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Anthropometric personality profile of rural and urban students of Kashmir division

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Abstract
Present study was carried with the intention to analyses anthropometric personality profile of rural and urban students 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 from Srinagar and Anantnag District with due representation of locality. The collected data was subjected to statistical treatment by using Mean, Standard Deviation and 't' test. The study revealed that there is no significant difference between rural and urban secondary school students on their level of anthropometric profile (Body mass index). Thus, the investigator generalise that impact of locality is insignificant on their level of anthropometric profile (Body mass index) of rural and urban students.

Keywords: Anthropometric personality profile, rural students, urban students

1. Introduction
Anthropometry plays an important role in deciding the particular built of the body with various measurements of the body segments, suitable for a particular game and sports and essentially helpful to excel in that game. 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. 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.

Changes in body dimensions reflect the overall health and welfare of individuals and populations. Anthropometry is used to assess and predict performance, health and survival of individuals and reflect the economic and social well-being of populations. Anthropometry is a widely used, inexpensive and non- invasive measure of the general nutritional status of an individual or a population group. Recent studies have demonstrated the applications of anthropometry to include the prediction of who will benefit from interventions, identifying social and economic inequity and evaluating responses to interventions. Tanner (1964) pointed out that it might be assumed that an individual's physique and body composition either greatly limits or in some instance, pre-disposes that individual, successful participation in one activity or another. Addison like height and limb lengths etc.

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Anthropometry can be used for various purposes, depending on the anthropometric indicators selected. For example, weight-for-height (wasting) is useful for screening children at risk and for measuring short-term changes in nutritional status. However, weight-for-height is not appropriate for evaluating changes in a population over longer time periods. A clear understanding of the different uses and interpretations of each anthropometric indicator will help to determine the most appropriate indicator(s) for program evaluation. For more detailed explanations of age and sex specific appropriate anthropometric uses. The major concern of anthropometry is height weight or body mass index of an individual. It is evident that increased body weight influences not only life expectancy but every dimension of health including physical, emotional, psychological, and social life (Djalalinia, Qorbani, Peykari, & Kelishadi, (2015) [5]. The negative impact of overweight comes with many psychological complexities among young females. It can be the cause of reduced the level of Quality of Life, low level of Psychological well-being and less satisfaction toward life. It is a well-known fact that the impact of overweight is not limited to physical health but also disturb the quality of life, especially in female (Busutil et al., 2017) [3]. Studies were conducted to measure the relevance of BMI with the perception of weight-specific quality of life within the obese population. Results confirmed that the obese population presented more relevant information and presented a significant change in well-being with a change in weight. Consequently studies conducted by large number of researcher are holding the view that body mass index is the fundamental concern for physical fitness notable studies are; Hauber, et al., (2010) [6], Weinberger, K. L. (2010) [25] Kersting, R. H., (2015), Luck, S., (2016) [25]. Quwaidhi, P., C., (2010) Sobngwi, & Flaherty, (2014) [1], Sand, Emaus, & Lian, (2015) [22]; Yazdani et al. (2018) [26]. However, in context of Kashmir valley there may be hardly any study which has explored the existing research problem. Therefore, the investigator found wide gap of research to explore the below mentioned research problem.

1.2 Research problem: The statement of problem for the present study is as under:
"Anthropometric Personality Profile of Rural and Urban Students of Kashmir Division"

1.3 objectives of the study: The objectives of the present study are and under:
1) To explore the anthropometric profile of rural and urban students on the basis of their body mass index.

1.4 hypothesis of the study: On the basis of richness background of the knowledge the investigator speculated the bellow mentioned hypothesis.
1) There exists no significant difference between rural and urban students on the level of body mass manifestation (Selected anthropometric personality profile).

1.5 Operational definition of terms and variables: The operational definitions of terms and variables are as under:
1) **Anthropometric Personality Profile:** Anthropometric profile in the present study refers the measurement of the respondents on the basis of their body mass index.
2) **Urban secondary school students:** Urban secondary school students in the present study refer those 11th and 12th class students who are reading the selected higher secondary schools of Srinagar district. Srinagar district in the present study was taken as urban district.
3) **Rural secondary school students:** Rural secondary school students in the present study refer those 11th and 12th class students who are reading the selected higher secondary schools of Anantnag district. Anantnag district in the present study was taken as urban district.

1.6 Delimitations of the study: The present study will be confined to the following aspects:
1) The present study will be delimited to two District of Kashmir division.
2) The present study will be delimited to professional and non-professional students within the age group of 18-20 years.
3) In the anthropometric profile the present study will be delimited to only calculation of body mass index of the respondents.
4) The present study was delimited to male respondents only.

❖ **Methods and material:** The study aims to evaluate the difference in BMI of rural and urban secondary school students. The present study used a descriptive, comparative research design. This study is quantitative.

❖ **Participants** The participant of this study comprised (n= 400) professional and non-professional students on the basis of rural urban dichotomy. Bachelor of physical education students were treated as professional and Bachelor of arts were treated as non-professional students. All the students within the age group of 18-20 years were selected. Exclusion criteria applied to those respondents who were having any health-specific condition, i.e. pregnancy or registered in diet control programs.

❖ **Measuring criteria:** The calculation of anthropometric measurement was made on the basis of Body Mass Index (BMI). The body mass index was calculated with the help of below mentioned formula. The body mass index was calculated by using "Matric System"

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

1.7 Analysis and interpretation of the data: The collected data was analysed and interpreted. Bothe descriptive analysis as well as comparative analysis was calculated. The detailed analysis and interpretation is reported as under:

Table 1.1: Showing the descriptive analysis of rural and urban on various level of Body Mass Index (BMI). (N=200 each)

S. No	Levels of BMI	Rural students		Urban students	
		Frequency	Percentage	Frequency	Percentage
1	Thin	20	10	25	12.5
2	Healthy	176	88	170	65
3	Overweight	04	2.0	05	2.5
4	Obese	00	00	00	00
	Total	200	100	200	100
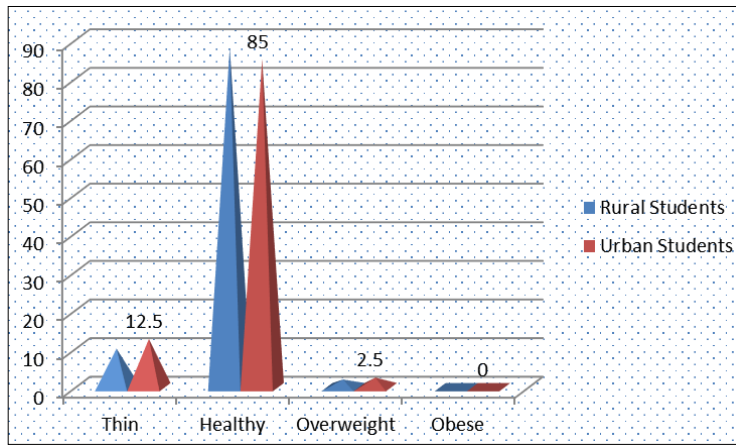
Fig 1.1: Showing the graphical representation of rural and urban on various level of Body Mass Index (BMI).

The perusal of the table 1.1 (Please consult Table 1.1 associated with Fig. 1.1) reveal that the achievement of the rural and urban students on their anthropometric profile with special reference to body mass index. The calculation of the body mass index reveal that among rural students indicate that 10% (F=20) were seen with thin profile. In context to same, It was found that 88% (F=176) were reported with healthy profile of their body mass index. Besides, the same table reveals 2.5% (F=04) rural students were seen with overweight body mass index. In pursuance to same, the results justify that 0.0% (F=0.00) rural students were reported with obsessive level of body mass index. Coming towards the cricket players, it was found that 12.5% (F=25) cricket payers were reported with thin level of body mass. Mean, the results presented in the same table report that 65% (F=170) urban students were seen with healthy level of body mass. Further, the obtained

results justify that 2.5% (F=04) cricket payers were seen with overweight body mass. Moreover, 0.00% (F=00) urban students were reported with obsessive level of body mass profile.

Table 1.2: Showing the significance of mean difference between rural and urban (R&UP) on composite score Body Mass Index (BMI). (N=200 each)

Variable	Rural players		Urban Players		't' value
BMI	**Mean**	**SD**	**Mean**	**SD**	
	44.84	5.24	44.80	6.24	0.8@@@

Index

- BMI= Body mass Index
- @@@= Insignificant at 0.01 level of confidence
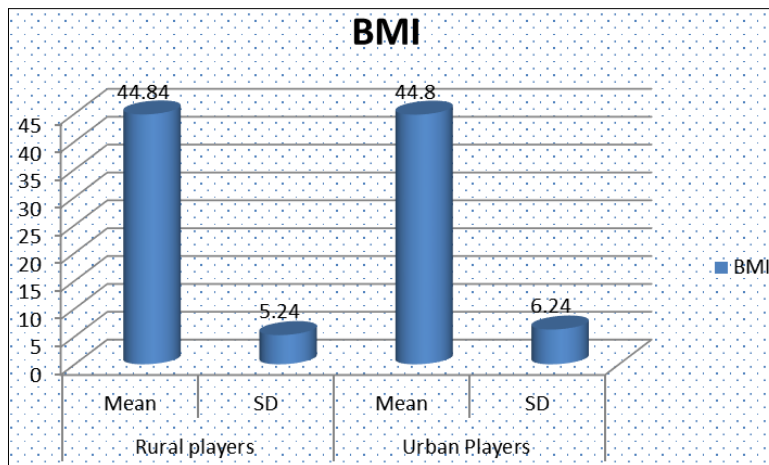
Fig 1.2: Showing the graphical representation of rural and urban (R&UP) on composite score Body Mass Index (BMI).

The inception of the table 1.2 (Fig. 1.2) gives the examination of rural and urban players with special reference to their men significant difference on their body mass index. The result reveal that the mean score of rural players was found 44.84 while as the mean score of urban players was reported 44.80. Relatively speaking the mean difference is meagre. When the both groups were comparatively analysed the ''t value came out to be 0.8 which is lower than the table vale at 0.01. level of confidence. So from the above reported results it can be seen that there exists no significant different on the basis of body mass index of the respondents. Thus, from the above reported results it can be said that the impact of locality seems significant on the level of body mass index of the respondents.

Indeed insignificant difference has been reported between rural and urban secondary school students on their level of body mass index. Thus, the status of the null hypothesis is reported as under

Null Hypothesis	"There exists no significant difference between rural and urban secondary school students on their level of body mass manifestation"	Accepted

No significant difference has been reported between rural and urban secondary school students on their anthropometric profile. The results are supported by host of the researchers like; Ishaq, N. (2019) [8], Iversen, V. P. & P. Kraft (2006) [9],

Iyer, R., James, A. M. (2008) [10], Jain, M. (2018) [11], Kansal, D.K., (2006) [13], Kapoor, D.; Munjal, (2012) [14], Kaskutas, L. A., & Greenfield, T. K. (1997) [15].

1.8 Suggestions of the study: Based on the entire research process, the investigator enumerated the below mentioned suggestions:

1) Efforts should be made to avail healthy life style for defeating the obesity and overweight in the anthropometric profile. Leading a healthy lifestyle can help avoid people from getting serious illnesses. Healthy lifestyle choices such as eating a prudent diet, exercising regularly, and not smoking may substantially reduce coronary heart disease (CHD) risk or any other chronic diseases.

2) The most important step for a person to have a balanced anthropometric profile is by taking care of his or her food intake. According to Davis and Stoppler (2018), a person must eat three meals a day which are breakfast, lunch, and dinner, and he or she must control the size of the meal every time he or she wants to eat.

3) Another major contributor to a healthy lifestyle is to do physical activity or exercise Exercises such as swimming, yoga, pilates, jogging, aerobics and others are good for the body and mind. People who are not used to exercise should remember to stretch all of their body parts before they do intense physical activities so they will not get hurt during the activity. Moreover, exercises can help to improve a person's body strength, balance and flexibility. It can also help to increase self-esteem and self-confidence, decrease stress and anxiety, enhance mood, and improve general mental health. It can also help control weight gain and lose fat and thus individual can maintain balance in his life system.

4) Getting enough sleep is very important to all age and for example, most adults need 7 to 8 hours of deep sleep in order to function optimally and to maintain a healthy lifestyle. In addition to that, getting enough sleep has been strongly linked to proper immune system functioning and also cardiovascular health (Woo, 2018). As stated by Sparacino (2018), getting enough sleep is an important part of living a healthy lifestyle as it can help to ease their physical body and mental conditions.

❖ **Conflict of Interest:** During the entire research process no any conflict of interest was declared.

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