



"A study to assess the knowledge and attitude regarding lifestyle practices on obesity among adolescents in the selected schools of Guwahati, Assam."

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INTRODUCTION

Adolescent obesity means excessive accumulation of body fat in children age 10-19 years which negatively affect their health, well-being and development. It occurs when adolescent weight is above the normal for his/her age and height. Overweight is a term used when body weight is increased more than 110% of the standard weight and the triceps skin fold thickness is more than 30 mm.

According to World Health Organization (WHO), "Adolescent obesity is a condition in which a child's body mass index (BMI) for age is more than +2 standard deviations above the WHO growth reference median.

According to World Health Organisation (WHO) Obesity is classified as class I for BMI between 30 and 34.9kg/m², class II for BMI between 35 and 39.9kg/m², and class III for BMI above 40kg/m². In turn, class I Obesity is associated with "moderate risk", class II with "high risk", and class III with a "very high risk" of mortality.

BACKGROUND OF THE STUDY

Overall, increasing obesity is influenced by a combination of various factors such as family, psychological, social, and cultural factors. Genetic and hormonal factors also contribute to obesity. Regular intake of high-calorie foods such as fast food, baked food, desserts, and snacks, along with sedentary activities such as watching television, playing video games, and lack of exercise, contribute to the problem. Family environment where high-calorie foods are always available and physical activity is less encouraged; personal, parental, and family stress can increase a child's risk of obesity. Some children overeat to cope with problems. People in some communities have limited resources and limited access to supermarkets; as a result, they may opt for convenience foods that spoil quickly, such as frozen meals, crackers, and cookies.

NEED OF THE STUDY

Many countries in South East Asia including India are going through an economic and nutritional transition. Overweight and obesity are major risk factors for a number of chronic diseases, including diabetes, cardiovascular diseases and cancer. Obesity in children and adolescents is gradually becoming a major health problem in many developing countries. One half of obese school children become obese adults. However, obesity in childhood appears to increase the risk of subsequent morbidity. WHO describes overweight and obesity as one of today's most important public health problems, which is

escalating as a global epidemic. It is also increasingly recognized as a significant problem in developing countries undergoing economic transition.

In the past 10 years, the number of obese people has doubled in the country, according to the National Family Health Survey (NFHS-4). There are few studies reporting the prevalence of childhood and adolescent obesity and overweight from different parts of India, which range from 3% to 29%. These studies also indicate that the prevalence is higher in urban areas than in rural areas, with a recent rise in the number of particular diseases in childhood. It is necessary to have accurate data on the prevalence of childhood overweight and obesity; therefore, an attempt is made to assess the prevalence of overweight and obesity among school-going children aged between 6 to 15 years. It also aims to assess any difference in prevalence based on different demographic variables.

TITLE

“A study to assess the knowledge and attitude regarding lifestyle practices on obesity among adolescents in the selected schools of Guwahati, Assam.”

OBJECTIVES

GENERAL OBJECTIVES- To assess the knowledge and attitude towards lifestyle practices related to weight control among adolescent.

SPECIFIC OBJECTIVES

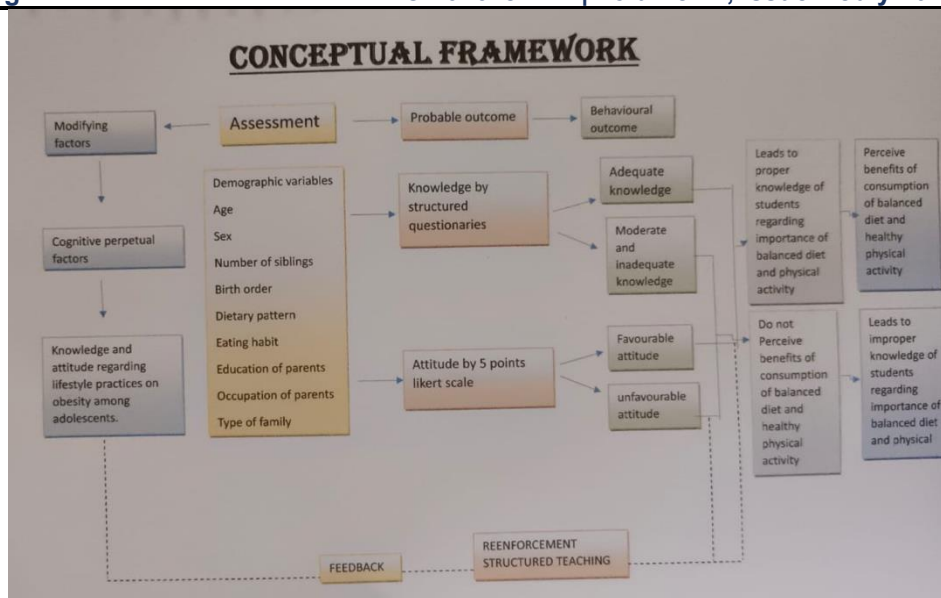
1. To assess the knowledge regarding lifestyle practices of obesity on adolescent.
2. To assess the attitude regarding lifestyle practice of obesity on adolescent.
3. To find out the association between knowledge and attitude regarding lifestyle practice with selected demographic variables on obesity among adolescents in selected schools of Guwahati, Assam.

CONCEPTUAL FRAMEWORK

Conceptual framework is a theoretical framework in the study of problems that are scientifically based and which lay emphasis on the selection, arrangement and clarification of its concepts. It provides a certain frame of reference for clinical practice, research and education. It gives a direction for relevant questions on phenomenon and points out a solution to practical problems.

The conceptual framework of the present study is based on the Pender's Revised Health Promotion Model which focuses on the following three areas of individual's characteristics and experiences that is behaviour specific knowledge and affects, and behaviour outcomes.

The health promotion model notes that each person has unique characteristics. The set of variables for behaviour's specific knowledge and affect have important motivational significance. These variables can be modified through nursing actions. Health promoting behaviour is the desired behavioural outcome to reduce overweight and obesity and is the end point in health promotion model



OPERATIONAL DEFINITION

ADOLESCENCE: According to WHO, an adolescent is a young person in the transitional stage of physical, psychological, and social development between childhood and adulthood.

In this study, adolescence refers to boys and girls aged 14-19 years studying in selected school.

KNOWLEDGE: In this study knowledge refers to the level of understanding of adolescent about obesity.

ATTITUDE: In this study attitude refers to the beliefs, feeling and view point of adolescence towards obesity and its prevention

OBESITY: In this study, obesity refers to a condition in which an adolescent has body mass index (BMI) for age above +2 standard deviation according to WHO.

BODY MASS INDEX: In this study body mass index is a tool to assess the, underweight, overweight and obesity with the proportion of height and weight of the school going children.

ASSUMPTION OF THE STUDY

Adolescents may have some basic knowledge regarding lifestyle practices about obesity.

HYPOTHESIS:

DELIMITATION: The finding of the study is delimited to

1. Selected school of Guwahati, Assam
2. School going children in the age group of 14-19 years.

REVIEW OF LITERATURE

The literature review for this study was undertaken on the following aspects: -

1. Kolaneedi A. and Nidigantle S. (2025) conducted a pre-experimental one-group pre-test and post-test study to assess the effectiveness of a school-based structured teaching program on knowledge regarding healthy lifestyle practices among high school students in a government school at Eluru, Andhra Pradesh. Using non-probability purposive sampling, 50 students were selected for the study. The majority of participants were aged 12-13 years, belonged to nuclear families, and resided in urban areas. The pre-test findings showed that 30% of students had inadequate knowledge and 70% had adequate knowledge, with a mean score of 8.38 ± 2.21 . After the structured teaching program, 84% of students demonstrated adequate knowledge, and the post-test mean score increased to 9.18 ± 2.5 , showing a mean difference of 0.8. The paired t-test value (2.21) at $p < 0.05$ indicated a significant improvement in knowledge. The study concluded that the structured teaching program was effective in enhancing knowledge regarding healthy lifestyle practices among high school.
2. Sharma K and Devi G (2025) conducted a study to assess the knowledge and attitude regarding life style modification in prevention of obesity among adolescents with a view to develop self-instructional module in selected school of Jaipur, Rajasthan In this study the assessment shows the

level of knowledge of adolescent regarding obesity with regards to scores, 45 (45%) poor knowledge (1-10) and 31 (31%) adolescents regarding obesity average knowledge (11-18) and 24% regarding obesity good knowledge (19-25) of adolescent. The level of attitude of adolescent regarding obesity with regards to score 45 (45%) favourable attitude and 33 (33%) adolescents regarding obesity neutral attitude and 22 (22%) regarding obesity unfavourable attitude of adolescent. In this study the calculated chi square value for different age group of adolescent students were 31.09 (tabulated -0.599) which means gender create significant difference on level of knowledge score regarding prevention of obesity. The study findings reveal that the student knowledge had enhanced regarding obesity.

3. Matgorzewicz K et al. (2025) conducted a cross-sectional study to assess the knowledge of obesity and elements of a healthy diet among secondary school students in Poland. A total of 205 students aged 14-19 years were selected from public high schools. Data were collected using an adapted KomPAN questionnaire, and logistic regression analysis was used to identify associations between knowledge and demographic variables. The results showed that 66.8% of students recognized obesity as a disease, 60% had correct knowledge regarding dietary fiber, while only 27% correctly identified sources of omega-3 fatty acids. Academic profile was found to be the strongest predictor of knowledge. Students from non-science streams had significantly lower knowledge levels compared to those in natural science streams (fiber: OR = 0.38, omega-3: OR = 0.41, obesity: OR = 0.47). Age and gender showed no significant association. The study concluded that adolescents had moderate knowledge with significant gaps in specific dietary components, highlighting the need for targeted nutrition education and school-based interventions to improve healthy lifestyle practices.

METHODOLOGY

Research approach- A quantitative research approach.

Research Design- Non experimental descriptive survey design

Variables- Demographic variables and research variables.

Demographic variables: It includes Age, gender, class/grade, preference of food, dietary pattern, pattern of physical activity, habit of outdoor play and mode of going to school.

Research variable: Body Mass Index.

Setting Of The Study: The setting of the present study is selected school of Guwahati, Assam

1. Pillangkata secondary school

The rationales for selecting this setting are-Familiarity with the settings, Easy accessibility to the population under study, Availability of the subjects, Convenient communication for the researcher.

Population: In present study, the population is the school going children of age 14-19 years from selected school of Guwahati, Assam.

Sampling Technique- Purposive sampling technique.

Sample And Sample Size: In this study, sample size consists of 87 numbers of going children of selected of Guwahati, Assam.

Tool- Self structured knowledge questionnaire and attitude scale.

Inclusion Criteria-

1. School going adolescents from age group 14-19 years
2. School going adolescents studying in selected school Guwahati, Assam.

Exclusion Criteria- Students who all are absent during the time of data collection.

Description of the tool- Socio demographic proforma, knowledge questionnaire, attitude scale.

Reliability of the tool- Reliability of the tool was done by split half method. The reliability of the tool was 0.91 was considered to be reliable.

Pilot study- Pilot study was done to trial out the tool and it was effective.

ANALYSIS OF TH DATA**SECTION - I****Table I-** Frequency and percentage distribution of demographic data

n=87

SL NO	CHARACTERISTICS	FREQUENCY	PERCENTAGE
1	Age (in years): a) 13-14 years b) 15-16 years c) 17-18 years d) 19-20 years	22 37 24 4	25.28% 42.55% 27.58% 4.59%
2	Gender a) Male b) Female	46 41	52.87% 47.13%
3	Standard (a) 8 th (b) 9 th (c) 10 th (d) 11 th	0 46 47 0	0% 52.87% 47.13% 0%
4	Preferance of food (a) Fast food (b) Homemade food (c) Packed Food (d) Sweets and beverage	8 76 2 1	9.19% 87.36% 2.29% 1.16%
5	Dietary pattern (a) Vegetarian (b) Non- Vegetarian (c) Mixed	9 20 58	10.36% 22.98% 66.66%
6	Pattern of physical activity (a) Active (b) Moderately Active (c) Sedentary (d) Inactive	22 51 6 8	25.28% 58.64% 6.89% 9.19%
7	Habit of outdoor play (a) One time in a week (b) Two time in a week (c) More than three times in a week (d) No play and exercise	17 17 44 9	19.54% 19.54% 50.57% 10.35%
8	Mode of going school (a) Bicycle (b) Walking (c) Bus (d) Others	7 68 1 11	8.04% 78.18% 1.14% 12.64%

SECTION-II**Table II-** Frequency and percentage distribution of level of knowledge among adolescent

n=87

SL NO	LEVEL OF KNOWLEDGE	SCORE PERCENTAGE	FREQUENCY	PERCENTAGE
1	Poor Knowledge	< 50%	25	28.74%
2	Moderate Knowledge	50-75%	48	55.17%
3	Good Knowledge	> 75%	14	16.09%

SECTION-III**Table II-** Frequency and percentage distribution of attitude among adolescent

n=87

SL NO	RESPONSE	10-30 MARKS	31-50 MARKS
1	Favourable	78	89.65%
2	Unfavourable	9	10.35%

DISCUSSION

1) Discussion of baseline data/demographic variables of school going children:

In the present study, the collected data shows that the most of the children belong to age group of 13-14 years are 25.28%, 15-16 years are 42.52%, 17-18 years are 27.58% and 19-20 years are 4.59%. Majority of the children were male i.e., 52.87% and 47.12% were female. In the study sample, it was seen that most of the children were 9th standard i.e. 52.87% and 47.12% were belong to 10th standard. With respect with to the preference of food 2.29% are packed food eaters, 87.36% are homemade food eaters, 9.19% are fast food eaters and 1.16% prefers sweets and beverages. With respect to the dietary pattern 66.66% are having mixed dietary pattern, 22.98% are non-vegetarian and 10.34% are vegetarian. With respect to the pattern of physical activity 58.62% are moderately active, 25.28% are active, 9.19% are inactive whereas 6.89% are sedentary.

In the present study 50.57% selected sample have outdoor play habit of more than three times a week, 19.54% of sample have outdoor play habit of twice in a week, 19.54% have play habit of once a week and 10.34% have no habit of outdoor play and exercise With respect to mode of going to school 78.16% children go school by walking, 12.64% of students use other means of transport for going school, 8.04% students go school by bicycle and 1.14% go school by bus.

2) Discussion on body mass index of the participants

In the present study, the collected value of BMI by measuring height and weight shows that 35.63% participant were underweight, 54.02% participants were normal and 10.34% are overweight according to WHO classification.

3) Discussion on the association between demographic variables and attitude scale with knowledge questionnaire

A total of 87 school going children were selected by non-probability convenient sampling technique which fulfils the inclusion and exclusion criteria. They were administered the self-structured knowledge questionnaire and demographic variables and were asked to marked their answer. The data collected was organized in MS Excel and were computed for result. Data presented in the tables reveals the association between knowledge and attitude regarding lifestyle practices on obesity with selected demographic variables, as evident by the obtained chi-square values at 0.05 level of significance. The chi-square value for age is 14.19 for (df) 6 which is greater than the table value (12.59) at 0.05 level of significance; hence there is a significant association. The chi-square value for gender is 2.24 for (df) 2 which is less than the table value (5.99) at 0.05 level of significance; hence there is no significant association. The chi-square value for BMI is 1.28 for (df) 4 which is less than the table value (9.49) at 0.05 level of significance; hence there is no significant association. The chi-square value for class/standard is 37.90 for (df) 4 which

is greater than the table value (9.49) at 0.05 level of significance; hence there is a highly significant association.

The chi-square value for preference of food is 10.13 for (df) 6 which is less than the table value (12.59) at 0.05 level of significance; hence there is no significant association. The chi-square value for dietary pattern is 12.56 for (df) 4 which is greater than the table value (9.49) at 0.05 level of significance; hence there is a significant association. The chi-square value for physical activity is 12.91 for (df) 6 which is greater than the table value (12.59) at 0.05 level of significance; hence there is a significant association. The chi-square value for habit of outdoor play is 3.20 for (df) 6 which is less than the table value (12.59) at 0.05 level of significance; hence there is no significant association. The chi-square value for mode of going to school is 5.96 for (df) 6 which is less than the table value (12.59) at 0.05 level of significance; hence there is no significant association.

Attitude Scale

The chi-square value for daily exercise is 13.89 for (df) 8 which is greater than the table value (15.51) at 0.05 level of significance; however, based on p value (0.031), it is considered statistically significant.

The chi-square value for long screen time is 13.89 for (df) 6 which is greater than the table value (12.59) at 0.05 level of significance; hence there is a significant association. The chi-square value for eating food and vegetables is 0.91 for (df) 4 which is less than the table value (9.49) at 0.05 level of significance; hence there is no significant association. The chi-square value for exercise is 14.78 for (df) 8 which is less than the table value (15.51) at 0.05 level of significance; hence there is no significant association. The chi-square value for drinking soft drinks is 11.67 for (df) 8 which is less than the table value (15.51) at 0.05 level of significance; hence there is no significant association. The chi-square value for don't enjoy healthy practices is 18.86 for (df) 8 which is greater than the table value (15.51) at 0.05 level of significance; hence there is a significant association. The chi-square value for unhealthy practices is 16.74 for (df) 8 which is greater than the table value (15.51) at 0.05 level of significance; hence there is a significant association. The chi-square value for obesity is a serious problem is 19.72 for (df) 8 which is greater than the table value (15.51) at 0.05 level of significance; hence there is a significant association. The chi-square value for skipping physical activity is 33.03 for (df) 8 which is greater than the table value (15.51) at 0.05 level of significance; hence there is a highly significant association. The chi-square value for obesity cannot be prevented is 1.85 for (df) 8 which is less than the table value (15.51) at 0.05 level of significance; hence there is no significant association.

NURSING IMPLICATION

The findings of the present study have implications in various fields of nursing such as nursing practice, nursing education, nursing administration and nursing research.

NURSING PRACTICE- The findings of the study help nurse practitioners to understand the level of knowledge and attitude of adolescents regarding lifestyle practices related to obesity. Nurses play an important role in promoting healthy lifestyle habits among adolescents.

The present study has the following implications in nursing practice:

- 1) To plan health education programs regarding healthy lifestyle practices.
- 2) To educate adolescents about balanced diet, physical activity and prevention of obesity
- 3) To create awareness about harmful effects of sedentary lifestyle and junk food consumption.
- 4) To encourage adolescents to maintain proper body weight through healthy habits.

NURSING EDUCATION

Nursing education plays an important role in preparing nurses to educate adolescents and their families regarding healthy lifestyle practices. More emphasis should be given on community health education regarding prevention of obesity.

Nurse educators should train nursing students to:

- 1) Provide knowledge regarding healthy lifestyle practices among adolescents.
- 2) Conduct awareness programs on prevention of obesity in schools.
- 3) Educate parents and adolescents about the importance of balanced diet and regular physical activity.

NURSING ADMINISTRATION

Nurse administrators play a vital role in planning and organizing health education programs in schools and communities. They should encourage the implementation of school health programs focusing on obesity prevention.

The present study suggests that nurse administrators should:

- 1) Organize health awareness programs on healthy lifestyle practices for adolescents.
- 2) Encourage school-based health programs related to obesity prevention.
- 3) Support nurses in conducting regular health education sessions for students.

NURSING RESEARCH

Research in nursing helps to improve nursing practice and contributes to the development of nursing knowledge. Studies related to lifestyle practices and obesity among adolescents help to identify the gaps in knowledge and attitude.

Future research can help nurses to develop effective interventions for prevention of obesity among adolescents. The findings of this study can be used as a basis for further research studies in similar settings.

RECOMMENDATION

- 1) A similar study can be conducted with a larger sample size
- 2) A comparative study can be done between urban and rural adolescents regarding lifestyle practices and obesity.
- 3) An interventional study can be conducted to evaluate the effectiveness of health education
- 4) programs on lifestyle practices related to obesity.
- 5) Similar studies can be conducted among different age groups of adolescents.

LIMITATION: The study was limited to 87 samples of class 9th&10th standard.

RECOMMENDATION: The study can be replicated on larger sample where findings can be generalised. The similar study can be conducted in different settings.

CONCLUSION

Obesity among adolescents is becoming a growing health concern due to unhealthy lifestyle practices such as poor dietary habits, lack of physical activity and sedentary behaviour. Adequate knowledge and positive attitude towards healthy lifestyle practices are essential to prevent obesity among adolescents.

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