





First, Do No Harm: Understanding Primary Care Providers' Perception of Risks Associated With Discussing Weight With Pediatric Patients

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Abstract

Many health care providers struggle with if- and how-to discuss weight with their pediatric patients. This study used one-on-one interviews with primary care providers (n = 20) to better understand their: (1) perception of risks associated with talking about weight with pediatric patients, (2) commitment to adhering to best practices of pediatric weight management, and (3) approaches to mitigate perceived risks. Providers felt concerned that discussing weight with children during clinic visits may have unintended negative impacts. Despite perceived risks, providers continued regular BMI screening and weight-focused conversations, but took care with regard to language and approach with the goal of mitigating perceived risks. Findings suggest that pediatric primary care providers perceive that engaging in weight-related discussions with their patients has the potential to lead to negative, unintended consequences. Future research is needed to understand if weight-focused conversations should be avoided altogether or if there are approaches that can effectively mitigate risks.

Keywords

primary care, pediatrics, weight management, physician education, qualitative

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In an effort to facilitate the identification and treatment of pediatric overweight and obesity, the American Medical Association's Expert Committee recommends that the body mass index (BMI) of children 2 years of age and older be calculated and plotted by primary care health providers (ie, a routine care provider with a specialty in family medicine, pediatrics, or internal medical) at least annually.^{1,2} If children are found to be above the 85th BMI percentile, best practices encourage primary care providers to review the child's family history and measure blood pressure and cholesterol.¹ Providers are then instructed to make a judgement regarding the child's overall health risk using these key pieces of information and from there, develop a plan for behavioral intervention and follow-up.¹ Suggested interventions vary in intensity (eg, pamphlets vs physician-led comprehensive multi-disciplinary intervention) and best practice recommendations suggest that the intensity of physician response stem

directly from the level of physician concern regarding the child's overall health risk.

Underlying each of the American Medical Association's Expert Committee recommendations is a strong focus on the importance of regular and ongoing measurement, tracking, and discussion of pediatric weight within the context of primary care visits (ie, routine, non-specialty health care visit) and an assumption that screening for

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overweight and a subsequent intervention conducted within the context of a primary care visit will lead to improved behavior, health outcomes, or weight. However, although these best practice recommendations and their underlying assumptions might seem reasonable, the supporting scientific evidence is limited. To our knowledge, there have been no randomized-control studies exploring whether screening—and/or intervention—for overweight in children and adolescents conducted within the context of a traditional primary care visit leads to clinically significant improvements in behavior (eg, improved healthfulness of dietary intake or increased physical activity), health outcomes (eg, lipid levels, glucose tolerance, blood pressure, or physical fitness measures), or weight.³ Indeed, these recommendations regarding screening and behavioral counseling for children at risk for obesity are largely extrapolated from primary care-based prevention efforts in other areas, such as physician conversations about smoking cessation or breastfeeding.⁴

While some studies have evaluated the effectiveness of primary care providers leading intervention components to encourage healthy habits, including the work of Resnicow et al that has examined the use of physician-led Motivational Interviewing for obesity treatment,⁵ we are not aware of any studies that have evaluated the effectiveness of delivering such an intervention during the context of a traditional primary care visits. This gap in the literature is notable as primary care visits present specific challenges to conducting behavior-change interventions; in particular, these visits are no more than 15 minutes long and often are scheduled to address multiple presenting problems separate from a child's weight (eg, acute illness, immunizations, daycare/camp forms). Further, discussion of weight at a scheduled visit might not align with a particular family's most pressing needs at that time (eg, discussing weight if a family is concerned about food insecurity or behavioral problems) or their overall level of concern regarding—or interest in addressing their child's weight.

In addition, emerging research findings suggest that parents having weight-focused conversations with their children and adolescents can have unintended harmful effects. A recent systematic review by Gillison et al,⁶ in addition to several additional research studies, found that parent-led weight-focused conversations were associated with increases in overweight/obesity, engagement in dieting, use of unhealthy weight control behaviors (eg, binge eating, skipping meals, taking diet pills, or diuretics), and low psychosocial well-being (eg, depressive symptoms, low self-esteem, low body satisfaction) in children and adolescents.⁷⁻¹⁴ Further, a longitudinal study by Berge et al found that the negative impact of these parent-led weight-focused conversations tracked

over time from childhood/adolescence into adulthood.¹⁵ Thus, while parents may choose to engage in weight-related conversations with their child out of concern for their health, (eg, “I am worried that you are gaining too much weight and this could make it hard for you to be healthy.”) these weight-focused conversations can actually lead to more harm than good.

In contrast to what is known about parent-led weight-related conversations with children, little is known about the impact of physician-led conversations about weight with child and adolescent patients,¹⁶ particularly conversations that take place within the context of a primary-care visit. A review article by Sim et al noted that very few brief obesity-interventions designed for implementation within primary care included measurement for adverse outcomes.¹⁷ The lack of measurement of potential harms across the majority of studies is a considerable oversight and contributes to our gaps in understanding regarding the full scope of impact these conversations might have. In addition, there is a robust collection of literature describing the weight bias that exists within health care settings toward those who have a higher body weight. The bulk of research exploring weight stigma within health care settings has been done within adult populations, although a recent review article suggests that similar biases exist within pediatric health care settings.¹⁸ Research studies document that patients with obesity face biased attitudes from doctors, nurses, psychologists, dietitians, medical students, and even professionals that specialize in obesity. Exposure to weight stigma within health care settings has been shown to have a negative impact on physical, psychological, and behavioral outcomes for individuals living in larger bodies. Knowing that children and adolescents respond negatively to parent-led weight-focused conversations, and given the evidence supporting the physical and psychological harms experienced by individuals exposed to weight stigma within clinical settings, this calls into question the impact physician-led weight-focused conversations might have on young people and their families.

Given our limited understanding of the impact of having weight-focused conversations with children within clinical settings it is unclear if it is possible for physicians to navigate weight-focused conversations within a primary care visit in such a way that promotes physical and psychosocial health, without inducing physical or psychosocial harms. And yet, the American Medical Association's Expert Committee best practices for pediatric weight management are the cornerstone of education on pediatric weight management offered to learners during medical school and residency and to practicing physicians through continuing medical education opportunities. It is important to understand

whether primary care providers perceive there to be risks associated with having weight-focused conversations with their pediatric patients and whether they alter their adherence to best practices or their approach to weight-focused conversations in response to any perceived risks. Given the limited prior research regarding pediatric providers and weight-focused conversations, qualitative interviews are needed to understand the perceptions of primary care providers who are faced with navigating these sensitive conversations on a regular basis to shed light on how current best practices for weight management might be adapted to maximize positive outcomes and mitigate negative outcomes for children and adolescents.

Thus, the aim of this qualitative study was to better understand primary care providers' (1) perception of the risks associated with talking about weight with their pediatric patients; (2) level of commitment to adhering to best practices for pediatric weight management; and (3) approaches to mitigate any perceived risks. Findings will clarify what concerns primary care providers have regarding discussing weight with their child and adolescent patients during clinic visits and provide an understanding of their approaches to mitigate perceived risks within the context of these visits. Long term, findings will inform the development of interventions designed to guide primary care providers looking to best support the physical and psychosocial health of their pediatric patients.

Methods

Study Design and Population

This qualitative research study included 20 self-identified primary care physicians (ie, pediatrics, family medicine) who provided care to pediatric (ie, child and adolescent) populations. Primary care physicians were recruited via e-mail to targeted lists of current and past University of Minnesota-affiliated physicians, and word-of-mouth, including discussion of the study in a variety of clinical settings and snowball recruitment. Eligible participants had to be licensed primary care physicians currently: (1) practicing at least part time in an ambulatory setting, (2) taking care of children and adolescents within their patient panel, and (3) trained in either Family Medicine or Pediatrics. Physicians were excluded from participation if they were unlicensed, not active in an outpatient setting, not seeing patients under 18 years of age, or who were non-fluent in written and spoken English. Physicians with specialty training in pediatric obesity were also excluded, because the aim of the study was to

understand how non-specialty primary care providers approached conversations about diet and weight. Recruitment e-mails indicated the study goal was to learn more about how primary care providers approach conversations about weight and diet with parents of pediatric patients. Interested participants were scheduled to complete a semi-structured interview in-person or via phone. Sample extensiveness was determined to be sufficient after recruitment of new participants offered few additional insights and theme saturation was reached. Twenty licensed physicians participated in the interviews (Family Medicine $n=19$; Pediatrics $n=1$). Participants self-reported their sex, number of years as a practicing physician, and the percent of their total patient panel they estimate to be pediatric patients. In total, 40% ($n=8$) of the interview sample identified as male. Participants had practiced medicine for an average of 9.75 years ($SD=7.88$) post residency and reported that just under one quarter (mean = 22.53%, $SD=10.76$) of their patient panel consisted of pediatric. The bulk of providers interviewed practiced in outpatient broad spectrum family medicine clinics. Physicians were given a \$25 Target gift card as a thank you for their participation; the majority of participants accepted this incentive, however 5 participants declined the gift card.

Data Collection

Researchers were trained in standardized interview protocols and conducted semi-structured interviews with primary care providers using questions designed to: (1) understand how primary care providers approach and discuss childhood overweight/obesity during a standard primary care visit; and (2) explore the factors that promote and discourage primary care providers from engaging families in weight-related conversations. Broad, open-ended questions (see Table 1) along with prompts were used to facilitate each semi-structured interview. Prior to conducting interviews, the semi-structured interview guide was pilot tested with several family medicine residents ($n=5$) to ensure that the 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 research staff members: 1 faculty researcher and 3 family medicine residents. Interviews were audio-recorded and lasted approximately 30 minutes. The majority of the interviews were conducted in-person, at various locations (eg, private office, clinic conference room) while a few interviews were done over the telephone to

Table 1. Semi-Structured Interview Guide Used to Interview Patients.

How likely are you to bring up a concern about a child's weight during a visit? What kinds of things impact your choice about whether or not to discuss a child's weight during a visit?

When you do decide to bring up a concern about weight or eating, how do you start the conversation? What things seem to work well? What doesn't work so well? How direct are you in the language you use?

Are there ever instances when you are concerned about a child's weight and you do not bring it up to the parent? If yes, what factors contribute to you not talking about it?

Do you think there are any potential negative impacts about bringing up weight with a child, teen or families? Is there harm to starting these discussions? What are negative impacts that you perceive that may prevent you from discussing a child's weight? Do you think negative impacts can be avoided? And if yes, how so?

If you had only 5 minutes to talk to a parent of an overweight child about changes they could make in their home/family to help their child—what things would you bring up during this brief conversation?

What resources in your clinic do you find most valuable in conducting conversations about weight? Are there resources you wish you had, but you do not?

Lastly, after starting a conversation about overweight and obesity and acknowledging/identifying a problem with patients and parents, when do you decide to refer to a secondary care clinic? What factors play into your decision to refer to a secondary care clinic?

maximize convenience for the participant. There were no major differences between in-person interviews and phone interviews with regard to interview length and participant responses.

Data Analysis

Interviews were transcribed verbatim and coded using an inductive thematic analysis approach using NVivo 12 software (NVivo 12, QSR International Pty Ltd, Burlington, MA).¹⁹ Two team members (MJAU and KAL) read through each interview in its entirety to obtain the full narrative from participants.²⁰ Initial codes, key thoughts, and concepts were established by reading through interviews line-by-line, followed by reducing broad categories into sub-categories and, in turn, refining major concepts into overarching themes and subthemes. Transcripts were double coded to improve the trustworthiness of the data and to reduce bias.²¹ Following the initial coding process, paper authors and research team members (MJAU and KAL) met in person to discuss questions and discrepancies until 100% agreement was reached.

Ethical Approval and Informed Consent

The University of Minnesota's Institutional Review Board (UMN IRB) Human Subjects Committee reviewed all study protocols and it was determined that this project did not constitute human research. Specifically, the UMN IRB stated that asking physicians to speak to their thoughts and opinions regarding doing their day-to-day job did not fall under the umbrella of research; therefore no additional approval was required by the Institutional Review Board.

Results

Perception of the Risks Associated With Talking About Weight With Pediatric Patients in Conversations of Weight: Perspectives of Primary Care Providers

When primary care providers were asked to identify the risks they perceived to be associated with talking about weight with pediatric patients, 4 sub-themes emerged: (1) Lowering patients' self-esteem, (2) Increasing weight-related stigma and associated negative outcomes, (3) Negatively impacting patient-provider (and family) relationship, and (4) Promoting the development of unhealthy weight-control behaviors or an eating disorder among patients. Each of these 4 sub-themes are discussed in depth below, accompanied by select quotes from participant interviews.

Lowering patients' self-esteem: Half of the providers (n=10) interviewed identified concerns about lowering patients' self-esteem as a potential downside to talking about weight with pediatric patients. One provider stated simply, "I think having a conversation with or in front of a child can be very devastating on their self-esteem, and I think that has real long-term consequence." (Female, 20 years in practice). Another said, "I think self-esteem is the biggest thing I would see concern with." (Male, 8 years in practice). Still another said, "I might wonder, at least in the back of my head, if they actually feel good about their weight, and if they really do feel good about their weight, then do I really want to change that?" (Male, 6 years in practice). Many providers indicated greatest concern about harming the self-esteem among their adolescent patients, as compared to preschoolers and school-aged children. One provider said, "I think

that talking about weight is especially negative for teens. I see it in them that it can be hard for them, for their self-esteem, so to have a conversation about weight or exercise with their doctor is kind of embarrassing.” (Female, 1 year in practice).

Increasing weight-related stigma and associated negative outcomes: Several providers (n=8) discussed the possibility that having discussions about weight with their patients might contribute to the existing weight-related stigma in our society and inadvertently contribute to their patient experiencing negative health outcomes known to be associated with exposure to weight-stigma. For example, 1 provider said, “I think that adults [parents] are feeling more and more stigmatized by our screening and asking and probing.” (Female, 16 years in practice). Another said, “I’m always sensitive about shaming people around weight. How do you offer [help] without making things worse, you know, how do you offer support and work with people as opposed to making things worse?” (Male, 15 years in practice). Again, many providers felt more concerned about the potential of reinforcing stigma when working with adolescents, “I do worry that bringing weight up, especially with girls and teenagers, I do worry that talking about weight can reinforce a stigma.” (Female, 1 year in practice).

Negatively impacting provider-patient (and family) relationship: A handful of providers (n=5) discussed being concerned that having weight-related conversations with their pediatric patients might negatively impact the provider-patient relationship or their relationship with the entire family. For example, 1 provider said, “I worry that if I push too hard, are they not going to, to come back and see me, are they not going to listen to me, am I pushing something too much that they are not interested in hearing.” (Female, 2 years in practice).

Promoting development of unhealthy weight-control behaviors or an eating disorder among patients: Four providers indicated concerns that talking about weight with their pediatric patients might place them at risk for the development of unhealthy weight-control behaviors or an eating disorder. For example, 1 provider said, “I have not found that it is helpful to tell a child they’re overweight. . . .because most kids know. And it has the potential to create disordered eating or excessive exercise.” (Female, 6 years in practice).

Level of Commitment to Adhering to Best Practice Recommendations for Pediatric Weight Management Among Primary Care Providers

When the primary care providers we interviewed were asked about how committed they felt to adhering to

current best practices for pediatric weight management, 3 subthemes emerged: (1) Commitment to current best practices; (2) Limited alternative approaches; and (3) Belief that they could mitigate perceived risks through their approach.

Commitment to current best practices: Despite physicians voicing concerns about negative consequences that they perceive could result from having conversations about weight with their pediatric patients, the bulk of providers indicated a steadfast commitment to comply with best practice recommendations to conduct regular BMI screening and have ongoing conversations about weight with their pediatric patients.

Limited alternative approaches: Many participants felt strongly that they needed to do something to address pediatric overweight, and without an alternative approach they felt compelled to comply with best practice recommendations. One provider stated, “I think the trick is that we are wanting to provide medical advice—as clinicians, we’re wanting to provide everyone the opportunity to learn the skills to have a healthy weight. At the same time, we don’t want them to have low self-esteem, right, because we are wanting to provide body-positive expressions. Those two things are a little bit contrary.” (Female, 6 years in practice).

Belief that physician can mitigate potential harms: Importantly, many providers indicated that they felt like they had some control over these potential harms; several physicians identified specific approaches that they took to mitigate perceived risks (discussed below).

Approaches to Mitigate Perceived Risks of Weight-Focused Discussions—Perspectives of Primary Care Providers

Three sub-themes emerged when primary care providers in this sample described their approaches to mitigating the perceived risks of weight-focused discussions: (1) Taking care with regard to language used; (2) Taking a patient-centered approach; and (3) Focusing on health, rather than weight. These subthemes are discussed in depth below.

Taking care with regard to language used: Many (n=12) physicians described feeling as though they could mitigate some of the risks they perceive to be associated with talking about weight with pediatric patients, by being careful about the types of language they used during these conversations. Importantly, however, providers had varied, and at times contrary, opinions on the best language to use to mitigate perceived risks. In particular, some physicians felt that health- and behavior-focused language, rather than weight-focused language, was less likely to cause harm to patients. For

example, 1 provider said, *“I would say I tend to use the words growth and development more so than like weight, and then also using phrases like healthy body instead of normal BMI. I don’t know though, I’ve never asked my patients if they know what that means, so what does that mean for them?”* (Female, 6 years in practice). Alternatively, some providers intentionally discussed weight, but aimed to do so using language they defined as objective (eg, obese, overweight) in an effort to mitigate these perceived risks. It was the perception of these providers that use of words such as “overweight” or “obese” would be interpreted as non-judgmental by their patients, as these terms had a specific definition. For example, 1 provider said, *“I do use the words overweight and obese, but I define them. . . . Obese and overweight are words that I don’t avoid. I actually explicitly do include them, because I think they are an important part of health literacy. It is important that people know what these [words] are.”* (Female, 2 years in practice). Importantly, several providers were open about feeling strongly that language was important, but that they lacked clarity about patient’s actual preferences.

Take a patient-centered approach: The bulk of providers (n=14) emphasized their belief that taking a patient-centered approach during these conversations can help to mitigate potential harms. Providers discussed starting the conversation by attempting to understand the patient’s thoughts about their weight and their goals for their weight and health and using this understanding to guide the conversation. For example, *“I think everyone in the room has the same goal of having the kid healthy for a very long time. I think if that is the focus the majority of the time, it doesn’t end up feeling toxic.”* (Female, 1 year in practice). Along these lines, some providers emphasized that if they start the conversation and feel resistance from patients or parents, they will stop attempting to talk about weight. One provider said, *“If they don’t feel like they have a problem, then at that point I just kind of abandon that line of questioning.”* (Male, 25 years in practice).

Focus on health, rather than weight: Many providers emphasized keeping the focus on health or behaviors, and not on a specific goal weight. For example, 1 provider said, *“I don’t put focus on the number and use more the growth curve. I would use that to start the conversation. . . . then going into the nutrition and the healthy eating and exercise and the healthy activities to be at a healthy weight.”* (Female, 15 years in practice). Another said, *“I try to avoid it by not directly talking about weight and kind of talking around it, I guess, by asking about what they like to do for exercise or healthy eating, and I try to give a lot of positive reinforcement the whole time.”* (Female, 1 year in practice).

Discussion

This qualitative study aimed to better understand primary care providers’ (1) perception of the risks associated with talking about weight with their pediatric patients, (2) level of commitment to adhering to best practices of pediatric weight management, and (3) approaches to mitigate any perceived risks. Physicians reported feeling worried that talking about weight with pediatric patients might have harmful impacts. Specifically, they identified feeling concerned that physician-led conversations about weight with their pediatric patients could lead to decreased self-esteem, increased weight stigma and risk of disordered eating behaviors, and a damaged physician-patient relationship. Providers also discussed feeling caught between desire to follow best practice recommendations for pediatric weight management,^{1,2} which emphasizes the importance of regular BMI screening and ongoing conversations about weight during clinic visits, and their own personal concerns about what was truly best for the health of their patient. Overall, providers were interested in learning new approaches to promote health among the children and adolescents they see in clinic, without inadvertently causing harm.

Throughout the interviews, providers emphasized the opinion that the type of language used to discuss weight status with pediatric patients and their families was crucial to their impact, both positive and negative. Providers highlighted concerns that using the wrong language could contribute to negative outcomes for their patients, including decreased body satisfaction and higher levels of perceived weight stigma. Further, they expressed concern that failure to use the right language could damage their relationship with patients and might lead patients to engage in unhealthy or dangerous behaviors with the goal of weight loss (eg, fasting, diet pill use, self-induced vomiting). Provider concerns about the potentially harmful impacts of language align with both individuals’ lived experience and the broader weight stigma and eating disorder literature.²² Interestingly, while the bulk of providers agreed that language is important, opinions about what types of language would yield helpful versus harmful outcomes for their patients varied widely. For example, some providers felt that objective, clinical, or easy-to-define words, such as “overweight” or “obese” were preferable, while others indicated that these terms are poorly understood by patients and carry significant stigma within our current culture. Further, several providers shared openly that they knew language was likely closely tied to impact and outcome, but that they were unsure what language patients preferred and what language had been shown to yield benefit without harm.

A scoping review conducted by McPherson et al concluded that providers should avoid the use of idioms or euphemisms to describe overweight and obesity and instead suggested that providers use objective terms (eg, obesity, overweight), but that they take care to define or clarify the meanings of these more technical terms when they are used.²³ However, a more recent review article by Puhl which explored parent preferences for weight-related terminology arrived at a slightly different conclusion. Puhl concluded that neutral terminology (eg, weight) is preferred and that words like “obese” and “fat” are least acceptable in provider-patient conversations about weight.²² Individual differences in the internalization of weight stigma in our culture might explain some of the observed differences in parent preferences. Parents with a high level of internalized weight stigma might be more likely to hear a clinical term such as “obesity” and assume that use of this term is accompanied by negative attributions, whereas other parents might perceive this term to be more objective and therefore, preferable. Finally, a recent study by Sonnevile et al explored adolescent preferences for physician-led weight-related conversations and found that youth want clinicians to focus on health and sustainable behavioral solutions (over weight), avoid stigmatizing language and comparisons to others, and be aware of the harm that can come from making assumptions that conflate weight with health behaviors, morality, or appearance.²⁴ It is crucial that health care providers and researchers continue to work to clarify parent and child preferences for language to be used during conversations about weight and that this research take into account potential differences in preference across parent and child ethnicity/race, gender, and weight status. Further, and perhaps more importantly, it is crucial to explore the impact that use of different types of language has on child physical and psychosocial health and well-being.

Despite its widespread use in clinical care, as well as population-level and medical research, the relationship between BMI or BMI-percentile within pediatric populations and individual health outcomes, is actually quite complex.²⁵ Sole reliance on a patient’s BMI (or BMI percentile) to make an initial judgment regarding the need for medical intervention, as is suggested within the AMA best practices for pediatric weight management,¹ is appealing due to its relative simplicity and its ability to be tracked overtime. However, it is possible that an overreliance on this simple tool could lead to adverse physical and psychosocial consequences. Further, by relying on the assumption that BMI is an adequate proxy for health (or the need to be worried about one’s health), a physician might miss an opportunity to engage in motivational interviewing to

promote the adoption of healthy lifestyle behaviors with a child that has a BMI within the “healthy” range, but has room to improve their dietary intake or physical activity behaviors. Finally, an overemphasis on achieving or maintaining a specific BMI might lead to feelings of disappointment among families whose children fail to reach a set numerical benchmark and lack of motivation to continue to pursue healthy lifestyle changes. Use of BMI percentile as the primary benchmark to guide when a physician should engage families in conversations about healthy lifestyle behaviors shifts the focus from broad spectrum health promotion via primary prevention to obesity prevention via tertiary prevention efforts. Data from this study suggest that many physicians do attempt to focus their conversation on broad lifestyle modifications (eg, healthful diet changes, increased physical activity) with their patients; however, growth charts and BMI percentiles continue to play a key role in guiding physician’s decisions about who to target with these conversations and is often the springboard from which these conversations begin. Given the limitations associated with using BMI percentile as a proxy for health, as well as the potentially harmful outcomes associated with having weight-focused conversations with children, future research should explore the impact of having BMI-percentile serve as a primary benchmark for physicians as they consider who to target with conversations about healthy lifestyle behavior and examine the potential for alternative, behaviorally-focused, screening tools (eg, dietary intake or physical activity screeners).

Many physicians within the current study discussed feeling unsure about the best approach to weight-focused conversations; they worried that talking about weight with children could lead to harmful outcomes, but they wanted to comply with current best practices. Future research should explore the development and evaluation of best practice guidelines for clinicians and physician education that support a shift in focus from helping children with overweight or obesity achieve and maintain a healthy BMI percentile, to helping all children to adopt and maintain healthy lifestyle behaviors. Additional research on how to best promote healthy lifestyle modifications without causing inadvertent harm to pediatric patients of all body weights is needed. It is crucial that we pursue modifications to current best practice recommendations, such that they align with our emerging awareness about the risks associated with conducting weight-focused discussions with pediatric patients. Guidance from the literature exploring how physicians can contribute to the simultaneous prevention of obesity and eating disorders can assist in starting the conversation about adaptations to existing best practices.^{26,27}

The current study had a number of strengths and limitations and findings should be interpreted with these in mind. Study limitations include the small sample size ($n=20$), which was comprised of a convenience sample of providers who reached out with interest after an initial recruitment e-mail detailing the study. This technique could have resulted in the recruitment of primary care providers with more experience, or interest in childhood obesity, limiting the generalizability of study findings to providers with similar experiences and interests. Further, as the bulk of physicians interviewed were trained in Family Medicine, interviewees only had an average of about one quarter of their total patient panel devoted to caring for children; results are not necessarily generalizable to providers that specialize in pediatrics. A marked strength of the current study is the engagement of pediatric and family medicine primary care providers, a population that is notoriously hard to engage in research efforts, as research participants. Engagement of primary care providers in in-depth qualitative interviews extends research to date by providing a rich understanding of their perceived risks related to having weight-focused conversations within the context of non-specialty care visits, as well as insights into what steps they have taken in an effort to mitigate these risks with their own patient population.

Conclusions

Overall, results from this qualitative study suggest that primary care providers have concerns that engaging in weight-related discussions with their pediatric patients might lead to negative, unintended consequences. Future research should seek to deepen our understanding of the impacts (both positive and negative) of primary care provider-led weight-focused discussions, as well as the impact of using weight-focused tools (eg, BMI-percentile and growth charts), to initiate and facilitate conversations with pediatric patients within the context of primary care visits. Further, it will be necessary to continue to revisit AMA best practice recommendations for pediatric weight management and the field's understanding of the range of impacts of following these recommendations as these guidelines evolve.

Author Contributions

KAL conceptualized the paper, assisted with data analysis and interpretation, wrote all drafts of the paper, gave final approval of this version to be published and agrees to be accountable for all aspects of the work regarding the accuracy or integrity of any part of the work. JL participated in the data analysis. MJAU coordinated data collection, organized the data, and assisted with interpretation of the data. SN participated in data collection and data analysis DN-S is the principal investigator

of the parent study, assisted in conceptualizing the paper and contributed to the design of the study JMB contributed to the conceptualization of the paper, assisted with the data analysis. JL, MJAU, SN, DN-S, JMB were gave final approval of this version to be published, and agrees to be accountable for all aspects of the work regarding the accuracy or integrity of any part of the work.

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