



ASSESSMENT OF HEALTH STATUS AMONG UNDERGRADUATE STUDENTS USING VARIOUS HEALTH PARAMETERS

Dr. Arun C. Nair¹, Asst Professor College of Agriculture, Vellayani, Thiruvananthapuram.

Venu Sivakumar, Physical Education Teacher, GEMS Millennium school, Sharjah, UAE.

Ranosh C.R³, Asst. Professor, Department of Physical Education, College of Forestry, Thrissur.

ABSTRACT

Study aims analyse the health status among under graduate students. Assessed 79 under graduate students of 2018 Batch from College of Agriculture, Vellayani. The subjects were within the age range of 18 - 21 years. Waist to height ratio was used to analyze the health status of the students.

Keywords: Health parameters, Waist to height ratio

INTRODUCTION

“Health is a state of complete physical, mental and social well-being and not merely the absence of disease and infirmity” (World Health Organization, 2008).

A Few decades ago it was various communicable diseases which raised serious concerns to the Health Department. Nowadays it is the hypo kinetic diseases which form the majority of medical casualty worldwide. We Humans are ready to pay huge amount for medical expenses. But they are least bothered about the mesmerizing effects of being physically active through indulging in any sort of physical activity. They are already of the mindset that once we reach forties we are bound to get various hypo kinetic diseases like Diabetes, Cholesterol and Heart Illness.

We are living in a fast-paced community where sparing a few hours for maintaining your fitness is considered to

be of least importance. Majority of the salaried individuals spend a lot of time being idle. Too much chair time leads to a greater chance of getting hypokinetic diseases in near future. Keeping themselves physically fit is the alternative. Improving our immunity can withstand many diseases and that is possible only through engaging ourselves in any sort of physical activity. Engaging in physical activity does not mean that that you have to exert your full energy. You can engage in mild, moderate or vigorous physical activity depending on your capability and need. Physical activity is a continuous process. Making it a habit will make you resistant to wide range of communicable and hypo kinetic diseases. According to World Health Organization obesity can be defined as “abnormal or excessive fat accumulation that may impair health”. “Obesity has reached epidemic proportions globally, with at least 2.8 million people dying each year as a result of being

overweight or obese” (WHO). Death due to diseases associated with Obesity has more deaths which may tally up to the deaths associated to communicable diseases by Schneider; et al. (2010).

OBJECTIVES OF THE STUDY

Objective of the study is to assess the health status of college students using waist to height ratio.

HYPOTHESIS

1. It was hypothesized that less than fifty percentage of male under graduate students will belong to the normal category of BMI.
2. It was hypothesized that less than fifty percentage of female under graduate students will belong to the normal category of BMI.
3. It was hypothesized that less than fifty percentage of male under graduate students will belong to the healthy category of waist to height ratio.

4. It was hypothesized that less than fifty percentage of female under graduate students will belong to the healthy category of waist to height ratio.

METHODS USED IN THIS STUDY

THE WAIST-HEIGHT RATIO EXPLAINED

The waist-to-height ratio is a method assessing the fat distribution in the body. It can also be referred as the waist-to-stature ratio (WSR). Both the measurements will be taken in centimeters. Weight to Height Ratio can be calculated using the formula

$$\text{Waist-to-Height Ratio} = \frac{\text{Waist Circumference}}{\text{Height}}$$

Studies prove that waist-to-height ratio is a more accurate measure of assessing the health status as it measures the composition of fat accumulated in the body.

Based on the waist to height ratio, body status can be classified as follows:

**DATA ANALYSIS
BMI**

Table 1: Percentage distribution of BMI scores

		SEX		Total	
		F	M		
STATUS	OBESITY	Count	1	0	1
		% within SEX	1.5%	0.0%	1.2%
	OVERWEIGHT	Count	10	3	13
		% within SEX	15.2%	16.7%	15.5%
	NORMAL	Count	40	11	51
		% within SEX	60.6%	61.1%	60.7%

UNDERWEIGHT	Count	15	4	19
	% within SEX	22.7%	22.2%	22.6%
Total	Count	66	18	84
	% within SEX	100.0%	100.0%	100.0%

From Table 1, it is clear that 1.5% Female students are Obese, 15.2% female students are with Overweight, 60.6% are with Normal weight and 22.7% are underweight.

Also, 16.7% Male students are with Overweight, 61.1% are with Normal weight, 22.2% are underweight.

Totally, 1.2% of Graduate students are Obese, 15.5% of graduate students are with overweight, 60.7% of graduate students are with normal weight and 22.6% are underweight.

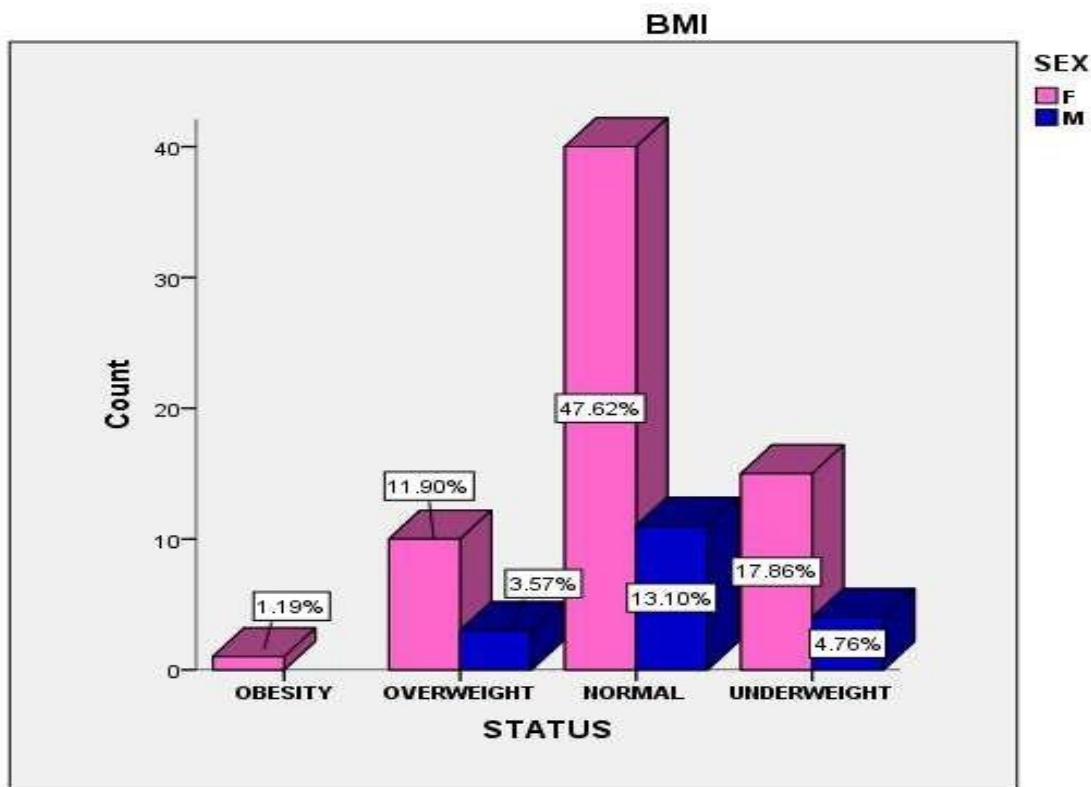


Fig 1: Diagrammatic representation of Gender wise BMI classification

WAIST TO HEIGHT RATIO (MALE)

Table 2: Percentage distribution of waist to height ratio (Male)

		SEX	Total
		MALE	
STATUS	VERY OVERWEIGHT	Count	2
		% within SEX	11.1%
	OVERWEIGHT	Count	7
		% within SEX	38.9%
	HEALTHY	Count	9
		% within SEX	50.0%
Total	Count	18	
	% within SEX	100.0%	

From Table 2, it is clear that 11.1% male students are with very overweight, 38.9% students are with overweight, 50% students are healthy.

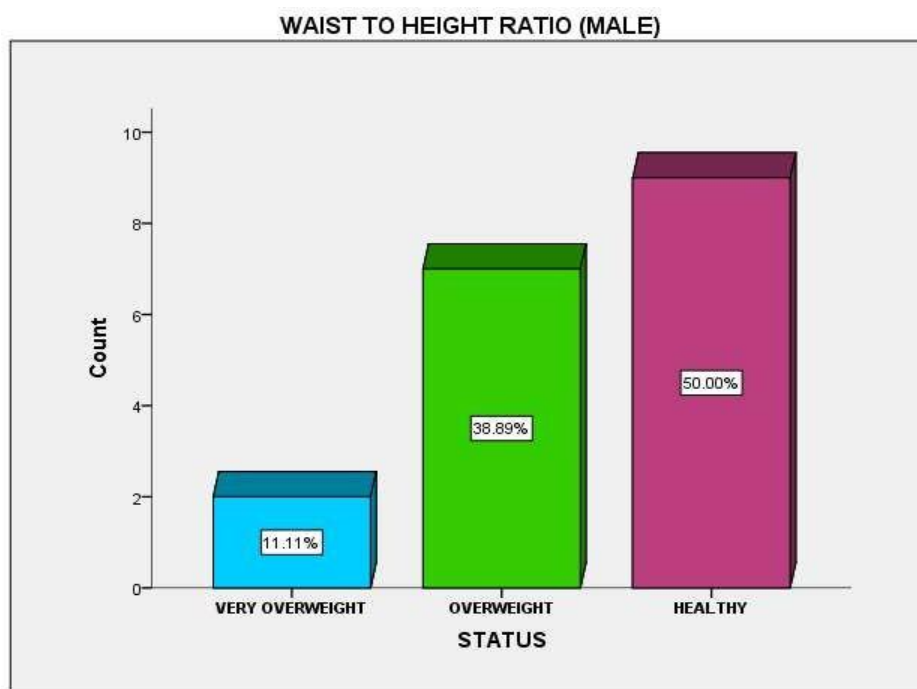


Fig 2: Diagrammatic representation of Gender wise BMI classification

WAIST TO HEIGHT RATIO (FEMALE)

Table 3: Percentage distribution of Waist to Height Ratio (Female)

		SEX	Total
		FEMALE	
STATUS	OBESE	Count	29
		% within SEX	47.5%
	VERY OVERWEIGHT	Count	18
		% within SEX	31.8%

	% within SEX	29.5%	29.5%
OVERWEIGHT	Count	10	10
	% within SEX	16.4%	16.4%
HEALTHY	Count	3	3
	% within SEX	4.9%	4.9%
SLIM	Count	1	1
	% within SEX	1.6%	1.6%
Total	Count	61	61
	% within SEX	100.0%	100.0%

From Table 3 it is clear that 47.5% female students are obese, 29.5% students are very overweight, 16.4% students are overweight, 4.9% students are healthy and 1.6% students are slim.

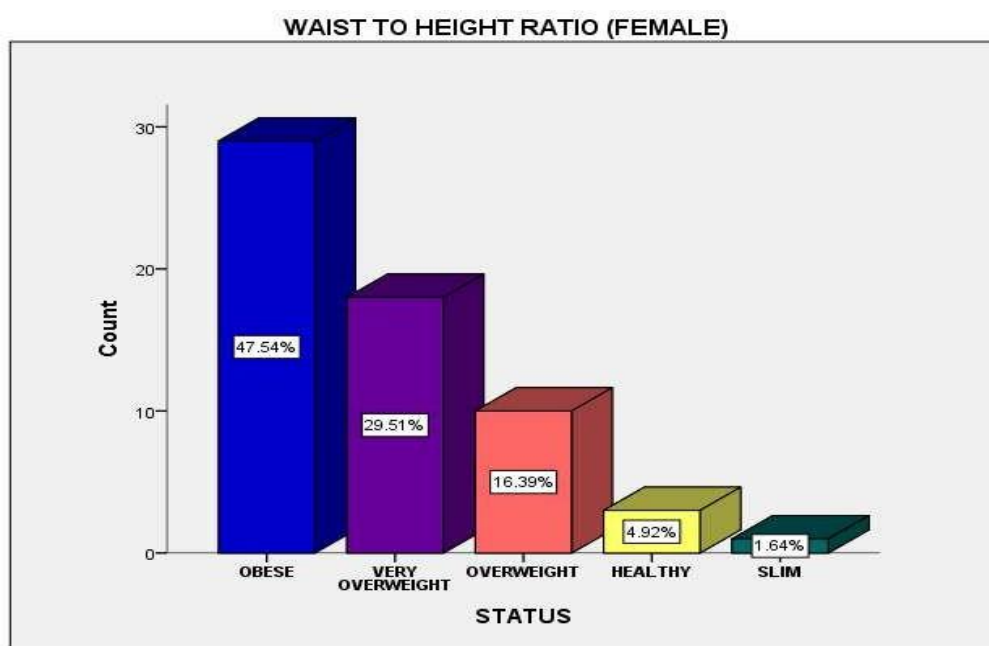


Fig 3: Diagrammatic representation of Waist to Height Ratio (Female)

CONCLUSION

- ❖ Since the normal weight of male graduate students is 61.1% which is greater than 50%, we failed to accept the hypothesis.
- ❖ Since the normal weight of female graduate students is 60.6% which is greater than 50%, we failed to accept the hypothesis.
- ❖ Since the normal weight of graduate students is 50%, which is not less than 50%, we failed to accept the hypothesis.
- ❖ From fig 3 & table 3, it is clear that 4.92% female graduate students are

healthy, which is less than 50%. So, we accept the hypothesis.

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