

A Study to Assess the Eating Habits, Physical Activity, and Knowledge Regarding the Prevention of Obesity among School Children in a Selected Residential Area of Pune City

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Abstract

Background: India stands at second position in possessing a large number of children with obesity after China. Worldwide, millions of children are suffering from health problems related to obesity. In addition to faulty eating habits, obesity among children also caused by genetic factors and lack of physical activities.

Methodology: In the present study, researchers have executed a descriptive research design with a sample of 60. The samples were of school-going children with age group between 9-16 years and they were nominated in the study using convenient sampling design. The parameters include height, weight, and BMI of the school children to estimate the obesity of the children. This study also had focused to assess the physical activity and eating habits of subjects by assessing the knowledge regarding the prevention of obesity assessed by administering using a checklist.

Results: 65% of students had average knowledge on the prevention of obesity. 11.7% of the students have a long-term illness which is limiting their daily activity. The majority of the subjects preferred outdoor games while some subjects wished some sort of motivation to engage in sports activities. 61.7% of students liked to eat junk foods at least once a day. 16.7% of students fall under the category of overweight with BMI 24.6-30 kg/m².

Conclusion: School going children need to be highly educated regarding the benefits of eating a healthy diet and they need to be discouraged for favoring junk foods by quoting results of health issues after eating junk food items.

Keywords: *Eating habits, physical activity, knowledge, prevention, obesity school children*

Background

India stands at second position in possessing a large number of children with obesity after China. Worldwide, millions of children are suffering from a health problem related to obesity. In addition to faulty eating habits, obesity among children also caused by genetic factors and lack of physical activities.

In addition to the imparting education of school-going children regarding the prevention of obesity, parents also need to be educated about the healthy diet, and the importance of engaging the child in physical activities. They have to be well informed about the health hazards if the child develops obesity. Many research findings revealed that the parents giving a healthy diet to their children found less obesity among their children than others. ⁽¹⁾

Maintenance and leading a healthy lifestyle among the school-going children is very essential as they are the future citizens. A healthy lifestyle among the children includes having a highly nutritious diet, regular exercise

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or any physical activities, and adequate sleep. According to the centers for disease control, 18.8% of school-aged children were obese who did not have a healthy lifestyle.

The deficiency of adequate nutrition leads to disorders in mental and physical growth. Environmental problems such as lifestyle performance and the cultural environment of the child can play an important role in raising the problem of obesity worldwide. The classification and diagnosis of obesity can be detected by knowing the BMI of the person and it is calculated as

$$\text{BMI} = \text{Weight (kg)} / \text{height (m}^2\text{)}$$

The obesity in children is calculated through BMI for age percentile charts for male and female gender of children. To estimate the categories of obesity, Body mass index (BMI) calculation is broadly used. The values of BMI profoundly changed with age, gender, and climate. ⁽²⁾

Operational Definitions:

Assess: - In this study, researchers assessed the eating habits, physical activity of the children and assessed their knowledge regarding the prevention of obesity.

Knowledge:-In this study knowledge about obesity prevention was assessed

Prevention: In this study, the information regarding the prevention of obesity was collected from school children.

Obesity:- In this study, BMI levels of the school children checked.

Objectives of the study:

1. To assess the knowledge regarding the prevention of obesity among school children.

2. To assess the physical activity of the school children.
3. To assess the eating habits of school children.
4. To assess the BMI levels of the school children.

Methodology:

In the present study, researchers have executed a descriptive research design with a sample of 60. The samples were of school-going children with age group between 9-16 years and they were nominated in the study using convenient sampling design. The parameters included in the study were, height, weight, and BMI of the school children to estimate the obesity of the children. This study also had focused to assess the physical activity and eating habits of subjects by assessing the knowledge regarding the prevention of obesity assessed by administering using a checklist.

The procedure of conduct of the study:

In this study the data collection procedure was consist of the following steps;

Step 1: Formal permission was obtained from the authorities corporate

Step 2: Explained the participants about the study.

Step 3: Assessed knowledge and enquired about the eating habits and physical activity.

Step 4: Checked the height, weight, waist circumference, hip circumference, and calculating BMI of school children.

Results

Table 1: Distribution of the school children based on their characteristics in terms of frequency and percentages

n=60

Demographic variable	Frequency	Percentage
Age		
9-11 years	12	20.0
12-14 years	36	60.0
15-16 years	12	20.0
Gender		
Male	41	68.3
Female	19	31.7
Education of the student		
4 std. – 6 std	14	23.3
7 std. – 10 std	46	76.7
Educational qualification of mother		
Profession or Honors	3	5.0
Graduate or postgraduate	5	8.3
Intermediate or post-high school diploma	7	11.7
High school certificate	32	53.3
Middle school certificate	1	1.7
Primary school certificate	1	1.7
Illiterate	11	18.3
Occupation of mother		
Profession	8	13.3
Semi-Profession	5	8.3
Clerical, Shop-owner, Farmer	1	1.7
Skilled worker	9	15.0
Semi-skilled worker	27	45.0
Unskilled worker	10	16.7
Family Income per month		
≥36017	1	1.7
18000-36016	16	26.7
13495–17999	6	10.0
5387–8988	10	16.7
1803–5386	27	45.0

Table 2: Distribution of the school children based on their physical parameters in terms of frequency and percentages

Physical parameter	Frequency	Percentage
Waist circumference (cm)		
40-60	20	33.3
61-80	32	53.3
81 & above	8	13.3
Hip circumference (cm)		
45-65	23	38.3
66-85	30	50.0
86 & above	7	11.7
Weight (kg)		
25-35	21	35.0
36-45	18	30.0
46-55	15	25.0
56 & above	6	10.0
Height (cm)		
110-130	7	11.7
131-150	43	71.7
151-170	9	15.0
171 & above	1	1.7
BMI (kg/m ²)		
12.5-18.5	20	33.3
18.6-24.5	25	41.7
24.6-30	10	16.7
31 & above	5	8.3

Table 3: Distribution of school children based on their knowledge regarding the prevention of obesity.

n=60

Knowledge	Frequency	Percentage
Poor (Score 0-5)	8	13.3
Average (Score 6-10)	39	65.0
Good (Score 11-16)	13	21.7

Table 4: Distribution of school children based on their physical activity

n=60

Physical activity	Frequency	Percentage
Presence of long-term illness or disability which limits the daily activity		
Yes	7	11.7
No	52	86.7
Not sure	1	1.7
What would help you to take part in more sport/physical activity?		
Insight of health-conscious	14	23.3
Motivation	28	46.7
Interest for maintaining	18	30.0
What has previously stopped from taking part in sport/physical activity?		
Lack of motivation to take part	17	28.3
Health issue concerns	3	5.0
Lack of child-friendly activities	20	33.3
Lack of childcare	1	1.7
Transport issues	5	8.3
Not interested in sport and physical activity	14	23.3
How often do you participate in sport and physical activity?		
Daily	30	50.0
Weekly	18	30.0
Monthly	6	10.0
Never	6	10.0

Table 5: Distribution of school children based on their physical activity

n=60

Physical activity	Frequency	Percentage
Would you like to participate in sports at school?		
Yes	51	85.0
No	9	15.0
Which sport do you like to play?		
Cricket	37	61.7
Football	12	20.0
Other (dancing, rope climbing, etc.)	11	18.3
What would you like to do in your leisure time?		
Watching TV	30	50.0
Listening to music	2	3.3
Other	28	46.7
Would you like to go to morning run/walk?		
Yes	39	65.0
No	21	35.0
Which game do you prefer indoor or outdoor?		
Indoor	25	41.7
Outdoor	35	58.3
Which one will you prefer among these?		
Going out for a run	30	50.0
Playing video games	30	50.0

Table 6: Distribution of children based on their eating habits.

n=60

Eating habits	Frequency	Percentage
What all are the food items you get in lunch		
Chapatibhaji	52	86.7
Dal rice	4	6.7
Pizza, burger	4	6.7
Which food items you like the most		
Chapatibhaji Dal rice	37	61.7
Pizza, burger, junk foods	23	38.3
How frequently you consume the food		
After every 2 hours	8	13.3
After every 3 hours	33	55.0
After every 4 hours	11	18.3
After every 5 hours	8	13.3
How many times you eat junk food in a week		
Twice a week	16	26.7
Thrice a week	8	13.3
Sometimes	28	46.7
Never	2	3.3
Daily	6	10.0
Which food items does your mother often cook		
Chapatibhaji	46	76.7
Daal rice	7	11.7
Paratha	1	1.7
Others	6	10.0
Why do you prefer fast food		
Status symbol	14	23.3
Just for taste	36	60.0
As a normal meal	10	16.7
In a day how many meals you replace with fast food		
Once	37	61.7
Twice	11	18.3
More than that	12	20.0
At what time you prefer to eat fast food		
Morning	13	21.7
Afternoon	8	13.3
Evening	21	35.0
All	18	30.0

Discussion and Conclusion

The main purpose of the study is to assess the physical activity, eating habits of the school children, and their knowledge regarding the prevention of obesity. The data was collected with the help of a self-administered questionnaire. Height, weight, and BMI were the main physical parameter checked for the school children. The students were very active and cooperative in giving the data for our study. The evaluation was made based on scoring.

The study revealed that a large number of the students have average knowledge regarding the prevention of obesity while the result of other related studies in the relevant literature reflects that knowledge about childhood obesity among primary school children was moderate. ⁽³⁾ The study on eating habits of the school children revealed that there is an impact on parents' education and their socioeconomic status on their dietary patterns and habits that make the difference to select the food. This study has indicated that the parent's education on the right dietary habits is a more essential component, particularly the middle-income population. Whereas other related studies in the related reviews replicate that frequencies of avoiding meals, food selections as well as socio-demographic features of subjects affect their food habits. ⁽⁴⁾ other related studies in the relevant literature reflect that physical activity was significantly associated with socioeconomic status and consumption of fruits and vegetables, whereas this study shows that the children are not motivated to play and has a lack of child-friendly activities. Also, the family's

socioeconomic status plays an important role in allowing children to perform physical activities such as playing outside which excuses the urge to watch television more. ⁽⁵⁾

Conflict of Interest – Nil

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Ethical Clearance – Ethical clearance was obtained from the ethical committee of Symbiosis College of Nursing.

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