

A STUDY TO ASSESS THE KNOWLEDGE REGARDING CHILDHOOD OBESITY AMONG PARENTS RESIDING IN BAHOUR PUDUCHERRY

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ABSTRACT

Background: Childhood obesity is a serious medical condition where a child has an excess amount of body fat for their age and height, often defined as a Body Mass Index (BMI) at or above the 95th percentile. As parents control structural household variables, evaluating and addressing parental baseline understanding is an essential step in primary community interventions. This study aimed to assess the knowledge regarding childhood obesity among parents residing in Bahour, Puducherry, and to find the association between their knowledge levels and selected demographic variables. **Methods:** A quantitative research approach with a descriptive research design was conducted among 30 parents of obese children in the selected rural areas of Bahour, Puducherry. Using a non-probability convenience sampling technique, data were collected over a period of one week using a structured knowledge questionnaire consisting of 20 items. Data were analysed using descriptive and inferential statistics with Chi-square analysis via SPSS. **Results:** The major findings revealed that more than half of the parents, 17 (56.67%), had moderate knowledge, while 13 (43.33%) had inadequate knowledge regarding childhood obesity. The baseline knowledge mean score was 10.77 ± 1.83 with a median score of 11.0. Significant associations were found between parental knowledge levels and the child's weight ($\chi^2 = 7.485$, $p = 0.024$) and mother's education ($\chi^2 = 8.081$, $p = 0.044$) at the $p < 0.05$ level. Other variables, such as age, gender, and monthly income, did not show a significant association. **Conclusion:** The study concludes that parents in the Bahour area possess an inadequate to moderate level of knowledge regarding childhood obesity. There is a vital need for nursing professionals to conduct health campaigns and education programs to empower parents with the knowledge necessary to prevent and manage obesity in children.

Key Words: Childhood obesity, Parents knowledge.

1. INTRODUCTION

Overweight and obesity is becoming an increasingly prevalent problem in both developing and developed countries, worldwide it is one of the most serious public health challenges of 21st century. During the past two decades, the prevalence of obesity in children has risen greatly worldwide and elementary school age children (6-11 years) have the highest prevalence of overweight (18.8%). Childhood obesity is a serious medical condition that affects children and adolescents. It occurs when a child is well above the normal weight for his/her age and height. Obesity in childhood and adolescents have adverse consequence on premature mortality and physical morbidity in adulthood and is associated with impaired health during childhood.

Many studies revealed the important obesity risk factors such as genetic history, physical activity, high birth weight, and type of milk of consumed during infancy, more than two hours television watching per day, number of regular meals and parental overweight are the predisposing factors of obesity.

Studies reveal that a substantial number of mothers possess inadequate knowledge about childhood obesity. For instance, a study conducted in Tamil Nadu, India, found that only 1% of the surveyed mothers had adequate knowledge about controlling childhood obesity, while the majority exhibited moderate understanding (Deepika et al., 2020).

Similarly, in a study conducted in Tanzania, awareness about obesity and its implications was limited among parents, highlighting the need for targeted educational interventions. Proper knowledge about dietary practices, exercise, and obesity-related health risks is essential, as mothers often influence their children's eating behaviours and physical activities (Hudaib et al., 2024).

Moreover, practices surrounding diet and physical activity among mothers directly impact the prevalence of childhood obesity. Several studies have identified that maternal dietary patterns during pregnancy, such as adherence to a Mediterranean diet, positively correlate with healthier weight statuses in children.

2. NEED OF THE STUDY

Childhood obesity has emerged as a significant public health issue, necessitating effective strategies to foster awareness among mothers who play a crucial role in their children's dietary habits and lifestyle choices. Research underscores that understanding the knowledge, attitudes, and practices of mothers regarding childhood obesity is vital for developing preventive measures and interventions. Consequently, their attitudes can significantly compromise the effectiveness of obesity prevention strategies. Furthermore, socio-economic factors have been strongly linked to varying attitudes, with mothers of lower educational backgrounds often showing less awareness about the risks associated with childhood obesity (Lee et al., 2017).

Adverse practices such as high-caloric diets, combined with inadequate physical activity, promote obesity in children. Additionally, maternal smoking during pregnancy has been linked to increased childhood obesity rates, further illustrating the critical nature of maternal behaviour. While lifestyle modifications, such as engaging in physical activities and promoting healthy eating, can greatly influence childhood obesity, many mothers still face challenges in implementing these changes due to cultural expectations and lack of knowledge (Hudaib et al., 2024).

Childhood obesity leads to several co-morbidities that can have both short and long-term complications. Obesity can cause breathing difficulties, obstructive sleep apnea, asthma, musculoskeletal problems, insulin resistance, hypertension, and psychological issues in children. Many of these childhood obesity-related problems can be tracked into adulthood and they will lead to a higher risk of type 2 diabetes, heart disease, and middle-age mortality. As the child's dietary habits, physical activity, the accessibility and availability of foods, and food-related processes are under parental control, it is easy to understand that their influence is a key risk factor for childhood weight gain and obesity. As the parents provide the contextual environment, addressing them is of prime importance and also it is not easy to reverse childhood obesity only through individual interventions. Primary prevention might play a major role in reducing the prevalence of obesity and overweight if started in early childhood with parental involvement.

3. RESEARCH METHODOLOGY

3.1 Research design

A quantitative research approach with descriptive research design was used.

3.2 Setting and population

The Population of the study included the parents of obesity children residing in selected area of Bahour, Puducherry. The total population of the rural filed practice of AGPCON area was 6,250 which consists of Male & Female (Census 2011).

3.3 Sampling

A convenience sampling technique is used to select 30 mothers of obese children under the age of (1year -15 years) who fulfil the inclusion criteria and were available during data collection.

3.4 Research Tool

Two tools were used for data collection:

1. Demographic variables consist of the Age, Gender, Weight, Height, Father's Education, Mother's Education, Occupation of the Father, Occupation of the Mother, and Monthly Income of the Family, Dietary Preference and No. Of Diet per day.
2. Structured knowledge questionnaire to assess the knowledge of childhood obesity among parents it consists of 20 items.

4. DATA ANALYSIS

This chapter deals with analysis and interpretation of the data collected from 30 parents of obese children. The data was organized, tabulated and analysed according to the objectives.

5. RESULTS

Demographic Variables of the study participants:

The present study revealed that 43.4% of the children were aged between 2 to 5 years, 56.7% were male, 50% were weighing between 20 kg to 40 kg, and 46.7% were in the height range of 100 cm to 150 cm and above 150 cm. For parental education, 50% of fathers and 56.7% of mothers had completed middle school education. Additionally, 46.7% of fathers were working in the private sector, 60% of mothers were unemployed, 43.4% of families had a monthly income between 19,516–29,199 INR, 93.3% followed a non-vegetarian diet, and 80% maintained a frequency of 4 diets per day.

Table 1. Percentage Distribution of Knowledge Level Regarding Childhood Obesity among Parents, N=30

Level of Knowledge	Source Range	n	%
Inadequate knowledge	Upto 50% (0-10)	13	43.33
Moderately adequate knowledge	51% - 75% (11-15)	17	56.67
Adequate knowledge	51% - 75% (11-15)	0	0.00

Table 2. Central Tendency Mean and Standard Deviation Scores of Parental Knowledge, N=30

Knowledge score criteria	Mean	SD	Median
Parental baseline knowledge score	10.77	1.83	11.1

Table 1 and Table 2 show that 17 (56.67%) parents possessed moderate knowledge, while 13 (43.33%) had inadequate knowledge regarding childhood obesity, with an overall baseline mean score of 10.77 $\pm$ 1.83.

Table 3. Association between Level of Knowledge Regarding Childhood Obesity and Selected Demographic Variables, N=30

Selected Demographic Variables	X ² Value	df	P Value
Child's weight	7.485	2	0.024*
Mothers' Education	8.081	2	0.044*
Child's age	1.310	2	0.520 (N.S)
Family Monthly Income	2.198	3	0.532 (N.S)

Significant at $p < 0.05$; (N.S = Not Significant)

The demographical variables such as child's weight ($p = 0.024$) and mother's education ($p = 0.044$) had shown a statistically significant association with the baseline level of knowledge at the $p < 0.05$ level.

6. DISCUSSION

The present study revealed that the majority (56.67%) of the parents had moderate knowledge, while 43.33% had inadequate knowledge regarding childhood obesity. These findings are strongly supported by Menaga Gandhi B. and Abirami M. (2025) who conducted a study to assess the knowledge, attitude, and practice regarding childhood obesity among mothers in rural areas, reporting that 45.2% of mothers possessed moderately adequate knowledge and 29.6% had inadequate knowledge. Similarly, Mahalakshmi S. and Hemamalini M. (2019) reported that 76.5% of mothers possessed moderate knowledge regarding childhood obesity risk factors.

The study findings further revealed a statistically significant association between knowledge levels and demographic variables such as child's weight and mother's education ($p < 0.05$). These results are consistent with findings from Ramya Ramanathan et al. (2022) indicating that maternal educational levels strongly influence awareness regarding risk factors like physical inactivity and poor dietary practices in children.

7. CONCLUSION

As the incidence of paediatric metabolic disorders continues to rise, knowledge of childhood obesity management becomes increasingly important for primary caregivers. The study concluded that parents of children with obesity in the Bahour area possess an inadequate to moderate level of baseline knowledge. There is a vital need for nursing professionals to design and execute community-based awareness programs and health education campaigns to support parents in executing healthy lifestyle choices for their children.

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