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To Assess the Knowledge Regarding Dietary Practices Among Obese Adolescent School Going Children

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Abstract:

Aim and objectives: *To assess the knowledge regarding dietary practises among obese adolescent school-going children.* ***Methodology:*** *Descriptive Research Design was adopted in order to assess the knowledge regarding the dietary practises of obese adolescent school-going children. The independent variable of this study was the Nutri Podcast. The dependent variable was individual knowledge regarding dietary practises. The study was conducted at Government Girl's High School, Ashokapuram, Coimbatore. The sample size consisted of 40 school-going children (who fulfilled the inclusion and exclusion criteria) selected by a convenient sampling technique. Anthropometric measurements were recorded among 40 school-going children. The body mass index (BMI) was calculated. Dietary assessment data were collected using two forms. i) Food frequency questionnaire ii) The 24-hour recall and the dietary practises were also assessed.* ***Results:*** *The overall result of this study is that 80% of the samples are non-vegetarian, and we can also see a trend of skipping meals, mostly breakfast (34.28%). 85.71% have three meals a day but not within the correct time frame. 54.28 percent have healthy homemade drinks on a daily basis. A vast majority has the habit of eating food from outside (68.28%). Fast food options are chosen (74.28%) more than other options. A majority of them have a habit of snacking (54.71%), and salads are not included in their daily diet routine. 65.89%.* ***Conclusion:*** *Results showed that obese adolescent school-going children failed to meet sufficient nutritional requirements and had an imbalanced diet that was considerably low in several essential nutrients. This school-based intervention programme focusing on the promotion of healthy dietary practises and increasing physical activity among obese adolescent school-going children can prevent the development of the global prevalence of adolescent obesity.*

Key Words: *School going children, Dietary practices, Obese.*

1. INTRODUCTION:

Obesity is a complex multi-factorial disease that accumulated excess body fat leads to negative effects on health. Obesity continues to accelerate resulting in an unprecedented epidemic that shows no significant signs of slowing down any time soon. Raised body mass index (BMI) is a risk factor for non-communicable diseases such as diabetes, cardiovascular diseases, and musculoskeletal disorders, resulting in dramatic decrease of life quality and expectancy [(1)]

India has the second highest number of obese children in the world after China according to a study that has found that 14.4 million children in the country have excess weight [(2)]

Childhood obesity is a global phenomenon affecting all socio-economic groups, irrespective of age, sex or ethnicity. Aetiopathogenesis of childhood obesity is multi-factorial and includes genetic, neuroendocrine, metabolic, psychological, environmental and socio-cultural factors. For children and adolescents, overweight and obesity are

defined using age and sex specific nomograms for body mass index (BMI). Children with BMI equal to or exceeding the age-gender-specific 95th percentile is defined obese [3]

Childhood obesity is one of the most serious public health challenges of the 21st century. The problem is global and is sturdily affecting many low- and middle-income countries, particularly in urban settings [4]

Childhood obesity is partly due to genetic components and due to environmental factors, such as life style, socio economic factors and nutritional habits of the family [5]

The rapid progress of urbanization and demographic trends is associated with a cluster of unhealthy lifestyles. Sedentary activities and consumption of calorie dense foods of low nutritional value might be the most important etiological factors responsible for the very high rate of childhood overweight in developing nations [6]

Prevention of nutritional problems is most important during childhood in order to reduce risk during adulthood. Prevention is widely recognized as an indispensable strategy to turn the tide of the global epidemic of obesity. Furthermore, because once established, obesity is a protected and difficult-to-treat condition, hence it makes sense to focus prevention efforts on the younger generations, when health and nutrition education can shape good dietary practices and avoid excess weight gain.

Nutrition education offers a great opportunity to individuals to learn about the essentials of nutrition for health and to take steps to improve the quality of their diets, thus their well-being. Nutrition education involves a combination of activities including nutrition information, increasing people's knowledge about the benefits of specific foods, behaviour, influencing attitudes and beliefs, and motivating the adoption of healthy eating practices.

1.1 STATEMENT OF THE PROBLEM

To assess the knowledge regarding dietary practices among obese adolescent school going children.

1.2 OBJECTIVES OF THE STUDY

- To assess the dietary pattern through food frequency questionnaire and 24 hours recall.
- To assess the nutritional status of obese adolescent school going children.
- To assess the level of knowledge regarding dietary practices among obese adolescent school going children.
- To assess the socio-economic background, dietary habits, food consumption and lifestyle pattern of obese adolescent school going children.
- To promote the Awareness among obese adolescent school going children.

2. MATERIALS AND METHODS:

Descriptive Research design was adopted in order to assess the knowledge regarding dietary practices of obese adolescent school going children. The independent variable of this study was Nutri Podcast and mime show. The dependent variable was individual knowledge regarding dietary practices. The study was conducted at Government Girl's High School, Ashokapuram, Coimbatore. The sample size consisted of 40 school going children (who fulfil the inclusion and exclusion criteria) selected by convenient sampling technique. Anthropometric measurements were recorded among 40 school going children. Body mass index (BMI) was calculated.

The tool consists of two parts

A) Data collection tool
B) Awareness Promotion

A) Data collection tool

The data collection tool was self- structured Questionnaire. The Obesity Awareness Consist of two programs:

Nutri Podcast consisting 30 Minutes which includes,

- Obesity
- Causes of obesity
- Symptoms of obesity
- Risk factors about obesity
- Complication of obesity
- Prevention of obesity
- Nutrients requirements
- Balanced diet
- Included foods

- Avoided foods
- Other treatments

B) Awareness Promotion

Mime show consisting 15 minutes

Scoring key

Correct answer	**1**
Wrong answer	0

Scoring interpretation

Scores	Level of Knowledge
≤50%	Inadequate Knowledge
51-74%	Moderately adequate knowledge
75-100%	Adequate knowledge

2.1. Ethical Consideration

The formal administrative approval was obtained from the Ganga College of Nursing Ethical committee and approval from the Government Girls High School, Ashokapuram. The researcher has followed the fundamental ethical principle like the right to freedom from the harm and discomfort, respect to human dignity. The researcher gave freedom to all the participants to decide voluntarily whether to participate in the study or withdraw from the study and rights to ask questions at any-time during the study period. The investigator has maintained the study participant privacy throughput the study.

2.2. Statistical Analysis

Demographic variables were described by using descriptive statistics one way ANOVA / Unpaired t test was used to analyse the knowledge regarding dietary practices.

3. Result :

Most of them 51.42 % in the age group of 15, and 68.58% belonged to nuclear family and size of the family were (4 members) 45.7%, 80 % were having siblings, The occupation of the father was 45,71% of self- employed and occupation of mother were 11.42% professional workers and 37.4% were self- employed.

Assessment of the health status shows the past history of surgery was (11.42%), health complications were (11.42%), and taking medications was (18.52%). The age of puberty among school going children mostly in 10 to 12 years (48.57%) the irregular menstruation was 34.28%

Assessment of lifestyle Most of them have a sleeping pattern of 7 to 8 hours (40%) and their preferred types of games are indoors (74.28%); the duration of their playing is around 30 minutes to 1 hour (42.85%).

Most of them have the habit of watching television and eating at the same time. A majority of them travel by bus, auto, scooter, and other similar means. Only roughly 30% walk or bicycle. It is also interesting to note that 71% of the sample doesn't have the habit of exercising. Among the 10 samples involved in daily exercising, about 8 samples have a habit of meditating.

The assessment of dietary patterns shows that 80% of the samples are non-vegetarian, with only 11% being vegetarian and 8% being ovo-vegetarian. We can also see a trend of people skipping meals, mostly breakfast. Most of them have three meals a day, but not within the correct time frame. They also have healthy homemade drinks on a daily basis.

A vast majority has the habit of eating from outside. Fast food options are chosen more often than other options. A majority of them have a habit of snacking and do not include salads in their daily diet routine.

In terms of food frequency, rice intake can be noticed almost on a daily basis, wheat intake on a weekly basis, and ragi and vermicelli occasionally. This results in an increased carbohydrate intake. Pulses and green leafy vegetable intake can be noticed almost on a weekly basis, with manathakalli being the least used.

Roots and tubers are also used by a majority either daily or weekly. Other vegetables like beans, brinjal, and drumsticks are also consumed on a weekly basis. Fruits are consumed on a daily or weekly basis.

In the case of milk and milk products, 65% of the sample drank milk daily and 40% consumed buttermilk daily, but skim milk, butter, and cheese were almost never consumed. Eggs, chicken, and fish are consumed on a weekly basis, indicating a healthy inclusion of protein. But the weekly inclusion of mutton, which contains a high amount of cholesterol, can also be noticed.

Nuts are only included by a majority on a weekly basis. There should be a daily inclusion of nuts as they are rich in protein, fibre, and omega-3 fatty acids, which are essential for school-age children. Groundnut oil is consumed on a daily basis by the majority, followed by coconut oil. Table sugar is consumed on a daily basis, but jaggery and honey only occasionally.

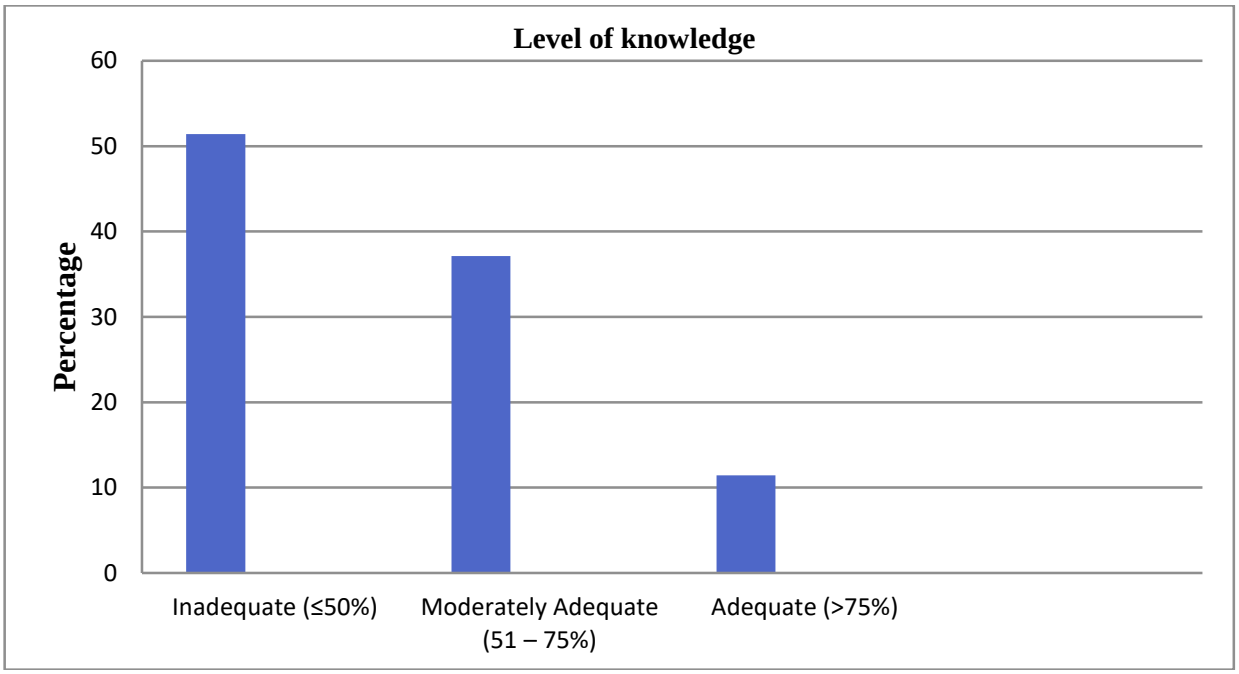

Figure: 1 Percentage distribution of knowledge regarding dietary practices among adolescent school going children

4. DISCUSSION :

The study finding show that an intervention administered for the same day (Nutri podcast) states that there was an effective difference on their knowledge regarding dietary practices.

5. LIMITATIONS :

1. The investigators had found little complexity for in obtaining setting permission.
2. Difficult to get sample because of their final examination.

6. CONCLUSION:

The study was aimed to change their knowledge regarding dietary practices and planned to map the prevalence of obesity in school children and to study the risk factors associated with it. Heredity is another factor in the development of obesity in children. The family history of obesity proved to be a profound risk factor in the present study. This study has important implications, Nutrition interventions to remedy the rate of under nutrition and school-based intervention programs focusing on promotion of increase physical activity and healthy dietary practices among school children can prevent the development of global Prevalence of childhood obesity.

AUTHOR CONTRIBUTION STATEMENT

Ms. G. Nandhini derived the concept of guide this study and revised the manuscript. Carried out the research study evaluated the result drafted the II-M.Sc., Clinical Nutrition (Batch 2021-23) manuscript contributed to the design, implementation of the research to the analysis of the results and the writing of the manuscript. We declared that all of the authors mentioned in the article have contributed equal effort in this research also for the submission of the article.

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