Short research communication

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Abstract

Background: Mothers' perceptions of their children's weight remain mostly unknown in oil-rich countries of the Middle East.

Aims: To compare maternal perceptions of their children's weight with actual body weight.

Methods: We used the Kuwait nutritional surveillance data for 5 consecutive years (2015-2019) (N = 5119), which were collected through face-to-face interviews with mothers of children aged 2-5 years attending vaccination centres.

Results: Of the 5119 mothers in the study, 163 (3.18%) and 332 (6.48%) had obese or overweight children, respectively. Among 4624 mothers who had normal weight children, 1350 (29.20%) perceived their children's weight as below normal. Seventy-nine (48.47%) and 16 (9.82%) mothers of children with obesity thought their children had normal weight or were underweight, respectively.

Conclusion: Mothers in Kuwait often underestimate the weight of their children, including those children who have normal weight. This highlights the importance of addressing maternal misperceptions during visits to the primary healthcare centre.

Keywords: mothers, children, perception, body weight, overweight, obesity, Kuwait

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Introduction

Childhood obesity is a major public health problem with well-documented short- and long-term adverse health consequences (1–3). It is estimated that > 40 million children aged

Little is known about maternal perceptions of children's weight in oil-rich countries in the Middle East, such as Kuwait, although childhood obesity is a major public health problem (10,11). In this study, we assessed the perceptions of children's weight status among mothers of children aged 2 to

Methods

KNSS data are collected by trained collectors who are employed on a long-term basis for this purpose, independently from the delivery of healthcare services (11,12). KNSS recruits children aged 2 to

The child's weight was measured digitally to the nearest 100 g, and their height was measured to the nearest 0.1 cm by trained data collectors in a standardized manner. Body mass index (BMI) was calculated by dividing weight in kilograms by squared height in metres. BMI-for-age z scores were calculated using STATA zanthro package release 14 [StataCorp., Cary, NC, United States of America (USA)]. Obesity was defined as BMI-for-age z score ≥ 3.0 SD and overweight

as BMI-for-age z score ≥ 2.0 to

Results

During the study period (2015–2019), 5166 children were recruited and 51.57% were male. The mean (SD) age was 3.14 (0.84) years. The analysis comprised 5119 children (48 records were excluded: 21 with biologically implausible BMI, and 27 with missing maternal perceptions of children's weight status). The prevalence of overweight/obesity was 9.66%.

Figure 1 shows the maternal perception of their children's weight status according to actual body weight. Among 4624 mothers with a normal-weight child, 1350 [29.20%; 95% confidence interval (CI): 27.89–30.53%] perceived their children's weight to be below normal. Among 163 mothers of children with obesity, 79 (48.47%; 95% CI: 40.58–56.41%) thought their children were normal weight, and 16 (9.82%; 95% CI: 5.72–15.45%) thought their children were underweight. Among 332 mothers with overweight children, 220 (66.27%; 95% CI: 60.90–71.34%) perceived their children to be normal weight, and 39 (11.75%; 95% CI: 8.49–15.71%) perceived them to be underweight. Maternal perceptions of weight of children who were obese (P = 0.554), overweight (P = 0.414), or normal weight (P = 0.103) did not differ significantly between boys and girls.

Discussion

The role of parents in preventing childhood obesity is recognized by several organizations, including the American Academy of Pediatrics (14), and interventions that aim to reduce childhood obesity are deemed to be successful when they involve parents (15,16). However, the involvement of parents in preventing childhood obesity requires that they are aware of the weight status of their children (17–19). Mothers shape habitual food consumption and physical activity of children aged

In our study, 29% of mothers with normal-weight children thought their children were underweight, which is higher than reported in high-income countries, such as Greece 16% (20), Netherlands 4% (6,21), and USA 1.3% (22). The majority of mothers of overweight/obese children perceived their children to be normal weight or underweight. This is consistent with a previous study of overweight children (average age 4.6 years) in Kuwait, where most mothers were unable to correctly identify their children as overweight (23). Many mothers of overweight or obese children perceived their children to be normal weight in several other countries (6,20–22,24). A systematic review of studies worldwide found that almost half of parents underestimated their children's overweight or obesity status but only 14% underestimated normal weight (17). Several explanations have been suggested for the high percentage of parents underestimating the weight status of their overweight or obese children. First, media reports regarding childhood obesity usually show images of children with severe obesity, which may distort parental understanding of how overweight children may look (17,25). Second, parents may refuse to label their children as overweight or obese because this may feel

stigmatizing in some settings (17,26). Third, qualitative research has shown that parents may genuinely feel that their children cannot be overweight or obese if they are physically active, have no obvious health issues, and are not mocked for their size (17,27).

Maternal perceptions of children's weight status have been studied before (6,17,20,22,23); however, the emphasis has been on correcting misperceptions of mothers of overweight or obese children. Most children aged

It is reported that mothers perceive the weight status of boys and girls differently (28) and this difference in perception increases with children's age (7,22). Mothers are more likely to underestimate the weight status of their sons than daughters (20,22). We found no significant sex difference in the maternal perceptions of children's body weight in Kuwait. This could be because we exclusively included children aged 2 to

Our study has several strengths, including large sample size, and objectively measured height and weight of children in a standardized manner by a trained team. Vaccination is compulsory, and the coverage is high in Kuwait, which makes our sample nationally representative. However, because of the lack of data on socioeconomic and other factors, we were unable to investigate factors associated with maternal perception of their children's weight status.

In conclusion, maternal perception of children's weight status affects parenting behaviour that aims to reduce children's weight (29). We found that 29% of mothers of normal-weight children perceived their children to be underweight, and most mothers of overweight or obese children perceived their children to be normal weight or underweight. This highlights the importance of correcting maternal misperceptions of children's weight, including normal weight children, to combat childhood obesity. Every primary healthcare encounter, including for vaccination, is an opportunity to reassure mothers of normal-weight children about their children's weight.

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Perceptions des mères concernant le poids de leurs enfants : une occasion à saisir pour promouvoir la santé au Koweït

Résumé

Contexte : Les perceptions des mères concernant le poids de leurs enfants restent pour la plupart inconnues dans les pays riches en pétrole du Moyen-Orient.

Objectifs : Comparer les perceptions maternelles du poids de leurs enfants avec le poids corporel réel.

Méthodes : Nous avons utilisé les données de surveillance nutritionnelle du Koweït pendant cinq années consécutives (2015-2019) (N = 5119), qui ont été recueillies lors d'entretiens en face à face avec des mères d'enfants âgés de deux à cinq ans consultant dans des centres de vaccination.

Résultats : Sur les 5119 mères participant à l'étude, 163 (3,18 %) et 332 (6,48 %) avaient des enfants obèses ou en surpoids respectivement. Sur les 4624 mères qui avaient des enfants de poids normal, 1350 (29,20 %) considéraient le poids de leurs enfants comme inférieur à la normale. Soixante-dix-neuf mères (48,47 %) et 16 mères (9,82 %) d'enfants obèses pensaient que leurs enfants avaient un poids normal ou étaient en déficit pondéral, respectivement.

Conclusion : Les mères au Koweït sous-estiment souvent le poids de leurs enfants, y compris ceux qui ont un poids normal. Cela souligne l'importance de lutter contre les perceptions erronées des mères lors de leurs visites au centre de soins de santé primaires.

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.(3.18%) 163 5119 (6.48%) 332 (29.20%) 1350 4624 (9.82%) 16 (%48.47) .

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