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Parents can experience impairment due to their children's weight and problematic eating behaviors

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Abstract

Background—Pediatric obesity and eating disorders have adverse consequences on children's health and psychosocial functioning. Parents are involved in children's daily lives and their health, but the extent to which children's eating behaviors or weight impact parents' daily functioning is unknown.

Methods—The current study examined parent and child impairment due to child eating problems and weight in key life domains including work/school, social life, and family life. Participants were parents ($N=861$; 35.5% fathers) who completed an online cross-sectional survey, including perceived impairment due to their child's weight and eating behaviors.

Results—Overall, 7.0% of parents reported clinically-significant impairment due to child weight, and 6.9% reported clinically-significant impairment due to child eating behaviors. Significantly more parents of children categorized as having obesity reported clinically-significant parent and child impairment than other weight categories. Parents of children who regularly engaged in secretive eating reported greater child impairment than those without problematic eating. When child weight and problematic eating behaviors were analyzed jointly with parent sex, child sex, and parents' overinvestment in their child's weight, parents' overinvestment in child weight was associated significantly with parent and child impairment and secretive eating maintained a significant association, but weight status was no longer associated significantly with impairment.

Conclusions—Understanding and considering individual and family impairment associated with obesity and problematic eating behaviors is critical for family-based prevention and treatment programs.

Keywords

parents; functional impairment; obesity; disordered eating

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Introduction

Pediatric obesity is a public health concern affecting 17% of children in the United States¹ with adverse immediate and long-term consequences to physical health and psychosocial functioning during childhood and into adulthood². Adults and youth with obesity have lower quality-of-life than their healthy-weight counterparts in domains of physical health, mobility, self-esteem, social life, and work/school³. Binge eating, defined as the consumption of an unusually large amount of food accompanied by a perceived loss of control, is a problematic eating behavior related to lower quality-of-life among youth^{4,5}. Furthermore, both weight and eating behaviors carry stigma that is associated with reduced physical and mental health, for example, through social isolation and avoidance of health care^{6,7}. Thus, it is critical to understand not only psychopathology, but also whether impairments in functioning accompany eating behaviors and weight among youth.

The concept of impairment is closely linked to, but distinct from, quality-of-life. Impairment refers to the severity of the impact of a condition, for example, inability to complete activities due to physical or mental health limitations. Quality-of-life, on the other hand, is the extent to which individuals maintain aspects of their life despite biopsychosocial factors that could impact life circumstances⁸. Quality-of-life measures are designed to be relevant across levels of impairment⁸. Quality-of-life has been explored among adults and children in the context of excess weight and disordered eating behaviors³; however, *impairment*, which measures the extent of disability in key life domains, has only been explored among adults. Adults show evidence of impairment due to obesity⁹ and binge-eating disorder¹⁰, but impairment among youth is unknown.

When a child has obesity or engages in problematic eating behaviors, parents' functioning can be affected because of their concern for their child¹¹. Additional time and effort required for children's health and health behaviors could also reduce quality-of-life¹¹⁻¹³. Parents' involvement in pediatric obesity^{14,15} and eating disorder^{16,17} treatment is recommended because they have an important role in shaping the home food environment and children's health behaviors¹⁸⁻²⁰. Yet, despite the potential impact of pediatric obesity *and* problematic eating behaviors on family life, there is a dearth of research on whether parents' functioning is impaired due to their child's weight and/or eating.

In addition to demands that can arise from caring for a child with obesity and/or problematic eating behaviors, parents' perspectives about themselves and their parenting may also be associated with impairment. Overvaluation of weight/shape, defined as self-evaluation excessively based on weight/shape, is a core concept in eating-disorder assessment and treatment²¹. A related construct termed "parental overvaluation" describes how some parents place excessive emphasis on their child's weight in how they evaluate themselves as parents²¹. In previous work, parental overvaluation was related to parents' own mental health and to children's weight and eating behaviors²¹. However, it is unknown whether parental overvaluation is related to parent impairment.

Impairment due to obesity and eating disorders occurs among adults^{9,10,22}, and an emerging literature suggests caregivers experience lower quality-of-life and distress when they are

involved in their child's treatment for an eating disorder^{11–13}. It is unknown, however, whether parents experience impairment when their child has obesity or engages in regular problematic eating behaviors. To provide new information that fills these gaps in the literature, the current study examined associations of children's weight status and problematic eating behaviors with both *parents'* and *children's* impairment in key life domains (work/school, social, and family life). Because of the potential increased vulnerability for parents with parental overvaluation to experience impairment, and because women and girls have higher rates of eating disorders and greater sociocultural emphasis on weight, the current study also examined associations of these variables with parent and child impairment. We hypothesized that children with obesity and their parents would have greater impairment than children with healthy-weight. We also hypothesized that impairment would be greater among children with problematic eating behaviors and their parents compared to those without.

Methods

Participants

Participants were parents ($N=861$) recruited from Mechanical Turk to complete a survey on parents' opinions about weight and eating. Mechanical Turk provides high-quality and convenient data that have psychometric properties with similar reliability and validity as traditional recruitment sources²³, in part because Mechanical Turk allows for items checking attention. Mechanical Turk yields samples with greater diversity in geography and demographic characteristics than undergraduate samples^{23–25}, and has been used in psychological and psychiatric research including eating and weight research. Parents were eligible to complete the survey if they were the primary caregiver for their child (their child lived in their household more than half the time). In the survey, parents were asked to answer items about one child; when parents had more than one child, they were encouraged to respond to questions while keeping in mind the child about whom they had the greatest concerns about weight, body image, and/or eating behaviors. The current study included attention checks throughout the survey that participants needed to pass to have data included in the current analyses.

Participants were mothers ($n=552$, 64.1%) and fathers ($n=306$, 35.5%), most of whom were biological parents ($n=761$, 88.4%). Parents self-identified as White ($n=691$, 80.3%), Black ($n=56$, 6.5%), Hispanic ($n=41$, 4.8%), Asian ($n=34$, 3.9%), or Other ($n=39$, 4.5%). On average, parents were 36.33 ($SD=8.07$) years old and had BMIs of 28.86 kg/m² ($SD=7.80$). Parents' BMIs fell into the following categories: 2.9% ($n=25$) in the underweight range, 32.6% ($n=281$) healthy-weight, 28.9% ($n=249$) overweight, and 35.3% ($n=304$) obesity.

Parents' responses pertained to daughters ($n=423$, 49.1%) and sons ($n=426$, 49.5%). Children were between 5 and 15 years old; mean age was 9.75 ($SD=2.98$) years.

This study was approved by Yale's institutional review board; all participants provided informed consent prior to surveys.

Measures

Body Mass Index (BMI)—Parents reported their child's age, height, and weight, which were used to calculate child BMI z-score and percentile²⁶. Weight status categories followed CDC cut-offs using percentiles: underweight <5th; healthy-weight 5th–85th; overweight 85th–95th; obesity >95th.

Eating Disorder Examination Questionnaire (EDE-Q)—The EDE-Q assesses eating-disorder psychopathology over the past 28 days²⁷. Behavioral items (overeating episodes, objective binge-eating episodes, secretive-eating episodes) were adapted for parents to report about their child. Eating behaviors were dichotomized as weekly or greater (regular) or less than weekly (absence). In addition, parental overvaluation items were adapted from the original items so that parents reported on their judgment of themselves as parents due to their child's weight and shape ('Has your child's weight influenced how you think about (judge) yourself as a parent?')²¹.

Sheehan Disability Scale (SDS)—The SDS measures functional impairment in three key life domains (work/school, social, family life) and also yields a global functional impairment score²⁸. The SDS assesses the extent to which an individual feels impaired related to their symptoms; in the current study, we asked parents about their impairment due to their child's weight and their child's eating behaviors. We also asked parents to report their child's impairment due to weight and eating behaviors. SDS items have a ten-point scale; scores greater than or equal to 5 suggest clinically-significant levels of impairment²⁸. Clinically-significant global impairment was coded as clinically-significant impairment on any of the three key life domains.

Statistical Analyses

Proportions of parents and children with scores exceeding the clinically-significant impairment threshold in each domain were calculated. Chi-square analyses tested differences in frequencies of clinically-significant impairment across weight status and eating behaviors. Hierarchical logistic regressions tested associations with parent and child impairment due to child weight in two steps: first, child weight status [reference group: healthy-weight] was entered; second, child sex [male], parent sex [male] and parental overvaluation were added to the model. Subsequent hierarchical logistic regressions examined associations with parent and child impairment due to child eating behaviors: first, overeating [absence], binge eating [absence], and secretive eating [absence] were entered; second, child sex [male], parent sex [male], and parental overvaluation were added to the model.

Results

Child Weight and Problematic Eating Behaviors

On average, children were in the 67.58th percentile ($SD=32.40$) for BMI; mean BMI z-score was 0.64 ($SD=1.42$). Children's BMI fell into the following categories: 6.5% ($n=56$) had a BMI percentile in the underweight range, 47.5% ($n=409$) healthy-weight, 17.9% ($n=154$) overweight, and 26.1% ($n=225$) obesity.

18.8% ($n=162$) of parents reported that their child engaged in regular overeating. This was higher than binge eating, which 10.3% ($n=89$) of parents reported for their child. 7.3% ($n=63$) of parents reported that their child engaged in regular secretive eating.

Overall Impairment

Table 1 summarizes frequencies of clinically-significant impairment across domains. Overall, 7.0% ($n=60$) of parents reported clinically-significant impairment due to their child's weight and 6.9% ($n=59$) of parents reported clinically-significant impairment due to their child's eating behaviors. 9.2% ($n=79$) of parents reported that their child experienced clinically-significant impairment due to weight and 7.3% ($n=63$) of parents reported that their child experienced clinically-significant impairment due to eating behaviors.

Impairment did not differ by parent or child sex. Proportions of mothers and fathers reporting clinically-significant impairment due to their child's weight ($\chi^2=1.65$, $p=.199$) and eating behaviors ($\chi^2=3.67$, $p=.06$) did not differ significantly. Likewise, clinically-significant impairment due to their weight ($\chi^2=0.17$, $p=.672$) and eating behaviors ($\chi^2=155$, $p=.214$) did not differ significantly among daughters and sons.

Parent Impairment by Child Weight

Table 1 summarizes the number of parents who reported clinically-significant impairment by child weight status and life domain. Parent impairment differed significantly by child weight status globally ($\chi^2=8.34$, $p=.039$), as well as within family life ($\chi^2=10.35$, $p=.016$), but not work ($\chi^2=1.85$, $p=.604$), or social life ($\chi^2=2.53$, $p=.469$). Significantly more parents whose children had underweight or obesity reported global impairment compared with healthy-weight. Parents of children with overweight did not differ significantly from other groups.

Table 2 summarizes hierarchical logistic regression models. The overall model was significant, as were both steps. In step 1, parents were more likely to report global impairment when their child had underweight ($p=.020$) or obesity ($p=.029$), but not overweight, compared with healthy-weight. In step 2, parental overvaluation was significantly associated with impairment ($p<.001$); none of the weight categories retained significance and no other variables were significant.

Parent Impairment by Child Eating Behavior

Table 1 summarizes parent impairment by child eating behavior and life domain. Significantly more parents of children with regular overeating than without reported impairment: globally ($\chi^2=27.34$, $p<.001$), as well as work ($\chi^2=14.87$, $p<.001$), social ($\chi^2=9.29$, $p=.002$), and family life ($\chi^2=4.84$, $p=.028$). Significantly more parents of children with regular binge eating than without reported impairment: globally ($\chi^2=41.25$, $p<.001$), work ($\chi^2=23.67$, $p<.001$), social ($\chi^2=18.33$, $p<.001$), and family life ($\chi^2=16.62$, $p<.001$). Significantly more parents of children with regular secretive eating than without reported impairment: globally ($\chi^2=74.88$, $p<.001$), work ($\chi^2=51.10$, $p<.001$), social, ($\chi^2=35.12$, $p<.001$), and family life ($\chi^2=59.18$, $p<.001$). A significantly higher proportion of parents reported clinically-significant global impairment when their child regularly

engaged in secretive eating than overeating ($Z=2.88$, $p=.005$). Binge eating did not differ significantly from either overeating or secretive eating.

Table 2 summarizes hierarchical logistic regression models. The overall model was significant, as were both steps. In step 1, parents were more likely to report impairment when their child engaged in regular secretive eating ($p<.001$); neither overeating nor binge eating was significant. In step 2, secretive eating remained statistically significant ($p<.001$) and parental overvaluation was significantly associated with impairment ($p<.001$). No other variables were significant.

Child Impairment by Child Weight

Table 3 summarizes child impairment by weight status and life domain. Child impairment differed significantly by weight: globally ($\chi^2=24.29$, $p<.001$), school ($\chi^2=13.43$, $p=.004$), social ($\chi^2=22.40$, $p<.001$), and family life ($\chi^2=8.44$, $p=.038$). Significantly more children with obesity had parent-reported global impairment compared with healthy-weight and overweight.

Table 4 summarizes hierarchical logistic regression models. The overall model was significant, as were both steps. In step 1, parents were more likely to report child impairment for obesity ($p<.001$) compared with healthy-weight, but underweight and overweight were not significant. In step 2, mothers were less likely to report child impairment than fathers ($p=.018$) and parental overvaluation was associated with child impairment ($p<.001$) but none of the weight categories retained significance and no other variables were significant.

Child Impairment by Child Eating Behavior

Table 3 summarizes child impairment due to eating behavior by life domain. Significantly more children with regular overeating than without had parent-reported child impairment: globally ($\chi^2=27.34$, $p<.001$), school ($\chi^2=17.93$, $p<.001$), social life ($\chi^2=40.88$, $p<.001$), and family life ($\chi^2=10.83$, $p=.001$). Significantly more children with regular binge eating than without had impairment: globally ($\chi^2=46.95$, $p<.001$), school ($\chi^2=17.77$, $p<.001$), social ($\chi^2=51.04$, $p<.001$), and family ($\chi^2=31.11$, $p<.001$). Significantly more children with regular secretive eating than without had impairment: globally ($\chi^2=95.60$, $p<.001$), school ($\chi^2=70.97$, $p<.001$), social ($\chi^2=110.59$, $p<.001$), and family ($\chi^2=78.48$, $p<.001$). A significantly higher proportion of children had global impairment when they regularly engaged in secretive eating than overeating ($Z=2.91$, $p=.004$). Binge eating did not differ significantly from either overeating or secretive eating.

Table 4 summarizes hierarchical logistic regression models. The overall model was significant, as were both steps. In step 1, parents were more likely to report that their child was impaired when they engaged in regular overeating ($p=.0495$) or secretive eating ($p<.001$), but not binge eating. In step 2, secretive eating retained significance ($p<.001$), mothers were less likely than fathers to report child impairment ($p=.016$) and parental overvaluation was associated with child impairment ($p<.001$). Overeating was no longer significant, and no other variables were significant.

Discussion

The current study examined parent and child impairment due to child weight status and child eating behaviors. We found that, from parents' perspectives, both children and parents experience clinically-significant impaired functioning in important life domains (work, social life, family life), although the proportion of parents and children with impairment was relatively low. This suggests that children's weight and eating can be disruptive to families. Notably, both child weight status (obesity) and child eating behaviors (overeating, binge eating and secretive eating) were associated with parent *and* child impairment.

Pediatric obesity was related to both parent and child impairment. For parents, impairment was primarily in the family-life domain, suggesting that parents may perceive challenges at home, which could encompass family relationships, family activities such as meals or physically-demanding leisure, or food available at home. Empowering parents to make changes at home to address their children's weight is an effective strategy recommended for pediatric obesity¹⁵, although it is not known whether this would also reduce impairment. Our findings suggest that parents addressing their child's obesity should understand potential challenges and may benefit from support. In contrast to parents' family-life impairment, parents perceived children with obesity to have impairment across all domains. This shows an important separation between parents' experiences and their perceptions of the children's experiences and may contribute to the concern parents have about their children's weight^{15,29,30}.

When children engaged in regular problematic eating behaviors, parents were more likely to report clinically-significant impairment for themselves and their children. This parallels the literature on caregiver burden when children have restrictive eating disorders such as anorexia nervosa^{12,13}. In the current study, secretive eating consistently showed a stronger association than overeating with impairment. Previous literature has suggested that secretive eating might be a precursor to binge eating^{31,32}. In addition, secretive eating has (by definition) an element of children attempting to conceal their behavior, which could contribute to parent-child conflict. Further research should examine secretive eating, as well as binge eating, longitudinally to determine whether parent and child impairment persists in its association with secretive eating.

This study also examined the association of impairment with parental overvaluation—parents' overinvestment in their child's weight in how they judge themselves as parents. Overinvestment in child weight could be emotional: if parents perceived weight or eating to be less than optimal, this perception could influence whether a parent felt impaired or perceived their child to be impaired. Importantly, and surprisingly, the extent to which parents were overinvested in their child's weight had a stronger association with impairment than did weight status and overeating. This suggests that parents' overinvestment in child weight might increase vulnerability or heighten sensitivity to impairment. Indeed, it is possible that even if child weight were to change, parents could still feel impaired if their overinvestment in their child's weight does not also change. Parents may believe that others look down on their parenting because of their child's weight or eating, which could create stress in their role as a parent and impair functioning. Moreover, previous work has

suggested that parents in family therapy could feel like they failed as parents because of challenges in caring for their child¹²; the current findings suggest that parents' overinvestment warrants further investigation as a factor associated with impairment in the context of family-based eating disorder or obesity treatment. As the role of parents in child treatment is both essential and demanding^{14,33}, addressing parent stressors and impairment could improve overall outcomes. Clinically, this suggests that attention to the extent to which parents' identities are overinvested in their child's weight could help providers determine whether parents might benefit from additional support or independent clinical intervention to improve the overall health of the family.

Findings from our study should be considered in light of the following limitations. The study was cross-sectional. While parents perceive impairment due to their child's weight and eating, no conclusions about causality can be determined. Additionally, data were reported by parents about themselves and their children. Earlier work has found discrepancies between self-reported and measured weights to be unrelated to eating-disorder psychopathology^{34,35}, but associations of discrepancies between parent-reported and measured child weights have not been studied. Parent-reported binge-eating and overeating episodes have acceptable agreement with child-reported and interview measures, but are limited because parents appear more aware of eating-related distress experienced by their children than episode frequency^{36–38}. Assessment of impairment due to children's eating behaviors considered eating behaviors in general; future research should consider assessment of impairment due to specific eating behaviors—including, for example, restrained eating or picky eating. It is possible that more-detailed assessment of specific eating behaviors could reveal differences in parent impairment that could help inform treatment research and clinical interventions. Finally, our sample was limited to parents of children between 5 and 15 years old, and participants had limited racial/ethnic diversity, with the majority well-educated and biological parents. Future research should examine whether our results generalize to the important groups of parents not well-represented in our sample.

Our findings have potential implications to help inform providers' treatment plans for families of children with obesity and disordered eating. This is the first study to examine impairment in children and their parents, and importantly, found that some parents do experience clinically-significant impairment due to their child's weight or eating behaviors. Parents, clinicians, and clinical-researchers should consider the role of parents and children in treatment and prevention programming and facilitate additional support for parents as needed. Further replication and study, with emphasis on impairment in the context of treatment and on diverse groups, would add to our understanding of impairment in childhood weight and eating disorders. But for now, child psychologists and pediatricians should attend to both children and parents to improve functioning that could be present in pediatric obesity and problematic eating behaviors.

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Implications and Contribution

This study of youth and parent impairment due to eating/weight shows that both parents and children can experience impairment due to child obesity and problematic eating behaviors. Parents' overinvestment in child weight has a stronger association than weight with impairment.

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Table 1.

Parents with clinically-significant levels of impairment due to child weight or eating behavior

	Global <i>n</i> (% of total)	Work <i>n</i> (%)	Social Life <i>n</i> (%)	Family Life <i>n</i> (%)
Due to Weight				
Underweight	7 (12.5%)	2 (3.7%)	2 (3.6%)	7 (12.5%)
Healthy-weight	18 (4.5%)	10 (2.6%)	6 (1.6%)	14 (3.6%)
Overweight	13 (8.8%)	7 (4.9%)	5 (3.5%)	7 (4.9%)
Obesity	19 (9.0%)	7 (3.5%)	6 (3.0%)	16 (7.9%)
<i>Total</i>	<i>57 (7.0%)*</i>	<i>26 (3.3%)*</i>	<i>19 (2.4%)*</i>	<i>44 (5.5%)*</i>
<i>Pairwise comparisons</i>	UW, OB > HW	<i>ns</i>	<i>ns</i>	UW, OB > HW
Due to Eating Behavior				
Overeating	26 (17.2%)*	12 (8.6%)*	14 (9.5%)*	9 (6.6%)*
Binge Eating	21 (24.1%)*	10 (12.5%)*	12 (14.0%)*	9 (11.4%)*
Secretive Eating	21 (35.6%)*	11 (20.0%)*	12 (20.7%)*	12 (21.8%)*

Note. Chi-squares examined differences in proportions by weight status (underweight, healthy-weight, overweight, or obesity), and by each eating behavior (presence or absence). UW=underweight BMI percentile, HW=healthy-weight BMI percentile, OW=overweight BMI percentile, OB=obesity BMI percentile.

* Significantly different chi-square statistic, $p < .05$.

Pairwise comparisons not listed were non-significant.

Table 2.

Logistic regression associations with clinically-significant global parent impairment due to children's weight or eating behavior

	χ^2	<i>df</i>	<i>p</i>	Nagelkerke R^2	Odds Ratio (95% CI)
Due to Weight	72.41	6	<.001	.215	
Step 1	8.29	3	.040		
BMI: Underweight					3.00 (1.19–7.55) *
BMI: Overweight					2.04 (0.97–4.27)
BMI: Obesity					2.10 (1.08–4.10) *
Step 2	64.12	3	<.001		
BMI: Underweight					2.38 (0.88–6.42)
BMI: Overweight					1.58 (0.72–3.48)
BMI: Obesity					0.84 (0.39–1.80)
Child Sex					0.83 (0.46–1.50)
Parent Sex					0.66 (0.36–1.19)
Parental Overvaluation					1.76 (1.53–2.03) ***
Due to Eating Behavior	96.95	6	<.001	.280	
Step 1	52.06	3	<.001		
Overeating					1.48 (0.65–3.35)
Binge Eating					2.10 (0.86–5.16)
Secretive Eating					5.80 (2.78–12.10) ***
Step 2	44.89	3	<.001		
Overeating					1.05 (0.45–2.46)
Binge Eating					1.19 (0.47–3.00)
Secretive Eating					4.07 (1.91–8.68) ***
Child Sex					0.69 (0.38–1.26)
Parent Sex					0.66 (0.36–1.22)
Parental Overvaluation					1.66 (1.43–1.93) ***

Note.

*
 $p < .05$

**
 $p < .01$

 $p < .001$.

n=60 parents reported impairment due to their child's weight; n=59 parents reported impairment due to their child's eating behavior. Child sex was coded 0=male, 1=female; parent sex was coded 0=male, 1=female; Weight status (BMI category) reference group was healthy-weight; eating behaviors were coded 0=absence, 1=presence.

Table 3.

Children with clinically-significant levels of impairment due to their weight or eating behavior

	Global <i>n</i> (% of total)	School <i>n</i> (%)	Social Life <i>n</i> (%)	Family Life <i>n</i> (%)
Due to Weight				
Underweight	5 (9.1%)	1 (1.9%)	5 (9.1%)	1 (1.8%)
Healthy-weight	21 (5.4%)	12 (3.1%)	18 (4.6%)	11 (2.8%)
Overweight	13 (8.6%)	8 (5.5%)	10 (6.7%)	7 (4.8%)
Obesity	38 (17.5%)	20 (9.7%)	33 (15.5%)	16 (7.7%)
<i>Total</i>	<i>77 (9.4%)*</i>	<i>41 (5.2%)*</i>	<i>66 (8.2%)*</i>	<i>35 (4.4%)*</i>
<i>Pairwise comparisons</i>	OB > HW, OW	OB > HW	OB > HW, OW	OB > HW
Due to Eating Behavior				
Overeating	31 (20.5%)*	17 (11.6%)*	27 (18.4%)*	13 (9.1%)*
Binge Eating	23 (26.1%)*	12 (14.1%)*	21 (24.7%)*	13 (15.7%)*
Secretive Eating	24 (40.0%)*	16 (28.1%)*	23 (39.0%)*	15 (26.3%)*

Note. Chi-squares examined differences in proportions by weight status (underweight, healthy-weight, overweight, or obesity), and by each eating behavior (presence or absence). UW=underweight BMI percentile, HW=healthy-weight BMI percentile, OW=overweight BMI percentile, OB=obesity BMI percentile.

* Significantly different chi-square statistic, $p < .05$.

Pairwise comparisons not listed were non-significant.

Table 4.

Logistic regression associations of child and parent variables with clinically-significant global child impairment due to their weight or eating behavior

	χ^2	<i>df</i>	<i>p</i>	Nagelkerke R^2	Odds Ratio (95% CI)
Due to Weight	116.16	6	<.001	.286	
Step 1	22.70	3	<.001		
BMI: Underweight					1.76 (0.64–4.88)
BMI: Overweight					1.66 (0.81–3.41)
BMI: Obesity					3.76 (2.14–6.60) ***
Step 2	93.46	3	<.001		
BMI: Underweight					1.36 (0.45–4.11)
BMI: Overweight					1.26 (0.58–2.76)
BMI: Obesity					1.76 (0.93–3.32)
Child Sex					0.99 (0.58–1.68)
Parent Sex					0.53 (0.31–0.90) *
Parental Overvaluation					1.82 (1.60–2.07) ***
Due to Eating Behavior	122.43	6	<.001	.338	
Step 1	66.83	3	<.001		
Overeating					2.15 (1.002–4.59) *
Binge Eating					1.71 (0.74–3.97)
Secretive Eating					6.51 (3.20–13.24) ***
Step 2	55.60	3	<.001		
Overeating					1.59 (0.71–3.60)
Binge Eating					0.95 (0.39–2.33)
Secretive Eating					4.28 (2.04–9.01) ***
Child Sex					0.71 (0.39–1.30)
Parent Sex					0.47 (0.26–0.87) *
Parental Overvaluation					1.73 (1.49–2.02) ***

Note.

* $p < .05$

** $p < .01$

*** $p < .001$.

n=79 parents reported that their child was impaired by their weight; n=63 parents reported that their child was impaired by their eating behavior. Child sex was coded 0=male, 1=female; parent sex was coded 0=male, 1=female; Weight status (BMI category) reference group was healthy-weight; eating behaviors were coded 0=absence, 1=presence.