

An Investigation to Evaluate the Awareness of Obesity and Its Long-term Consequences Among Adolescents from a Chosen Higher Secondary School in Bagalkot

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Abstract

Using descriptive research methodology and a descriptive survey strategy, teenagers from a selected higher secondary school in Bagalkot were asked to rank their awareness of obesity and its long-term implications. To satisfy the objectives of the study and assess teenagers' knowledge of obesity in light of the nature of the issue, a systematic, self-administered knowledge questionnaire was created. Interaction with guides and experts in the nursing and medical domains verified the tool's validity and dependability. The purposive sample approach was used to select 100 youths. Data was gathered via an organized knowledge survey. Statistics, both descriptive and inferential, were used to analyze the collected data. For most of the obese population, the survey found that most teenagers have moderate knowledge scores on obesity, with an average score of 16.62. Factors such as family type, age, gender, birth order, religion, income, parents' occupations, nutrition, and leisure activities significantly correlated with knowledge scores. However, exercise, issues, family history, and personal history of obesity did not significantly correlate.

Keywords: Investigation, evaluation, awareness of obesity and its long-term consequences

INTRODUCTION

India's prosperity relies on its human resources, with 22–28% of adolescents aged 10–19, representing nearly 230 million people. Adolescence is influenced by rapidly changing values, modern

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technology, and hostile cultures, leading to obesity, which threatens basic healthcare delivery, and cardiovascular diseases, and increases morbidity and mortality [1]. The prevalence of obesity has surged globally, leading to non-communicable diseases, such as diabetes, cardiovascular diseases, and cancer. This increases morbidity and mortality rates, thereby burdening healthcare expenditure. Children and adolescents, particularly those in developed and developing nations, are affected, with 41 million children and 340 million adolescents being overweight or obese [2]. Obesity rates are increasing in Southeast Asia, with India having a 12.6% prevalence in women and 9.3% in men, affecting over 100 million individuals and contributing to non-communicable diseases [3]. India is facing a rapid health transition, with chronic diseases accounting for a significant portion of

deaths, particularly at an early age, with cardiovascular disease causing the highest loss in productive years of life compared to other countries [4]. Obesity, defined as a body fat content exceeding 25% in men and 30% in women, has increased globally over the past two decades, with over 1 billion adults being overweight and 55% from adolescence [5]. Since 1980, India has seen one in 10 overweight urban middle-class children, with 300 million adolescents globally obese. Research shows that 50–80% of obese children and adolescents become obese adults, worsening adult obesity complications. A high gestational diabetes risk contributes to obesity during childhood and adolescence [6]. Obesity, defined as a body fat content exceeding 25% in men and 30% in women, has significantly increased globally over the past two decades, with over 1 billion adults being overweight and 55% from adolescence [7]. Since 1980, India has seen one in 10 overweight urban middle-class children, with 300 million adolescents globally obese. Research shows that 50–80% of obese children and adolescents become obese adults, worsening adult obesity complications. A high gestational diabetes risk contributes to obesity during childhood and adolescence [8]. Nurses should provide standardized quality care and focus on preventive measures to prevent obesity-related health risks. They should educate adolescents about healthy lifestyles and prevent complications early, thereby enhancing their role in promoting healthy lifestyles [9, 10].

OBJECTIVES

- This study aimed to evaluate the understanding of obesity and its long-term health consequences among adolescents from higher secondary schools in Bagalkot.
- This study aimed to investigate the correlation between adolescents' knowledge scores on obesity and its long-term complications and selected demographic factors.

METHODOLOGY

Research Approach

This study adopted a descriptive survey approach to assess knowledge regarding obesity and its long-term consequences.

Research Design

Descriptive designs were used in this study.

Research Settings

Setting refers to the area in which the study was conducted. The study was conducted at the Bagalkot of the Kannada Medium School.

Sample and Sample Size

In this study, samples were drawn using a non-probability purposive sampling technique and were adolescents with a sample size of 100.

Sampling Technique

100 adolescents were selected by using a non-probability purposive sampling technique.

RESULTS

1. *Section I:* This section focuses on the knowledge scores of adolescents.
 - i. *Part A:* The study aimed to assess the overall knowledge scores of adolescents.
 - ii. *Part B:* The study examines the knowledge scores of adolescents in various areas.
2. *Section II:* This section examines the correlations between adolescents' knowledge scores and specific demographic variables.

Section I: This section focuses on the knowledge scores of adolescents.

Part A: The Study Aimed to Assess the Overall Knowledge Scores of Adolescents.

Table 1 reveals that 84% of adolescents had poor knowledge about obesity, while 16% had moderate knowledge.

Table 1. The distribution of knowledge scores regarding obesity (N=100).

S.N.	Overall knowledge	Frequency (f)	Percentage (%)
1	Poor knowledge	84	84
2	Moderate knowledge	16	16
3	Adequate knowledge	-	-
Total		100	100

Table 2. Area-wise analysis of knowledge scores regarding obesity (N=100).

S.N.	Area	Maximum score	Mean	Mean percentage	Standard deviation
1	General information about obesity	05	2.15	43	0.957
2	Causes of obesity	09	4.98	55	0.816
3	Prevention and control of obesity	11	5.29	48	0.577
4	Complications	10	4.20	42	0.836
Total		35	16.62	47	3.186

Part B: The Study Examines the Knowledge Scores of Adolescents in Various Areas.

Table 2 reveals that adolescents had a mean knowledge score of 16.62, with a percentage (47%) with a standard deviation of 3.186.

Section II: This Section Examines the Correlations Between Adolescents' Knowledge Scores and Specific Demographic Variables.

The study found that family type was significantly correlated with knowledge scores, while other demographic variables, such as age, education, gender, religion, income, and lifestyle, were not. A family history of obesity, personal obesity, and exercise did not show a significant association, indicating partial acceptance of H1 (Table 3).

Table 3. Correlation between the knowledge scores of adolescents and specific demographic variables in the study (N=100).

Demographic variables	Options	f	%	< median	> median	Chi-square value	P-value	Remarks
Age in years	a. 13	35	35	21	14	0.443	0.931	*NS
	b. 14	36	36	23	13			
	c. 15	25	25	15	10			
	d. 16	04	04	3	1			
Gender	a. Male	48	48	30	18	0.009	0.921	*NS
	b. Female	52	52	32	20			
Religion	a. Hindu	63	63	33	30	0.636	0.816	*NS
	b. Christian	13	13	8	5			
	c. Muslim	24	24	15	9			
	d. Others	00	00	-	-			
Class of study	a. 8th standard	35	35	21	14	0.383	0.825	*NS
	b. 9th standard	36	36	24	12			
	c. 10th standard	29	29	19	10			
Birth order	a. First	36	36	22	14	0.617	0.892	*NS
	b. Second	29	29	18	11			
	c. Third	25	25	14	11			
	d. Fourth	10	10	7	3			
Type of family	a. Joint	12	12	11	1	4.807	0.028	S*
	b. Nuclear	88	88	52	36			

Demographic variables	Options	f	%	< median	> median	Chi-square value	P-value	Remarks
Monthly income	a. Below Rs. 25000	36	36	24	12	0.627	0.89	*NS
	b. Rs. 25001–50000	24	24	14	10			
	c. Rs. 50001–100000	28	28	19	9			
	d. Above Rs. 100001	12	12	8	4			
Education of father	a. No formal education	11	11	8	3	0.934	0.994	*NS
	b. Primary	10	10	6	4			
	c. Higher secondary	15	15	9	6			
	d. Graduation	62	62	42	20			
	e. Post graduation	02	02	1	1			
Education of mother	a. No formal education	22	22	15	7	0.721	0.948	*NS
	b. Primary	12	12	8	4			
	c. Higher secondary	15	15	9	6			
	d. Graduation	47	47	31	16			
	e. Post Graduation	04	04	2	2			
Occupation of father	a. Government	24	24	15	9	0.684	0.876	*NS
	b. Private	36	36	21	15			
	c. Self-employed	28	28	19	9			
	d. Daily wages	12	12	7	5			
Occupation of mother	a. Government	10	10	6	4	0.356	0.852	*NS
	b. Private	26	26	14	12			
	c. Self-employed	24	24	14	10			
	d. Daily wages	12	12	8	4			
	e. Homemaker	28	28	19	9			
Dietary pattern	a. Vegetarian	12	12	8	4	0.329	0.847	*NS
	b. Non-vegetarian	48	48	29	19			
	c. Mixed	40	40	23	17			
Practice of junk food	a. Yes	92	92	67	25	0.389	0.532	*NS
	b. No	08	08	5	3			
Mode of transport	a. By walk	13	13	9	4	0.65	0.722	*NS
	b. By vehicle	75	75	43	32			
	c. By cycle	12	12	7	5			
Leisure time activity	a. Reading books	13	13	8	5	0.54	0.969	*NS
	b. Listening music	22	22	15	7			
	c. Playing games	28	28	20	8			
	d. Watching TV	25	25	16	9			
	e. Sleeping	12	12	8	4			
Watching TV in days	a. About 1 hour	12	12	9	3	1.123	1.289	*NS
	b. 2 hours and above	88	88	52	36			
Watching TV on holidays	a. Less than 3 hours	12	12	6	6	0.45	0.568	*NS
	b. More than 3 hours	88	88	54	34			
Duration of playing games	a. About 1 hour	10	10	6	4	0.216	0.897	*NS
	b. 2 hour	15	15	9	6			
	c. 3 hours and above	75	75	41	34			
Family history	a. Yes	68	68	39	29	0.036	0.848	*NS
	b. No	32	32	19	13			
Personal history	a. Yes	11	11	7	4	0.03	0.86	*NS
	b. No	89	89	59	30			

Demographic variables	Options	f	%	< median	> median	Chi-square value	P-value	Remarks
Type of problem	a. Chest pain	05	05	3	2	0.155	0.997	*NS
	b. Joint pain	06	06	3	3			
	c. Breathing difficulty	07	07	4	3			
	d. Hypertension	02	02	1	1			
	e. No problem	80	80	45	35			
Exercise	a. Daily	06	06	3	3	0.497	0.622	*NS
	b. Regular	22	22	15	7			
	c. Irregular	72	72	42	30			

Table value 3.87, df 1, $p < 0.05$, *S-Significant, *NS-Not significant

DISCUSSION

The study analyzed adolescents' knowledge scores and found that 84% had poor knowledge scores and 16% had moderate scores. The correlation between knowledge scores and demographic variables was found to be significant, with family type being the most significant factor, indicating partial acceptance of H1.

CONCLUSION

The study found that most adolescents had limited knowledge about obesity and its long-term complications, with a partially significant association between their knowledge scores and demographic variables.

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