

Assessment of Body Fat Percentage of Female Teacher Trainees of Bhavan's Tripura Teacher Training College

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Abstract

To know the body fat percentage of female teacher trainees of Bhavan's Tripura Teacher Training College, the present study was carried out on 140 female teacher trainees belonging to Tripura and falling in the age range of 18 to 35 years. Stature, height, weight and BMI were taken to the standard procedure. Participants height and weight was measured without shoes and with light clothing to the nearest 0.1 kg, using a digital weighing machine. Their stature was measured to the nearest 0.1 cm using a standard stadiometer. BMI were measured by weight (kg)/height (cm.) X height (cm). Body fat percentage was calculated by using the BMI charts. Data on anthropometry revealed that out of total 140 teacher trainees of Bhavan's Tripura Teacher Training College screened (N=70) B.Ed female trainees and (N=70) D.El.Ed female trainees, mean height and weight in all the age group was considerably increasing due to the amount of body fat changes with their age. Out of 140 female teacher trainees 85 nos. were fallen in healthy weight category (normal) due to shows BMI chart within 18.5 to 24.9 ranges, 32 nos. female teacher trainees were fallen in over weight category due to shows BMI chart within 25 to 29.9 ranges, 19 nos. female teacher trainees were fallen in underweight category (thinness) due to shows BMI chart below 18.5 ranges & 04 nos. female teacher trainees were fallen in obesity category (obese) due to shows BMI chart within 30 to 40 ranges. The purpose of the study is to find out the current body fat percentage of female teacher trainees of Bhavan's Tripura Teacher Training College and also examine the difference in body fat percentage between B.Ed and D.El.Ed female teacher trainees.

Keywords: Body fat percentage, Body Mass Index, Female Teacher Trainees.

Introduction

BMI is an estimate of body fat and a good measure of patients risk for diseases that can occur with overweight and obesity. For adults, a healthy weight is defined as the appropriate body weight in relation to height. This ratio of weight to height is known as the body mass index (BMI). People who are healthy weight (BMI of 18.5–24.9) have a normal range they belonging accurate body weight for their height and overweight (BMI of 25–29.9) have too much body weight for their height. People who are obese (BMI of 30 or above) almost always have a large amount of body fat in relation to their height. The higher range of BMI, it results the risk for heart disease, high blood pressure, type 2 diabetes, gallstones, osteoarthritis, sleep apnea, and certain cancers (e.g., colon, breast, endometrial, and gallbladder).

Special attention should be paid to female teacher trainees considering their potential influence on the family and their contribution to the nation's workers in near

future. Due to their unique role in near future for the society, it is important to investigate the body fat percentage among the teacher trainees. To the best of our knowledge the study about the body fat percentage and the distribution of BMI categories of female teacher trainees in Bhavan's Tripura Teacher Training College are satisfactorily documented.

Anthropometry is the measurement of body height, weight and proportions. It is an essential component of clinical examination of infants, children, adults and pregnant women. To know the current Nutritional status of Male and Female Teacher Trainee in West Tripura District, the present study was carried out on 180 male & female Teacher Trainees belonging to West Tripura and falling in the age range of 18 to 42 years. For the study researcher has applied body fat assessment by Anthropometric methods that is Body mass index. The criteria used to interpret the meaning of the BMI number for children and teens are different from those used for adults. For children, teens and adults BMI age and sex specific percentiles are used for two reasons these are the amount of body fat changes with age and the amount of body fat differs between male and female. The purpose of the study is to find out the current Nutritional status of Male and Female Teacher Trainees in West Tripura District in Tripura.

The purpose of the present study was to investigate the prevalence of underweight and overweight among university students in Bangladesh and examine the difference in BMI between male and female students.

Objective of the study

- i. To find out the current Nutritional status of Male and Female Teacher Trainees in West Tripura District.
- ii. The study will assess the Nutritional status of Male and Female Teacher Trainees in West Tripura District.
- iii. To examine the difference in BMI between Male and Female Teacher Trainees.

Methodology

Selection of the Subjects

For the purpose of the study one hundred eighty (N=180) male & female Teacher Trainees were selected from Bhavans Tripura Teacher Training College in Tripura and their aged range in between 18-42 years.

Selection of the Variables

Keeping in mind the feasibility criteria, availability of equipments and the purpose of the investigation the following variables were selected.

Assessment of Nutritional Status:

- a) Nutritional Status was measured by Anthropometric methods of male and female teacher trainees.
 - i. Height (cm.)
 - ii. Weight (kg.)

b) The study was further delimited to the following indices to assess the nutritional status of Male and Female Teacher Trainees in West Tripura District.

i. BMI (Body mass index).

Selection of Tools

Weighing machine, calculator, stadiometer and BMI chart were used for the study.

Collection of Data

The data of the study was collected by using following method:-

i. Nutritional Status was determined by BMI (Body mass index).

Procedure

The BMI calculation requires getting the accurate height and weight measurements. Participants body weight was measured without shoes and with light clothing to the nearest 0.1 kg, using a digital weighing machine. Their stature or height was measured to the nearest 0.1 cm using a stadiometer.

Statistical Technique

For the purpose of the study to confirm the current nutritional status of male and female teacher trainees in West Tripura, descriptive statistics and BMI (Body mass index) was employed.

Results and Discussion

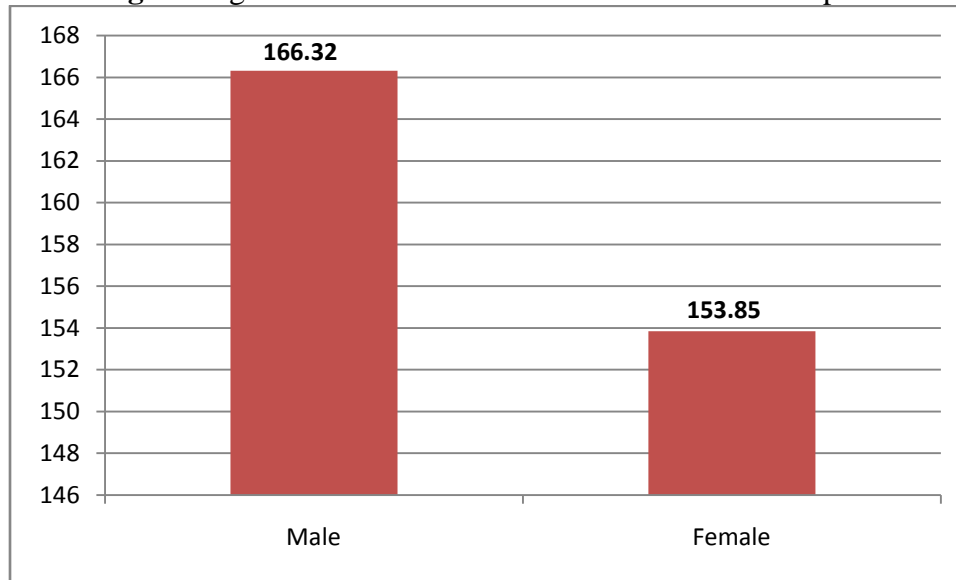
Table: I Mean values of current nutritional status of male and female teacher trainees

		Male Teacher Trainee	Female Teacher Trainee
	Total no. of Students	90	90
Height (cm.)	Mean	166.32	153.85
	SD	5.84	6.54
Weight (kg.)	Mean	61.90	56.14
	SD	9.81	9.99
BMI	Range	22.4	23.7

Table-I shows the mean and SD of Height from 18 to 42 years aged Male Teacher Trainee was 166.32 ± 5.84 & 18 to 42 years aged Female Teacher Trainee was 153.85 ± 6.54

The mean and SD of Weight from 18 to 42 years aged Male Teacher Trainee was 61.90 ± 9.81 , & 18 to 42 years aged Female Teacher Trainee was 56.14 ± 9.99

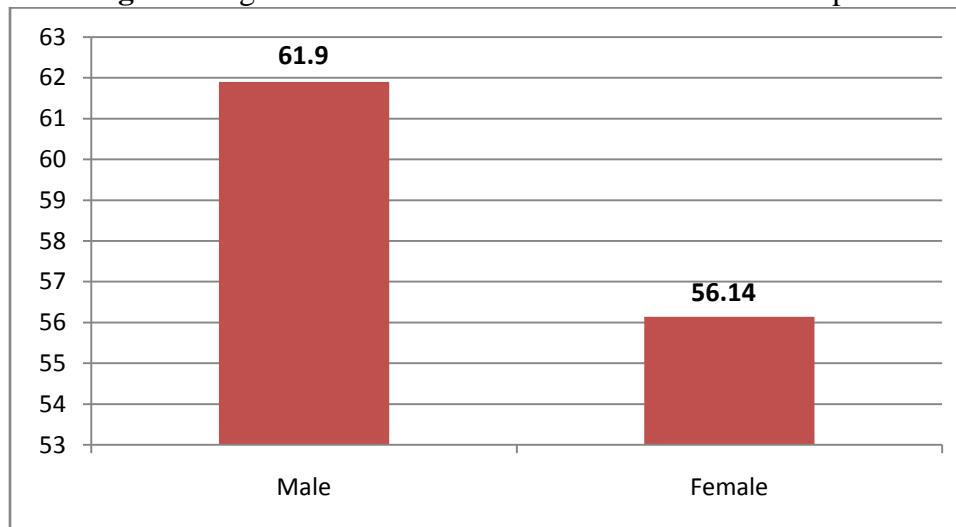
Fig- I Height of Male & Female Teacher Trainees in Tripura



Source: Primary Survey, 2021-22

Fig-I Shows the mean value of height on Male and Female Teacher Trainees of West Tripura. The figure shows that the frequency of height was increasing due to their age and nutritional food habit etc.

Fig- II Weight of Male & Female Teacher Trainees in Tripura



Source: Primary Survey, 2021-2022

Fig-II Shows the mean value of weight on Male and Female Teacher Trainees of West Tripura. The figure was increasing frequently due to their age, life style, physical exercise and nutritional food habit etc.

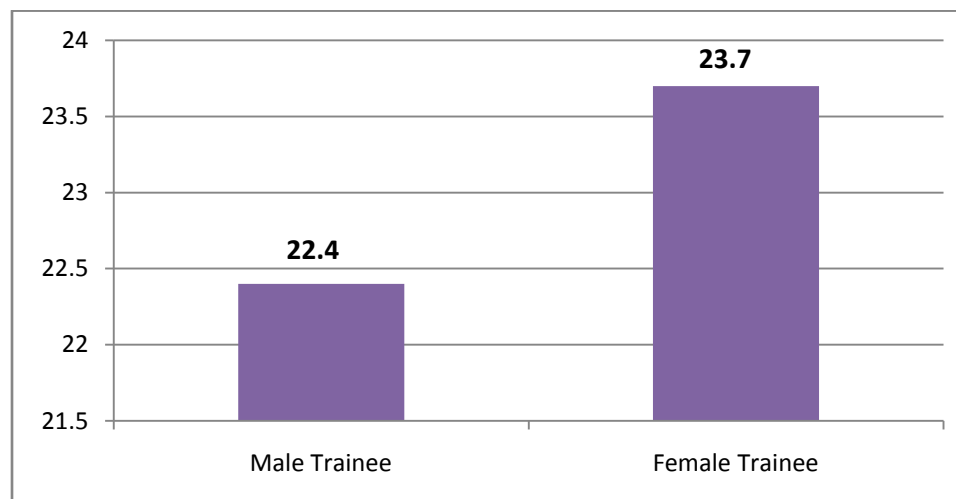
Fig: III Body mass index of Male & Female Teacher Trainees in Tripura

Fig-III Shows the body mass index of Male & Female Teacher Trainees in West Tripura. The figure was increasing frequently due to the amount of body fat changes with their age, height, weight and nutrition etc. The level of BMI shows that all the Male & Female Teacher Trainees in Tripura were laid down in healthy BMI range due to shows within 18.5 to 24.9 ranges.

Conclusion

Base on the study we can conclude that the:

- Height that was increasing with their age and male trainees are going to be taller than the female trainees.
- The weight also growing due to the amount of body fat changes with their age.
- BMI of Male & Female Teacher Trainees of West Tripura District was placed in healthy weight category due to the range lay down within 18.5 to 24.9.

References

- PYB, R. (1995). Nutritional status of pre-school children: Sugali community in Cuddapah district. *Health care service management. Hyderabad: Delta Publishing House*, 59-68.
- Q, Z. (2012). Percent body fat is a better predictor of cardiovascular risk factors than body mass index. *Braz J Med Biol Res*, 591-600.
- SA, J. (1993). Techniques for the measurement of body composition: a practical guide. *Int J Obes Relat Metab Disord*, 17: 611-21.
- SR, D. (2000). Utility of different measures of body fat distribution in children and adolescents. *Am J Epidemiol*, 1179-84.
- Maynard, L. M. (2001). Childhood Body Composition in Relation to Body Mass Index. *Pediatrics* 107, 344-350.
- Somawar, B. N. (2015). Assessment of nutritional status amongst bihor tribe childrens residing in Dharamjaigarh block of Raigarh district. *International Journal of*

Research in Medical Sciences.

- P., K. (1997). Health status of primitive kamar tribe children of Gariaband block. *A thesis for MD (Paediatrics). Pt. RSS University, Raipur.*
- Chatterjee, S. a. (1994). Physical growth patterns for girls (9-17 years) from rural West Bengal. *Ind. J. Med. Res*, 8(94): 8-12.
- Clark, H. H. (1976). *Applications of Measurement to Health and Physical Educatiuon.* Englewood Cliff, New Jersey: Prentice Hall Inc.,.
- Callaway, R. W. (1983). The Albama Motor Fitness and Health Related Fitness Norms Ages 6-14. *Dissertation Abstract International, Vol. XXXXVI.*
- Chung, P. (1993). Self Esteem and Health Related Physical Fitness of Male College Students in Hong Kong. *DPE, Vol. XXXVI.*
- Joshi, M. S. (1996). A study of pre-adolescent growth, physique and physical performance of punjabi girls. *Doctoral. thesis (Unpublished), Punjabi University, Patiala.*
- Verma, S. (1983). Nutritional profiles of Ludhiana schoolchildren. *Doctoral Thesis (Unpublished), Punjab Agriculture University, Ludhiana.*