their height and playing outcome is shown in Table 1. The mean height of winner team athletes was 196.56 ± 3.32 which was presenting mean difference of 2.397 over Loser athletes i.e. 194.17 ± 4.93 . The mean height of Loser was significantly ($t= 2.794, p=0.006(p<0.05)$) lower than winner. The mean and SD described above for winner and Loser athletes are shown in a graphical way in Figure 4.18.

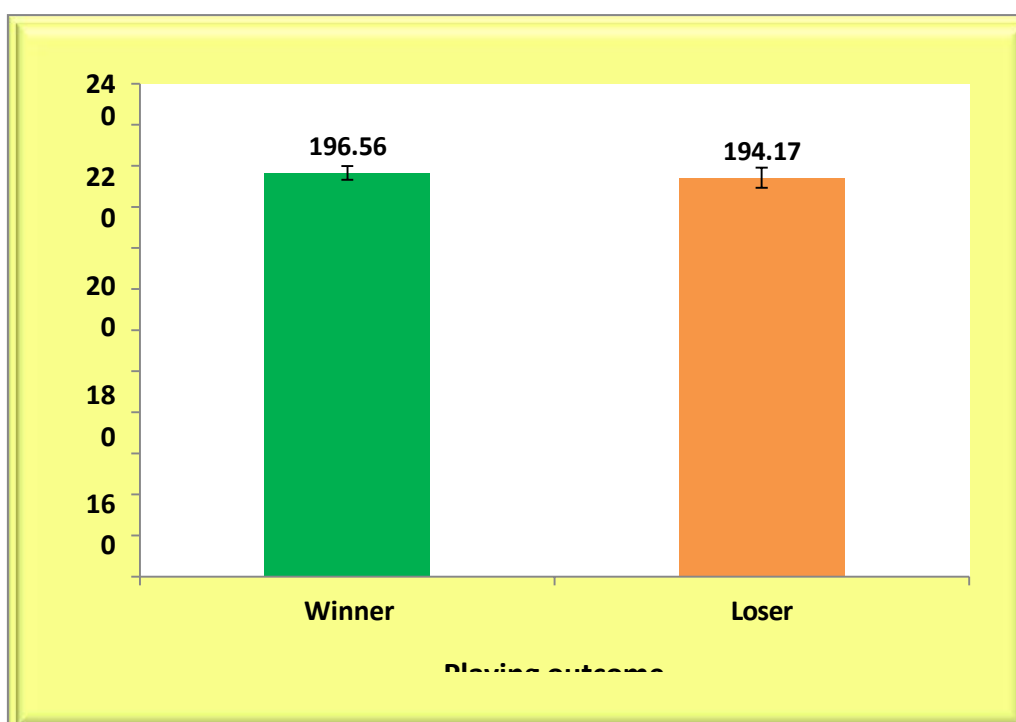


Figure 1: Mean comparison of Height according to playing outcome

Table 2 : Mean Weight(Kg.) of athletes according to their playing outcome

Playing outcome	N	Mean	Standard deviation	Mean difference	t	df	p-value
Winner	48	85.75	3.65	-0.445	-0.540	94	0.590 ^{NS}
Loser	48	86.19	4.40				

NS - Non Significant (p>0.05)

The results of present Table 4.25 suggested that weight has no impact on playing outcome of athletes. Average weight of winner athletes (M-85.75) was little less than Loser athletes (M-86.19). The mean difference (-0.445) between the two groups was statistically non-significant ($t= -0.540, p=0.590(p>0.05)$). The same has been shown in the graphs below Figure: 4.19.

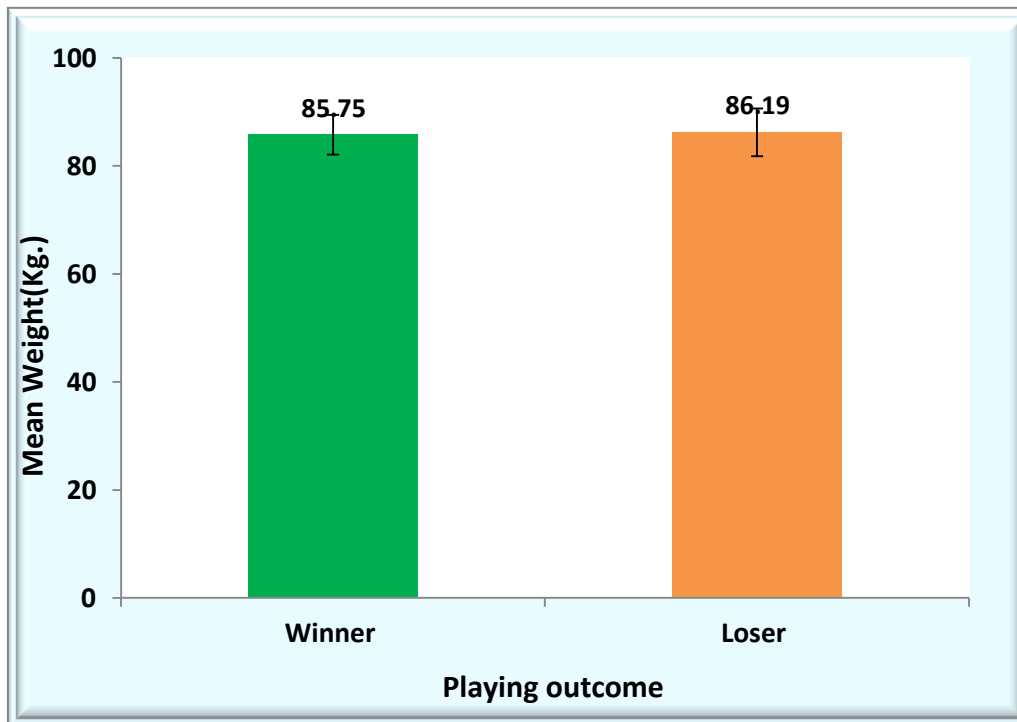


Figure 2: Mean comparison of Weight according to playing outcome

Table 3: Mean BMI (Kg./m²) distribution among athletes according to their playing outcome

Playing outcome	N	Mean	Standard deviation	Mean difference	t	df	p-value
Winner	48	22.20	1.16	-0.677	-2.626	94	0.010 ^S
Loser	48	22.88	1.35				

S – Significant (p<0.05)

Distribution of BMI among volleyball athletes according to playing outcome is shown in Table 3. Although both groups have average BMI within normal range yet the mean BMI of Loser (M-22.88) group was significantly (t -2.626, p-0.010(p<0.05)) more than winner(M-22.20) athletes. The means difference between both groups was -0.677. The Figure 4.20 below shows the mean distribution of BMI according to playing outcome.

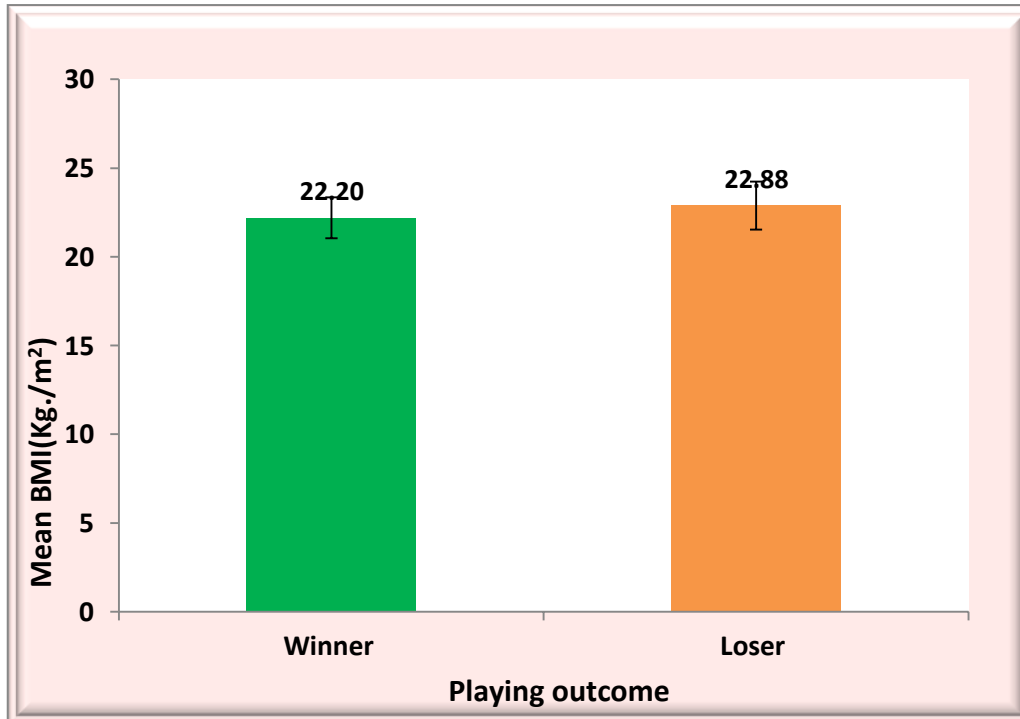


Figure 3: Mean comparison of BMI according to playing outcome

CONCLUSIONS OF THE STUDY

1. Taller athletes in the team can prove an asset for winning the competitions as winner team athletes had more average height.
2. Mean weight of loser team was non-significantly higher than winner team athletes.
3. Average BMI of loser team was significantly higher than winner team

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