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How Should We Approach and Discuss Children's Weight With Parents? A Qualitative Analysis of Recommendations From Parents of Preschool-Aged Children to Physicians

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Abstract

The primary objective of this study was to describe parents' preference for how physicians should approach diet and weight-related advice for their child. Semi-structured interviews were conducted with parents (n = 40) of preschoolers, transcribed verbatim, and double-coded using an inductive thematic analysis approach. Parents identified recommendations for how physicians should approach conversations about weight. Themes included (1) Tone and Approach are Important, (2) Avoid Judgment, (3) Have Regard for Parental Expertise, (4) Consider the Timing of the Discussion with Parents, and (5) Equip Parents with Concrete and Individualized Recommendations. Future research should focus on developing brief, effective communication tools to guide discussions with parents about child nutrition and weight. Opportunities to learn about and practice the use of these brief interventions should be incorporated into medical education with the goal of providing clinicians the learning opportunities, skills/tools, and resources needed to adequately and respectfully discuss weight and diet with parents and children.

Keywords

qualitative, discussing overweight/obesity, communication, parental perceptions, primary care, patient-provider communication

Introduction

Childhood obesity is a significant and far-reaching public health challenge, currently affecting 18.5% of youth in the United States.[1,2] Obesity is associated with a number of immediate and long-term physical and psychosocial health consequences including hypertension, type 2 diabetes, sleep apnea, anxiety, depression, and low self-esteem.[3-8] Thus, to maximize health and quality of life, it is imperative to identify, prevent, and manage obesity during childhood.

In an effort to facilitate the identification and treatment of overweight and obesity, the American Medical Association's Expert Committee recommends that the body mass index of children 2 years and older be calculated and plotted at least annually by primary health care providers.[9] However, according to research by Secker and colleagues, focusing on assessment of weight status alone is inadequate; to be effective at promoting change and improving health outcomes, health care providers need to have deliberate and positive discussions about weight-related topics with children and parents.[10] However, despite recommendations for frequent assessment of weight status, and the existence of evidence-based guiding principles on what information should be included in weight and diet discussions, minimal guidance exists on how health care providers should communicate with families about obesity and weight-related topics.[11-13] In addition, given other studies[14-17] that have showed strong associations between parent's weight- and diet-focused conversations and associations with child unhealthy weight control behaviors, weight status, body dissatisfaction, and depressive symptoms, it is important to determine the best ways for physicians to approach this topic with parents and children.

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Furthermore, there are numerous barriers that stand in the way of facilitating discussions about weight with patients and their families, including limited time[18-20] and a lack of training in and knowledge about how to discuss weight management.[19,21-24] Many providers also worry that parents will react negatively to discussions about their child's weight[20] and indicated that parental opposition to discussions about weight were disruptive to obesity prevention efforts.[22]

With these challenges in mind, researchers have begun to explore how providers should approach these conversations. For example, research has looked into weight-related terminologies preferred by parents of children with overweight and obesity.[25-29] Researchers also discovered that the timing of physician-parent conversations about weight is important; parents preferred weight-related discussions about their child with health care providers to occur earlier rather than later.[25,30,31] Furthermore, existing literature highlights and recommends that health care providers relay their message to parents in a way that displays respect, trust, openness, and sensitivity to cultural values.[31-34]

However, there is still more to learn about best practices for weight-related communication between parents and doctors. For example, a recent review article found that most effective interventions for childhood obesity are not designed to be delivered during standard primary care appointments, highlighting a need for communication strategies suitable within a routine primary care visit.[35] Thus, this qualitative study seeks to describe parents' preference for how physicians should approach diet- and weight-related advice for their child. Study findings will improve our knowledge about how health care providers can effectively communicate weight and weight-related topics with parents of young children. Furthermore, findings will help guide the development of applicable recommendations for primary care providers and will provide insight into how medical school and residency programs can better prepare and guide physicians to equip them to lead these important and sensitive conversations within the current state of primary care.

Methods

Study Design and Population

The current qualitative study is an ancillary study[36] to Project EAT (Eating and Activity in Adolescents and Young Adults), a large, population-based cohort study that seeks to identify determinants of eating and weight-related health.[37,38] Young adults (mean age = 31.3 years [SD: 1.5]) who completed an EAT-IV survey (total n = 1830) and indicated they had at least one child aged 2 to 5 years who lived with them at least 50% of the time (n = 512) were invited to participate in this ancillary qualitative study; invitations to participate in an individual interview were sent via e-mail to eligible participants. Recruitment e-mails indicated that the study goal was to learn more about parents' experiences feeding their preschool-aged child and the factors influencing their choices made about feeding. Interested participants were scheduled to complete a semi-structured interview in-person or via phone. Sample extensiveness[39] was determined to be sufficient after recruitment of new participants offered few additional insights and theoretical saturation was reached.[40]

The current sample includes 40 young adults. Study participants self-reported their age and ethnicity/race on the original Project EAT survey. On the Project EAT-IV survey, participants self-reported their sex, income, employment status, educational attainment, the number of children they had, the ages of their children, and their current custodial arrangement. Nearly 75% of the interview sample were female with a mean age of 31.2 (SD = 1.41). See Table 1 for additional details on participant demographics.

Data Collection

For this qualitative study, all researchers were trained in standardized interview protocols[41] and conducted semi-structured interviews with parents (n = 40) using questions designed to understand parent-child interactions around food and feeding as well as questions to determine who parents went to for advice about their child's weight and diet, and how parents wanted that advice delivered to them.[36] Broad, open-ended questions along with permissive prompts were used to facilitate each semi-structured interview. See Table 2 for interview questions pertinent to the current analysis. Prior to conducting the interview with the sample of parents, the study principal investigator (PI) first piloted the semi-structured interview guide with 2 content area experts, 3 graduate students, and 4 parents of children aged 2 to 5 years to ensure that questions were clear, generated in-depth discussion, and were acceptable to participants; feedback from pilot testing was used to modify the wording, content, and order of interview questions.

Semi-structured interviews were conducted by 1 of 4 trained female research staff members (study PI and 3 volunteer graduate students). The research team members were between the ages of 20 and 40 years and represent a combination of Caucasian, Hispanic, and Asian racial/ethnic groups. All interviewers had no prior relationship with the study participants. Interviews were

Table 1. Demographic Characteristics of Study Participants: EAT-IV Parent Sample and Qualitative Interview Subsample[a].

Characteristics	EAT-IV Parent Sample[b], N = 512	Interview Subsample[c], N = 40
Age, mean (SD)	31.3 (1.5)	31.2 (1.41)
Gender, % (n)		
Male	37.7 (193)	27.5 (11)
Female	62.3 (319)	72.5 (29)
Race/ethnicity, % (n)		
White	69.5 (351)	80.0 (32)
Black	6.5 (33)	2.5 (1)
Hispanic	3.8 (19)	5 (2)
Asian	14.9 (75)	5 (2)
Mixed/other	5.3 (27)	5 (2)
Income, % (n)		
Less than US$34 999	13 (66)	10 (4)
US$35 000-49 000	12.4 (63)	15 (6)
US$50 000-74 999	23.8 (121)	15 (6)
US$75 000-99 999	21.3 (108)	20 (8)
US$100 000 or more	29.5 (150)	40 (16)
Employment status, % (n)		
Working full-time	71.3 (365)	67.5 (27)
Working part-time	11.3 (58)	22.5 (9)
Stay at home caregiver	14.3 (73)	10.0 (4)
Not working for pay, other	3.16 (14)	—
Educational attainment, % (n)		
High school or less	25 (133)	10.0 (4)
Technical school	13.7 (70)	7.5 (3)
Associate's degree	13.9 (71)	10.0 (4)
Bachelor's degree	33.7 (172)	45.0 (18)
Graduate degree	13.1 (67)	27.5 (11)
Number of children, % (n)		
1	20.6 (105)	25.0 (10)
2	47.0 (240)	50.0 (20)
3	21.9 (112)	15 (6)
4+	10.5 (54)	7.5 (3)
Relationship status, % (n)		
Single, casually dating	5.7 (29)	5 (2)
Committed relationship	15.8 (78)	12.5 (5)
Married, domestic partner	80.0 (393)	82.5 (33)
Domestic partner	82.9 (407)	—

Abbreviation: EAT, Eating and Activity in Adolescents and Young Adults project.
[a]Numbers differ slightly throughout this table due to missing responses from participants at EAT-IV.
[b]Participants (N = 512) for the current quantitative analysis included individuals who completed the Project EAT survey at EAT-I and EAT-IV, and reported at EAT-IV that they had least 1 child aged 2 to 5 years who lived with them at least 50% of the time.
[c]Participants (N = 40) in the qualitative interviews were recruited from the Project EAT-IV sample; to be eligible to complete an interview individuals were required to have at least 1 child aged 2 to 5 years who lived with them at least 50% of the time.

audio-recorded and lasted 30 to 60 minutes. The majority of the interviews (n = 30) were conducted in-person, in a private room on the university campus, while 10 interviews were done over the telephone. There were no major differences between in-person interviews and phone interviews with regard to interview length and participant responses. The University of Minnesota's Institutional Review Board Human Subjects Committee approved all study protocols.

Data Analysis

Audio-recorded interviews (n = 40) were transcribed verbatim and coded using an inductive thematic analysis

Table 2. Semi-structured Interview Guide Questions.

1. If you had a concern about your child's weight or the way your child was eating, who would you ask for advice or help?
Why does this person (do these people) come to mind as people you would want to get advice from?
Is there anyone that you would not want to get advice from or whose advice you would not trust? Why?
2. If your child's doctor had a concern about your child's weight or the way your child was eating, would you want them to bring that up to you in an appointment?
How would you want them to bring it up to you?
What sorts of things would you want them to do or say about their concern?
Is there anything you wouldn't want them to say or do (or something they might say or do that would make you not want to listen to their opinion or advice?)

approach[42,43] using NVivo10 software (NVivo 10, QSR International Pty Ltd, Burlington, MA). Using open coding, researchers first read each interview in its entirety to obtain the full story from participants.[44] Then, researchers read each transcript line-by-line to establish initial codes and capture key thoughts and concepts. Afterwards, researchers reduced the broad categories into subcategories, and major concepts were identified. Major concepts were further defined, developed, and refined into overarching themes and subthemes. To improve the trustworthiness[37,45-47] of the data and to reduce bias, all transcripts were double-coded. After completion of the initial coding process, both coders (first author and study PI) discussed questions and discrepancies in-person regarding quotes or placement of quotes in theme categories until 100% agreement was reached.

Results

When parents were asked about how they would like their physician to approach conversations about their child's weight and diet, five overarching themes emerged: (1) Tone and Approach are Important, (2) Avoid Judgment, (3) Have Regard for Parental Expertise, (4) Consider the Timing of the Discussion with Parents, and (5) Equip Parents with Concrete and Individualized Recommendations. A description of each overarching theme and subtheme along with example quotes are described in detail below; additional example quotes related to themes are shown in Table 3.

Tone and Approach Are Important

Parents emphasized the importance of tone and approach during physician-led conversations about a child's weight and diet. Specifically, parents highlighted two subthemes: (1) be honest and straightforward and (2) display sensitivity. Parents (50%) indicated that they wanted physicians to be honest and straightforward with their concerns about their child's weight and diet, even if they were worried that parents might be reluctant to hear their message. For example, one parent said,

> I would just say the truth, that my child is overweight or that, you know, maybe our eating options aren't necessarily the right choice. No one wants to hear the truth, but at the same time, it's easiest to get it out rather than beating around the bush. (Mother)

Parents (15%) also encouraged physicians to display sensitivity and be aware of the words and phrases they used during discussions about weight and diet. For example, one parent said,

> I like how my pediatrician talks to the child and myself, but I think if it's an issue of being overweight or maybe eating too much or dieting, which, if it ever came up, then I think there would have to be sensitivity, so my child, who could understand, wouldn't feel like they were doing something wrong. (Mother)

Avoid Judgment

Parents wanted physicians to avoid judgment during conversations about weight. Specifically, three subthemes emerged that focused on how to approach discussions without judgment: (1) focus on health and behavior, not weight; (2) avoid negatively reacting to parenting practices; and (3) avoid potentially offensive and inappropriate weight-related terms. Parents (15%)

Table 3. Parents' Preference for How Physicians Should Approach and Discuss Children's Weight and Diet.

Overarching Themes and Subthemes	Example Quotes
1. Tone and Approach are Important	
Be honest and straightforward	Just talk about it. I mean, I'm pretty straightforward, so, you know, if they have something, they can say it to me.
	More information is better. I'd rather hear it. I know some people might think "out of sight, out of mind" and that's not me.
	I want my doctor to communicate everything with me. If they feel like anything is of concern, I want them to tell me, for sure. I like to know everything, even if their heart rate is a little off, or if their height isn't exactly where it's like average for that child. I want to know it all. There's nothing I would want them to keep from me.
Display sensitivity	You know, obviously be gentle about it. I think there are nice ways to say things.
	I guess kind of like a compliment sandwich and try to soften the blow as much as you could.
	I mean politely, because I would hope that it was just a mistake that I made, something that I didn't know better or something that I wasn't aware of yet or if there was some kind of concern with her weight or how she was eating.
2. Avoid Judgment	
Direct the focus on health and behavior, not weight	Just bring up that you are legitimately concerned about their health, not this is an issue, not because of looks or anything like that. It's just their health is a concern.
	So, I think that it would have to be approached in like a nonjudgmental way, like, "I'm considering the health of your child, the health of their heart," instead of a physical, like, "They're just getting really fat." I don't think anyone would ever say [that], but, you know, it would just be like, "I'm worried about their heart. I'm worried about their future health," versus just like, "They look overweight," or "Are you feeding your child well?" I mean, that would make me feel more comfortable.
Avoid negatively reacting to parenting practices	Like blaming me for her weight or blaming me for her food choices knowing that I'm already making really good decisions would not be a good approach.
	The only time she ever brought something up that bothered me was that my son was at his 15-month appointment, and she had asked about the bottle. He was still using a bottle at that time, and she came down on me really hard about it, like, "If you keep having him use a bottle, the shape of his face or the shape of his mouth is going to change, and blah, blah, blah."
	I think if they just came right out and said something like, "Your child is getting too fat, you're not feeding them well enough," or something like that, or, "They're eating too much junk food, and they're on their way to diabetes," or something like that. I guess something that would put blame on the parents immediately.
Avoid potentially offensive and inappropriate weight-related terms	I wouldn't want them to be rude about it, like, "Your kid is fat."
	I wouldn't want them to say, "Your kid is fat," or, you know—"Your kid is fat, and what are you feeding your kid?"
	I feel like just being somebody that's struggled with my weight my entire life, like, I don't know, like I feel like as a child if someone was like, "Oh, she's getting really fat," that would probably hurt their feelings.
3. Have Regard for Parental Expertise	
Aim to understand parents' views about their child's weight and diet	You know, I would just expect if she was overweight that maybe they'd talk to my wife about you know, "Is she eating enough? Is she eating too much? Is she exercising enough?" That sort of thing.
	Maybe asking parents what they do that was successful and then using that as a resource, so that sounds like a credible, maybe like more applicable to their situation kind of answer.
	I guess probably by first asking if I had concerns about it [the child's weight], to kind of open that pathway of talking about it. And then say, "Do you have any concerns about your son's weight?"

(continued)

Table 3. (continued)

Overarching Themes and Subthemes	Example Quotes
4. Consider the Timing of the Discussion	
Be proactive, initiate discussion, and intervene earlier than later	Better that they say it now than not, and then later on tell me that, "Oh, your child has this issue."
	I think typically we would expect when she gets her height and weight checked, when she goes in for her checkup that if something seems out of whack that they would tell us.
	I think in a proactive way, so maybe something—you know, here's your child's weight, here's the scale of where they should be at his age. If he's on the higher end or just over it, here's some may—"Here, let's talk about this. What can we do?"
Have continuous and ongoing discussions with parents	In our clinic, every wellness check they give us a big packet of milestones they should be achieving, and then a food chart of what they should be eating and how much they should be eating of what. I find it helpful.
	What was hard for me with my first daughter, is she went through this phase where she was born slightly preterm, really small, so for her first six months, first year of life, everyone was excited when she got to be a big, chunky, healthy baby. When did our mindset change that now she's three and a half, we don't want a big, chunky, three-and-a-half-year-old? Where in that transition did that happen? And that's never really discussed at the pediatrician.
Discuss concerns about child weight and eating habits without the child's presence	If they were concerned about her [the child] having too much weight, I would probably want them to try to say it maybe not in front of the child.
	I would probably request that they do not say that she's overweight in front of her. I think removing the child from the room would be best, because there are so many issues with body positivity. It's really sensitive to me.
5. Equip Parents with Concrete and Individualized Recommendations	
Present relevant information to parents visually and have a conversation	Usually they'll show you on a chart, you know, like the height, the percentage, so you can see it. If there's anything abnormal there, they'll address it. It's not an opinion, it's a fact. You can actually see it on the chart.
	You know, just point out something like, "You know, his percentile for weight was this at his last appointment, and now it's this," and it's just gone up a little more than he would like or something like that or something along those lines.
Provide parents with feasible and concrete suggestions to implement and appropriate resources for action and prevention	They need to help me figure out solutions on how to fix that issue, not just tell me about the problem. Give me achievable, realistic solutions that I can implement in my life that can actually help me.
	For example, my little one doesn't drink milk, and that was a concern for me a year ago, so I brought that up to the pediatrician. She said, "You can't force them to drink it. Here are other options you can try.
	I think if there were resources, that would be helpful, because then if we were in a situation where the child is severely overweight, and we had to do something about it to prevent and take affirmative action before it gets worse.
	I get a million emails a day, and if I see an article that interests me, I'll read it. So, I think having newsletters helps. You know what I mean? Like with different links in there.
Clearly explain rationale behind recommendation and concern	I guess why they know or why they're concerned about it [the child's weight] or if they have any more information about it, you know, like, "Why are you concerned about that or how do you know that?" You know, I would just be like, "Tell me more. Explain more."
	I feel like sometimes there are professionals that are taking care of your children that are quick to jump to conclusions, so I would love to have like an open dialogue about what her concerns were.

want physicians to direct the focus on their child's health and behaviors, not their weight. For example, one parent stated,

> It's not about the weight, but about being healthy and [the doctor] trying to help parents. It would help me frame it that way, because then there's something I can do about it. I have a goal to make my child healthier rather than to get my child to lose weight. (Mother)

Parents (17.5%) also wanted their child's physician to avoid negatively reacting to their parenting practices. For example, one parent said,

> If they were trying to judge my parenting, I'd be pretty upset by it. (Father)

Lastly, parents (22.5%) wanted physicians to avoid potentially offensive and inappropriate weight-related terms and revealed words that they thought would negatively affect their child's self-esteem and body image. For example, one parent said,

> They don't want to say that she's fat, or, you know, she's ugly. You know, things that would make the child feel bad about their weight or about themselves. (Mother)

Have Regard for Parental Expertise

Parents discussed wanting physicians to recognize them as being an expert on their own child. One subtheme emerged to describe this overarching theme: (1) aim to understand parents' views about their child's weight and diet. Many parents (47.5%) wanted physicians to consider and understand their views about their child's weight and diet. For example, one parent stated,

> Maybe actually considering what I was saying, when I said, "I don't think they're overweight, they're very healthy, they eat healthy food," instead of just going, "Okay, but look they're in the 90th percentile, and they gained two pounds since six months ago, so they need to lose weight, we need to have weight checks." If they would have actually considered what I was saying, the feedback I was giving them, then that probably would have made me more open to listening to what they had to say. (Mother)

Parents also wanted physicians to call on their expertise as parents by engaging them in conversation and asking relevant questions about their child's diet and the home food environment.

Consider the Timing of the Discussion With Parents

Some parents valued a preventive approach when it came to addressing issues about their child's weight and diet. Three subthemes emerged: (1) be proactive, initiate discussion, and intervene earlier than later; (2) have continuous and ongoing discussions with parents; and (3) discuss concerns about child weight and eating habits without the child's presence. Parents (12.5%) wanted their child's physician to be proactive, initiate discussion, and intervene earlier than later when concerned about the child's weight and diet. For example, one parent said,

> I think it's good to address that early on, versus later on when my child is severely obese and they have an illness. Yeah, to prevent and to take affirmative action before it gets worse. (Mother)

A few parents (10%) also wanted discussions about weight to be continuous and ongoing, as opposed to a "one and done" type of conversation. One parent described the desire for their child's physician to offer an opportunity to discuss, reflect, and return with questions. This parent said,

> I guess my message to these doctors is that it isn't a conversation they can have once. From the professional standpoint, the kid comes in once a year for their three-year-old visit, their four-year-old visit, their five-year-old visit. The year in between is too long, and if they didn't hear you well the first visit, you have a whole year before you talk to them again, so making that follow-up visit, continuing to talk about it. Parents may not hear it the first few times you say it. I wouldn't hear it. I'd get defensive. I'd be like, "I'm not listening. I don't believe you." I'd go home and think about it and then wish I could go back and discuss it more. And that's, I think, one of the problems with our well-child visits. (Mother)

Parents (12.5%) preferred to discuss concerns about their child's weight and diet without the child present due to concerns about eating disorders and poor body image. For example, one parent said,

> I've found that very hard with my son, because like up to his two-year appointment it was fine, but at his three-year appointment and especially at his four-year appointment he understands we are talking about him, and I've found that hard. I was thinking about this for his next appointment, to see if I can have my husband come along with, and take him out of the room and talk to her about some issues. So, if she was concerned about his weight or something, I wouldn't want her to talk about it around him, because I wouldn't want him to feel bad about something like that. (Mother)

Equip Parents With Concrete and Individualized Recommendations

This final overarching theme illustrates the type of information that parents want from physicians and how they would like that information conveyed to them. Three subthemes emerged to illustrate this

overarching theme: (1) present relevant information to parents visually and have a conversation, (2) provide parents with feasible suggestions to implement and appropriate resources for action and prevention, and (3) clearly explain the rationale behind the recommendation and concern. Some parents (35%) preferred their child's physicians to present relevant information visually during a conversation. For example, one parent stated,

> The way they [the doctors] have done it has been great. They've showed me the growth curve and, you know, where they were plotting on the curve and how they now are now. I think that picture is helpful for me visually and for a lot of people, but just that you can see, like, this is where they were, this is where they are now, and this is why we're watching it. That's kind of how they've approached it. (Mother)

Many parents (75%) indicated that their child's physicians should be prepared to provide parents with feasible suggestions to implement and appropriate resources for action and prevention. For example, one parent said,

> I mean, they're going to be an expert in their field, so if they have some top ten suggestions or things that they've picked up on, common things that they maybe could do better, or could do differently. That would be definitely helpful. Some practical advice. (Father)

Another parent stated,

> I would hope the pediatrician has those resources to give families. There's, you know, the [specific name] obesity clinic for pediatrics. Try to get families in a system that's going on to do that follow-up where it may not be something that pediatricians can do on a regular basis. (Mother)

Lastly, parents (30%) wanted their child's physician to clearly explain the rationale behind their recommendations and concerns. For example, one parent said,

> Okay, here's an issue, here's a concern, here's how you fix it, or here's what caused it. There's more of a discussion versus just an unfounded concern. (Mother)

One specific example suggested by one of the parents involved having their child's physician frame the discussion around the associated health consequences if a health concern were not addressed appropriately. This parent said,

> I guess, yes, I would want them to bring it up, and I guess be kind about it, and like concerned about what happens if you don't address those concerns. (Mother)

Discussion

Qualitative data from the current study revealed a common set of parents' preferences for how physicians should approach conversations when concerned about a child's weight and diet. Overall, parents were generally receptive to discussions focused on their child's weight and diet and wanted their child's physician to lead the way with an honest and straightforward approach. At the same time, parents also wanted physicians to display sensitivity, be thoughtful with their choice of words, and avoid judgmental reactions to current parenting practices. For the most part, findings from the current study align with recently summarized best practices,[12] indicating alignment between current recommendations and parent preferences.

Overall, data from this study suggested that parents placed a great deal of importance on physicians being competent with "soft skills," such as displaying sensitivity and engaging in good communication skills during discussions. The Accreditation Council for Graduate Medical Education (ACGME) also considers these soft skills to be of great importance and identified interpersonal and communication skills as one of the six core competencies.[48,49] However, many residency programs have difficulty ensuring that their residents graduate with competent communication skills due to the lack of specific curriculum focused on teaching and assessment of communication skills, and the lack of time for faculty members to directly observe resident-patient interactions.[50] Given that learning any type of skill requires constant practice and evaluation, it is crucial that communication skills are taught in a way that enables frequent practice and consistent, constructive feedback[11]; specifically, residency programs should consider allocating more resources for teaching and assessing physician-patient interactions.

In alignment with previous research,[25,30,31] results emphasize the importance of the timing of weight-related discussions. Specifically, physician-parent conversations involving the child's weight and diet need to occur earlier rather than later. Additionally, findings highlighted parents' desire for conversations about diet and weight to be frequent and ongoing. Currently, recommendations from the American Academy of Pediatrics 2007 Expert Committee align with these parent preferences, in that they advise physicians to conduct frequent follow-up visits to address childhood overweight and obesity.[51] Awareness of these parent preferences may help strengthen the self-efficacy of physicians and aid with reducing some of their anxiety and fear when initiating discussions with parents about their child's weight and diet.

Results also indicated that parents wanted their child's physician to supply them with tailored and practical solutions to address weight and diet-related issues discussed during visits. Unfortunately, the reality is that many primary care providers spent only a limited amount of time learning about nutrition and related issues during their medical education,[52-55] making it difficult for them to offer the tailored solutions parents desire. While not all medical students will go on to practice in primary care, medical schools should work toward identifying concrete ways of providing medical students interested in primary care adequate knowledge of nutrition and improve their confidence to utilize this knowledge upon graduation and completion of residency.

Despite the need and desire for effective communication tools to address behavioral change within primary care well-child visits, there is a lack of programs and curriculums that address how to do this within a routine primary care visit.[35] There is a need for the development, implementation, and evaluation of communication tools to guide conversations within the context of a standard 20-minute period. Results from this study suggest that the communication tool developed should aim to (1) include visual presentation, (2) reinforce early and ongoing physician-parent conversations, (3) include nutrition-related topics, (4) take into account the parent as an expert, (5) focus on addressing the child's behavior and overall health not weight, and (6) be free of judgmental tone and language. Furthermore, the communication tool developed should be interactive, family-centered, and include practical and evidence-based recommendations for parents and children. One such example is the clinical tool, "Conversation Cards,"[32] developed for clinicians and parents during clinical appointments with the goal of highlighting issues of concern while encouraging clinicians to remain responsive to parents' priorities and needs. Other communication tools, such as "5-4-3-2-1-Go!"[56] and Motivational Interviewing,[57] have also demonstrated positive changes in behavior during well-child visits. Results from the current study, in combination with information from the recent review by McPherson et al,[12] could inform the adaptation of existing communication tools (eg, 5-4-3-2-1-Go! Conversation Cards) or facilitate the development of new interactive tools for physicians to use when working with families. Moreover, educators should consider introducing brief, effective communication tools to medical learners early on in their training to allow them ample time to practice engaging with a particular communication tool prior to using it to guide their dialogue with real patients in a clinical setting. Developing, piloting, and evaluating brief communication tools may help address the significant barriers for primary care and primary care providers addressing childhood obesity with their patients and families.

There are both strengths and limitations to this study. To date, the majority of existing literature has focused primarily on interviewing parents of children with a body mass index at or greater than the 85th percentile and people seeking clinical treatment for weight. This study aimed to address how physicians should approach conversations about children's weight and diet using data collected from a large, population-based, non–treatment-seeking population to improve our understanding of how the general population would like physicians to approach weight-related conversations. However, even though this qualitative study drew participants from a large, population-based sample, they are not representative of the entire Project EAT sample, nor the population at large. The sample of parents were predominantly white, higher income, with greater access to economic resources. Future research should aim to involve more racially/ethnically and socioeconomically diverse and immigrant populations to determine any similarities or differences in communication preferences among different populations.

Conclusion

The management of pediatric overweight and obesity is a complex process with multiple layers. Over the past several years, best practices and recommendations in weight-related communication between health care providers, parents, and children have accumulated. However, health care providers still lack a proper evidence base to guide their conversations with parents and children. Moreover, health care providers are already overwhelmed with their daily workload, and then adding to this the existing barriers, the current structure of primary care, and the absence of effective communication tools to practice with and utilize, they will continue to feel overwhelmed. Future research should focus on developing an effective communication tool that can be introduced to future clinicians during medical school and residency programs with the goal of launching clinicians to have the skills/tools and resources needed to adequately and respectfully discuss weight and diet with parents and children and could be applied broadly to diverse and immigrant populations.

Practice Implications

The current results can be used by health care providers to guide their approach to conversations about weight with children and their families. Furthermore, findings

can inform the development of interventions for pediatric weight management that are appropriate for delivery within a standard primary care visit. Finally, results provide evidence of a need to focus on providing medical students and residents with opportunities to practice soft skills, including communication skills and delivery of brief behavior change interventions, during the course of their medical education.

Authors' Note

The authors confirm all patient/personal identifiers have been removed or disguised so the patient/person(s) described are not identifiable and cannot be identified through the details of the story.

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Author Contributions

MJAU coded data, developed final themes, wrote the initial draft of the manuscript, and coordinated revisions to the manuscript. MAP assisted with writing and thorough review of the manuscript. JMB assisted with writing and thorough review of the manuscript. KAL obtained funding for the study, recruited participants, conducted interviews, coded data, developed final themes, and assisted with writing and thorough review of the manuscript. All authors have read, approved, and provided critical revisions to the final manuscript.

Declaration of Conflicting Interests

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References

1. Commission on Ending Childhood Obesity. *Report of the Commission on Ending Childhood Obesity*. Geneva, Switzerland: World Health Organization; 2016.
2. Hales CM, Carroll MD, Fryar CD, Ogden CL. Prevalence of obesity among adults and youth: United States, 2015-2016. *NCHS Data Brief*. 2017;(288):1-8.
3. Centers for Disease Control and Prevention. Obesity, halting the epidemic by making health easier, at a glance. https://obesity.procon.org/sourcefiles/CDCobesityatglance2009.pdf. Published February 2009. Accessed January 1, 2018.
4. Guh DP, Zhang W, Bansback N, Amarsi Z, Birmingham CL, Anis AH. The incidence of co-morbidities related to obesity and overweight: a systematic review and meta-analysis. *BMC Public Health*. 2009;9:88. doi:10.1186/1471-2458-9-88
5. Hatzenbuehler ML, Keyes KM, Hasin DS. Associations between perceived weight discrimination and the prevalence of psychiatric disorders in the general population. *Obesity (Silver Spring)*. 2009;17:2033-2039. doi:10.1038/oby.2009.131
6. Sanders RH, Han A, Baker JS, Cobley S. Childhood obesity and its physical and psychological co-morbidities: a systematic review of Australian children and adolescents. *Eur J Pediatr*. 2015;174:715-746. doi:10.1007/s00431-015-2551-3
7. Puhl R, Suh Y. Stigma and eating and weight disorders. *Curr Psychiatry Rep*. 2015;17:552. doi:10.1007/s11920-015-0552-6
8. Williams EP, Mesidor M, Winters K, Dubbert PM, Wyatt SB. Overweight and obesity: prevalence, consequences, and causes of a growing public health problem. *Curr Obes Rep*. 2015;4:363-370. doi:10.1007/s13679-015-0169-4
9. Barlow SE; Expert Committee. Expert Committee recommendations regarding the prevention, assessment, and treatment of child and adolescent overweight and obesity: summary report. *Pediatrics*. 2007;120(suppl 4):S164-S192. doi:10.1542/peds.2007-2329C
10. Dietitians of Canada; Canadian Paediatric Society; College of Family Physicians of Canada; Community Health Nurses of Canada; Secker D. Promoting optimal monitoring of child growth in Canada: using the new WHO growth charts. *Can J Diet Pract Res*. 2010;71:e1-e3. doi:10.3148/71.1.2010.54
11. Carcone AI, Jacques-Tiura AJ, Brogan Hartlieb KE, Albrecht T, Martin T. Effective patient-provider communication in pediatric obesity. *Pediatr Clin North Am*. 2016;63:525-538. doi:10.1016/j.pcl.2016.02.002
12. McPherson AC, Hamilton J, Kingsnorth S, et al. Communicating with children and families about obesity and weight-related topics: a scoping review of best practices. *Obes Rev*. 2017;18:164-182. doi:10.1111/obr.12485
13. Randle M, Okely AD, Dolnicar S. Communicating with parents of obese children: which channels are most effective? *Health Expect*. 2017;20:349-360. doi:10.1111/hex.12463
14. Berge JM, Winkler MR, Larson N, Miller J, Haynos AF, Neumark-Sztainer D. Intergenerational transmission of parent encouragement to diet from adolescence into adulthood. *Pediatrics*. 2018;141:e20172955. doi:10.1542/peds.2017-2955

15. Berge JM, MacLehose RF, Loth KA, Eisenberg ME, Fulkerson JA, Neumark-Sztainer D. Parent-adolescent conversations about eating, physical activity and weight: prevalence across sociodemographic characteristics and associations with adolescent weight and weight-related behaviors. *J Behav Med*. 2014;38:122-135. doi:10.1007/s10865-014-9584-3
16. Berge JM, Trofholz A, Fong S, Blue L, Neumark-Sztainer D. A qualitative analysis of parents' perceptions of weight talk and weight teasing in the home environments of diverse low-income children. *Body Image*. 2015;15:8-15. doi:10.1016/j.bodyim.2015.04.006
17. Berge JM, MacLehose R, Loth KA, Eisenberg M, Bucchianeri MM, Neumark-Sztainer D. Parent conversations about healthful eating and weight associations with adolescent disordered eating behaviors. *JAMA Pediatr*. 2013;167:746-753. doi:10.1001/jamapediatrics.2013.78
18. Boyle M, Lawrence S, Schwarte L, Samuels S, McCarthy WJ. Health care providers' perceived role in changing environments to promote healthy eating and physical activity: baseline findings from health care providers participating in the Healthy Eating, Active Communities Program. *Pediatrics*. 2009;123(suppl 5):S293-S300. doi:10.1542/peds.2008-2780H
19. Story MT, Neumark-Stzainer DR, Sherwood NE, et al. Management of child and adolescent obesity: attitudes, barriers, skills, and training needs among health care professionals. *Pediatrics*. 2002;110(1 pt 2):210-214.
20. Walker O, Strong M, Atchinson R, Saunders J, Abbott J. A qualitative study of primary care clinicians' views of treating childhood obesity. *BMC Fam Pract*. 2007;8:50. doi:10.1186/1471-2296-8-50
21. Findholt NE, Davis MM, Michael YL. Perceived barriers, resources, and training needs of rural primary care providers relevant to the management of childhood obesity. *J Rural Health*. 2013;29(suppl 1):s17-s24. doi:10.1111/jrh.12006
22. Gerards SM, Dagnelie PC, Jansen MW, De Vries NK, Kremers SP. Barriers to successful recruitment of parents of overweight children for an obesity prevention intervention: a qualitative study among youth health care professionals. *BMC Fam Pract*. 2012;13:37. doi:10.1186/1471-2296-13-37
23. Jelalian E, Boergers J, Alday CS, Frank R. Survey of physician attitudes and practices related to pediatric obesity. *Clin Pediatr (Phila)*. 2003;42:235-245. doi:10.1177/000992280304200307
24. Spivack JG, Swietlik M, Alessandrini E, Faith MS. Primary care providers' knowledge, practices, and perceived barriers to the treatment and prevention of childhood obesity. *Obesity (Silver Spring)*. 2010;18:1341-1347. doi:10.1038/oby.2009.410
25. Bolling C, Crosby L, Boles R, Stark L. How pediatricians can improve diet and activity for overweight preschoolers: a qualitative study of parental attitudes. *Acad Pediatr*. 2009;9:172-178. doi:10.1016/j.acap.2009.01.010
26. Puhl RM, Peterson JL, Luedicke J. Parental perceptions of weight terminology that providers use with youth. *Pediatrics*. 2011;128:e786-e793. doi:10.1542/peds.2010-3841
27. Toftemo I, Glavin K, Lagerløv P. Parents' views and experiences when their preschool child is identified as overweight: a qualitative study in primary care. *Fam Pract*. 2013;30:719-723. doi:10.1093/fampra/cmt056
28. Chadwick P, Sacher P, Swain C. Talking to families about overweight children. *Br J Sch Nurs*. 2008;3:271-276. doi:10.12968/bjsn.2008.3.6.31696
29. Knierim SD, Rahm AK, Haemer M, et al. Latino parents' perceptions of weight terminology used in pediatric weight counseling. *Acad Pediatr*. 2015;15:210-217. doi:10.1016/j.acap.2014.11.003
30. Edmunds LD. Parents' perceptions of health professionals' responses when seeking help for their overweight children. *Fam Pract*. 2005;22:287-292. doi:10.1093/fampra/cmh729
31. Lowenstein LM, Perrin EM, Berry D, et al. Childhood obesity prevention: fathers' reflections with healthcare providers. *Child Obes*. 2013;9:137-143. doi:10.1089/chi.2012.0111
32. Farnesi BC, Newton AS, Holt NL, Sharma AM, Ball GDC. Exploring collaboration between clinicians and parents to optimize pediatric weight management. *Patient Educ Couns*. 2012;87:10-17. doi:10.1016/j.pec.2011.08.011
33. Lupi JL, Haddad MB, Gazmararian JA, Rask KJ. Parental perceptions of family and pediatrician roles in childhood weight management. *J Pediatr*. 2014;165:99-103.e2. doi:10.1016/j.jpeds.2014.02.064
34. Turer CB, Montaño S, Lin H, Hoang K, Flores G. Pediatricians' communication about weight with overweight Latino children and their parents. *Pediatrics*. 2014;134:892-899. doi:10.1542/peds.2014-1282
35. Guo H, Pavek M, Loth K. Management of childhood obesity and overweight in primary care visits: gaps between recommended care and typical practice. *Curr Nutr Rep*. 2017;6:307-314. doi:10.1007/s13668-017-0221-y
36. Loth KA, de Brito JN, Neumark-Sztainer D, Fisher JO, Berge JM. A qualitative exploration into the parent-child feeding relationship: how parents of preschoolers divide the responsibilities of feeding with their children. *J Nutr Educ Behav*. 2018;50:655-667. doi:10.1016/j.jneb.2018.03.004
37. Berge JM, MacLehose RF, Meyer C, Didericksen K, Loth KA, Neumark-Sztainer D. He said, she said: examining parental concordance on home environment factors and adolescent health behaviors and weight status. *J Acad Nutr Diet*. 2016;116:46-60. doi:10.1016/j.jand.2015.05.004
38. Watts A, Berge JM, Loth K, Larson N, Neumark-Sztainer D. The transmission of family food and mealtime practices from adolescence to adulthood: longitudinal findings from Project EAT-IV. *J Nutr Educ Behav*. 2018;50:141-147.e1. doi:10.1016/j.jneb.2017.08.010
39. Sobal J. Sample extensiveness in qualitative nutrition education research. *J Nutr Educ*. 2001;33:184-192. doi:10.1016/S1499-4046(06)60030-4
40. Strauss A, Corbin J. Grounded theory methodology: an overview. In: Denzin NK, Lincoln YS, eds. *Handbook*

of Qualitative Research. Thousand Oaks, CA: Sage; 1994:273-285.
41. Crabtree BF, Miller WL. *Doing Qualitative Research*. 2nd ed. Thousand Oaks, CA: Sage; 1999.
42. Elo S, Kyngäs H. The qualitative content analysis process. *J Adv Nurs*. 2008;62:107-115. doi:10.1111/j.1365-2648.2007.04569.x
43. Miles MB, Huberman AM. *Qualitative Data Analysis: A Sourcebook of New Methods*. Beverly Hills, CA: Sage; 1984.
44. Sandelowski M. Qualitative analysis: what it is and how to begin. *Res Nurs Health*. 1995;18:371-375. doi:10.1002/nur.4770180411
45. Denzin NK, Lincoln YS. *The Sage Handbook of Qualitative Research*. Thousand Oaks, CA: Sage; 2017.
46. Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. *Qual Health Res*. 2005;15:1277-1288. doi:10.1177/1049732305276687
47. Patton MQ. *Qualitative Evaluation and Research Methods*. 2nd ed. Newbury Park, CA: Sage; 1990.
48. Nasca TJ, Philibert I, Brigham T, Flynn TC. The Next GME Accreditation System—rationale and benefits. *N Engl J Med*. 2012;366:1051-1056.
49. Swing SR. The ACGME outcome project: Retrospective and prospective. *Med Teach*. 2007;29:648-654. doi:10.1080/01421590701392903
50. Henry SG, Holmboe ES, Frankel RM. Evidence-based competencies for improving communication skills in graduate medical education: a review with suggestions for implementation. *Med Teach*. 2013;35:395-403. doi:10.3109/0142159X.2013.769677
51. Spear BA, Barlow SE, Ervin C, et al. Recommendations for treatment of child and adolescent overweight and obesity. *Pediatrics*. 2007;120(suppl 4):S254-S288. doi:10.1542/peds.2007-2329F
52. Adams KM, Kohlmeier M, Zeisel SH. Nutrition education in US medical schools: latest update of a national survey. *Acad Med*. 2010;85:1537-1542. doi:10.1097/ACM.0b013e3181eab71b
53. Lenders C, Gorman K, Milch H, et al. A novel nutrition medicine education model: the Boston University experience. *Adv Nutr*. 2013;4:1-7. doi:10.3945/an.112.002766
54. Daley BJ, Cherry-Bukowiec J, Van Way CW 3rd, et al. Current status of nutrition training in Graduate Medical Education from a Survey of Residency Program Directors: a formal nutrition education course is necessary. *JPEN J Parenter Enteral Nutr*. 2016;40:95-99. doi:10.1177/0148607115571155
55. Devries S, Dalen JE, Eisenberg DM, et al. A deficiency of nutrition education in medical training. *Am J Med*. 2014;127:804-806. doi:10.1016/j.amjmed.2014.04.003
56. Stahl CE, Necheles JW, Mayefsky JH, Wright LK, Rankin KM. 5-4-3-2-1 go! Coordinating pediatric resident education and community health promotion to address the obesity epidemic in children and youth. *Clin Pediatr (Phila)*. 2011;50:215-224. doi:10.1177/0009922810385106
57. Bean MK, Powell P, Quinoy A, Ingersoll K, Wickham EP 3rd, Mazzeo SE. Motivational interviewing targeting diet and physical activity improves adherence to paediatric obesity treatment: results from the MI Values randomized controlled trial. *Pediatr Obes*. 2015;10:118-125. doi:10.1111/j.2047-6310.2014.226.x