



## A Study to Assess the Knowledge of Control of Childhood Obesity among Mothers of School-Age Children at Maraimalai Nagar, Kancheepuram District

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### ABSTRACT

In today's global scenario, there is an increasing incidence of childhood obesity due to the lifestyle changes in personal and eating behaviour which is the primary root cause of various childhood chronic diseases. The main aim of the study was to assess the knowledge of the control of childhood obesity among mothers of school-age children of 6-15 years in Maraimalai Nagar. The non-experimental descriptive research design was adopted to assess the level of knowledge on the control of childhood obesity among mothers. One hundred mothers who fulfilled the inclusion criteria were selected by using a non-probability convenient sampling technique. A structured questionnaire was used to assess the demographic variables and awareness regarding childhood obesity among mothers. The study was conducted at Maraimalai Nagar. Reliability of the tool was established by a split-half method. The results reveal 17.5 % of subjects had inadequate knowledge, 81.4% had moderate knowledge, and only 1 % had adequate knowledge on childhood obesity. The study concludes that the mothers ignore to take preventive measures where their children could be a victim of child obesity. Thus, we affirmed the need for making mothers aware of the control of child obesity and how it can be prevented.

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### INTRODUCTION

Obesity in children and adolescents, as well as adults, is a major general wellbeing concern owing not only to the growing amount of instances but also to morbidity, one of the significant mortality risk variables in adulthood. Obesity is linked to lifestyle,

in addition to the biological and genetic variables of the individuals, including eating behaviour and physical inactivity. Having a better understanding of these variables is, therefore, essential in the present context of increasing obesity incidence globally. Besides, the fastidious nature of managing obesity in adulthood and the danger of perseverance and aggravation of the disease in adulthood are controversies that justify the need for primary child obesity prevention (Mohan *et al.*, 2016).

Obesity is an unusual accumulation of body fat, generally 20 per cent or more of the optional bodyweight of an individual. Childhood obesity accounts when BMI of 17.8 kg/m<sup>2</sup> or growth percentile of 97. The centre's for Disease Control and Prevention describes children with an index of body mass at or above 85 per cent of their age as overweight the fastidious nature of managing obesity in adulthood and the danger of perseverance and aggravation of the disease in adulthood are controversies

that justify the need for primary child obesity prevention (Dehghan *et al.*, 2005).

In today's global scenario, there is an increasing incidence and obesity among childhood obesity to lifestyle changes in personal and eating behaviour which is the primary root cause of various childhood chronic diseases. One of the best ways to decrease childhood obesity is to enhance your entire family's eating and exercising practices. Remedy and avoidance of childhood obesity in the future enables to safeguard the health of the children.

There are nearly 108 million children and more than 600 million adults with a BMI exceeding 30, the threshold for obesity, according to the study. Among adults, the U.S. topped the list with 79.4 million people with obesity, and China came second with 57.3 million people and India 14.4 million (Gupta *et al.*, 2012).

The prevalence of obesity has doubled since 1980 in more than 70 countries and has increased in most other nations. Although the prevalence of obesity among children has been lower than among adults, the rate of increase in childhood obesity in many countries was greater than that of adults.

Globally, in 2016 the number of overweight children under the age of five is estimated to be over 41 million. Almost half of all overweight children under 5 lived in Asia and one quarter lived in Africa as per WHO report. By 2025, India will have over 17 million obese children and stand second among 184 countries, where the number of obese children is concerned (Babela *et al.*, 2016).

On the backdrop of World Obesity Day on October 11, experts warned that early prevention was the need of the hour to avoid an entire generation from falling prey to heart ailments, hypertension and diabetic complications.

Globally, over two billion children and adults suffer from health problems related to being overweight or obese, and an increasing percentage of people die from these health conditions, researchers said. Of the four million deaths attributed to excess body weight in 2015, nearly 40 per cent occurred among people whose body mass index (BMI) fell below the threshold considered "obese" (Mohan *et al.*, 2005).

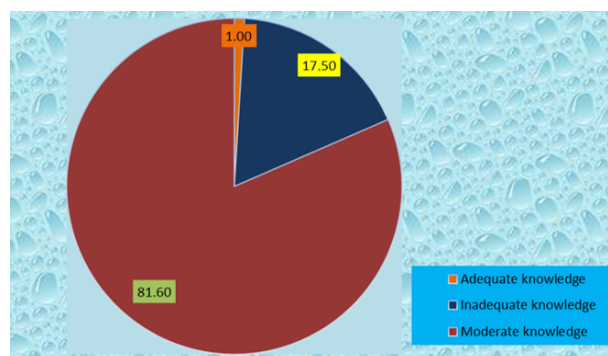
One of the best ways to decrease childhood obesity is to enhance your entire family's eating and exercising practices. Remedy and avoidance of childhood obesity now and in the future, enable to safeguard the health of your child (Kubik *et al.*, 2008).

Paediatrics obesity in the United States is now an epidemic. Pediatric weight and obesity now impact over 30 per cent of the child, chronic childhood dis-

ease. Paediatrics obesity not only an in-depth issue, but it is also a real health problem that can be associated with a significant problem in childhood and adulthood. Parents of a young child who are overweight should not, therefore, disregard this problem, but should actively seek assistance in determining why their baby is overweight and what they can do to rectify the condition (Anderson and Butcher, 2006). These studies and experiences intend the investigators to undertake this study in the community set up.

## MATERIALS AND METHODS

The research approach used in this study was quantitative. The study was conducted at Maraimalai Nagar, Kancheepuram district. One hundred samples used for this study. Samples were selected by non-probability convenience sampling technique. One hundred mothers of school-age children of 6-15years were selected who fulfils the inclusion criteria. Reliability of the tool was established by using the test-re-test method, and its correlation coefficient value is 0.82. Data collection was done by Interview method approximately 15-20mins to complete one sample. Informed consent was obtained from the samples related to the study purpose, types of data, nature of commitments and participation. The ethical guidelines were followed throughout the study. Descriptive and Inferential statistics were used to analyse the data.



**Figure 1: Mother's Knowledge on Childhood Obesity**

## RESULTS AND DISCUSSION

An interview with a structured questionnaire used to assess the mother's knowledge of childhood obesity in Maraimalai Nagar. Descriptive and inferential statistics analysed the collected data.

From Table 1, the demographic variables of the study reveals that among 100 mothers, 44.7% of the mothers belong to the age group of above 35

**Table 1: Demographic Variables of Mothers of School-Age Children (N=100)**

S. No	Demographic Variable		%
1	Age of the mother	20-25 Years	9.7
		26-30 Years	24.3
		31-35 Years	21.4
		>35 Years	44.7
2	Educational status	Non-formal education	5.8
		Middle school	7.8
		High school	1.0
		Higher secondary	10.7
		Graduate and above	74.8
3	Age of the child	6-8 years	59.2
		9-12 years	22.3
		13-15 years	18.4
4	Child level of study	Primary school	71.8
		High school	28.2
5	Occupation of the father	Professional / Executive	60.2
		Supervisor / Clerical /	16.5
		Medium level business	
		Self-employed / Skilled	22.3
6	Occupation of the mother	Retired	1.0
		Professional / Executive	15.5
		Supervisor / Clerical /	3.9
		Medium level business	
		Self-employed / Skilled	1.9
		Unskilled landless labour	3.9
7	Type of family	Retired	3.9
		Unemployed but able to work	70.9
		Joint	41.7
8	No of children	Nuclear	58.3
		One	19.4
9	Weight of the child	Two	67.0
		Three and above	13.6
		< 21 Kg.	46.6
10	Type of diet	21 - 40 Kg.	49.5
		> 40 Kg.	3.9
		Vegetarian	73.8
		Non-vegetarian	26.2

years, 77% completed graduate, 59.2% are having 6-8 years of age, 74% of the children are studying at present in primary school, 62% of fathers are professional/executives, 70.9% of the mothers are Unemployed, 58.3% of belonging to a nuclear family and 46.6% of the child is <21 kg.

The main findings of the study are to assess the knowledge on the control of Childhood obesity among mothers Figure 1 reveals 17.5 % subjects had inadequate knowledge, 81.4% had moderate knowledge, and only 1 % had adequate knowledge on

childhood obesity. These findings were consistent with the studies (Byrne *et al.*, 2009; Jeffery *et al.*, 2015) on investigating the degree of concern parents feel about their children's weight to identify factors that influence this concern and found there was significantly less knowledge on the control of childhood obesity.

Table 2 reveals the association between level of knowledge on childhood obesity among mothers of school-age children with their demographic variables. It is elicited that there is a significant asso-

**Table 2: Association between the level of knowledge on childhood obesity among mothers of school-age children with their demographic variables (N= 100)**

S. No	Demographic Variable	Class	Knowledge level			Chi-Square value	P-value
			Inadequate	Moderate	Adequate		
1	Age of the mother	20-25 Years	1	9	0	6.48	0.371 df 6
		26-30 Years	8	17	0		
		31-35 Years	2	20	0		
		>35 Years	7	38	1		
2	Educational status	Non-formal education	2	4	0	10.25	0.248 df 8
		Middle school	2	6	0		
		higher school	0	1	0		
		Higher secondary	2	8	1		
		Graduate and above	12	65	0		
3	Age of the child	6-8 years	12	48	1	1.30	0.860 df 4
		9-12 years	3	20	0		
		13-15 years	3	16	0		
4	Child level of study	Primary school	13	60	1	0.40	0.819 df 2
		High school	5	24	0		
5	Occupation of the father	Professional / Executive	10	51	1	2.49	0.869 df 6
		Supervisor / Clerical / Medium level business	2	15	0		
		Self-employed / Skilled	6	17	0		
		Retired	0	1	0		
		Unemployed but able to work	0	0	0		
6	Occupation of the mother	Professional / Executive	1	15	0	8.98	0.534 df 10
		Supervisor / Clerical / Medium level business	0	4	0		
		Self-employed / Skilled	0	2	0		
		Unskilled landless labour	2	2	0		
		Retired	2	2	0		
		Unemployed but able to work	13	59	1		
7	Type of family	Joint	11	32	0	3.95	0.139 df 2
		Nuclear	7	52	1		
8	No of children	One	7	13	0	21.30	0.000** df 4
		Two	4	64	1		
		3 and above	7	7	0		
9	Weight of the child	< 21 Kg	6	42	0	5.01	0.286 df 4
		21 - 40 Kg	10	40	1		
		> 40 Kg	2	2	0		
10	Type of diet	Vegetarian	13	62	1	0.37	0.828 df 2
		Non-vegetarian	5	22	0		

\*\*-Significant at 1%level

ciation was found between the knowledge regarding childhood obesity among mothers of school-age children with many children at 1% level. In contrast, other variables such as the age of mother, education, age of the child, child level of study, occupation of mother & father, type of family, number of children in the family, the weight of child and type of diet found no significant at five %level. Hence the Null hypothesis ( $H_0$ ) stated that there is no significant association of mother's knowledge level on control of childhood obesity with their demographic variables was not accepted.

The study was consistent with the study on Mothers' perception of obesity in schoolchildren. Three hundred mothers participated in the study. Forty-two per cent of the children ( $n = 126$ ) was the first child. The mean age of mothers for control and intervention groups were  $33.2 \pm 6.4$  and  $34.1 \pm 3.7$  years, respectively. There was no significant difference in mothers' age between the two groups ( $p = 0.56$ ). Moreover, the children's average age was not different between the two groups (control group:  $9.1 \pm 1.9$ , intervention group:  $9.1 \pm 1.6$ ) either (Etelson et al., 2003).

## CONCLUSION

Most of the situation, the mothers and children ignore to take preventive measures of childhood obesity where their children could be a victim of child obesity and develop many complications and suffer from health issues throughout their lifetime. Thus, we affirmed the need for making mothers aware of the control of child obesity and how it can be prevented. Hence further research is required in a larger population to endure the influence of other confounding factors to reach a definite conclusion.

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## Conflict of Interest

The author declares that there is no conflict of interest for this study.

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