BRIEF REPORT

Parent–Child Agreement in the Assessment of Obsessive-Compulsive Disorder

Kristin E. Canavera
Department of Psychology, Virginia Polytechnic Institute and State University

Kendall C. Wilkins
San Diego State University and University of California, San Diego, Joint Doctoral Program in Clinical Psychology

Donna B. Pincus
Center for Anxiety and Related Disorders, Boston University

Jill T. Ehrenreich-May
Department of Psychology, University of Miami

The purpose of the current study was to extend research regarding parent–child agreement in the assessment of anxiety disorders to include youth with obsessive-compulsive disorder (OCD). Ninety-three children and adolescents with OCD (50 female, 43 male), ages 6 to 17 years, and their parents were administered the Anxiety Disorders Interview Schedule for Children. Data were obtained from a review of records of children and their parents seeking services from a university-based research and treatment clinic. Consistent with previous research on the assessment of anxiety disorders in youth, results indicated that parent–child agreement in the assessment of OCD is relatively poor at both the diagnostic and symptom levels. Our findings highlight the importance of multiple informant diagnostic systems in assessing childhood OCD.

The use of multiple informants in the assessment and diagnosis of childhood anxiety disorders has been underscored in recent years (for a review, see Grills & Ollendick, 2002). Agreement between parent and child reports in this type of assessment has been consistently poor ($r < 0.4$), with children often reporting more internalizing problems, such as depression and anxiety, whereas parents typically report more externalizing and/or observable symptoms (Choudhury, Pimentel, & Kendall, 2003; Grills & Ollendick, 2003; Klein, 1991; Rapee, Barrett, Dadds, & Evans, 1994). Age and gender may also contribute to disagreement between parent–child reports, although these findings are inconsistent (Choudhury, Pimentel, & Kendall, 2003; Safford, Kendall, Flannery-Shroeder, Webb, & Sommer, 2005; Silverman & Eisen, 1992). Despite the well-documented literature regarding poor parent–child agreement in the assessment of other anxiety disorders in youth, the majority of previous studies have excluded samples of children with OCD (e.g., Comer & Kendall, 2004; Safford et al., 2005). For those few studies including youth with OCD, insufficient sample sizes are reported (e.g., $N = 2$; Rapee et al., 1994). Undoubtedly, the appropriate assessment of OCD is essential given that...
as many as 50% of OCD cases have an onset by age 15 (Rapoport et al., 2000).

Poor agreement between parent and child reports at the diagnostic level has led researchers to examine parent–child agreement at the symptom level (Comer & Kendall, 2004; Foley et al., 2004). No studies to date, however, have investigated the extent of disagreement at the symptom level regarding specific obsessions and compulsions common to childhood OCD. In the unique symptomology of OCD, some symptoms have relatively clear behavioral signs, such as frequent hand washing, whereas others may be more difficult for the parent to recognize and/or for the child to discuss or share, such as unwanted, intrusive thoughts or counting to oneself (Rapoport et al., 2000). In addition, research and our clinical experience suggest that children with OCD may experience shame and embarrassment and may attempt to hide their symptoms, allowing for symptoms to be underreported. Children with OCD may also lack insight into their symptoms or experience more “ego-syntonic” OCD, in which their symptoms are not perceived as distressing or problematic (Storch et al., 2006). In one epidemiological study, parents demonstrated the tendency to underestimate the symptoms of OCD, with only 4 of 35 cases of childhood OCD properly identified by a parent (Rapoport et al., 2000). Furthermore, the assessment of pediatric OCD is particularly difficult given the wide range of symptom presentation and the idiosyncratic nature of symptoms (Merlo, Storch, Murphy, Goodman, & Geffken, 2005). Thus, the purpose of the present study was to extend research regarding parent–child agreement in the assessment of childhood anxiety disorders to youth with OCD. Parent and child agreement at both the diagnostic and symptom levels for OCD were broadly examined in order to explore patterns of disagreement.

METHOD

Participants

The present report utilizes data based on a review of records from children and adolescents and their parents who presented for diagnostic assessment at a university-based research and treatment clinic. A parent or guardian initiated these assessments based on clinical service provider recommendation or self-referral in each of the cases included in this investigation. All parents and children signed consent and assent forms (for children 12 and older) prior to all assessments. All assessments administered were in accordance with the ethical standards and with Institutional Review Board approval of Boston University. Institutional Review Board approved consent and assent forms signed prior to all assessments allowed for the information collected during these assessments to be entered into databases to be used in later research. From assessment records over a 5-year period, the final sample consisted of 93 (50 female, 43 male) children and adolescents ages 6 to 17 (M = 12.17) who met diagnostic criteria for OCD during that time, using the Anxiety Disorders Interview Schedule for Children (ADIS-IV-C/P; Silverman & Albano, 1996), and their parents. Specifically, participants were included if they were assigned a diagnosis of OCD based on the clinician’s composite diagnosis, a clinician-derived combination of both the youth’s report and the parent’s report on the ADIS-IV-C/P.

The majority of the sample (69.9%) consisted of children with a primary diagnosis of OCD. Comorbid diagnoses included separation anxiety disorder (21.5%), social phobia (24.7%), generalized anxiety disorder (19.4%), specific phobias (14%), panic disorder with agoraphobia (4.3%), agoraphobia without panic (1.1%), posttraumatic stress disorder (1.1%), enuresis (1.1%), major depressive disorder (15.1%), depressive disorder not otherwise specified (3.2%), dysthymia (3.2%), attention deficit disorder (5.4%), and oppositional defiant disorder (4.3%). The sample consisted of primarily Caucasian children and their parents (92.5%). A small percentage of the participants were from other ethnic backgrounds, including Asian (1.1%), African American (1.1%), biracial (3.2%), and other (2.2%).

Measures

The ADIS-IV-C/P (Silverman & Albano, 1996), a semistructured interview, was administered by trained graduate student clinicians in an American Psychological Association–approved doctoral program for clinical psychology. ADIS administrations were also conducted by PhD-level supervisors. ADIS-IV-C/P provides direct assessment of a broad range of Diagnostic and Statistical Manual of Mental Disorders (4th ed.; American Psychiatric Association, 1994) disorders in youth including anxiety, mood, and externalizing behavior disorders. Impairment ratings are generated for each diagnosis using the Clinician Severity Rating (CSR; range = 0–8; ≥4 required to assign a clinical diagnosis). A composite diagnosis, comprising an aggregate of informant reports, is derived through the comparison and combination of both agreements and inconsistencies between parent and child. The present investigation compares CSRs derived separately from the child and parent interviews and does not include the aggregate score. The ADIS-IV-C/P has shown high levels of interrater and test–retest reliability (Silverman, Saavedra, & Pina, 2001). Given that the current sample is based on a review of records, interrater reliability analyses are
available only for the total clinic, which includes a small portion (11.67%, n = 7) of the current sample. Interrater reliability analyses from 60 participants at this treatment site indicated good interrater agreement (κ = .866) regarding diagnostic impression (i.e., what was assigned as primary diagnosis) and clinical severity (Pearson product-moment correlation r = .615). Interrater reliability was also good for OCD diagnosis (κ = .949) and OCD clinical severity (Pearson product-moment correlation r = .745).

Procedure

Prior to being scheduled for a diagnostic assessment, all potential clients were screened over the phone by a trained graduate clinician. Parents or guardians who reported mental retardation, pervasive developmental disorders, substance abuse, schizophrenia, or indicated a need for immediate services due to homicidal or suicidal thoughts on behalf of their child were referred to an outside community provider better equipped to assist them with their assessment and/or treatment needs. Parents and guardians not reporting the aforementioned disorders were offered diagnostic assessment appointments at the clinic. This appointment consisted of an in-person ADIS-IV-C/P semistructured interview as well as parent and child self-report measures not utilized in this article. The ADIS was administered according to the guidelines provided by Albano and Silverman (1996). Diagnostic profiles were determined separately for both child and parent interviews, and the final composite diagnosis was determined based on an aggregate of these separate diagnostic profiles. Consistent with other multiple informant agreement research in the child assessment literature (DiBartolo, Albano, Barlow, & Heimberg, 1998; Silverman & Eisen, 1992), the same interviewer conducted both the child and parent sections. The child portion of the ADIS was administered prior to the parent section in all cases. The interviewer presented both the child and parent diagnoses to a clinical team of trained clinicians. Diagnoses were reviewed and finalized by the team to determine the consensus diagnosis.

Parent and child agreement at the diagnostic level was based on (a) whether each informant indicated that the child or adolescent met overall diagnostic criteria for OCD, and (b) whether they agreed on the CSR report for the degree of interference OCD symptoms conferred in the child’s life. Symptom-level agreement was based on whether each informant endorsed the individual obsessive and compulsive symptoms detailed in the OCD subsection of the ADIS-IV-C/P. Consistent with the ADIS guidelines regarding “skip out” screening questions, symptom-level questions in the OCD section of the ADIS were asked only if the child or parent endorsed the initial screener questions. Parent–child agreement at both the diagnostic and symptom levels were computed using Kappa (κ) and Phi (φ) coefficients. The current study applied the interpretation of the Kappa statistic by Mannuzza et al. (1989): κ values < .40 are considered poor agreement, κ values between .40 and .59 indicate fair agreement, κ values between .60 and .74 are considered good agreement, and κ values > .74 indicate excellent agreement.

RESULTS

Parent–Child Agreement at the Diagnostic and Symptom Levels

Parent–child agreement at the overall diagnostic level was poor (see Table 1). Agreement at the symptom level was similarly low, with κ values ranging from poor to fair (see Table 1). Pearson product-moment correlations indicated that parent and child CSRs were correlated, r(93) = .24, p < .05. There were no significant differences between obsessions and compulsions (z = .23). Parent–child agreement was found to be low for nearly all symptoms, with the exception of fair agreement for aggressive thoughts, religious obsessions, miscellaneous obsessions (e.g., grotesque images), and cleaning/washing compulsions (see Table 1). Approximately 17% of children reported no interference at the overall diagnostic level, whereas only 2.2% of parents reported that the child had no interference. The percentage of children endorsing nonclinical distress (< 4) at the symptom level are presented in Table 1. In general, higher percentages of children reported nonclinical distress levels compared to their parents.

Age and Gender Differences

Kappa coefficients were calculated at the diagnostic and symptom levels for both younger (6–11 years, N = 44) and older children (12–17 years, N = 49). This age demarcation reflects significant differences in cognitive abilities between younger and older children, and the mean age for the entire sample was 12.17 years. No significant differences between younger and older children for the overall diagnostic agreement (all zs > .05) were found (see Table 2). Pearson product-moment correlations indicated that the child and parent reports were not significantly correlated for the CSR for younger children, r(44) = .093, p = .55, and were correlated for older children, r(49) = .371, p < .01. Fisher’s transformation of r to z indicated no significant difference for OCD severity between the younger and older age groups (z = 1.38). No significant age differences emerged at the symptom level. Parent–child agreement was fair for five symptoms in the younger children. In the older children, agreement was fair for five symptoms and good for one symptom (see Table 2).
Parent–child agreement as a function of gender was also poor at the diagnostic level (see Table 2). Pearson product-moment correlations indicated that the child and parent reports were not correlated for the CSR for both girls, $r(50) = .217, p = .13$, and boys, $r(43) = .283, p = .066$. At the symptom level, gender differences were inconsistent, and no clear pattern emerged, although girls appeared to have more frequent occurrences of agreement (six symptoms with fair agreement, two symptoms with good agreement), compared to boys (three symptoms with fair agreement, one with good agreement).

### DISCUSSION

Consistent with the extensive literature regarding poor parent–child agreement for anxiety disorders in youth (Choudhury et al., 2003; Grills & Ollendick, 2003; Klein, 1991; Rapee et al., 1994), our results suggest that parent-child agreement for child and adolescent OCD is also relatively poor at the diagnostic and symptom levels. No clear pattern of significant age or gender differences emerged. OCD has been characterized as a “hidden epidemic” due to the nature of secrecy, shame, and lack of insight into common symptoms (Jenike, 1989). One possible explanation for these observed discrepancies at both diagnostic and symptom levels might be poor patient insight common to the OCD symptomology, more “ego-dystonic” OCD, or embarrassment in reporting certain symptoms. It is possible that children in the current sample experienced these qualities, as partially evidenced by the higher reports of no distress by children and higher percentages of children reporting nonclinical distress.

Contrary to previous findings (Rapoport et al., 2000), parents in our sample did not appear to be reporting fewer cases of OCD than their children. It is possible

### TABLE 1

<table>
<thead>
<tr>
<th>Symptom</th>
<th>P</th>
<th>C</th>
<th>Parent–Child Agreement for Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Diagnosis</td>
<td>63</td>
<td>23</td>
<td>0</td>
</tr>
<tr>
<td>Obsessions</td>
<td>63</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>Aggressive</td>
<td>8</td>
<td>3</td>
<td>12 70</td>
</tr>
<tr>
<td>Contamination</td>
<td>27</td>
<td>18</td>
<td>36</td>
</tr>
<tr>
<td>Doubting</td>
<td>16</td>
<td>17</td>
<td>18 42</td>
</tr>
<tr>
<td>Nonsensical Thoughts</td>
<td>4</td>
<td>4</td>
<td>23 62</td>
</tr>
<tr>
<td>Sexual Thoughts</td>
<td>7</td>
<td>6</td>
<td>11 69</td>
</tr>
<tr>
<td>Compulsions</td>
<td>61</td>
<td>20</td>
<td>7 5</td>
</tr>
<tr>
<td>Cleaning or Washing</td>
<td>31</td>
<td>13</td>
<td>14 35</td>
</tr>
<tr>
<td>Checking</td>
<td>30</td>
<td>13</td>
<td>18 32</td>
</tr>
<tr>
<td>Counting</td>
<td>16</td>
<td>5</td>
<td>26 46</td>
</tr>
<tr>
<td>Hoarding or Collecting</td>
<td>9</td>
<td>8</td>
<td>11 65</td>
</tr>
<tr>
<td>Repeating</td>
<td>27</td>
<td>7</td>
<td>25 34</td>
</tr>
<tr>
<td>Ordering or Arranging</td>
<td>22</td>
<td>13</td>
<td>23 35</td>
</tr>
<tr>
<td>Miscellaneous Compulsions</td>
<td>14</td>
<td>13</td>
<td>10 56</td>
</tr>
<tr>
<td>Reassurance</td>
<td>13</td>
<td>14</td>
<td>15 51</td>
</tr>
<tr>
<td>Repeating Question</td>
<td>17</td>
<td>20</td>
<td>15 41</td>
</tr>
<tr>
<td>Tattling on Oneself</td>
<td>17</td>
<td>17</td>
<td>14 45</td>
</tr>
<tr>
<td>Hair Pulling</td>
<td>2</td>
<td>2</td>
<td>7 82</td>
</tr>
<tr>
<td>Repeating Words, Phrases, Sentences</td>
<td>5</td>
<td>6</td>
<td>14 68</td>
</tr>
<tr>
<td>Eating Rituals</td>
<td>6</td>
<td>9</td>
<td>8 70</td>
</tr>
</tbody>
</table>

Note. For $++$, $+-$, $-+$, $--$, values indicate total number of participants in each category. $P =$ parent; $C =$ child; $++$ both parent and child endorsed; $+ -$ parent did not endorse, child did not endorse; $-+$ parent did not endorse, child endorsed; $--$ neither parent or child endorsed. Bold values indicate fair or good agreement. The percentage agreement on the absence of symptoms was excluded in order to prevent inflation of the estimates of symptom agreement.
this lack of parental underestimation was a by-product of a self-selected sample of children and their parents seeking treatment at a specialty anxiety research clinic, perhaps having more severe OCD symptomology than those children in a community sample. Alternatively, these discrepant reports may be the product of other mechanisms at play, which are common in the assessment of childhood psychopathology through multiple informants (Kraemer et al., 2003), such as varying perspectives, contexts, and measurement error.

Given the discrepancies between parent and child reports, our findings highlight the importance of multiple informant diagnostic systems (Grills & Ollendick, 2002), as well as the need for additional research in assessment tools for diagnosing OCD. The “or rule,” in which a disorder is considered present if either the child or parent endorses symptoms to meet criteria for a diagnosis might be utilized (Bird, Gould, & Stangezza, 1992; Comer & Kendall, 2004; Foley et al., 2004), although this method may lead to the overdiagnosis of OCD. The current study did not use the “or rule” but instead relied on clinical judgment. Other alternatives are the incorporation of teacher reports and behavioral observations. However, methods for reconciling discrepant reports from additional informants and methods are lacking (Kraemer et al., 2003).

Although our findings underscore the discrepancies between parent and child reports, agreement on some symptoms is noteworthy. Recently, modest agreement between parent and child self-report measures of OCD has been reported (Shafran et al., 2003; Storch et al., 2006). Contrary to these self-report studies, the current study found that clinician-administered diagnostic assessment of OCD did not find consistent...
patterns of agreement (i.e., more agreement on obsessions but not overt compulsions). In addition, our results do not appear to support those of Comer and Kendall (2004) in which parent–child agreement was higher for more observable symptoms than unobservable symptoms. Parent–child agreement was fair for only three obsessions (i.e., aggressive thoughts, religious obsessions, and miscellaneous obsessions, such as grotesque images), and only one compulsion (cleaning/washing). Our discrepant results compared to the recent literature finding parent–child agreement on self-report measures supports the additional use of self-report measures in the assessment of OCD. Self-report measures (e.g., Storch et al., 2006) might be utilized as screening tools or concomitantly with structured diagnostic interviews to minimize shame and embarrassment that may be present when reporting symptoms and encourage more concordant reporting. Future research should continue to examine parent–child agreement at the symptom level to elucidate whether specific symptoms are more commonly under- or overreported.

This study had several limitations. The current study relied on OCD diagnoses and symptoms using the ADIS. Although this measure has sound psychometric support, evaluations of parent–child agreement using the Children’s Yale–Brown Obsessive-Compulsive Scale (Scahill et al., 1997), the most common assessment measure for childhood OCD, would further add to this literature. In addition, although the current study used procedures consistent with administration of the ADIS, the same diagnostician administered both the child and parent sections. This procedure has the potential to bias the diagnostic information gathered during the ADIS interview.

Implications for Research, Policy, and Practice

These findings have implications for both clinical research and practice, most pertinently for the assessment and diagnosis of childhood OCD. Although assessment measures for childhood OCD with evidence for their psychometric properties are available (e.g., Children’s Yale-Brown Obsessive-Compulsive Scale and ADIS), further research is needed to improve the assessment tools for childhood OCD (Merlo et al., 2005). Studies have recently begun to address the psychometric properties of self-report measures for childhood OCD (e.g., Shafran et al., 2003; Storch et al., 2006), yet research should continue to examine these measures for diagnostic and screening purposes. Given that shame and embarrassment are often characteristic of OCD (Jenike, 1989), better screening tools and self-report measures may minimize these factors and allow for children and youth to feel more comfortable disclosing their OCD symptoms (Merlo et al., 2005). Factors that may moderate parent–child disagreement in the assessment of childhood OCD should also be explored, for example, the role of family environment (e.g., conflict), communication within the family, social desirability, and parental psychopathology (Grills & Ollendick, 2003; Krain & Kendall, 2000; Yeh & Weisz, 2001). Likewise, examining specific attributional biases may also be informative. For instance, a parent may attribute his or her child’s OCD symptoms to a dispositional characteristic of the child, whereas the child may be more likely to attribute his or her OCD symptoms to the environment or context (De Los Reyes & Kazdin, 2005). Taken together, understanding potential attributional biases for childhood OCD and which moderating factors contribute to poor agreement may provide a better sense of how to move forward in reconciling discrepant reports. In sum, these results underscore the use of multiple informants in the assessment of OCD and the need to administer both parent and child interviews to create a comprehensive clinical picture of the child (Ollendick & Hersen, 1993).

Poor agreement between parent and child may also influence treatment outcome (Hawley & Weisz, 2003; Weisz & Jenson, 1999). This disagreement may undermine the parent-child working relationship during treatment and may negatively impact the therapeutic process (e.g., disagreement in determining common treatment goals; Yeh & Weisz, 2001). In addition to multiple informants and separate parent and child interviews in the diagnosis and assessment of OCD, clinicians may administer a joint interview with both parent and child following the separate interviews in order to discuss discrepancies and identify shared treatment goals (Yeh & Weisz, 2001).

REFERENCES


