

Pediatricians' Approach to Obesity Prevention Counseling with Their Patients

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ABSTRACT

Objective: The American Academy of Pediatrics has issued a primary pediatric obesity prevention policy statement. Its focus is directed toward the health supervision visit. We used qualitative research to determine physicians' approaches toward obesity prevention within this visit.

Design: Twenty-four University of Wisconsin pediatricians participated in a qualitative study consisting of data transcribed from audio-taped interviews. Open-ended questions investigated specific health supervision practices pertaining to obesity prevention, and major themes were identified.

Results: The pediatrician's role in obesity prevention is education and detection. Pediatricians provide information on proper nutrition, physical activity, media time, and parenting skills. These pediatricians routinely discuss (1) junk food, (2) balanced diets, (3) nutritional requirements, and (4) parental techniques to promote healthy approaches to food. They discuss methods to increase physical activity and routinely recommend limitations to media time. However, only a third use body mass index (BMI) charts during their health supervision appointments and many are uncertain how to tailor guidance to children with obesity risk factors.

Conclusions: Pediatricians follow many of the obesity prevention guidelines. Further evidence is needed to understand the effectiveness of their education and detection methods. Potential areas for improvement include use of BMI charts and counseling with specific obesity prevention in mind.

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INTRODUCTION

Obesity is a common problem among both adults and children in the United States. As recently as 2004, 17% of 6-19 year olds were overweight and 36% were "at risk" for obesity.¹ This represents an almost 7% increase in prevalence since 1990.² Being overweight in adolescence predicts increased childhood morbidity from hypercholesterolemia,³ hypertension,⁴ and low self-esteem,⁵ and increased morbidity and mortality in adulthood.⁶

The American Academy of Pediatrics (AAP) issued a policy statement for the primary prevention of pediatric overweight and obesity,⁷ recommending physicians identify risk factors for obesity (family history, socioeconomic, and cultural factors), routinely use body mass index (BMI) calculations, promote breastfeeding and other healthy eating patterns, encourage physical activity, and limit sedentary lifestyle choices.⁸

Studies detailing pediatrician patterns regarding preventive health topics are not specific to obesity.^{8,9} The most frequently discussed topics are immunizations and feeding,⁸ while topics such as "maintenance of a healthy weight" and "physical activity" increase as the child ages.⁹ These surveys are limited, however, in that most rely on closed-ended instruments, which can be constricting in their available responses and level of detail provided. Little is known about how physicians approach the health supervision visit as it pertains to obesity prevention.

We used a qualitative research approach to gain a richer understanding of physicians' attitudes toward their role in anticipatory guidance, particularly obesity prevention. The goal was to assess how and what physicians discuss during their health supervision visits as it pertains to obesity prevention, particularly subjects such as nutrition, physical activity, and media. This study provides new information that could be used to test future interventions in clinical practice.

METHODS

This exploratory qualitative study used methods aimed

at investigating the practice styles and attitudes of general pediatricians. We used the qualitative method of in-person, long interviews as our primary research strategy.¹⁰ The Institutional Review Board of the University of Wisconsin Hospitals and Clinics approved this study.

Study Population

Pediatricians within the general pediatrics division of the University Wisconsin provide care to the greater Madison area. Thirty-one spend at least part of their time seeing infants, children, and adolescents and therefore were eligible for this study. The group is divided between physicians who are in a community practice and those who practice in an academic setting, overseeing residents as part of their duties. Together, these physicians have approximately 110,000 patient visits per year, representing a third of children ages 0-17 years in our catchment area, Dane County.

Interviews

The pediatricians were contacted via e-mail and interviews were arranged at times convenient to their respective schedules. For those not responding, a second attempt was made. Of the 31 eligible pediatricians, 24 responded and participated in audio taped, one-on-one interviews between December 2004 and March 2005. The interviews used a semi-structured technique¹¹ to provide broad, open-ended questions for use during the discussion (Table 1). The questions were designed to (1) understand pediatricians' perceived roles in obesity prevention, (2) understand how they incorporate obesity prevention education into their routine well-child care, and (3) understand their basic approach to well-child care. We used the AAP obesity prevention recommendations as topics.⁷ These standardized questions were supplemented by additional probing questions based on their initial responses for clarification or further discussion.

Data Analysis

Interviews were transcribed with identifiers removed. Each interview was dissected for unique answers and themes to the questions based on editing analysis style.¹² Physicians were not limited to the number of responses that they could give for each question (range 0 to 8). Unique answers were grouped into broader categories for purpose of analysis and response frequencies in these categories were determined. Each physician was counted as responding if he or she answered the question at least once using 1 of the major categories. Multiple responses in the same category were counted only once per physician.

Table 1. Questions Used During Physician Interviews

1. What do you think are some of the causes for the increased prevalence of pediatric obesity?
2. What do you feel is the pediatrician's role in obesity prevention?
3. How do you discuss nutrition during your routine health maintenance visits?
4. How do you discuss and promote activity during your routine health maintenance visits?
5. How do you discuss media time / television during your routine health maintenance visits?
6. How do you use body mass index charts in your practice?
7. How would you approach a child with risk factors for obesity (i.e. both parents are obese) who is not yet obese?

RESULTS

Sample Characteristics

Twenty-four pediatricians (77.4%) were interviewed. They had a mean age of 47 years and had been in practice an average of 17 years at the time of the interview. Forty-two percent were male. Fifty-four percent completed their pediatric residency at the University of Wisconsin and a third practice in private settings.

Theme 1: Reasons for increased pediatric obesity—

Most pediatricians listed poor diet (75%) and inactivity (67%) as the 2 major causes of obesity (Table 2). They cited the large role of fast and processed food in the American diet and noted a decrease in school-based physical education contributing to the overall decrease in physical activity. Half cited increased media time as a specific cause for the obesity problem.

Parenting was mentioned by 60% of the physicians. Dual-income households and poor role modeling were noted in particular. The pediatricians felt that children from dual-income homes were less supervised or had substitute caretakers (grandparents, babysitters) who might have different attitudes toward nutrition and exercise. This made it difficult for parents to enforce consistent messages to their children. Parents may return from work fatigued, feeling less inclined to cook, paving the way for fewer family meals and more fast food. Other physicians thought parents to be poor role models, instilling poor eating or exercise habits while using food as a reward for behavior. Finally, larger societal issues were felt to contribute to obesity such as advertising aimed at youth and designed to promote fast foods or sedentary lifestyles.

Theme 2: The role of the pediatrician in obesity prevention—Education (80%) and detection (67%) were viewed as pediatricians' primary responsibilities. Education topics include physical activity, media time,

Table 2. Themes, Response Topics, and Examples Given by Pediatricians During a Conversation About Obesity*

<p>Theme 1 Reasons for increased pediatric obesity</p> <p>Response 1 Poor diet (75%) "There's a heavy reliance on school for breakfast, school for lunch, after school day care for the snack and then they drive through some place on the way home."</p> <p>Response 2 Inactivity (67%) "I think that the activity that children used to get, even minimally on a regular basis, is not required."</p> <p>Response 3 Inadequate parenting skills (60%) "The diminished importance of family meals allows for kids to snack on junk foods rather than sit down and have a meal."</p> <p>Response 4 Increased media time (50%) "I think television has become the all important part [in people's lives]."</p>	<p>Theme 4 Techniques to promote physical activity</p> <p>Response 1 Involve others (75%) "I try to get the family involved because oftentimes the parents are sort of sedentary also."</p> <p>Response 2 Suggest a specific activity (58%) "I ask, 'Do you have a bike? Do you have rollerblades? Could you go for a ride on the weekends with you family?'"</p> <p>Response 3 Provide practical advice (45%) "Make it fun."</p> <p>Response 4 Promote lifestyle change (42%) "The family should be walking to the market or walking to school together. If they're going to the store, park at the farthest lot and walk into the store."</p> <p>Response 5 Decrease media time (30%) "I'll say, 'Rather than turn on the TV for relaxing, pick a particular show, watch that show and then turn it off.'"</p>
<p>Theme 2 Pediatricians' role in obesity prevention</p> <p>Response 1 Education (80%) "We have a role in offering dietary counseling ourselves and providing nutrition visits or consultations."</p> <p>Response 2 Detection (67%) "[Our role is] alerting families when we think kids are starting to become overweight."</p> <p>Response 3 Provide continuity of care (20%) "I think the biggest thing is to keep a good relationship with the families, so that you can introduce little things and they're never afraid to come back because you're going yell at them."</p> <p>Response 4 Advocacy (8%) "I think that we have a larger advocacy role as well, legislating for such things as more gym class and stuff like that."</p>	<p>Theme 5 Promotion of decreased media time</p> <p>Response 1 Specific suggestion (94%) "Remove the TV from the bedroom."</p> <p>Response 2 Discuss advantages and disadvantages (20%) "I give people advantages and point out that, 'if you watch less TV, you might just do better in school.'"</p> <p>Response 3 Simple statement (20%) "An hour a day of television is probably plenty."</p>
<p>Theme 3 Nutrition discussion during health supervision appointments</p> <p>Response 1 Breastfeeding (100%) "First and foremost, I strongly support and encourage breastfeeding."</p> <p>Response 2 Food avoidance (71%) "I try to get them to not even start juice period."</p> <p>Response 3 Balanced diet (58%) "I suggest that if [the parents] find a couple of fruits that the kids like then they can always have them around."</p> <p>Response 4 Basic nutritional requirements (50%) "When kids get to a certain age, I make sure they have enough calcium, especially if they don't drink milk."</p> <p>Response 5 Parenting skills (42%) "At the earliest ages, I'm trying to instill that bigger</p>	<p>Theme 6 Use of body mass index charts in practice</p> <p>Response 1 Routine (33%)</p> <p>Response 2 When weight is an issue (33%)</p> <p>Response 3 Don't use (33%)</p> <p>Theme 7 Approaching patients with risk factors for obesity</p> <p>Response 1 No change (50%) "I would probably talk about the kid, saying that they're a good weight for their height...but I don't know if I would address the parents' obesity."</p> <p>Response 2 More detailed counseling (50%) "I do emphasize to the parents that if there is a family history of obesity, then odds are much higher that the child will become obese."</p>

* Specific topics included exploring attitudes about the childhood obesity epidemic and approaches toward anticipatory guidance, specifically obesity prevention. N = 24.

and parenting skills. Detection involves identifying both obese children as well as those at risk based on family history or increasing weight. Twenty percent mentioned that pediatricians have an obligation to provide continuity of care, noting that it allows physicians to understand family dynamics and to provide support while making small, realistic changes over time. The overall tone of the conversation was somewhat discouraging, however, and many noted the challenges of behavior change counseling.

Theme 3: Nutrition discussion during health supervision appointments—Private physicians were more likely to use a nurse to obtain the initial history and perform anticipatory guidance. They were also more likely to discuss nutrition only if an issue is identified by the initial nurse-obtained history, growth chart evaluation, or gross observation of health. More intense nutrition discussion contains 5 parts: (1) answering parental concerns, (2) avoidance of certain foods, (3) eating a balanced diet, (4) making sure basic nutritional requirements are met, and (5) promoting parenting skills.

Half of the pediatricians said they routinely recommend limiting juice whether obesity is an issue or not. Seventy percent regularly mention avoidance of pop and junk food and further emphasize it if weight becomes an issue. Fifty-eight percent of the physicians said they try to encourage eating a balanced diet, including fruits and vegetables, specifically recommending that parents make healthy choices readily available. Pediatricians counsel about eating in moderation and about proper portion size or will ask about the food pyramid. Some said that they use methods such as recommending that parents dilute juice or that a child drink a glass of water between portions to decrease serving numbers.

In their nutrition discussions, 50% include making sure dietary requirements, such as iron, calcium, fluoride, or protein, are met. Forty-two percent of the physicians pointed out that they focus on specific parental skills such as choking prevention and eating as a family. Other parenting advice included not using food as a reward or as a first response to crying, and being persistent when introducing new foods.

Theme 4: Techniques to promote physical activity—Discussions about physical activity levels are more frequent when obesity is detected and are more likely in older patients when pediatricians begin asking about their extracurricular activities. Pediatricians try to give specific suggestions when promoting physical activity rather than using the blanket statement of “you should

exercise more.” Most (75%) suggest involving friends or family with exercise and joining a group or club. A few emphasize, however, that exercise does not necessarily mean participation in an organized sport, since they feared this may discourage some.

Fifty-eight percent of the pediatricians suggest simple activities for families, especially walking, while 42% encourage broad lifestyle changes designed to incorporate physical activity into daily life (i.e. parking farther away). Others suggest setting aside specific periods, such as 30 minutes per day, for physical activity. When integrating change, 45% try to make their suggestions practical and use such phrases as “make it fun,” and “keep it simple.”

Theme 5: Media time messages—A discussion of media is included at some point during the health supervision visit for most patients although some pediatricians (35%) talk about it only when obesity is an issue. Only 1 pediatrician mentioned using the AAP’s Media Matters program beginning in infancy. All of the pediatricians counsel limiting media time to less than 1-2 hours per day, as recommended by the AAP, although some thought it a bit unrealistic. When asked how they discuss decreasing media time in the home, 94% give a specific suggestion such as using a reward chart or external monitor such as a jar of marbles. Twenty percent discuss advantages and disadvantages of media time, such as it hindering schoolwork. At the very least, a number of pediatricians mentioned dissuading families from snacking while watching television.

Theme 6: Use of BMI charts—A third of the pediatricians said they routinely plot patients’ BMI during health supervision appointments. Another third of pediatricians use height and weight charts exclusively. Finally, a third of pediatricians use BMI charts when they detect a potential problem on physical exam such as disproportionate weight for height.

Theme 7: Approaching patients with risk factors for obesity—Half of the responders stated that they would not change their approach to normal-weight patients with risk factors for obesity, (for example, other family members who were overweight/obese) compared to those without risk factors, out of fear of sounding judgmental. These pediatricians might make a subtle, positive comment reinforcing the child’s physical activities or healthy diet without directly commenting on their increased risk for obesity.

Of the pediatricians who stated they would approach these patients differently, 78% stated they would take a more detailed history and/or increase the amount

of routine nutrition/physical activity education. One would address the child's potential for obesity during infancy, while another would make subtle comments geared toward addressing risk factors related to obesity such as heart disease and diabetes.

DISCUSSION

This study provides insight into how pediatricians approach obesity prevention during well-child care. To our knowledge, this is the only study that details how such topics as nutrition, physical activity, and media time are routinely discussed during a health supervision visit complimenting the multiple survey-based studies describing well-child care and anticipatory guidance.^{8,9,13}

This study may be limited in its lack of generalizability, although the physicians interviewed represent a mix of private practice and university-based physicians. The interviews were allowed to flow naturally and some pediatricians were not as detailed or complete as others. Without being prompted for answers, the physician may have forgotten some aspects of the care they provide. However, presumably, what came into their minds first is what is most important to them. Finally, these responses may reflect an idealized scenario and not genuine practice depending on time constraints in the actual clinical setting.

Pediatricians see their role as educators and detectors. The efficacy of pediatric obesity prevention education, however, is lacking.¹⁴ The effectiveness of other office-based education efforts, centering on anticipatory guidance topics, has revealed mixed results. Injury prevention has the most supportive evidence, while there have been no clinical trials investigating nutrition education.¹⁵ Short-term clinical effectiveness of physical activity education has been shown in adults,¹⁶ but similar studies have not been done in children. Successful adult interventions were brief (3-10 minutes), focused, and contained tailored messages with additional supplemental material such as brochures.¹⁶

Pediatricians generally approach nutrition education with the goal of promoting healthy children. Specific obesity counseling seems to come most often after a problem is identified rather than during the routine health maintenance exam, which is consistent with other reports.¹⁷ However, delaying counseling until a problem is perceived may not be as effective.¹⁸ Furthermore, it is not clear that pediatricians do a good job at recognizing obesity.¹⁷ BMI charts have been shown to increase physician awareness of obesity in hypothetical patients, but not in a clinic setting.¹⁹ Pediatricians in this study

who do not use BMI charts thought they add little to the height and weight charts, or that the extra step of plotting them is too time-consuming. Approaching all well-child exams with obesity prevention in mind, specifically incorporating programs such as the AAP's Media Matters might be an effective measure for obesity prevention and should be further evaluated, as should routine use of BMI charts in practice.

Some evidence points to the pediatricians' concern for parenting skills.²⁰ Children who eat dinner with their families consume more fruits and vegetables, fewer fried foods and less soda than children who do not eat dinner with their families.²¹ Family interactions related to food consumption are a logical approach to obesity prevention.²² It is unclear from this study whether these parenting messages are included at all well child exams or at selected ones. However, families may benefit from pediatricians' efforts to counsel about parenting skills and appropriate role modeling.

The pediatricians were also unsure how to approach kids at risk for obesity. A child aged 1-2 years has 3 times the odds of becoming obese if 1 parent is obese and 13 times the odds if both parents are obese.²³ Most would approach them similarly to other patients unless an issue arises such as the child becomes obese, or the parent expresses concern. However, parental recognition of obesity is poor.²⁴ Many expressed hesitancy at possibly offending the parents. Unfortunately, there is no information as to the best way to approach a family in this situation, and long-term studies evaluating any benefit of early counseling of "at risk" kids are lacking.

As obesity has become a greater issue in pediatrics, evidence of the effectiveness of office-based methods for both intervention and prevention have become more important. Although these pediatricians recognize they have a role in this epidemic, establishing more evidence is necessary to maximize it. This report generates several possible areas of further study that may have an impact on childhood/adult obesity including: the usefulness of BMI charts; the effectiveness of current nutrition, physical activity, and media education; improved parenting-skills counseling; and early discussion of obesity prevention aimed at "at risk" families.

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Wisconsin Medical Journal

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The *Wisconsin Medical Journal* (ISSN 1098-1861) is the official publication of the Wisconsin Medical Society and is devoted to the interests of the medical profession and health care in Wisconsin. The managing editor is responsible for overseeing the production, business operation and contents of the *Wisconsin Medical Journal*. The editorial board, chaired by the medical editor, solicits and peer reviews all scientific articles; it does not screen public health, socioeconomic or organizational articles. Although letters to the editor are reviewed by the medical editor, all signed expressions of opinion belong to the author(s) for which neither the *Wisconsin Medical Journal* nor the Society take responsibility. The *Wisconsin Medical Journal* is indexed in Index Medicus, Hospital Literature Index and Cambridge Scientific Abstracts.

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