A Descriptive Study to Assess the Prevalence of Obesity among Adolescents Girls at Selected Schools in Puducherry

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ABSTRACT

Background: In the 21st century the childhood obesity is one of the major public health problem. In 124 million children and adolescents, in the age group of 5-19 years were estimated suffered from obesity worldwide and 213 million were overweight in 2016. In 2020, 9.1% prevalence of childhood obesity may expected in worldwide. **OBJECTIVES:** To assess the prevalence of obesity among Adolescents Girls & to find the association between the prevalence of obesity with selected demographic variables. **METHODOLOGY:** Descriptive research survey was used in this study. The data was collected from 130 adolescent's girls at the age group of 15-18 years, at selected government schools in Puducherry. Semi-structured questionaries' was used in the study. The height & weight was measured based on South Asian BMI classification. **RESULT:** Out of 130 girls adolescents, 28(42.9%) were obese and 9(14.3%) were overweight, of these obesity and overweight were more common in the age of 16 years (42.9%) and 9 (14.3%) respectively. The demographic variables had shown statistically not significant with prevalence of obesity among adolescents girls. **CONCLUSION:** The present study was revealed high prevalence of obesity & overwe9ight among Adolescent Girls in the age group of 16 years.

INTRODUCTION:

In globally, Adolescent's obesity has increased in triple since 1975 in globally. Totally 650 million were obese. In adulthood age for 18 years for 39% in overweight & 13% in obese. In 2016, 340 million children & adolescents are overweight & obese (2). In 2020, 9.1% prevalence of childhood obesity may expected in worldwide (1). In the 21st century, childhood obesity is one of the major public health problem. In 124 million children and adolescents, in the age group of 5-19 years were estimated suffered from obesity worldwide and 213 million were overweight in 2016 (6). In India, has the second highest number of obese children in the world, with 14.4 million reported cases according to a new study published in the New England Journal of Medicine.(2). Obesity is a chronic disease which has spread all over the world and threatens public global health. (8). Body mass index (BMI) is the most useful screenings parameters for children and adolescents to assess obesity. It has significant predictive value for adult obesity related to morbidity and mortality (3). The epidemiology of obesity is an emerging epidemic in India. These children have poor endurance, based on indication of BMI, aerobic (walking and running) and anaerobic (sprinting) capacities, muscle strength, endurance and flexibility. (S At least 30% of obesity being in childhood. Conversely 50% to 80%of obese children become obese adults. (7). In the WHO definition of 21st century are estimated the prevalence based on the whole population of children aged 6-9 years in each country, around 398,000 children would be expected to be severely obese in the European countries (6). The strong family history of obesity in obese adolescents. Individuals with truncal obesity are more prone to cardiovascular disease and diabetes (4). Overweight and obesity kills more people than underweight in countries which take high share in world-population (5). The morbidity from cardiovascular diseases, diabetes, obesity-related cancers and arthritis were 50-100% higher in obese individual who were also obese as children and generally the cardiovascular mortality in such individual was doubled (7).

OBJECTIVES:

The aim of the study to assess the prevalence of obesity among Adolescents Girls & to find the association between the prevalence of obesity with selected demographic variables.

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RESEARCH METHODOLOGY

Study design:

A descriptive survey research study was conducted on a sample of adolescent's girls who are studying in government schools in Puducherry.

Study population and sampling:

The convenience sampling technique was used to select a sample. In this study, the population was all the Adolescents studying in the selected Government Girls Higher Secondary Schools, Puducherry.

Sampling size:

130 Adolescent's girls in the age group of 15 – 18 years

Inclusion criteria & exclusion criteria

Adolescent's girls,

- who were in the age group between 15 to 18 years.

- who can read English/Tamil.

Exclusion criteria

Adolescents girls,

- who were not willing to participate on the study.

- who were with chronic illness.

- who were not willing for Anthropometric measurements.

BMI:

Provision was made to measure and record the weight and height of Adolescents Girls and to calculate the Body Mass Index by using of appropriate instruments.

1. Weight (Kg)

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2. Height (cm)

BMI was calculated as per the formula given by South Indian Asian Classification (Puducherry).

$$\text{Body mass Index} = \frac{\text{Weight (kg)}}{[\text{Height (m)}]^2}$$

Underweight = <18.5

Normal weight = 18.5-22.9

Overweight = 23-24.9

Pre-obese = 25-29

Obese= ≥30

STATISTICAL ANALYSIS:

The data analysis was done according to the objectives of the study, both descriptive and inferential statistics was used.

Descriptive Statistics: Frequency and percentage distribution were used to analysis demographic variables, Mean and Standard deviation was used to determine difference in Body Mass Index.

Inferential Statistics: Chi-Square test was used to associate the prevalence of obesity and also their associate between obesity and their selected demographic variables.

RESULT:

Our study included 130 adolescents' girls in the selected government schools, according to age, majority of age 63(38.5%) were aged of 16 years, all 130(100%) were female and 117(90%) were Hindus. The educational level of father, majority of education level of father 52(40%) had primary education and education level of mother 58(44.6%) had primary education. The father's occupation, majority of fathers occupation 56(43.1%) had the coolie and mothers occupation 70(53.8%) had housewife. The family income per month revealed that majority of family income

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per month 58(44.6%) revealed that had a income of Rs.6000 – 10,000, type of family 105(80.8%) belonged to nuclear family and residing 66(50.8%) in urban areas. The type of family, most of them 105(80.8%) belonged to nuclear family. The residential area, most of them 66(50.8%) were residing in urban.

Of the 130 girls adolescents, 28(42.9%) were obese and 9(14.3%) were overweight, of these obesity and overweight were more common in the age of 16 years (42.9%) and 9 (14.3%) respectively.

It reveals that none of the demographic variables had shown statistically significant association with prevalence of obesity among adolescents.
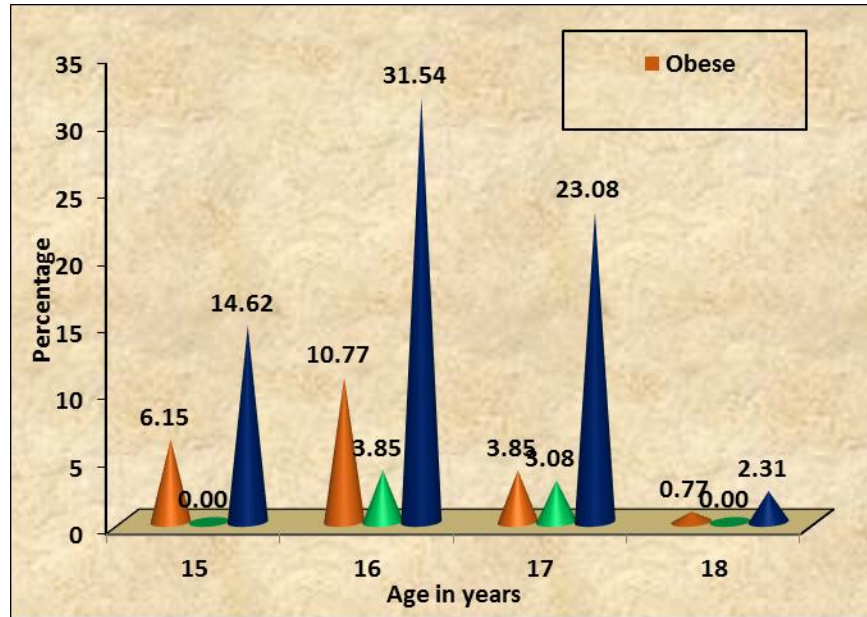
DISCUSSION:

Our study was revealed that the association between the prevalence of obesity with selected demographic variables. It reveals that none of the demographic variables had shown statistically significant association with prevalence of obesity among adolescents.

Our study revealed that the prevalence of obesity & overweight among Adolescents girls. The result found that, out of the 130 Adolescents Girls, 28 were obese (21.54%) and 9 were overweight (6.92%). The highest prevalence of obesity and overweight was found in adolescents girls aged 16 years, (10.77%) and (3.85%) respectively.

Table No. 1: Frequency and Percentage Distribution of Prevalence of Obesity among Adolescents Girls based on BMI   N = 130

Group	Age	N	Percentages %		
			Obese	overweight	Normal and underweight
Adolescents girls	15	27	8(6.15)	0	19(14.62)
	16	60	14(10.77)	5(3.85)	41(31.54)
	17	39	5(3.85)	4(3.08)	30(23.08)
	18	04	1(0.77)	0	3(2.31)
Total		**130**	**28(21.54)**	**9(6.92)**	**93(71.54)**

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The above table 4.5 shows that Out of the 130 Adolescents Girls, 28 were obese (21.54%), 9 were overweight (6.92%) and 93(71.54). The highest prevalence of obesity and overweight was found in adolescents girls aged 16 years, (10.77%) and (3.85%) respectively.

Figure No. 1: Percentage Distribution of Adolescents Girls based on Body mass index among Adolescents Girls

CONCLUSION:

The present study was revealed high prevalence of obesity among Adolescent Girls in the age group of 16 years. It reveals that none of the demographic variables had shown statistically significant association with prevalence of obesity among adolescents. Interventions are needed to increase awareness about the prevalence of obesity among Adolescents girls.

RECOMMENDATIONS

* A similar study can be conducted in community area to find the prevalence of obesity.

* A planned teaching program can be awareness of obesity in the schools.

* A similar study can be conducted as comparative study in urban and rural areas.

* A similar study can be conducted in large sample.

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REFERENCES:

1. Hemavathi Dasappa, (2018). Prevalence, risk factors and attitude of parents towards childhood obesity among school children in Banglore city. International journal of community Medicine and public health. Voume.5 (2). P.No. 749 to 750.

2. Obesity & overweight. (2018). World Health Organisation (WHO).

3. Parul Datta. Text Book of Pediatric Nursing. 3rd Edition. Published by Jaypeee Brothers. P.No. 401.2014.

4. Piyush Gupta. Text Book of Essential Pediatric Nursing. 2nd Edition. Published by Satish Kumar Jain. 2010. P.N.171.

5. Shamala D Manivannan. Text Boom of Community Health Nursing –I. CBS Publishers & Distributors Pvt. Ltd.1st Edition 2017. P.No. 367

6. Spinelli A, Buoincristiano M, Kovacs V.A. (2019). Prevalence of severe obesity among Primary School Children in 21 European Countries. Obes facts 12:244-258.

7. Styne DM. (2001). childhood and adolescents obesity. 48:823-854.(PubMed)(Google Scholar).

8. Vaijayanthimala, M (2019). Effectiveness of information, education and communication and prevention of obesity in young adolescents. International journal of health sciences and research. Volume: 9(3). P.No.159.

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