Patient Education and Counseling 98 (2015) 85–89

Contents lists available at ScienceDirect

Patient Education and Counseling

journal homepage: www.elsevier.com/locate/pateducou

Patient Perception, Preference and Participation

# Disparities in parent confidence managing child weight-related behaviors

Thao-Ly T. Phan *, Jennifer L. Curran, Diane J. Abatemarco

*Department of Pediatrics, Nemours Alfred I. duPont Hospital for Children, Wilmington, USA*

ARTICLE INFO

*Article history:*
Received 1 May 2014
Received in revised form 3 September 2014
Accepted 19 October 2014

*Keywords:*
Child obesity
Parent confidence
Motivational interviewing
Ethnic disparities

ABSTRACT

*Objective:* To describe ethnic disparities in parental confidence managing child weight-related behaviors.
*Methods:* This was a cross-sectional survey of 59 parents of children with obesity between 4 and 7 years of age presenting to a tertiary care pediatric weight management clinic. Parents completed a validated measure assessing their confidence managing their child's weight-related behaviors (parent confidence score). Student's *t*-tests and linear regression analyses were used to determine parent and child characteristics associated with parent confidence score.
*Results:* Families were ethnically diverse with half being of Hispanic ethnicity. Mean parent confidence score was 159 (SD 66) with 71% of parents with parent confidence scores below the clinical cut-off for the measure. Parent confidence score was lower among Hispanic (mean 133, SD 67) compared to non-Hispanic parents (mean 184, SD 55, $p < 0.01$). Parent confidence score was most strongly associated with parental ethnicity ($\beta = -0.39$, $p = 0.002$, adjusted $R^2 = 0.14$).
*Conclusion:* Parental confidence managing weight-related behaviors was low among parents of young obese children, especially those of Hispanic ethnicity.
*Practice implications:* This study highlights the need to assess parental confidence in managing weight-related behaviors as part of pediatric obesity care and to provide counseling to improve parental management of weight-related behaviors in a culturally-appropriate manner.


## 1. Introduction

In the United States, the prevalence of obesity (BMI percentile for age ≥95th percentile for age) is 22% in children of Hispanic ethnicity, compared to 20% in African American children and 14% in Caucasian children [1]. In young children this disparity is even more significant with an obesity prevalence rate of 17% among Hispanic children aged 2–5 years compared to 11% among African American and 4% among Caucasian children in this age group [1]. Because parents strongly influence a child's behaviors and environment, their role in helping to manage a child's weight is critical [2–4]. It is therefore important to understand whether there are any ethnic differences in factors that influence a parent's ability to manage a child's weight.

Social cognitive theory proposes that self-efficacy, the belief in one's capabilities to execute the actions required to complete tasks or accomplish goals, is important to initiating and sustaining behavior change [5,6]. Applied to childhood obesity management, social cognitive theory would suggest that a parent's capability to manage a child's weight-related behaviors is associated with their confidence in doing so. Motivational interviewing uses techniques to elicit why and how families can make health behavior changes in order to build confidence in implementing changes that will positively influence a child's weight [7,8]. The use of motivational interviewing for childhood obesity treatment has shown success [7,8], but parents of Hispanic ethnicity have reported lower levels of satisfaction with traditional childhood obesity treatment than non-Hispanic parents [9]. Better understanding how confidence levels differ between Hispanic and non-Hispanic parents may offer insight into the best communication strategies for counseling Hispanic parents about childhood obesity management. Additionally, because parenting ability and confidence are influenced by psychosocial factors like the severity of a child's behaviors, the psychological well-being of the parent, and environmental

* Corresponding author at: 1600 Rockland Rd., Wilmington, DE 19803, USA. Tel.: +1 302 651 4730; fax: +1 302 651 6308.
*E-mail address:* tphan@nemours.org (T.T. Phan).

http://dx.doi.org/10.1016/j.pec.2014.10.016
0738-3991/

stressors and support [10–12], it is important to consider whether any of these factors are related to potential differences in confidence levels between different patient populations.

Several studies have evaluated parental confidence implementing lifestyle changes that require modification of a child's diet and activity patterns, for example parental confidence in decreasing a child's sugared beverage consumption or decreasing a child's screen time [13–17]. These studies have found that children of parents reporting higher levels of confidence implementing lifestyle changes have healthier lifestyle habits [16,17]. However, less is known about parental confidence managing more fundamental child behaviors like sneaking food, tantrums about food, and refusal to be physically active which require general parenting skills to manage. Studies that have assessed parental confidence managing these weight-related behaviors have found that parents of children with obesity have lower confidence levels than parents of children of normal weight [18–20]. However, these findings were in relatively homogenous populations and this construct of parental confidence managing weight-related behaviors has not been studied in the United States where large disparities in childhood obesity rates exist [1].

The focus of this study was to examine levels of parental confidence managing the weight-related behaviors of children presenting to a tertiary care pediatric obesity clinic and to determine whether there are differences in parental confidence managing weight-related behaviors among parents of different ethnicities. We hypothesized that there would be differences in confidence levels among parents of different ethnic groups and that lower confidence levels would be associated with more problematic weight-related behaviors in children.

## 2. Methods

### 2.1. Study design and participants

A cross-sectional survey of 59 parents was conducted with parents of children between the ages of 4 and 7 years with the diagnosis of obesity (BMI percentile for age $\geq$95th percentile) presenting to a tertiary care weight management clinic. Participants were included regardless of whether the child had previously been seen in the weight management clinic, with the number of prior visits to the clinic accounted for in analysis. Participants were excluded if the parents were not able to read English or Spanish or if the child had an obesity-related genetic syndrome, a primary obesity-related endocrine disorder, or a significant developmental disorder (autism or mental retardation) recorded in their electronic health record (EHR) after formal diagnostic evaluation by a geneticist, endocrinologist, developmental specialist, or behavioral health specialist. This study was approved by the Nemours Institutional Review Board.

### 2.2. Procedure

Potential participants were identified by reviewing all appointments scheduled in the weight management clinic during the study period, as documented in the EHR. Recruitment phone calls were made to all potential participants a week prior their scheduled appointment to the clinic. Potential participants were approached immediately before their appointment to participate in the study if they had agreed by telephone to participate or if they were unable to be reached prior to the appointment. Parents who agreed to participate in the study completed a battery of validated measures using Research Electronic Data Capture (REDCap) survey software [21] on a tablet computer during the visit. The measures were translated into Spanish by a certified Spanish translator with experience translating medical and research documents. The Spanish version of the measures was evaluated by two Spanish-speaking research staff members and qualitative interviews were conducted with three Spanish-speaking parents about the measures prior to their use.

### 2.3. Parent characteristics

As part of the measures completed at the visit, parents provided demographic data about themselves including age, gender, race, ethnicity, marital status, educational level, and relationship to child. They also provided information about their weight and height (for calculation of a self-reported BMI). Tuft's Survey of Wellbeing of Young Children's (SWYC) Family Questions was used to screen for family psychosocial risk [22]. The SWYC Family Questions are derived from four validated sources: the Two-Item Conjoint Screener (TICS) which screens for parental substance use (sensitivity 79% and specificity 78%), the Children's Sentinel Nutrition Assessment Program (C-SNAP) which screens for food insecurity (sensitivity 97% and specificity 83%), the Patient Health Quesionnaire-2 (PHQ-2) which screens for parental depression (sensitivity 83% and specificity 92%), and the Woman Abuse Screening Tool (WAST-Short) which screens for domestic violence (sensitivity 83% and specificity 92%) [23–26].

### 2.4. Child characteristics

As part of the measures completed at the visit, parents provided demographic data about the child including age, gender, race, ethnicity, and insurance status. Information was also collected from the child's EHR including: BMI-*z* score from the clinical visit, BMI percentile for age from the clinical visit, number of completed visits to the weight management clinic, history of a clinical encounter with a behavioral health specialist (yes or no), and documentation of a behavioral health problem in the child's problem list by a healthcare provider (yes or no).

### 2.5. Child weight-related behaviors and parental confidence managing weight-related behaviors

The Lifestyle Behavior Checklist (LBC) was used to assess parental perceptions of weight-related behavior severity in their child and parental confidence managing these weight-related behaviors [18–20]. This measure has demonstrated high internal consistency ($\alpha = 0.97$) and moderate test–retest reliability ($r_s = 0.87$ for the problem behavior score and 0.66 for the parent confidence score) [18–20]. The LBC consists of two subscales: the problem behavior score and the parent confidence score.

The LBC problem behavior score assesses a parent's perceptions about how problematic 25 weight-related behaviors are in their child using a 7-point Likert scale, from 1 (Not at all) to 7 (Very Much). Examples of behaviors assessed include "Throws a tantrum about food", "Hides food", "Complains about doing physical activity", and "Complains about being overweight". Higher scores indicate parental perception of more problematic child weight-related behaviors. Scores range from 25 to 175, with a score greater than 50 defined as clinically abnormal based on studies differentiating children with and without obesity [18]. The LBC parent confidence score assesses parental confidence managing these same 25 weight-related behaviors using a 10-point rating scale, from 1 (certain I can't do it) to 10 (certain I can do it). Higher scores indicate increasing parental confidence managing weight-related behaviors. Scores range from 25 to 250, with scores less than 204 defined as clinically abnormal in studies differentiating parents of obese and non-obese children [18].