

Original Research Article

A Correlational Study to Assess the Impact of Eating Habits on BMI of Adolescents

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ABSTRACT

Adolescence is one of the greatest periods of change during our life time. Changes occur in all realms of human development—physical, emotional, intellectual even spiritual. Body shapes are changing, independent thinking beings and adolescence takes on the social values and roles of adulthood. It's a time of new discoveries and opportunity, but also of anxiety and stress.

Calorie and protein requirements are maximum during the period of adolescence. Increased physical growth combined with poor eating habits contribute to accentuating the potential risk among adolescence for poor nutrition. The nutritional problem affects the adolescent population worldwide. According to WHO the world's adolescent population is 1200 million; 10-19 years of age and about 19% of the total population faces a series of nutritional challenges not only affecting their growth and development but also their livelihood as adults. As the adolescent group remains a largely neglected, difficult to measure and hard to reach population directly the needs of adolescents in particular are ignored and not addressed

A descriptive research approach and descriptive co relational research design was used to conduct the study. The setting of the study was the selected school's in Bhangel, Greater Noida. The samples for the present study were 40 adolescents aged 14-16 years and samples were selected for this study using Non Probability Purposive sampling technique. The results of the study have revealed that according to eating habits majority (82.5%) have moderate eating habit and 17.5% having poor eating habit and according to BMI 52.5% were underweight, 47.5% were having normal weight and none of them were obese or overweight. The correlation between the Eating habits and BMI was -0.037 which indicate negative low correlation. There was no significant association between eating habits & BMI with the selected demographic variables.

Key Words: Eating habits, BMI, Adolescents.

INRODUCTION

Adolescence has been defined by WHO as a period of life between 10-19 years. These adolescents are exposed to rapidly changing values, modernized means of communication and hostile culture. ^[1]

Adolescents form a significant proportion of the population of our country, nearly about 1/3rd of India's population is

between 10-20 years. Today's adolescents are tomorrow's adults, who are the strength of the nation. ^[2]

In India among adolescents there is increased consumption of more energy-dense, nutrient poor foods, with high level of sugar and saturated fats, combined with reduced physical activity and more passive leisure pursuits. These factors are suspected

as major contributors to rising levels of nutritional associated disorders. [3]

Adolescents often diet because of the perception that 'thin is in.' Dieting can lead to dangerous habits including eating disorders in adolescents. Some signs that adolescents may diet include skipping meals, binge eating, fasting or use of laxatives or diet pills. [4]

Statement of the problem:-

"A Correlation study to assess the impact of eating habits on BMI of adolescents in selected high schools of Bhangel, Greater Noida.

Objectives:-

1. To assess the eating habits among adolescents.
2. To assess the body mass index of adolescents.
3. To find out the correlation between impact of eating habits on body mass index.
4. To find out association between eating habits & BMI with selected demographic variables.

Hypothesis:-

H₁: There will be a significant correlation between eating habit & BMI of adolescents.

H₂: There will be a significant association between eating habit & BMI with selected demographic variable.

Research Methodology:-

Research Approach:- A quantitative research approach was adopted for this study.

Research Design:- A Co relational Research Design was used in the present study.

Population:- Target population for the present study were adolescents who were studying in Baby public school in Bhangel, Noida.

Sampling Technique:- Non probability purposive sampling technique was selected for this study.

Sample And Sample Size:- Adolescents in the age group of 14-16 years were the

sample for the study. The sample for the present study was 40.

Description of the Tool

The final draft of the tool was prepared considering the suggestions of Guide. It comprises of 3 sections:

Part I: Consists of socio demographic variable.

Part II: Structured self-administered questionnaire schedule for assessing eating habits

Part III: Scale to assess the BMI of adolescents.

Part I: Socio demographic variable consists of 12 items which obtains information regarding (1) Age, (2) Gender, (3) Religion, (4) Class of study, (5) Ordinal position, (6) Number of siblings, (7)Duration of sleep per day, (8)Food habits, (9)Type of family, (10)Area of residence, (11)Any history of health problem and 12)Source of health information.

Part II: This consists of self-administered questionnaire for assessing the eating habits.

Part III: Assesses the BMI of adolescents both for boys and girls. The formula used to calculate BMI is-

$$BMI = \frac{\text{Weight in Kg}}{\text{Height in m}^2}$$

RESULTS

1. To assess the eating habits among adolescents.

Level of eating habit	Frequency	Percentage
Poor eating habit (0-40)	7	17.5%
Moderate eating habit (41-60)	33	82.5%
Adequate eating habit (61-80)	0	0%
Total	40	100%

The above table shows the distribution of subjects according to the level of eating. The data revealed that majority (82.5%) had moderate eating habits and 17.5% had poor eating habits.

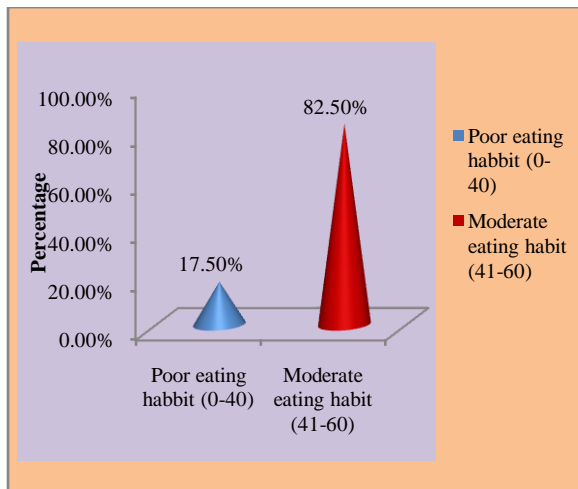


Figure1:-Distribution of Respondents - Eating habit

2. To assess the body mass index (BMI) of adolescents.

Level of eating habit	Frequency	Percentage
Under weight	21	52.5%
Normal	19	47.5%
Obese	0	0%
Total	40	100%

The above table shows the distribution of subjects according to their BMI. The data revealed that majority (52.5%) were underweight, 47.50% were of normal weight and none of them were obese or overweight.

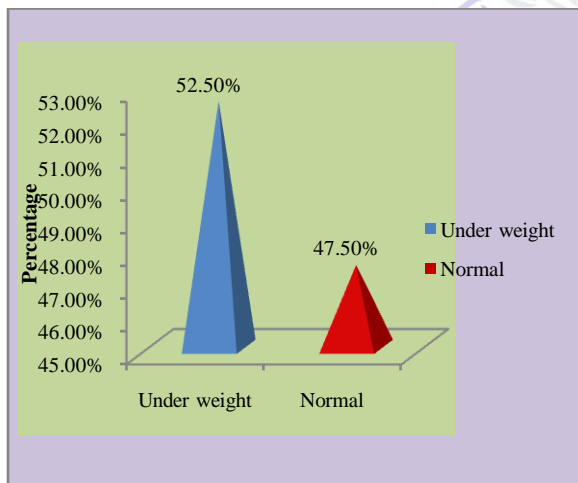


Figure 2:- Distribution of Respondents – BMI

3. To find out the correlation between impact of eating habits on body mass index.

ADOLESCENTS	R	INFERENCE
Eating Habits	-0.037	-0.037
BMI		Negative low correlation

The correlation between the Eating habits and BMI is -0.037 which indicates negative low correlation. It is computed by Raw Score method. Therefore, research hypothesis is rejected and null hypothesis is accepted. There is a no significant correlation between eating habits and BMI.

4. To find out association between eating habits & BMI with selected demographic variables

The association was calculated by Chi-Square and there was no significant association between eating habits & Body Mass Index with selected demographic variables such as age, gender, religion, class of study, ordinal position, number of sibling, duration of sleep, food habit, type of family, area of residence, any history of health problem, and source of health information.

CONCLUSION

- It was found in the present study that 82.50% of adolescents had moderate eating habits and 17.50% had poor eating habit and 52.50% were underweight, 47.50% were of normal weight and none of them were obese or overweight. There is negative low correlation $r=-0.037$ between eating habits and BMI. There is no significant association ($P>0.05$) between age, gender, class of study, ordinal position, peer relation, food habits, residence, academic performance and family income with eating habits and BMI.

RECOMMENDATIONS:-

- Similar studies can be undertaken with a large sample to generalize the findings.
- Comparative study can be conducted between adolescents from rural and urban areas.
- A self-instructional module can be developed regarding diet for adolescents.
- A study can be conducted on nutritional problems among adolescents.

- Studies can be conducted to assess the extent of obesity among adolescents.

4. Ogden CL, Flegal KM, Carroll MD. Prevalence and trends in overweight among US children and adolescents, 1999-2000. JAMA 2002; 288:1728-32.

REFERENCES

1. WHO. Measuring change in nutritional status. Geneva 1997;63-74.
2. Garg BS, Gupta Subodh S. Status of research on nutritional anemia in adolescent girls. The Journal of Mahatma Gandhi Institute of Medical Sciences 2000; 5(2): 39-47.
3. Mehra S, Agarwal D. Adolescents on the fringe in urban poor India. Health for the Millions 2004; 2:2-15.



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How to cite this article: Sharmila P. A correlational study to assess the impact of eating habits on BMI of adolescents. International Journal of Research and Review. 2017; 4(12):18-21.

