Parental Perceptions of Family and Pediatrician Roles in Childhood Weight Management

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Objective To characterize parental perceptions of the respective roles of families and the pediatrician in childhood weight management.

Study design Structured in-person interviews (n = 69) were conducted with parents of children ages 3-12 years visiting a pediatric clinic. Interview topics included perceptions of weight and associated problems, child weight status and concerns, and the pediatrician's role in weight management. Interviews were coded qualitatively and analyzed thematically.

Results Nine major themes were developed from the findings. Parents were clear about the health consequences of excess weight but were not clear about the concept of body mass index, often relying on visual cues or symptoms to identify excess weight. Parents relied on pediatricians to identify weight problems and suggest diet and exercise plans, but few recognized them as a link to additional weight-management resources. Parents were divided on the role of the pediatrician in managing child weight and were most interested in receiving tailored nutrition information. Parents preferred family behavioral change strategies over singling out an overweight child. Although parents did not always define their child as overweight, many parents of overweight children did express concerns about their child's weight.

Conclusions Parents believe that pediatricians have a central role in identifying childhood weight problems by completing screening tests such as body mass index assessments, interpreting the health implications, and communicating those implications to parents. Ensuring that parents understand the health implications of excess weight is critical given gaps in parental knowledge and confidence with healthy lifestyle changes as well as parental ambivalence toward child-directed interventions. *(J Pediatr 2014; ■: ■-■).*

It is recommended that pediatric care providers assess body mass index (BMI) as a regular screening for obesity treatment and prevention in patients annually starting at age 3 years.[1,2] For those children >85th percentile for weight, The American Academy of Pediatrics, the Endocrine Society, and the US Preventive Services Task force recommend evaluation of obesity-associated issues and the engagement of parents and families to collaboratively set lifestyle change goals.

Although many parents fail to recognize their child's weight status, pediatrician comment has been identified by parents as appropriate and important in recognizing weight problems.[3] Parents and pediatricians have both reported mixed opinions regarding the ideal setting for weight management, with some in each group favoring the pediatrician's office and others favoring providers such as registered dietitians (RDs).[4] Both providers and parents agreed that parents should be involved in determining the weight management strategy,[5] but communication between providers and parents has not met expert recommendations.[6,7]

A better understanding of parental perceptions of the role of health care providers in pediatric weight management is needed to develop effective interventions that can increase communication between providers and parents about childhood weight management. The study focused on 3 questions: (1) How do parents perceive their role in their child's weight management?; (2) How do parents perceive the role of their pediatrician in their child's weight management?; finally, (3) how does a child's weight affect the perceptions of parents in regard to both their role and the role of the pediatrician in their child's care?

Methods

A structured interview guide was developed for one-on-one interviews with parents to assess their perceptions of the definition of overweight and the respective roles of parents and the pediatrician in childhood weight management. Participants were selected through nonprobability convenience sampling from a private pediatric primary care practice in Atlanta, Georgia. The clinic is staffed by 8 pediatricians and 1 nurse practitioner, and providers see approximately 120 children a day with both public and private health insurance coverage. This study was reviewed and approved by Emory University's Institutional Review Board.

BMI	Body mass index
RD	Registered Dietitian

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The study population included parents or guardians of children ages 3-12 years attending the clinic for a sick-child visit. In this clinic, the standard of care is for staff to enter BMI into the electronic record system and for pediatricians to provide nutritional and weight counseling during all well-visits. Well-child visits were excluded from the study population to avoid undue influence of same-visit discussions about child weight and nutrition. Potentially eligible families at the clinic for a sick child visit were seen initially by a nurse in individual examination rooms. Once the child's initial assessment was complete, nurses introduced the study by using a script provided to them by the research team. Families were recruited without regard to the child's weight. If the parent agreed to participate, the interviewer reviewed the confidentiality agreement with participants and obtained written consent for participation. Interviewers also asked for permission to record the interviews. In addition to the recordings, interviewers took notes as they moved through the questions. The child remained in the examination room while the interview took place. Interviews took approximately 20 minutes to complete, and participants received a $10 gift card.

The majority of interview questions were designed deductively before the interviews began and were based on the literature, and additional probing questions were added inductively by the interviewers when appropriate. Deductive questions were asked of all the participants and inductive probes were asked in response to participant comments to better understand individual experiences. Following demographic questions, the interview guide was divided into topic areas. The topics and associated questions are displayed in **Table I** (available at www.jpeds.com). The initial interview guide was pilot tested with 4 participants. The responses were not included in the study sample but provided an opportunity to revise the interview questions.

The goal of data analysis was to identify similarities and differences between responses, both broadly and based on child weight, to develop themes. Interviewer notes were compared with the audio-recording and additional notes were added as necessary. All data were anonymous to protect the identity of the interviewed families.

All the interviews were transcribed into an Excel spreadsheet (Microsoft Corp, Redmond, Washington), and codes were developed across interviews for each question. Coding was first assessed using a deductive approach based on the interview questions, followed by an inductive approach within each question assessing repetition of words or phrases and underlying concepts across interviews. For example, sample codes for the question "How would you define overweight" include fat, weight, BMI, visual, and affecting life/health. Coding began when about one-half of the interviews were completed and continued until all interviews were completed. Minor changes to the interview process were made based on continuous data analysis. The main change was to alter a skip pattern to include more opinions regarding RDs. These changes did not have any major influence on data consistency.

Common patterns, similarities, and differences among participants were identified by comparing codes from different questions. After multiple reviews were completed, the codes were categorized based on similarities into 9 main themes. The codes and themes were initially developed by one of the interviewers and were then reviewed several times by 2 additional interviewers. This process was done to help conceptualize the data as a whole. Key themes were summarized, and similarities and differences between responses are presented.

Results

A total of 69 interviews were completed before thematic saturation was reached. The sample was racially diverse and predominantly college-educated. Participant demographic characteristics are shown in **Table II**. Nine major themes were developed based on participant responses. They are discussed below and summarized in **Table III** (available at www.jpeds.com).

Participants provided diverse definitions for overweight and obesity, demonstrating that the clinical distinction between the 2 terms was not clear to this well-educated sample of the general public. BMI, although often mentioned, was likewise poorly understood. When asked what the term obese meant, one participant replied "[it] has to do with BMI and percent body fat, but I'm not sure exactly what." Although the term BMI was recognized, it was clear that this was a newer concept for parents, with reactions like "understanding BMI is such a push right now" and "I've always wondered what BMI is exactly." Another participant asked, "Can they do BMI here?" Confusion was expressed by parents of both normal weight and overweight children.

Table II. Characteristics of parents and children in the pilot study (n = 69)

Characteristics	Number of participants/median	Percentage/range
Parent age, median	40	20-50
Parent education, no.		
Some high school	2	3%
High school graduate or equivalent	10	14%
Some college	14	20%
College graduate	24	35%
Postgraduate work	19	28%
Parent race, no.		
White	41	60%
Black/African American	22	32%
Hispanic/Latino	3	4%
Asian	1	1%
Other	2	3%
Insurance type, no.		
Private	49	71%
Public	19	28%
None/uninsured	1	1%
Child age, median	6	3-12
Child sex, no.		
Male	37	54%
Female	32	46%
Child BMI, no.		
Below 85th percentile for BMI	47	68%
Above 85th percentile for BMI	22	32%

Despite the discrepancies on the definitions of overweight and obesity, there was a strong focus on the health implications of these conditions. In many cases, participants actually used these implications in their definitions. For example, one participant defined overweight as "if a person is having trouble breathing or has high blood pressure" (as a consequence of their weight).

Although participants identified other factors, visual signs still played a role in the definition of healthy weight for parents of both overweight and normal weight children. Participants explained that children wearing sizes too big for their age range or not fitting into their clothing were indicators. Behavioral factors like diet and activity were also consistently identified as causes and indicators of weight problems. Parents pointed to children who are always hungry or focused on food as children who may have a problem with weight. Parents consistently identified active living as important with one participant stating, "I'm afraid she might gain weight because she is not as active and moving as I would like."

Even though parents were sometimes hesitant to describe their child as overweight, parents of overweight children had notably more concerns about their child's weight than parents of normal-weight children. Although not asked directly, several parents of overweight children identified specific weights or weight goals when defining a healthy weight. Another theme among participants was the focus on "health" and "happiness" instead of weight. One participant explained, "Weight is not important, it's important that they are healthy, not getting tired, sleeping ok…." Another participant explained, "we are mindful of genetics and different builds so we don't talk about weight but instead healthy lifestyle."

Several participants discussed the doctor's BMI charts or growth charts throughout their interviews and labeled these charts as indicators for weight problems. Some parents also indicated that the BMI chart is a good way to validate other signs of overweight. Still, one parent of an overweight child reemphasized the importance of pediatrician feedback by stating, "I would need to hear that my child was heavy from a doctor directly."

When discussing changes they would make to help their children with weight issues, parents often focused on changes the whole family would make. Parents were hesitant to single out their children when it came to weight-management practices. One participant explained, "We as a family would change the things that we do together, like how we get desserts. It would not be targeted at her." Participants indicated that they were trying to be good role models but were challenged by work hours, snacking, and trying to increase fruit and vegetable consumption. Parents of both overweight and normal-weight children had concerns about their own behavior. One participant expressed her frustration with weight management in both herself and her child, stating "To be honest, I feel so overwhelmed when I read things…I feel like everything I'm doing is wrong!"

The majority of participants wanted the pediatrician to help in managing child weight; however, several indicated that parents play the primary role. One participant explained, "I would take their suggestions, but I don't like to put my child on a diet, so I would integrate my own thoughts." Another participant stated, "I see my pediatrician as a partner with me, having a healthy two-way dialogue, even though there are some things the pediatrician might say that I don't buy into." One participant indicated that the pediatrician's role was mainly to draw attention to the problem, explaining, "[The pediatrician is helpful in] sounding the alarm, but I don't think it's their responsibility to manage their [child's] weight."

When asked how a pediatrician could help manage a child's weight, the most common response theme concerned food choices. Participants felt that pediatricians could help monitor nutrition, provide suggestions for improving diets, and assess whether parents were doing a good job with food choices. Several participants indicated that they thought pediatricians could provide weekly meal or nutritional plans. One participant said the pediatrician could "give us some sort of guideline to follow, that's more than just a discussion, like a menu for a child his age." Another parent explained, "They're pretty good here at every check-up, they talk about it, including education about the health effects of being overweight. But if they could direct us to resources—how to actually get them to eat healthy…." Several parents of normal-weight children suggested that a pediatrician could connect them with a RD to help manage their child's weight. No parents of overweight children made this suggestion.

Participants generally agreed with their pediatricians on weight concerns and reported taking their advice. One participant explained, "we have taken away sugary drinks, pushing water, fruits and vegetables, not eating out as much." Others were hesitant because of confusion with BMI as one participant explained, "[the] pediatrician said BMI in children is not so stable, that it can change a lot." Comments like these caused participants to question the validity of the weight problem.

Both parents of overweight and normal weight children expressed interest in RD consultations. Most parents, regardless of their child's weight, were willing to see an RD if recommended by a pediatrician, but several working parents expressed concern about the added time commitment involved due to busy family schedules. The importance of a trusted relationship was emphasized by another participant who explained, "Whether I would meet with an RD would depend on whether we could have a trusted relationship with her, as we do with our doctor." However, one participant explained why she would not want RD involvement: "No—I kind of feel like all the information we need is out there, and I wouldn't want to take more time out of our schedules to come [for RD appointments]."

Discussion

Consistent with previous literature, many parents of overweight children did not recognize that their child was overweight.[8,9] Parents valued pediatrician identification

of weight problems as well as their advice and tools for promoting healthy eating. Parents, however, had more ambivalent feelings about pediatricians "labeling" their child as being overweight or actively managing their child's weight. Although many studies have asked about the challenges with weight management in the primary care setting, few have looked at the actual expectations parents have for the pediatrician's role. Many more parents of overweight children did have concerns about their child's weight than did parents of normal-weight children. One study similarly found that concern about weight was more likely among parents of children who were overweight.[10] Although parents in our study may not have labeled their child as "overweight," they did recognize the need for improvements in lifestyle, unlike some previous literature.[11]

In a previous study with low-income parents,[12] participants did not find meaning in the BMI growth charts but understood the importance of diet and physical activity. Parental interest in but confusion about BMI in this study suggests that health care providers should take time to relate BMI to potential health implications. A clear understanding of how BMI can help predict health problems may serve as a way for parents to identify weight problems earlier. Consistent with previous findings, pediatrician comment was one of the most important cues to action for parents in terms of identifying a weight problem.[13]

Consistent with previous research and recommendations, parents focused largely on family changes for healthy living and healthy weight in place of changes directed specifically at an overweight child.[5,6,14] When providing guidance in the area of weight management, physicians should provide recommendations for the family as a whole. Recommendations specific to parents may also be warranted because several parents indicated that they had a difficult time acting as a good role model for their children in terms of healthy behaviors. Parents often mentioned a trusted relationship with their pediatrician as the reason they would include them in weight management discussions, which is also consistent with previous findings.[1,5]

Some parents said that they would include pediatricians immediately to address a weight concern, but most seemed more likely to make changes on their own before consulting a pediatrician. The range of opinions on this topic highlights the importance of open communication between parents and physicians about weight management to encourage parents to seek help earlier.[15] Some parents of overweight children had not even considered the pediatrician as an option or did not understand what a pediatrician could offer to support weight management. Parents may seem unengaged simply due to a lack of knowledge about the resources available to them. Some parents were also concerned about the pediatrician's approach to the management of their child's weight. Healthy lifestyles were the main focus for parents, and some were concerned that a pediatrician's approach could negatively impact their child.[13] Physicians must build trust with parents, and a multidisciplinary approach to weight management may help parents who feel they are being judged or blamed for their child's weight.[13]

Parents were most eager for nutrition advice and meal planning, and saw their pediatricians as a resource for such needs, but wanted more tangible guidance on how to get their children eating well.[16,17] These findings provide further support for the inclusion of RDs in pediatric weight management. Behavioral change techniques employed by RDs have been shown to be effective,[18] and referrals for support services are a recommended role for the pediatrician.[16] Materials connecting parents with other resources may also be helpful.

This study had several limitations. First, white, college-educated mothers with private health insurance coverage were overrepresented in the study population. Selection bias may have been introduced by allowing nurses to prescreen and recruit participants and by only including parents of children attending sick visits. In addition, the presence of the child in the examination room during the interview may have altered participant responses. The structured nature of the interview guide promoted consistency but did not allow interviewees to explore perceptions in more depth. Social desirability may have been introduced when asking parents what they would do as a family to help their children with weight problems, thus biasing the conclusion that parents would generally make changes first before consulting a physician. The study did not specifically include questions about sibling weight status, which may have impacted parent responses. Although group coding sessions were not performed, 3 members of the research team performed several reviews of the coding and shared input before the themes were finalized. Finally, the relatively small number of parents of overweight or obese children in this study limited the ability to draw specific conclusions about this group. Further exploration into such specific viewpoints would help guide development of targeted interventions.

Future studies should expand on work currently being completed[19] and continue to explore the reasons families choose to engage in pediatric weight management, the reasons they stay engaged, and their reasons for stopping care. Even though pediatrician involvement is important, clinician time is limited and could be augmented by consultation with other health professionals. ■

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Table I. Interview guide questions by topic

Obesity knowledge	How would you define overweight? What does the word obese mean to you? What causes a child to be overweight? What problems do you think an overweight child might have? What are the warning signs that a child is becoming overweight?
Concerns, attitudes, and perceptions about overweight	Do you think your child is healthy? How would you define healthy weight for your child? What term would you say best describes your child's/your weight? Do you have any concerns about your child's weight? If yes, what concerns?
Managing your child's health	If you felt/believe that your child had/has weight issues, what things would you try as a family before speaking to a health care professional? What resources would/did you access when attempting to help your child? At what point would/did you seek help from your pediatrician to manage your child's weight problem?
Views on settings for childhood weight management	Would you want your pediatrician to help your child manage their weight? How do you think a pediatrician could help manage your child's weight?
Contact with pediatrician	In the past year, has your pediatrician expressed concerns about your child's weight? Did you agree with your pediatrician's concerns? In the past year, has your pediatrician advised you about how to manage your child's weight? What advice was offered by your pediatrician? What, if any, weight-related topics would you like to have more information on from your pediatrician? In the past year, has your pediatrician worked with you to set healthy weight goals for your child? Has your pediatrician ever recommended that your child be seen by an RD? If services were more available, would you ever consider scheduling an appointment with an RD? Is there anything that your pediatrician could do to make it easier for you to schedule and/or keep an appointment with an RD?
Action steps	Do you believe you are a good role model for your child when it comes to living a healthy lifestyle? For parents who believe their child is overweight, choose the statement that best describes your healthy weight plan: • I am currently making lifestyle changes for my child in order to help him/her lose weight; • I am currently making lifestyle changes for my child but am doing so inconsistently; • I am intending to make lifestyle changes for my child in the next 6 months; or • I do not intend to make any lifestyle changes in the next 6 months. If you do not intend to make lifestyle changes, what are the reasons that are leading you to make that decision?

Table III. Key messages and quotations for the identified themes

Theme	Key messages	Illustrative quotations
Defining overweight and obesity	Parents had mixed definitions of overweight and obesity and were confused about BMI	"It sounds harsh, but it [obese] also means overweight."
		"[it] has to do with BMI and percent body fat, but I'm not sure exactly what."
Health implications of weight	Parents were well informed about the health implications of excess weight in children	"Increased blood pressure, diabetes, cholesterol — anything that could happen to adults could happen to kids."
Indicators of weight problems	Parents used visual cues as primary indicators of concern for children's weight status	"You can just look at some kids and tell that they are overweight."
Concern about weight	Parents were concerned about children's weight, though they might not define their children as "overweight"	"[She's at a] healthy weight because it's not causing any problems, [but] in just the past year her weight has gone up. [I] would prefer her to weigh a little less, maybe 10 pounds lighter."
	Parents were less interested in monitoring weight and more interested in their children's health and happiness	"We are mindful of genetics and different builds, so we don't talk about weight but instead [about] healthy lifestyle."
Pediatrician's role in identifying weight problems	Parents found the monitoring of BMI by the pediatrician to be helpful in identifying a weight problem	"If I noticed my child was above normal weight over time, I would be worried. [You] can follow their progress on growth charts."
	Pediatrician comment was indicated as important for recognizing a weight problem	"I would need to hear that my child was heavy from a doctor directly."
Family behavioral changes	Family changes to diet and activity were preferred over individual changes for the child	"We as a family would change the things that we do together, like how we get desserts. It would not be targeted at her."
	Parents felt challenges in modeling healthy behavior for their children	"To be honest, I feel so overwhelmed when I read things…I feel like everything I'm doing is wrong!"
Pediatrician's role in weight management	Most parents indicated they would try changes on their own before consulting a pediatrician	"[I would consult my pediatrician] if I truly felt, and was honest with myself, I had tried everything and still felt at a loss."
	Most parents wanted pediatrician involvement in weight management, but parents identified different preferred levels of involvement	"I see my pediatrician as a partner with me, having a healthy 2-way dialogue (even though there are some things the pediatrician might say that I don't buy into."
	Parents were most interested in dietary management, meal planning, and nutritional guidance	"…give us some sort of guideline to follow, that's more than just a discussion, like a menu for a child his age."
	Parents of normal-weight children were interested in being connected to other resources through their pediatrician	"They're pretty good here…but if they could direct us to resources – how to actually get them to eat healthy…"
Experiences with pediatric weight management	Parents engaged in weight management with their pediatrician were happy with the suggestions and working to incorporate them into their behavior	"Well, they always give good nutritious advice, like to take them to the park for more long walks, to get her to dance more."
Perceptions of RD involvement	Parents were open to RD involvement in helping manage their child's weight, especially if referred by their pediatrician	"My husband and I have talked about that service [RD consultation] for ourselves as well as for her [child]. Someone who could say 'Here, try this meal.'"