Factors affecting accurate parents’ perception of ideal weight of preschool age children in Abha City, KSA

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Abstract

Background: Obesity as a significant health problem among children worldwide can have major adverse effects on children life. Awareness of parents about childhood obesity and ideal weight in children is crucial. Objectives: To identify the factors affecting the parental perception about ideal weight for their preschool children. Methods: A cross-sectional study was carried out including a representative sample of the parents of healthy children attending seven primary health care centers (PHCCs) in Abha city, KSA. All parents who have a child aged 12–70 month were included. The parents were interviewed through structured questionnaire inquiring about factors that could impact the parents’ perception regarding the ideal weight for their children. Saudi body mass index chart was used to classify children into ideal, overweight or failure to thrive. SPSS version 25 was used for data analysis. Results: Out of 385 children aged 12–70 month, the overall overweight/obesity amount to 8.6% (33/385). Overall, accurate parental perception was observed among slightly more than half of parents. Parents whose children were ≤24 months were more likely to perceive accurately their weight compared with those whose children were older (61.3% vs 49.1%). The difference was statistically significant, P = 0.032. Conclusion: Approaching half of parents have inaccurate perception of their children’s weight, particularly their older children. Encouragement of parents to follow their children’s weight through percentile charts at primary care centers is needed.

Keywords: Child weight, parents, perception, preschool

Introduction

Obesity is a prevalent health problem among children of all ages, difficult to treat, and can have adverse physical, emotional and social consequences.1 Obese children are at almost double higher risk to die before reaching the age of 55, compared with normal children.2

According to the center for disease control and prevention, childhood obesity is a proved risk factor for type 2 diabetes, cardiovascular disease, breathing problems, joint problems, as well as social and psychological problems.3 Additionally, childhood obesity sets the stage for a child to develop diabetes, heart disease, and some cancers during adult stage of life.4

It has been reported that the economic consequences of obesity are also significant.5 Parents may tend to define obesity as a condition accompanied by severe physical impairment, especially compromised mobility. They may also believe that a child’s size is inherited and that the child will eventually shed excess weight with age.6

Thus, the purpose of this study was to assess factors affecting parents’ perception regarding the ideal weight in Abha city, Kingdom of Saudi Arabia.

Methods

This study is a cross-sectional study to evaluate current parental perception of child weight and its accuracy. Data were collected from seven primary health care centers in Abha city. Participants who meet the following criteria were invited to the study.

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Parents of a preschool-age child (1–5 years) constituted the target population for the study. The total sample size needed to achieve the requirement of the study was 280 and an Arabic language questionnaire was utilized including questions regarding sociodemographic characteristics of the participants (age, gender, relationship to index child, educational level, and income), thinking of being overweight, knowing of their body mass index (BMI), knowing of ideal weight of their children, method of determining child’s weight, and source of information about child’s ideal weight, with assuring of the option to participate or not.

Also, anthropometric data including height and weight were measured by the nurse and obtained from the child who came to well-baby clinic and the child’s BMI was calculated according to the BMI-for-age growth chart with percentile rankings. Underweight children are those less than 5\textsuperscript{th} percentile; healthy weight are those of 5\textsuperscript{th} percentile to less than the 85\textsuperscript{th} percentile; overweight are those from 85\textsuperscript{th} to less than the 95\textsuperscript{th} percentile; and obese are those equal to or greater than the 95\textsuperscript{th} percentile.\[7]\[8]

This study was approved by the King Khalid University (KKU) ethical committee. The Data were collected and verified by hand, then coding before entry. Statistical Package for Social Sciences (SPSS, version 25) was used for data entry and analysis.

**Results**

This study is part of a larger published study which included 385 parents. Their characteristics were previously described.\[9]\[10]

Concerning the actual weight, majority of the children (87\%) were normal, whereas 8.6\% were overweight or obese and 4.4\% were classified as failure to thrive [Figure 1].\[8]

Overall, accurate parental perception was observed among slightly more than half of the parents (52.5\%) [Figure 1].

![Figure 1: Accurateness of parents’ perception regarding their children weight](image)

From Table 1, it is clear that parents whose children were ≤24 months were more likely to perceive accurately their weight compared with those whose children were older (61.3\% versus 49.1\%). The difference was statistically significant, \(P = 0.032\). Other studied factors were not significantly associated with the accuracy of parental perception of children’s weight.

As demonstrated in Table 2, there was no statistically significant difference between mothers and fathers regarding their perception of the ideal weight for children.

**Discussion**

In this study, accurate parental perception of child’s weight was observed among 52.5\% of the participants.\[8\] Moreover, 57.6\% of overweight/obese children were perceived as ideal by their parents. This inaccurate perception was reported in others overseas studies. Jackson \textit{et al.} reported that only 6\% of mothers with an overweight preschool-aged child believed that her children were overweight.\[8\] Baughcum \textit{et al.} reported that 29\% of mothers correctly identified their overweight children as overweight.\[8\] Carnell \textit{et al.} reported that only 6\% of parents described their overweight children as “overweight.”\[8\] In this study, 21.2\% of overweight/obese children were identified by their parents as overweight/obese subjects. A higher percentage has been reported in another study carried out by Maynard \textit{et al.} (67\%).\[11\]

The difference between studies in this regard could be partially attributed to using different tools in identifying the weight for age for their children and partially to different background of the study samples.

This study revealed that parents whose children aged ≤2 years were more likely to accurately perceive their children’ weight. In a previous study carried out by Carnell \textit{et al.} (2005),\[10\] the lack of maternal awareness of child’s weight was particularly evident for 3- to 5-year old. They (Carnell \textit{et al.}) explained by the prevailing of encouraging mothers of young children to follow their children with centile charts. The same could be applied in this study as in well-baby clinics, during vaccination of children they usually assessed by growth charts. In the same time, the finding may reflect general parents’ perceptions of what constitutes a “normal weight” child, following recent increases in the prevalence of overweight among children of this age. In this study, there was no significant difference between fathers and mothers as regard the perception accuracy of their children’s weight. We could not compare our results with others as all other studies depended only on mothers for that issue.

Among limitations of this study, it is a cross-sectional design which makes difficulty drawing causation. In this study, child’s weight was categorized into three categories to match the three categories that were offered to ascertain parental child’s weight perceptions. This could be difficult to parents as there might be children at the upper end of healthy weight (e.g. 83 percentile) whose parents describe them as overweight, and this would be...
considered a misperception in this study. We included the term “ideal” as an option for parents to perceive their child weight. The use of “ideal” may be confusing to parents, because they might assume that because their child is ideal in other aspects, he is at an ideal weight.

Conclusively, approaching half of parents have inaccurate perception of their children’s weight, particularly their older children. We recommended encouragement of parents to follow their children’s weight through percentile charts at primary care centers.

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Conflicts of interest
There are no conflicts of interest.

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