



Parental Perception on Pediatric Obesity- Implications on Early Recognition of Obesogenic Factors and Management.

KEYWORDS

parental perception , child hood obesity, body mass index.

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ABSTRACT *OBJECTIVES:* This study elicited parental perception of obesity in children as well as their understanding of the risk factors and morbidity associated.

METHODOLOGY: Parents of children aged between 2 – 15 years with body mass index (BMI) more than 85th percentile for the age and sex according to Center for Disease Control (CDC) growth charts were chosen. Informed written consent was obtained. Child's height, weight and BMI were noted. Parents were administered a self reported Questionnaire, which included items in 3 areas namely Perception and concern about child's weight, child eating behavior and issues on weight control.

RESULTS: We analyzed the responses from parents of 60 children with BMI more than 85th percentile. Sex ratio male (53%): female (47%). Mean age -10 years, Median BMI is 28. 78% of the parents perceived their child as overweight and mothers perceived better than fathers. Of the 78%, 68% were obese and 10% were overweight. Parents attributed overeating (21%), reduced physical activity including television watching (30%) and familial (11%) for the cause of obesity. Parents were aware of complications to be hypertension (27%), diabetes (19%) and cardiac problems (21%). 45% of the parents were willing to adapt life style modification recommended for their children. Parents practiced some measures (diet - 20% & exercise -29%) to reduce weight whereas 19% believed only in medical treatment. Despite the awareness of obesity and its complications 21% of the parents were not taking any steps to reduce their ward's weight. Inconsistency in diet and physical activity (39%) were the common problems parents encountered while controlling child's weight. 29% of the parents believed it is mother's responsibility to reduce child's weight and only 16% of the parents understood that it is a team effort involving parents, doctors and children.

CONCLUSION: Though 3/4th of the parents were aware about their child's overweight and the complications, their attitude and practices towards weight reduction were limited. As parents play a crucial role in preventing childhood obesity, education and motivation of the parents through family health education is essential.

Introduction

Obesity is one of the most prevalent forms of malnutrition. As a chronic disease, it is prevalent in both developed and developing countries and affecting children as well as adults. It is now so common that it is replacing the major traditional public health concerns including under nutrition.

The World Health Organization (WHO) estimates globally over 40 million under 5 children are overweight in 2011⁽¹⁾. The International Obesity Task Force review of obesity in children and young people has documented the rise in prevalence of overweight and obesity from 102 countries using their own conservative definitions. The latest survey in India was conducted during 2007-2008 revealed that: 15.2 percent of boys and 14.4 percent of girls were overweight, 5.4 percent of boys and 3.9 percent of girls (aged 2-17) were obese.⁽²⁾ The same trend is noted in globally also: 32% were overweight in the Americas, including 8% who were obese; the corresponding prevalence was 20% and 4% in Europe; 16% and 6% in the Near and Middle East; and 5% and 1% in the Asia-Pacific region.⁽²⁾

A recent study conducted among 24,000 school children in south India showed that the proportion of overweight children increased from 4.94 percent of the total students in 2003 to 6.57 percent in 2005 demonstrating the time trend of this rapidly growing epidemic. At least 30% of obesity begins in childhood. Childhood obesity itself a predictor of adult obesity and morbidities due to it⁽⁴⁾. In children, a life style behavior which contributes to and perpetuates obesity is more open to change. Early reorganization and adequate treatment of this will prevent the globalization of obesity. Intervening with families is significant as parents play a crucial role in bringing a change. Therefore it is important to know the parental views about childhood obesity, their knowledge levels on obesogenic factors, compli-

cations and management. It is also beneficial for families with overweight children to seek professional help on time.

There have been a number of surveys⁽⁵⁻⁹⁾ addressing attitudes and practices towards childhood obesity in western populations. However, studies related to parental attitudes and practices towards childhood in Indian population is lacking. Since the attitudes towards children are likely to be very different compared with adults, their management also varies. So we designed and conducted a study in our pediatric unit, on children of Body Mass Index (BMI) more than 85th percentile to assess the parental perception of their obesity.

Materials and methods

This Prospective cross sectional study was done in PSG hospitals Coimbatore. Parents of children aged between 2 – 15 years with body mass index (BMI) more than 85th percentile for the age and sex according to Center for Disease Control (CDC) growth charts were chosen. Child with obesity due to any known risk factors like drugs and syndromes were excluded. Informed written consent was obtained. Child's height, weight and BMI were noted. Parents were administered a self reported Questionnaire, which included items in 3 areas namely Perception and concern about child's weight, child eating behavior and issues on weight control. Descriptive statistics were used in this study.

Results

We analyzed the responses from parents of 60 children with BMI more than 85th percentile. The Sex ratio: males (53%): females (47%). Mean age -10 years, Median BMI is 28. Of the 60 children 54 were obese and 6 were overweight. The correct perception rate was 78% (either of the parents or care givers). The correct perception rate was more in mothers(46%) than fathers(27%).

Table – 1 shows perception rate .

S.no	Category	Father	Mother	Others
1.	Perceived child's overweight correctly (78%)	27%	46%	5%
2.	Not perceived correctly (22%)	5%	17%	0%

The BMI results in percentage among the study population were shown in Table-2.

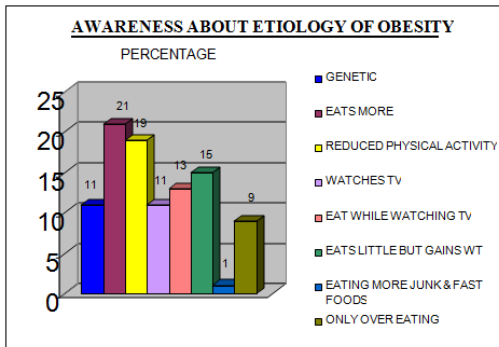
Table (2) showing the BMI results among the study population: (n=60)

S. no	Category	Obese	Over-weight
1.	BMI of the children who are perceived correctly by their parents (78%)	68%	10%
2.	BMI of the children who are not perceived correctly by their parents (22%)	22%	0%

Knowledge about etiology

We studied about parent's/care givers knowledge about etiological factors for obesity in children. 10% of the respondents stated that only overeating causes obesity in children. Remaining was aware that more than one risk factor for causing obesity. 11% of the participants attributed obesity to genetic factors.

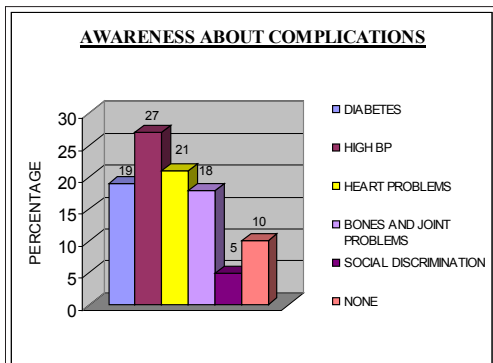
Figure (1) showing parental awareness on etiology of obesity:



Complications of obesity

When enquired about the complications of obesity in children, many were aware the common complication such as diabetes (19%), hypertension (27%), cardiac problems (18%). 10 % of the participants said that there was no major complications related to obesity (figure-2). Only 20% of parents were aware that their child can become obese adult in future.

Figure -2, showing parental awareness on complications of obesity:



Measures taken to reduce obesity

We evaluated the participant's attitude towards preventing obesity. None said that child's weight cannot be controlled and most of them thinks that it is mother's (29%) responsibility to control weight (figure-3). 16 % of participants felt that it is a team effort. While attempting to reduce their ward's weight 74% of participants encountered some difficulties. Consistently controlling the diet (39%) was the most difficult task, followed by restriction of television watching(32%) and increasing physical activity(25%). 10 % of parents felt that even after following physicians recommendations there was no significant improvement in weight reduction. 17% felt that child itself also has responsibility in weight reduction. However, 55% of the parents think that it gives good results if they follow the lifestyle changes recommended for children.

Figure -3, showing the attitude on responsibility in controlling obesity:

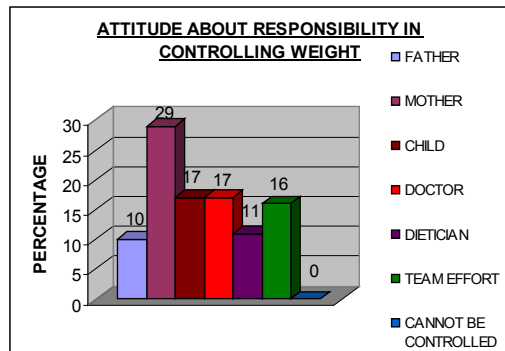
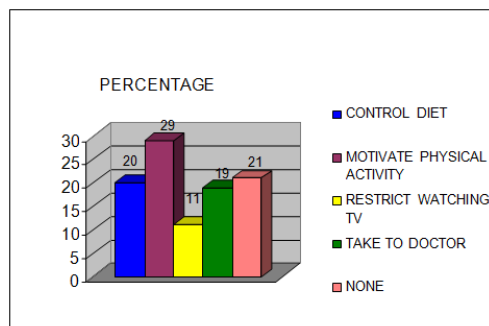


Figure -4 showing steps taken by parents to reduce their child's weight



Discussion

Obesity in children and adolescents is a serious issue with many health and social consequences that often continue into adulthood. Implementing prevention programs and getting a better understanding of treatment for children is important to controlling the obesity epidemic. Many parents are rightly concerned about their child's weight and how it affects them. They look for specific answers for prevention and treatment options. Unfortunately, the state of the science is a lot less precise than we would like. The first and foremost step in preventing obesity is early recognition of it among parents. The parents should acknowledge obesity in their wards for optimal control measures.

In children, the normal range for BMI changes with age and gender. We used the Centers for Disease Control (CDC)⁽¹⁰⁾ definition; a child whose BMI is between the 85th and 95th percentile for age as being "at risk" for obesity. A child who has a BMI at or above the 95th percentile for age is considered obese.

In our study, about 78% of the parents were aware their child was overweight and mothers perceived better than others. 74% are taking steps to control weight. These results are in

contrary with earlier studies^(6,7,8) where about only 1/4th of obese children were perceived correctly. The high level of correct perception may be due to the sample selection as samples taken from a territory care teaching hospital. Routine nutritional assessment could have sensitized the parents. Among 22% parents those who have not perceived correctly, all children were obese. The inability to recognize it clearly reflects their reluctant to acknowledge concern for their obese children.. This is because overweight children are identified as healthier and better nourished and perceived as "better eaters. It also carries the risk of perceiving overweight child as normal and normal weight child as underweight child. BMI results showed obese children are perceived more correctly than overweight children. Our study findings also showed parents are aware of eating behavior and reduced physical activity. But they fail to recognize junk food and fast foods as a factor which also contributes to obesity.

Complications are well known to them mainly as hypertension and cardiac problems than other problems. Unfortunately 10% were not aware of complications. Most of them think its mothers responsibility to control weight and only 15% have understood it is a team effort of all involving parents, children, doctor and dietician. The parents are taking measures like motivating physical activity, control diet and restrict watching television to reduce their child's weight. Parents are the most important role models for children. Half of the parents are ready to adapt the life style changes recommended for their children as they think it will give better results. 25% of the parents are not facing any problem in reducing weight whereas 40% of them are encountering inconsistency in maintaining diet as the major problem.

Teaching healthy behaviors at a young age is important since change becomes more difficult with age. Behaviors involving physical activity and nutrition are the cornerstone of preventing obesity in children and adolescents⁽¹¹⁾. Families and schools are the two most critical links in providing the foundation for those behaviors.

An important part of treating obesity among children and adolescents is for parents and healthcare professionals. Health care professionals' lack of attention to weight related concerns in childhood may be contributing to parental misperceptions of children's weight status. Involvement of the entire family is also a motivating factor. Weight control programs that involve both parents and the child have shown improvement in long-term effectiveness compared to directing the program only to the child⁽¹¹⁾. This study has following limitations;1. Small sample size, 2. Not a community based study, 3.parents educational status were taken for analysis

Conflicts of interest: none

Data collection was sponsored by ICMR(STS –study).

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