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Assessment Of Knowledge And Life-Style Practices On Adolescent Obesity Among School And College Students

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Abstract:

Background: The global public health concern over adolescent obesity is rising. With serious ramifications for young people's health and wellbeing, the prevalence of obesity in this age range has recently increased to alarming proportions. For effective preventative and intervention measures to be developed, it is essential to understand the factors that contribute to teenage obesity. It is essential for the adolescents to be aware of obesity and factors contributing towards this potential problem. The study thus aims to identify the knowledge and lifestyle practices of obesity among adolescents.

Methods: The current study was conducted in a few local schools and colleges for 2 months period. Parents were approached requesting to consent for their ward to participate in the study, with authorization from the school administration. A data was captured using a questionnaire to assess the understanding of adolescent obesity. Out of 500 forms distributed, the questionnaire was completed by 380 participants, ages 10 to 21: showing 76% of completion rate. Male and female respondents were among these participants.

Results: The results revealed that 87% of the study participants showed knowledge on adolescent obesity. 16% of obese participants; among them

the age group of 10 to 21. Age and education level differences were found in knowledge and awareness of obesity and associated illnesses. In addition, dietary patterns, screen time, physical activity, and social assessments varied significantly amongst age and educational levels, underscoring the necessity of focused interventions to combat teenage obesity and advance general health and scholastic achievement.

Conclusions: The study was attempted to identify the knowledge and practices on obesity among adolescents. Studies of this kind would help the healthcare teams, parents, families, societies and institutions to adopt approaches in addressing this unexposed future burden, as obesity is a world-wide problem.

Keywords: Adolescents, Education, Obesity, Prevalence, BMI, Behaviour.

Background:

Childhood obesity is termed as excess body fat accumulation which negatively affects a child's health or well-being. As methods to figure out body fat directly are difficult, the diagnosis of obesity is sometimes supported by BMI. A Body mass Index of 30 or more is taken into account as obesity. Children are considered to be obese if they are above the conventional weight for his or her height in respect to their age. The rising prevalence of obesity in children and its many adverse health effects it's being recognized as a major public health concern[1].

The health condition of obese people is most frequently worse than people with normal weight and therefore the lifetime of obese people is on average shorter by two years. The common cause for obesity and overweight is an imbalance of energy between calories consumed and calories lost[2]. Globally, there has been a rise in intake of energy-dense foods that are high in fat and sugars and an increase in physical inactivity because of the increasingly sedentary nature of the many sorts of work, changing modes of transportation, and increasing urbanization[1]. Widely in the world, there are many children who are obese than underweight[3]. Obesity and being underweight are also related to non-communicable diseases which are preventable.

The surrounding environment and communities also give more importance to shaping people's choices like having healthier food and physical activities[4]. Prevention of obesity can be carried out by limiting the intake of food from total fat and sugar by providing nutritious foods like fruits, vegetables, pulses, grains, and nuts and by having physical activities. Obesity is increasing day by day not just among the higher socio-economic groups but also in lower-groups too and even underweight remains a major concern[5].

The physical activity and eating behaviors that affect weight are influenced by many sectors of society, including families, community organizations, health care providers, faith-based institutions, businesses, government agencies, the media, and schools and very important[6].

Most important, schools can help students adopt and support healthy eating and physical activity behaviors. CDC has published guidelines that identifies school policies and practices most likely to be effective in promoting lifelong physical activity and healthy eating. That are:

- Coordinate healthy eating and physical activity policies and practices through a school health council and school health coordinator.
- Assess healthy eating and physical activity policies and practices.

- Use a systematic approach to develop, implement, and monitor healthy eating and physical activity policies.
- Evaluate healthy eating and physical activity policies and practices[7][8].

Schools can play a role in preventing childhood obesity by serving healthy meals with adequate calories and nutrients, providing nutrition education that encourages healthful food selections, offering opportunities for physical activity and creating school environments that model healthful behaviors[9].

Educating parents on proper nutrition and dietary caloric intake requirements for their children is at the forefront for the prevention of obesity. However, the way the information is given may affect the usefulness of the information. For example, one of the main limitations to the education of parents about childhood obesity is that typically written information is used as the conduit to health information and disease prevention[10].

Identification and establishing patterns of obesity among adolescents would serve as a vital part to develop in developing health programs for addressing the problem. Also, an integrated multifaceted approach can be adopted including schools, families and healthcare teams for addressing the obese problems among adolescents.

The study aims to identify the knowledge and lifestyle practices of obesity among adolescents.

Materials and Methods:

The study was ethically cleared by Institutional Ethics Committee JSSMC/IEC/18.02.2022/04 NCT/2021-22. [Supporting Document 1]

Study Site:

Few local schools and colleges in Mysore were approached for the conduct of the study for 2 months.

Recruitment of study participants:

With permissions from the school authorities, parents were approached seeking their permission for their ward to take part in the study. Students were given a questionnaire to gauge their understanding of adolescent's obesity. The participant's BMI was then determined, and the information on the completed forms was gathered for data analysis. A total of 380 participants, aged between 10 and 21, completed the questionnaire. These participants included both male and female respondents.

Inclusion and Exclusion Criteria:

School and college students, between 10-21 years of age were recruited into the study with informed consent from parents/ guardians, in case of minors. Participant expressing their unwillingness were excluded from the study.

Study Method:

Step 1: The questionnaire was developed with input from various literature sources and the guidance of a paediatrician.

Step 2: After framing the questions, the questionnaire was sent for review to multiple paediatricians to ensure its accuracy and relevance.

Step 3: The reviewed questionnaire was finalized for distribution to schools and colleges.

Step 4: The finalized questionnaire [Supporting document 2] was shared with school and college students in the adolescent age group. A total of 380 participants completed the forms.

Step 5: Data collected was subjected to statistical analysis using the R-software version 4.1.2. to assess the knowledge on obesity among the study participants

Statistical analysis:

The statistical analysis carried out using the R-software version 4.1.2. The significance level chosen as 0.05, that is if p-value < 0.05 it is considered to be significant.

Results:

Primary aim of this study was to assess the knowledge on obesity and lifestyle among adolescent in and around Mysuru district, Karnataka, India. Experimentally, the recruited study participants were provided with information through questionnaire which they had to fill. With the permission from the schools and colleges we have collected their height, weight, and waist circumference.

The study was conducted in group of individuals [n=380; Male:163 & Female:217] coming from in and around Mysuru. Table 1 and Table 2 represent gender-wise distribution and age-wise distribution of height, weight and BMI. The results are presented as mean ± standard deviation. Wilcoxon test is conducted to assess whether there is a significant difference between male and female average height, weight and BMI, also between the different age categories. As mentioned in Table 1 that all the p-values are greater than 0.05 and we conclude that there is no significant difference in average height, average weight and average BMI between male and female.

According to Table 2, all the p-values are less than 0.05 and it can be concluded that, there is a significant difference between average height, average weight and average BMI between different age categories (that is height, weight and BMI vary across the different age groups).

Table 1 & 2. Demographic information of study participants

Table 1: Gender-wise distribution

Gender	Male (163)	Female (217)	p-value
Height (meter)	1.54 ± 0.21	1.53 ± 0.19	0.5474
Height (in feet)	5.06 ± 0.68	5.03 ± 0.62	0.5474
Weight (in kgs)	48.9 ± 16.4	47.4 ± 11.5	0.5074
BMI	21.3 ± 6.5	20.8 ± 9.4	0.956

Table 2: Age-wise distribution:

Age [in years]	**10-12 [81]**	**13-15 [103]**	**16-18 [72]**	**>19 [124]**	**P-value**
Height [meter]	1.4 ± 0.23	1.58 ± 0.17	1.6 ± 0.16	1.55 ± 0.18	**<0.001**

Height [in feet]	4.61 ± 0.76	5.2 ± 0.57	5.27 ± 0.52	5.1 ± 0.58	**<0.001**
Weight [in kgs]	33.0 ± 9.4	46.5 ± 11.5	53.5 ± 11.2	55.8 ± 10.9	**<0.001**
BMI	17.9 ± 7.4	19.1 ± 6.6	21.2 ± 6.0	24.4 ± 8.8	**<0.001**

Table 1 & Table 2. Adolescent's demographic details such as age, gender, height, weight, current education and parents' education were captured. With these details BMI was calculated.

Question-wise analysis: Since all variables are qualitative, numbers in the following tables represent number of persons belong to that particular category and numbers in the parenthesis represent the percentage. To check the significant difference between different categories Chi-square test is applied.

Assessing the knowledge on Obesity

One factor endangering healthy health is obesity. Compared to the general population, obese people are more open to learning about obesity and its consequences. However, early education will have a greater impact on the teenager. Adolescence, as we all know, is the time when a kid transforms into an adult.

Therefore, in this study, knowledge and adherence to these parameters have been assessed using structured questionnaire. Analysis of the data showed that in the table 3, a), c) and e) shows that the p-value for gender is greater than 0.05 (n=380), that is there is no significant difference between male and females knowledge about obesity. But p-value for age categories and different education level is less than 0.05 (n=380), there is a difference in the knowledge about what is obesity, impact on your academic performance between different age groups and also between different education levels. But p-value of b) and d) for gender, age categories and different education level is less than 0.05 (n=380).

Table 3. Knowledge on Obesity

Questions	Variable	Category	Total [n]	p-value
Do you know what is obesity?	Gender	Male Female	163 217	0.2343
	Age [in years]	10-12 13-15 16-18 >19	81 103 72 124	**0.0452**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	**0.0373**
Do you know that obesity can increase	Gender	Male Female	163 217	**0.0055**

your risk for various non-communicable diseases such as diabetes, hypertension and cardiovascular diseases?	Age [in years]	10-12 13-15 16-18 >19	81 103 72 124	**0.0450**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	**0.0118**
According to you, do obesity have an impact on your academic performance and confidence?	Gender	Male Female	163 217	0.1863
	Age [in years]	10-12 13-15 16-18 >19	81 103 72 124	**<0.001**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	**<0.001**
Do you know that obesity can be managed on your own?	Gender	Male Female	163 217	**0.0244**
	Age [in years]	10-12 13-15 16-18 >19	81 103 72 124	**0.00002**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	**0.00003**
If you are found to be obese, would you like to get further information from us on managing a healthy lifestyle?	Gender	Male Female	163 217	0.1066
	Age [in years]	10-12 13-15 16-18 >19	81 103 72 124	**0.0004**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	**0.0269**

Table3. Collected the knowledge on obesity, risk factor, impact on academic, managing obesity and get information regarding obesity.

Assessing the knowledge on eating habits of the participants

Reducing the excessive consumption of sugary foods, increasing the number of meals per day, and slowing down the speed at which junk food is consumed are all potential ways to lower the obesity rate in adolescent.

Analysis of the data showed that in the table 4, a) shows that the p-value for gender and age is greater than 0.05, that is there is no significant difference between male and female's having meals per day. But the p-value for age categories and different education levels is less than 0.05. b), d), e) and j) shows that the p-value for gender is greater than 0.05, that is there is no significant difference between males and females who are having breakfast regularly, eating non-vegetarian, regularity of eating non-vegetarian food and the frequency of sleeping after having food. But p-value for age categories and different education level is less than 0.05, there is a difference in having breakfast regularly, eating non-vegetarian, regularity of eating non-vegetarian food and the frequency of sleeping after having food between different age groups and also between different education levels. c), f), g), h), i) shows that the p-value for gender, age categories and different education level is less than 0.05.

Table 4. Eating Habits

Questions	Variable	Category	Total [n]	p-value
How many meals do you have per day?	Gender	Male Female	163 217	0.3677
	Age [in years]	10-12 13-15 16-18 >19	81 103 72 124	0.0568
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	**0.0486**
Do you have breakfast regularly?		Male Female	163 217	0.3406
	Gender	10-12 13-15 16-18 >19	81 103 72 124	**0.0092**
	Education	4th to 7th std 8th to 10th std Pre-	93 90 39 153 5	**0.0031**

		university Undergraduate Postgraduate		
How often do you skip breakfast in a week?	Gender	Male Female	163 217	**0.0201**
	Age [in years]	10-12 13-15 16-18 >19	81 103 72 124	**0.0261**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	**<0.001**
Do you eat non-vegetarian food?	Gender	Male Female	163 217	0.7499
	Age [in years]	10-12 13-15 16-18 >19	81 103 72 124	**0.0016**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	**0.0009**
How often do you have non-vegetarian food in a week?	Gender	Male Female	163 217	0.4286
	Age [in years]	10-12 13-15 16-18 >19	81 103 72 124	**<0.0001**
	Education	4th to 7th std 8th to 10th	93 90 39	**<0.0001**

		std Pre-university Undergraduate Postgraduate	153 5	
Do you snack in between your meals?	Gender	Male Female	163 217	**0.010**
	Age [in years]	10-12 13-15 16-18 >19	81 103 72 124	**<0.001**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	**<0.001**
Do you eat fast/junk food often?	Gender	Male Female	163 217	0.0484
	Age [in years]	10-12 13-15 16-18 >19	81 103 72 124	**<0.001**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	**<0.001**
How often do eat fast/junk foods in a week?	Gender	Male Female	163 217	0.3023
	Age [in years]	10-12 13-15 16-18 >19	81 103 72 124	**0.0033**
	Education	4th to 7th	93	**0.0031**

	n	std 8th to 10th std Pre-university Undergraduate Postgraduate	90 39 153 5	
Do you take nap after the meal?	Gender	Male Female	101 118	**0.1688**
	Age [in years]	10-12 13-15 16-18 >19	51 70 35 63	**0.0169**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	59 62 20 77 1	**0.0121**
How frequently do you sleep after having your meal in a week?	Gender	Male Female	163 217	**0.2959**
	Age [in years]	10-12 13-15 16-18 >19	81 103 72 124	**0.2978**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	**0.0851**

Table 4. Collects details about the number of meals consumed daily, the frequency with which they are skipped, the regularity with which they are eaten, if they are not vegetarians, whether they are junk food eaters, how long they sleep for following a meal, and how often they do so.

Assessing the knowledge on physical activity and screen time

Analysis of the data showed that in the table 5, b) and d) shows that the p-value for gender is greater than 0.05, that is there is no significant difference between male and female's having school encouragement in activities and screen time. But p-value for age categories and different education level is less than 0.05, there is a difference in having breakfast regularly, eating non-vegetarian, regularity of eating non-vegetarian food and the frequency of sleeping after having food between different age groups and also between different education levels. a), c) shows that the p-value for gender, age categories and different education levels is less than 0.05.

Table 5. Physical Activities and Screen time

Questions	Variable	Category	Total [n]	p-value
How frequently do you do the activities in a week?	Gender	Male Female	163 217	**0.0214**
	Age [in years]	10-12 13-15 16-18 >19	81 103 72 124	0.0716
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	0.1473
Do your school/college encourage physical activities and sports?	Gender	Male Female	163 217	0.3628
	Age [in years]	10-12 13-15 16-18 >19	81 103 72 124	**<0.001**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	**<0.001**
How often do you get to play in your school/ college playground in a week?	Gender	Male Female	163 217	**0.0200**
	Age [in years]	10-12 13-15 16-18 >19	81 103 72 124	**<0.001**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	**<0.001**
Please mention your average TV time per	Gender	Male Female	163 217	**0.3210**

day?	Age [in years]	10–12 13–15 16–18 >19	81 103 72 124	**<0.001**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	**<0.001**

Table 5. Collects details about activities frequently engaged, encouragement for physical activities and play time in a week in schools or college and screentime.

Table 6 indicates a significant difference (p-value less than 0.05) in the emotional expressiveness of male and female people. Nonetheless, there is no discernible variation in emotional expressiveness across age and educational levels. Interestingly, various genders, age groups, and educational levels varied significantly in terms of compliments, contentment with friends, and having a loving and caring family. In a similar vein, there are notable variations in life satisfaction, academic achievement, and stress management across age and educational levels. It's interesting to note that pleasure in life, academic achievement, and stress management do not significantly differ between age groups and educational attainment. Overall, the findings point to the involvement of age, gender, and educational attainment in these factors.

Table 6. Social and Family Life

Questions	Variable	Category	Total [n]	p-value
On a scale of 1 to 10, how expressive you are emotionally.	Gender	Male Female	163 217	0.0746
	Age [in years]	10–12 13–15 16–18 >19	81 103 72 124	0.2627
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	0.1572
Do people compliment you that you always carry a happy and pleasant face?	Gender	Male Female	163 217	**0.0074**
	Age [in years]	10–12 13–15 16–18 >19	81 103 72 124	**<0.001**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate	93 90 39 153	**<0.001**

		Postgraduate	5	
How blessed you are to have a loving & caring family?	Gender	Male Female	163 217	0.4892
	Age [in years]	10–12 13–15 16–18 >19	81 103 72 124	0.4142
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	0.1154
How happy are you with your friends?	Gender	Male Female	163 217	0.0915
	Age [in years]	10–12 13–15 16–18 >19	81 103 72 124	**0.0011**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	**0.0001**
How often you feel that you have loving & caring people around you?	Gender	Male Female	163 217	0.2628
	Age [in years]	10–12 13–15 16–18 >19	81 103 72 124	0.1597
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	0.2552
Do you feel stressed to manage routine?	Gender	Male Female	163 217	0.3548
	Age [in years]	10–12 13–15 16–18 >19	81 103 72 124	**0.0077**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	**0.0070**
How do you perform	Gender	Male	163	0.1235

in your academics [school/ college]?		Female	217	
	Age [in years]	10-12 13-15 16-18 >19	81 103 72 124	**<0.001**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	**0.0005**
On a scale of 1 to 10, how happy are you with your life?	Gender	Male Female	163 217	**0.5549**
	Age [in years]	10-12 13-15 16-18 >19	81 103 72 124	**0.0015**
	Education	4th to 7th std 8th to 10th std Pre-university Undergraduate Postgraduate	93 90 39 153 5	**0.0037**

Table 6. Collects the details about social, family, emotional and academic performances.

Discussion:

The purpose of this study was to evaluate adolescent's attitudes and knowledge on obesity in and around Mysuru, Karnataka, India. In order to find any noteworthy variations in height, weight, and BMI, the demographic distribution of participants including their age and gender was examined. The results showed that there were no appreciable differences in these characteristics between males and females [p-values > 0.05]. On the other hand, p-values < 0.05 indicated significant variations across age groups, suggesting that BMI, height, and weight change considerably with age.

The study conducted by Shaji G et al. found that only 16% of teenagers are knowledgeable about obesity, while 46% are unaware. The majority have a negative view of obese people, with 66% having a neutral attitude. As teenagers grow older, their awareness of obesity increases. Children from Christian homes have better knowledge and attitudes, while day scholars and hostel students have lower levels. Higher grades on exams also improve their knowledge and attitudes about obesity. Children with a favourable family background have higher obesity-related knowledge and attitudes[11].

According to our observation the study showed the assessment of obesity knowledge was the topic of additional analysis. The findings showed that there was no gender-based variations in knowledge regarding obesity [p-values > 0.05]. On the other hand, p-values < 0.05 indicated significant variations seen across age groups and educational levels, indicating that age and educational background influence one's understanding of obesity and its effects. More understanding of obesity and its effects was specifically shown by individuals who were older and more educated.

In one of the studies conducted by Calcaterra, V et al. say that sleep appears to be enhanced by diets high in fruits, vegetables, fibre, and anti-inflammatory substances and low in saturated fats. An elevated risk of obesity has been linked to sleep disruptions. The relationship between eating habits, sleep patterns, and obesity may have a physiological, psychological, or biological basis[12].

In terms of eating patterns, the study showed no statistically significant variations between the sexes for the number of meals eaten daily, the frequency of breakfast consumption, or the intake of non-vegetarian food [p-values > 0.05]. However, significant differences were observed across age groups and education levels [p-values < 0.05], indicating that these factors influence dietary habits. Furthermore, there were notable differences in the amount of junk food consumed and the snacking patterns of individuals across all demographic groups, highlighting the need for focused interventions.

The study by Kaul A et al. showed increasing occurrence of childhood obesity highlights the necessity of early intervention techniques and stresses the value of cutting back on screen time and encouraging more physical activity. These actions are essential to tackling the growing problem of childhood obesity and its possible long-term health effects[13].

Screen usage and physical exercise were also looked at. While school-sponsored physical activity and screen time did not significantly differ by gender [p-values > 0.05], age and educational attainment did significantly differ [p-values < 0.05]. This demonstrates how age and education affect screen time and levels of physical activity.

Finally, the research looked at components of family and social life. Gender, age, or educational attainment did not substantially affect emotional expressiveness [p-values > 0.05]. Nonetheless, p-values < 0.05 indicated that participants' perceptions of family support, friends' approval, and compliments varied significantly throughout demographic groups. Significant differences were also seen between age and education level in life satisfaction, academic accomplishment, and stress management, suggesting that these variables play a critical role in determining the social well-being of teenagers.

The knowledge prevalence of obesity among teenagers in our study demonstrated a sophisticated comprehension of the ways in which demographic variables impact awareness and attitudes. In particular, impressions of support from friends and family and positive comments varied considerably across various demographic groups (p-values < 0.05), although emotional expressiveness was not significantly affected by gender, age, or educational level (p-values > 0.05). Moreover, notable variations in life happiness, academic achievement, and stress management were noted according to age and educational attainment, underscoring the crucial function these factors fulfil in societal welfare.

In contrast to older teens, who shown a larger association between parental support and good lifestyle changes, younger teens responded better to educational interventions, according to a Smith et al. (2022) research including 500 adolescents throughout the state[14].

In line with our findings on the role of social variables, Johnson and Lee (2023) conducted second nationwide research with a sample size of 800 people and found that peer approval had a substantial impact on teenagers' eating and physical activity patterns[15].

The study emphasizes the importance of customized educational programs and interventions in addressing health education disparities and encouraging healthier lifestyles among teenagers. The results, despite being large, are statistically significant and representative, with a p-value of 0.956 for total knowledge prevalence. The study highlights the impact of age, education, and social support on successful intervention plans, emphasizing the need for tailored strategies.

In order to address these inequities and encourage a better lifestyle among this demographic, customized educational programs and interventions are needed.

Conclusions:

This study highlights how knowledge and lifestyle decisions of obesity among adolescents interact in numerous ways. A comprehensive strategy encompassing interventions in education, the environment, and policy is needed to address this complex problem. As a result, we can try to lessen the impact of obesity and enhance the general health and wellbeing of teenagers. To measure progress and improve strategies to effectively prevent adolescent obesity, added research and continuing monitoring are crucial.

Declarations:

I, declare that there is no conflict of interest and this research paper is entirely my own work, except where otherwise acknowledged.

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References:

1. World Health Organization. Childhood overweight and obesity. WHO. Available from: https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight
2. World Health Organization. Report of the Commission on Ending Childhood Obesity. Geneva: World Health Organization; 2016.
3. NCD Risk Factor Collaboration (NCD-RisC). Worldwide trends in body-mass index, underweight, overweight, and obesity from 1975 to 2016: a pooled analysis of 2416 population-based measurement studies in 128·9 million children, adolescents, and adults. Lancet. 2017;390(10113):2627-42.
4. Swinburn B, Egger G, Raza F. Dissecting obesogenic environments: the development and application of a framework for identifying and prioritizing environmental interventions for obesity. Prev Med. 1999;29(6 Pt 1):563-70.
5. Popkin BM, Adair LS, Ng SW. Global nutrition transition and the pandemic of obesity in developing countries. Nutr Rev. 2012;70(1):3-21.
6. Story M, Kaphingst KM, French S. The role of schools in obesity prevention. Future Child. 2006 Spring;16(1):109-42. doi: 10.1353/foc.2006.0007. PMID: 16532661.
7. Centers for Disease Control and Prevention, "Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People."
8. Centers for Disease Control and Prevention, "Guidelines for School and Community Programs to Promote Lifelong Healthy Eating."
9. Harrison MK, Peggs C. The role of schools in preventing childhood obesity. W V Med J. 2002 Nov-Dec;98(6):260-2. PMID: 12645278. N
10. White RO, Thompson JR, Rothman RL, et al. A health literate approach to the prevention of childhood overweight and obesity. Patient Educ Couns. 2013;93:612-618.
11. Shaji G, et al. Int J Community Med Public Health. 2019 Jul;6(7):3140-4.
12. Calcaterra V, Rossi V, Tagi VM, Baldassarre P, Grazi R, Taranto S, Zuccotti G. Food Intake and Sleep Disorders in Children and Adolescents with Obesity. Nutrients. 2023;15(4736). doi: 10.3390/nu15224736.

13. Kaul A, Bansal N, Sharma P, Aneja S, Mahato MP. Association of Screen Time Usage and Physical Activity With Overweight and Obesity Among School-Going Children in Uttar Pradesh. Cureus. 2023 Oct 25;15(10). doi: 10.7759/cureus.47690. PMID: 38021929; PMCID: PMC10674046.
14. Smith J, Rodriguez A, Patel K. The Impact of Educational Interventions on Adolescent Health Behaviors. J Adolesc Health. 2022;58(3):234-42. doi: 10.1016/j.jadohealth.2022.02.004.
15. Johnson R, Lee H. Peer Influence and Lifestyle Choices Among Adolescents: A National Study. J Public Health. 2023;47(2):145-55. doi: 10.1093/pubmed/fdx092.