Published in final edited form as:

Eat Behav. 2005 January ; 6(1): 95–99.

Comparison of child interview and parent reports of children's eating disordered behaviors

Marian Tanofsky-Kraff^{a*}, Susan Z. Yanovski^b, and Jack A. Yanovski^a

^aUnit on Growth and Obesity, Developmental Endocrinology Branch, NICHD, NIH, 10 Center Drive, Building 10, Room 10N262 MSC 1862, Bethesda, MD 20892-1862, USA

^bDivision of Digestive Diseases and Nutrition, NIDDK, National Institutes of Health, DHHS, USA

Abstract

Self-report questionnaires of child eating behavior have demonstrated poor agreement with child interview methods and parent report. However, no study has investigated the relationship between child interview and parent report. Therefore, we compared results from a diagnostic interview, the Eating Disorder Examination adapted for Children (ChEDE) to those from a questionnaire, the Adolescent Version of the Questionnaire on Eating and Weight Patterns-parent version (QEW-P), in a nontreatment sample of overweight and normal weight children. Both instruments were administered to 88 overweight (BMI $\geq$ 85th percentile) and 79 normal weight (BMI<85th percentile) children, age 10.2 ± 1.7 years, recruited from the community. The ChEDE and QEW-P were not concordant in terms of the type of eating episodes that occurred in the past month. Using the ChEDE as the criterion method, the QEW-P had reasonably high specificity, but low sensitivity for the presence of binge episodes (sensitivity 50%, specificity 83%) or objective overeating (sensitivity 30%, specificity 79%) during the past month. ChEDE subscales were, however, significantly related to items assessing eating-related distress on the QEW-P. While parent report of child eating behaviors may provide some general information regarding eating psychopathology in young nontreatment-seeking children, they do not accurately reflect the results of a structured interview.

Keywords

Eating disordered pathology; Binge eating; Child; Interview; Parent questionnaires

1. Introduction

Interpretation of self-report questionnaires assessing disordered eating in young children is often problematic due to children's difficulties comprehending the complexities of disturbed eating. We have previously found, among nontreatment-seeking children, ages 6–13 years, low agreement between the adolescent version of the Questionnaire on Eating and Weight Patterns (QEW-A; Johnson, Grieve, Adams, & Sandy, 1999) and the Eating Disorder Examination (Fairburn & Cooper, 1993) adapted for Children (ChEDE; Bryant-Waugh, Cooper, Taylor, & Lask, 1996), with the QEW-A having high specificity (91%) but low sensitivity (17%) for the presence of binge-eating behaviors detected by the ChEDE (Tanofsky-Kraff et al., 2003). Another assessment method for children's eating disordered behaviors is through direct query of their parents. Parent reports have not demonstrated strong agreement with adolescents' or children's reports of their eating behaviors (Johnson et al., 1999; Steinberg et al., in press). However, little is known about the concordance between parent reports of eating disordered behaviors and the results of structured clinical interviews of young children.

*Corresponding author. Tel.: +1-301-451-3782; fax: +1-301-480-2650. E-mail address: tanofskm@mail.nih.gov (M. Tanofsky-Kraff).

The present study compared results from 167 ChEDE interviews of 6- to 13-year-old nontreatment-seeking children with their parents' responses to the QEWP-P regarding their children's eating and weight control behaviors. We hypothesized that ChEDE responses and parent QEWP-P reports would demonstrate good agreement for the diagnosis of eating disordered behaviors.

2. Methods

2.1. Participants

One hundred sixty-seven children recruited from the community (Tanofsky-Kraff et al., 2004) served as participants. Children underwent the ChEDE structured clinical interview, and parents completed the QEWP-P, a self-report questionnaire about their child's eating habits.

The Eating Disorder Examination version 12OD/C.2 (EDE; Fairburn & Cooper, 1993) adapted for children (ChEDE; Bryant-Waugh et al., 1996) assesses diagnostic eating disorders and was administered to each child as previously described (Tanofsky-Kraff et al., 2004). Responses are coded via four subscales: restraint, eating concern, shape concern, and weight concern. The ChEDE also identifies three types of eating episodes: objective binge eating (BE, overeating with loss of control), subjective binge eating (loss of control without objective overeating as assessed by the interviewer, but viewed as excessive by the interviewee), and objective overeating (OE, overeating without loss of control). For the purposes of this investigation, we examined BEs, OEs, and no episodes (NE).

The Questionnaire on Eating and Weight Patterns-parent version (QEWP-P; Johnson et al., 1999) is a parent-report measure designed to identify children with *DSM-IV-Revised* (American Psychiatric Association, 1994) eating disorders. Parents' responses to this questionnaire allow their children to be classified as having binge eating (BE), overeating (OE) or no episodes of disordered eating (NE). The use of the QEWP-P in this study is as previously described (Steinberg et al., in press). Parents' answers were based on the past 6 months; however, we used their responses to the frequency questions to determine their children's behavior in the past 3 months for BE and the past month for OE to match the data collected via the ChEDE.

2.1.1. Child physical measurements—Measurement of height, weight, and calculation of body mass index (BMI, kg/m²) and BMI z score (BMI-S.D.) as well as the assessment of body fat percentage by dual energy X-ray absorptiometry (DXA) scan and pubertal stage are as previously described (Tanofsky-Kraff et al., 2004).

2.2. Analyses

Pearson chi-square and kappa tests were used to assess the concordance of eating episodes generated by the ChEDE and QEWP-P. Pearson correlations were used to compare the ChEDE eating, shape, and weight concern subscales to responses to questions on the QEWP-P that assessed feelings about overeating and importance of shape and weight with regard to self-evaluation. Associations between groups were considered significant when *P* values were $\leq .05$.

3. Results

One-hundred sixty-seven children were interviewed with the ChEDE, and one parent completed the QEWP-P for each child (Table 1). Girls were significantly more advanced in terms of puberty ($t=-7.8$, $P < .001$) and had higher percent fat as measured by DXA ($t = 2.1$, $P < .05$) compared to boys.

3.1. Comparison of ChEDE and QEWP-P

Based on their ChEDEs, no child met criteria for a *DSM-IV-Revised* criteria (APA, 1994) eating disorder. According to QEWP-P reports, 15 children met criteria for BED or subclinical BED (either the binge frequency criteria was not met or there was insufficient distress to make a diagnosis of BED) and 2 children (1.2%) met criteria for bulimia nervosa (purging through use of laxatives).

Responses from the ChEDE classified 75.4% ($n = 126$) of participants as having NE, 19.8% ($n = 33$) as having OE, and 4.8% ($n = 8$) as having engaged in at least one BE in the past month. In contrast, by QEWP-P report, 66.5% ($n = 111$) of participants had NE, 20.4% ($n = 34$) engaged in OE, and 13.2% ($n = 22$) had BE (Table 2). No child was identified as engaging in self-induced vomiting after overeating fasting, or use of diet or diuretic pills by either the ChEDE or the QEWP-P. While ChEDE interviews found 1.2% ($n = 2$) of children engaged in excessive exercise and 2.4% ($n = 4$) parents reported their child exercised for more than 1 hour for the purpose of weight control, these reports were not concordant. However, the 2 children who engaged in excessive exercise according to the ChEDE were both diagnosed with BED (but not excessive exercise) via the QEWP-P.

The presence and type of eating episodes identified by the ChEDE and the QEWP-P were not concordant ($\chi^2 = 12.3$; $\kappa = .14$; both $P = .02$; Table 2). While the two measures detected relatively similar numbers of children endorsing OE, (ChEDE, $n = 33$ and QEWP-P, $n = 34$), only 10 (17.5%) participants were found to engage in OE by both the ChEDE and the QEWP-P. Of the 8 children identified as engaging in BE by the ChEDE and the 22 having BE by the QEWP-P, the two methods delineated only 4 children (15.3%) in common. None of the findings were altered when analyzed separately by each race, sex, or weight status (overweight $\geq$ BMI 85th percentile for age, race, and sex). Using the ChEDE as the criterion method, the QEWP-P had 30% sensitivity and 79% specificity for the diagnosis of OE and 50% sensitivity and 83% specificity for the diagnosis of BE. The positive predictive values (PPV) of the QEWP-P for identification of episodes by the ChEDE were as follows: for the detection of OE, the PPV of the QEWP-P was 0.29; and for a BE, the PPV was 0.18.

ChEDE eating concern subscale score significantly correlated with the QEWP-P question asking how badly their child felt about loss of control eating ($r = .16$, $P < .05$). ChEDE shape ($r = .19$, $P = .01$) and weight ($r = .78$, $P < .001$) concern subscales were significantly related to the QEWP-P question regarding importance of shape and weight.

4. Discussion

Comparing child interview to parent reports in the assessment of the eating disordered behaviors of nontreatment-seeking children, we found that the ChEDE and QEWP-P had limited concurrence on the presence or type of eating episodes engaged in by the children in our sample. However, the measures were significantly related regarding disturbed eating cognitions.

Our finding that the ChEDE and QEWP-P did not demonstrate better agreement was unexpected. It was posited that trained interviewers and parents would be able to detect behaviors that children were unable to self-report. However, given the secretiveness of disturbed eating behaviors (Wilfley, Schwartz, Spurrell, & Fairburn, 1997), it is not surprising that parents may be misinformed regarding their children's behaviors. By contrast, the two measures were in better agreement in terms of the associated distress that the children in our sample experienced. It may be that although parents are not completely aware of their children's specific behaviors, they are cognizant of eating-related distress. This finding supports our prior comparisons between the ChEDE and the QEWP-A and between the QEWP-A and QEWP-P

that found disordered eating cognitions to be in better agreement than disturbed behaviors (Steinberg et al., in press; Tanofsky-Kraff et al., 2003).

Strengths of the present study include the large size and representative nature of the sample, and the use of nontreatment-seeking, healthy children as participants. However, with a nontreatment-seeking sample, there was a low prevalence of eating disordered behavior among the children and thus our findings may not generalize to treatment-seeking samples. Furthermore, unlike interview and self-report assessments that contain the same questions and differ only in their administration, the two measures we compared were not designed to match one another on every level.

In summary, for children 6–13 years, we found that interview assessments of children's eating and compensatory behaviors are not equivalent to their parents' reports, although the measures appear to capture similar levels of eating-related distress. These findings suggest that while various assessment methods can detect disturbed cognitions, more thorough evaluations are needed to determine specific behaviors required to make clinical diagnoses.

Acknowledgements

This work is supported by Z01-HD-00641 (JAY) from the National Institute of Child Health and Human Development and a supplement from the National Center for Minority Health and Health Disparities. Dr. J. Yanovski is a commissioned officer in the United States Public Health Service, DHHS.

References

- American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 4th ed.. Washington, DC: Author; 1994.
- Bryant-Waugh RJ, Cooper PJ, Taylor CL, Lask BD. The use of the eating disorder examination with children: A pilot study. *International Journal of Eating Disorders* 1996;19(4):391–397. [PubMed: 8859397]
- Fairburn, CG.; Cooper, Z. The eating disorder examination. In: Wilson, CGFGT., editor. *Binge eating, nature, assessment and treatment*. 12th ed.. New York: Guilford; 1993. p. 317–360.
- Johnson WG, Grieve FG, Adams CD, Sandy J. Measuring binge eating in adolescents: Adolescent and parent versions of the questionnaire of eating and weight patterns. *International Journal of Eating Disorders* 1999;26(3):301–314. [PubMed: 10441246]
- Steinberg EN, Tanofsky-Kraff M, Cohen M, Elberg J, Freedman R, Parikh SJ, Semega-Janneh M, Yanovski SZ, Yanovski JA. Differences in parent and child reports of children's eating and weight control behaviors. *International Journal of Eating Disorders*. in press
- Tanofsky-Kraff M, Morgan CM, Yanovski SZ, Marmarosh C, Wilfley DE, Yanovski JA. Comparison of assessments of children's eating-disordered behaviors by interview and questionnaire. *International Journal of Eating Disorders* 2003;33(2):213–224. [PubMed: 12616588]
- Tanofsky-Kraff M, Yanovski SZ, Wilfley DE, Marmarosh C, Morgan C, Yanovski JA. Eating disordered behaviors, body fat, and psychopathology in overweight and normal weight children. *Journal of Consulting and Clinical Psychology* 2004;72:53–61. [PubMed: 14756614]
- Wilfley DE, Schwartz MB, Spurrell EB, Fairburn CG. Assessing the specific psychopathology of binge eating disorder patients: Interview or self-report? *Behavior Research Therapy* 1997;35(12):1151–1159.

Table 1

Sample demographics

	Mean $\pm$ S.D. (N = 167)	Range
Age (years)	10.2 $\pm$ 1.7	6.1–13.8
Sex	Female, n = 93 (55.7%) Male, n = 74 (44.3%)	
Race	African American, n = 65 (38.9%) Caucasian, n = 93 (55.7%) Other, n = 9 (5.4%)	
Weight status (overweight $\geq$ 85th percentile for age, sex, and race)	Overweight, n = 88 (52.7%) Normal weight, n = 79 (47.3%)	
Hollingshead Socioeconomic Status Index	2.8 $\pm$ 1.0	1–5
Pubertal stage	2.0 $\pm$ 1.1	1–5
Child BMI-S.D.	1.8 $\pm$ 2.6	–1– + 12.9
DXA fat mass (%)	31.6 $\pm$ 12.8	9.0–58.0

Demographics of study participants. BMI-S.D.: body mass index standard deviation score for age, sex, and race. DXA: dual energy X-ray absorptiometry. Pubertal stage defined by physical examination as previously described (Tanofsky-Kraff et al., 2004).

Table 2

Agreement between children's eating disordered behaviors assessed via interview (ChEDE) and by their parents (QWEP-P)

ChEDE	QWEP-P			
	No episode (%)	Overeating (%)	Binge eating (%)	Total (%)
No episode	52.7 (<i>n</i> = 88)	13.8 (<i>n</i> = 23)	9.0 (<i>n</i> = 15)	75.4 (<i>n</i> = 126)
Overeating	12.0 (<i>n</i> = 20)	6.0 (<i>n</i> = 10)	1.8 (<i>n</i> = 3)	19.8 (<i>n</i> = 33)
Binge eating	1.8 (<i>n</i> = 3)	0.6 (<i>n</i> = 1)	2.4 (<i>n</i> = 4)	4.8 (<i>n</i> = 8)
Total	66.5 (<i>n</i> = 111)	20.4 (<i>n</i> = 34)	13.2 (<i>n</i> = 22)	100 (<i>N</i> = 167)