Are Graduating Pediatric Residents Prepared to Engage in Obesity Prevention and Treatment?

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Abstract

Background: Little information is available to gauge residents' perceived receipt of comprehensive training and preparedness to manage children with obesity in practice.

Methods: A national, random sample of 1000 graduating pediatric residents were surveyed in 2013 on childhood overweight/obesity and preparedness to prevent and treat obesity. A composite training measure was created by summing the number of areas (10 possible) where training on overweight/obesity was received. Multivariable logistic regression explored relationships of resident and training characteristics to residents' belief that their own counseling on prevention and treatment of overweight/obesity is very effective (vs somewhat/slightly/not effective).

Results: Of 625 survey respondents (63% response), most (68–92%) reported receipt of training in each of 10 assessed areas on overweight/obesity prevention, assessment, and treatment. Most residents did not desire more training in the assessed areas; however, 54% wanted more training in motivational interviewing. About one-fourth believed that their own counseling on the prevention of overweight/obesity (26%) and treatment of obesity (22%) was very effective. Residents who rated their ability to use motivational interviewing as very good/excellent were more likely to rate their counseling on both the prevention and treatment of overweight/obesity as very effective (adjusted odds ratio [aOR] 4.33, 95% confidence interval [CI] 2.63–7.13; and aOR 4.69, 95% CI 2.72–8.07, respectively). Residents who received training in all 10 assessed areas were also more likely to rate their counseling on both prevention and treatment as very effective (aOR 2.58, 95% CI 1.61–4.14; aOR 2.41, 95% CI 1.46–3.97, respectively).

Conclusions: Comprehensive training on overweight/obesity and inclusion of training in motivational interviewing may help residents feel better prepared to care for children with overweight/obesity.

Keywords: motivational interviewing; obesity; pediatric residents; training

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What's New

A national survey of graduating pediatric residents underscored the importance of comprehensive training on overweight and obesity and the inclusion of training in motivational interviewing to help residents feel prepared to care for children who have overweight and obesity.

CHILDHOOD OBESITY CONTINUES to be a challenging health issue in the United States. Seventeen percent of children and adolescents have obesity, and nearly one-third have either overweight or obesity.[1] Pediatricians are on the front lines of the childhood obesity epidemic and can play an important role in its effective prevention, assessment, and treatment.[2–6]

To address healthy weight at the point of patient care, the American Academy of Pediatrics (AAP) recommends at least a yearly assessment of weight status, including calculation of body mass index (BMI) for all children aged 2 years and older, as well as counseling on healthy weight and eating, physical activity, and sedentary behaviors.[3] Patient-centered communication can play an important role in motivating families and encouraging healthy behaviors and can also be applied to the management of patients with obesity.

Motivational interviewing, a specific technique for enhancing motivation to change health behavior by exploring and resolving ambivalence and using reflective listening, has shown promise as an effective strategy in the clinical setting.[3,7–10] A recent large-scale randomized trial showed significant reductions in BMI when motivational interviewing was delivered to parents of overweight children from their primary care physicians and registered dieticians.[9] The authors concluded that motivational interviewing can be an important and feasible component of addressing obesity and that training physicians to effectively use motivational interviewing warrants future research.

A survey of pediatricians found that most report feeling comfortable and prepared to counsel families on

weight,[11] but it was unclear whether they felt prepared to use motivational interviewing for issues such as healthy weight, nutrition, and physical activity. Another study found that nearly two-thirds of pediatricians reported inadequate competency using motivational interviewing.[12]

Medical education is beginning to include obesity assessment and management,[13,14] but we are not aware of any national data on pediatric training comprehensiveness or residents' preparedness to manage children with obesity as they are leaving residency. We sought to address this gap by surveying a national sample of graduating pediatric residents. Research questions related to training included: Do residents 1) perceive that they received training in key areas of obesity prevention, assessment, and treatment, 2) feel satisfied with time devoted to overweight and obesity training during residency, and 3) have opportunities to care for patients with overweight and obesity during residency? Questions related to preparedness included: Are residents confident in their own ability to 1) perform various skills for preventing, assessing and treating obesity, including motivational interviewing, and 2) effectively counsel on obesity? We also wanted to explore whether specific demographic or training characteristics were related to confidence in effective counseling.

METHODS

We used data from the AAP 2013 Annual Survey of Graduating Residents. The sample was randomly selected from an AAP database that includes all US pediatric residents. Residents who were not in their third year of a categorical pediatric residency and those from combined programs were excluded from the sampling frame, leaving 2790 eligible residents. A random sample of 1100 residents was drawn from this population. A pilot version of the survey was sent to 100 residents from this sample in March 2013, and the survey was revised on the basis of the responses (n = 31). The final survey was fielded to the national sample of 1000 third-year graduating pediatric residents between May and August 2013. Requests alternated between mail and e-mail until the resident responded or a total of 8 requests were made. E-mails included a link to the online survey, and mailed surveys included a postage-paid return envelope. A $2 incentive was included in the first mailing. The AAP institutional review board approved the protocol and survey.

SURVEY CONTENT

The AAP Annual Survey of Graduating Residents has been sent to graduates each year since 1997 and includes core questions on residents' demographics, training experiences, and career intentions. The 2013 survey also included additional questions focused on training for childhood overweight and obesity and preparedness to prevent and treat obesity. These questions were based on a review of the literature and expert opinion and were revised on the basis of the responses to the pilot survey administration.

To assess perceived training comprehensiveness, we asked residents if they had been trained in 10 areas of childhood overweight and obesity (1 question per area) and whether or not they wished that they had been given more training in the 10 areas. Because it seemed possible that some residents might not be familiar with motivational interviewing, we also included the explanatory phrase "shared decision-making strategies for behavior change" in the first question about this area. To assess satisfaction with time spent on overweight and obesity training during residency, we asked residents whether they thought that the amount of instruction or training time devoted to overweight and obesity was just right, too little, or too much. To obtain an estimate of their experience in caring for children with overweight and obesity, we asked residents to report the approximate percentage of their patients during residency who had overweight (BMI $\geq$85th and $<$95th percentile) and obesity (BMI $\geq$95th percentile).

We asked residents to rate their ability to assess and counsel on overweight and obesity, including their ability to use motivational interviewing. We also asked if they are comfortable using behavior-change techniques and believe that their own counseling on the prevention and treatment of overweight and obesity is effective.

ANALYSIS

Data on gender and age were available in the AAP database from which the sample was drawn. To assess potential response bias, we used chi-square and *t* tests, respectively, to compare these variables for respondents and nonrespondents.

Descriptive statistics were used to summarize the data. A composite overweight/obesity training measure was created by summing the number of areas (n = 10) where training on childhood overweight and obesity was received.

We used multivariable logistic regression to explore the relationship of resident and training characteristics to residents' belief that their own counseling on the prevention and treatment of overweight and obesity is very effective (vs somewhat/slightly/not at all effective); one model examined very effective counseling on prevention, and one examined very effective counseling on treatment. Various resident and resident training characteristics were initially explored using the Pearson chi-square test and included in the 2 models if the bivariate association with very effective counseling on prevention or very effective counseling on treatment was $P < .15$.

Tested variables included resident characteristics: age ($<$31 years or $\geq$31 years, based on mean), gender (male or female), race (white not-Hispanic, Asian, Hispanic, black or African American, or other), married (yes or no), and program class size ($<$15, 15–24, or $\geq$25 residents, based on distribution). We also examined resident perception of the percentage of patients with obesity that they cared for during residency