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Anthropometric personality profile of under nineteen volleyball and cricket players

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Abstract
Study was carried with the intention to analyses anthropometric personality profile of under nineteen volleyball and cricket players of Kashmir division. The study was carried in context of descriptive researcher. Whole data was selected with the help of Random Sampling Technique (RST). 400 respondents were selected with due representation of game. In the anthropometric profile was body mess was calculated. The collected data was subjected to statistical treatment by using Mean, Standard Deviation and 't' test. Keeping in view, it was found that there exists significant impact of type of game on profile of body mass of the players. Volleyball players were reported with high level of anthropometric profile relatively that their counter parts (cricket players). Thus, from the above reported result the investigator can generalise that volleyball game has significant association with the body mass level of the respondents.

Keywords: Anthropometric personality profile, under nineteen volleyball, cricket players

Introduction
Anthropometry is a branch of ergonomics that deals specifically with the measurement of people, particularly with measurements of body size, shape, strength and working capacity (Pheasant, S.T., 1998). This measurement data is used to describe or paint a picture of the user population for a particular measure of the body. By applying anthropometry, we attempt to design the working environment around the person, rather than placing constraints on them because they have to adapt to what is provided. If anthropometric factors are taken into consideration when products are designed, the outcome is likely to be increased acceptability, improved ease and efficiency of use, and therefore greater operational safety and cost effectiveness. When considering the design and use of equipment, the term 'average person' is often referred to and used. However, very few people would actually fit such a pattern. The body is made up anthropometrically of several functional parts, such as sitting height, forward grip reach waist height and head circumference. Height is often used as a design criterion, but a 'tall' person can either have a long or short body and long or short legs. Thus, although many people will fit average garments (using clothing as an example), and garments can be sized to increase the probability of a reasonable fit, the efficiency of the garment or ensemble may be compromised, especially when free movement is further influenced by, for example, wearing breathing apparatus and a harness. When products are designed around the 'average person', many of the population are excluded from using them, since they fall well outside of this average. Indeed, large number of research studies has been conducted on anthropometric personality profile like; Vaid, S., Kaur, P., & Lehri, A. (2009) [25], Toji, H, Suei, K, & Kaneko, M. (2012) [23], Toji, H, Suei, K, & Kaneko, M. (2012) [24], Stephanie J. S., Julie, B. S., Leslie, D. (2011) [22], Slater, M. D. (1996), Barr, A. (2007) [21], Bangsbo, J, Mohr, M, and Krustrup, P. (2006) [19] and Adams, K, O., Shea, J. P., Shea, K. L., & Climstein, M. (1992) [2]. Accordingly, the investigator feels it pertinent to explore the level of physical fitness of the female respondents in relation to their type of game played by the respondents. The detailed statement of the problem is as under:

Research Problem: The statement of the research problem is as under:
Anthropometric Personality Profile of Under Nineteen Volleyball and Cricket Players

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Objectives of the Study: The objectives of the present study are as under:

a) To explore the anthropometric personality profile of under nineteen volleyball and cricket players.

Hypothesis: Following hypothesis has been framed for the present study:

a) There exists no significant difference between volleyball and cricket on their level of body mass index.

Operational Definition of Terms And Variables: The operational definitions of terms and variables are as under:

1) **Anthropometric profile:** Anthropometric profile in the present study refers the body mass score of the respondents measured with the help of body mass index.
2) **Volley ball players:** Volley ball players in the present study refers those players who are reading in selected Higher Secondary Schools are playing volleyball game since last four years in any outstanding team. All required volleyball players were selected below the age of 18 years.
3) **Cricket players:** Cricket players in the present study refers those players who are reading in selected Higher Secondary Schools are playing cricket game since last four years in any outstanding team. All required Cricket players were selected below the age of 18 years.

Research Limitations Of The Study: The study will be delimited to anthropometric profile of the respondents. Besides. it is imperative to mention here that only below body mass of the respondents was explored.

Rationale Of The Study: Keeping the feasibility and usability of the study under consideration, the researcher found it suitable to go through descriptive survey method. Accordingly, present study was carried with the help of descriptive method. The parameters involved in methodology and procedure are as under:

- **Sample:** Representative samples of 400 Players were selected. However, due representation was given on the basis of type of game. More obviously 200 volley ball and 200 cricket players were selected by using convenient sampling technique. Whole sample was collected from below mentioned sampling sites in Jammu province of Union Territory of Jammu and Kashmir.
- **Sampling technique:** Whole data was selected by using Convenient Sampling Technique (CST).
- **Measuring Instruments:** All the three components were assessed separately the detailed analyses of these instruments is reported as under:
- **Body Mass Index (BMI):** Both the measurement of height and weight was intended to explore the body Mass Index of the sealed respondents on the basis of their type of game. Body Mass Index (BMI) was calculated as under:

$$BMI = \frac{Body\ weight\ in\ KGs}{(Meter)2}$$

Analysis and interpretation of the data: The intention behind the study was the make a comparative analysis of the respondents. In connection to same, collected data was put to suitable statistical treatment by using Mean, S. D. and 't'

value. The detailed procedure of statistical treatment is analysed as under:

Table 1: Showing the descriptive analysis of volleyball and cricket players (VB&CP) on various level of Body Mass Index (BMI). (N=200 each)

S. No	Levels of BMI	Volleyball Players		Cricket Players	
		%	Frequency	%	Frequency
1	Thin	10	20	45	90
2	Healthy	62.5	125	40	80
3	Overweight	27	54	14.5	29
4	Obese	0.5	1	0.5	1
	Total	100	200	100	200
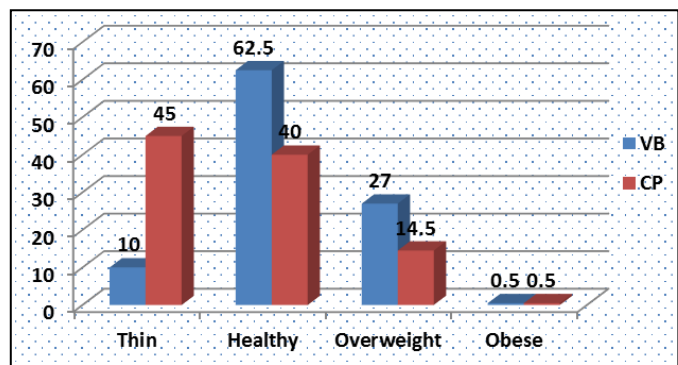
Fig 1: Showing the graphical representation of volleyball and cricket players (VB&CP) on various level of Body Mass Index (BMI).

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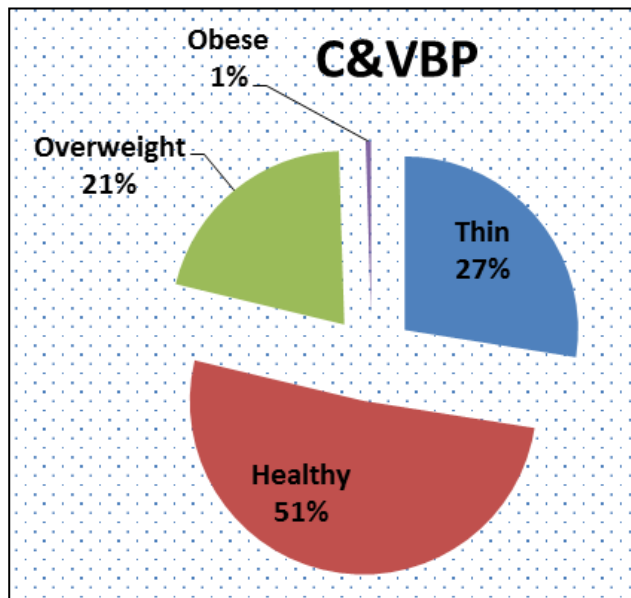- VBP=Volley Ball Players
- CP= Cricket Players

The perusal of the table 1 (Please consult Table 1.1 associated with Fig. 1.1) reveal that the achievement of the volleyball and cricket players on their anthropometric profile with special reference to body mass index.

The calculation of the body mass index reveal that among volleyball players 10% (F=20) were seen with thin profile. In context to same, It was found that 62.5% (F=125) volley ball payers were reported with healthy profile of their body mass index. Besides, the same table reveals that 27.00% (F=54) volley ball payers were seen with overweight body mass index. In pursuance to same, the results justify that 0.5% (F=01 volley ball payers were reported with obsessive level of body mass index. Coming towards the cricket players, it was found that 45% (F=90) cricket payers were reported with thin level of body mass.

Mean, the results presented in the same table report that 40% (F=80) cricket payers were seen with healthy level of body mass. Further, the obtained results justify that 14.5% (F=29) cricket payers were seen with overweight body mass. Moreover, 0.5% (F=01 cricket payers were reported with obsessive level of body mass profile.

Table 2: Showing the aggregate descriptive analysis of volleyball and cricket players (VB&CP) on various level of Body Mass Index (BMI). (N=200 each)

S. No	Levels of BMI	Cricket & Volleyball Players	
		%	Frequency
1	Thin	110	27.5
2	Healthy	205	51.25
3	Overweight	83	20.75
4	Obese	2	0.5
	Total	100	200

Fig 2: Showing the graphical representation of volleyball and cricket players (VB&CP) on various levels of Body Mass Index (BMI).

The perusal of the Please consult Table 2 associated with Fig. 1) reveal that the achievement of the volleyball and cricket players on their composite anthropometric profile with special reference to body mass index. The calculation of the body mass index reveal that among volleyball and cricket players 27.5% (F=110) were seen with thin profile. In context to same, It was found that 205% (F=51.25) volley ball payers were reported with healthy profile of their body mass index. Besides, the same table reveals that 20.75% (F=83) volley ball payers were seen with overweight body mass index. In pursuance to same, the results justify that 0.5% (F=02) volley ball payers were reported with obsessive level of body mass index.

Table 3: Showing the significance of mean difference between volleyball and cricket players (M&AP) on composite score Body Mass Index (BMI). (N=200 each)

Variable	VP		CP		't' value
	Mean	SD	Mean	SD	
BMI	33.94	3.14	21.90	4.06	5.01 @@@

Index:
- BMI= Body mass index
- VP= Volleyball players
- CP= Cricket players
  @@@= Significant at 0.01 level of confidence
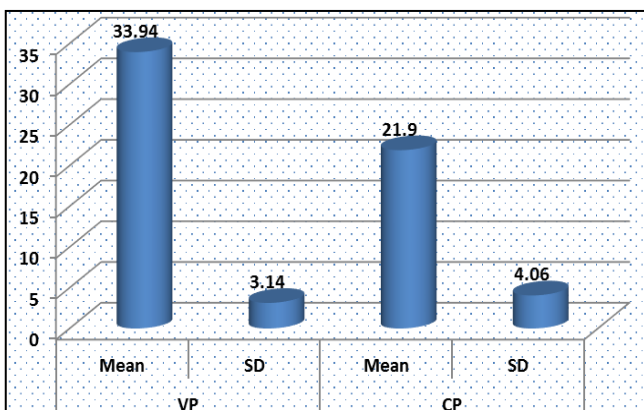
Fig 3: Showing the graphical representation of volleyball and cricket players (M&AP) on composite score Body Mass Index (BMI).

Index
- AC= Anthropometric Characteristics
- VP= Volleyball players
- CP= Cricket players

Interpretation: While glancing towards the table 1.3, (Please consult table 1.3, associated with Fig. 4.7) gives information about the mean comparison of volleyball players and cricket players on their anthropometric profile. The perusal of the obtained results indicate that the mean score of volleyball players was reported 33.94, which is relatively higher than the mean value of cricket players (M=21.90, SD. 4.06). When the both groups were analysed with the help of independent 't' test, the results indicate that the calculated 't' value came out to be 5.01, which is higher than the table value at 0.01 level of confidence. Thus, the perusal of the same table justify that exists significant impact of type of game on profile of body mass of the players. Volleyball players were reported with high level of anthropometric profile relatively that their counter parts (cricket players). Thus, from the above reported result the investigator can generalise that volleyball game has significant association with the body mass level of the respondents.

Thus, from the above reported results significant difference has been reported between volleyball and football players on their anthropometric profile. Accordingly, the status of hypothesis is reported as under:

Hypothesis: "There exists no significant difference between volleyball and football players on their level of body mass index".

Status: Rejected

The above reported hypothesis has been rejected at 0.01 level of confidence as significant difference has been reported. The results are supported by group of researchers notable among them are; "Vaid, S., Kaur, P., & Lehri, A. (2009) [25], Toji, H, Suei, K, & Kaneko, M. (2012) [23], Toji, H, Suei, K, & Kaneko, M. (2012) [24], Stephanie J. S., Julie, B. S., Leslie, D. (2011) [22], Slater, M. D. (1996), Barr, A. (2007) [21], Bangsbo, J, Mohr, M, and Krustrup, P. (2006) [19] and Adams, K, O., Shea, J. P., Shea, K. L., & Climstein, M. (1992) [2].

Conclusion: The aim of the study was to explore the anthropometric personality profile of under nineteen volleyball and cricket players. Keeping in view, it was found that there exists significant impact of type of game on profile of body mass of the players. Volleyball players were reported with high level of anthropometric profile relatively that their counter parts (cricket players). Thus, from the above reported result the investigator can generalise that volleyball game has significant association with the body mass level of the respondents.

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