



Published in final edited form as:

J Child Psychol Psychiatry. 2010 May ; 51(5): 603–611. doi:10.1111/j.1469-7610.2009.02181.x.

Correlates of Insight among Youth with Obsessive-Compulsive Disorder

Adam B. Lewin, Ph.D.^{1,2,*}, R. Lindsey Bergman, Ph.D.², Tara S. Peris, Ph.D.², Susanna Chang, Ph.D.², James T. McCracken, M.D.², and John Piacentini, Ph.D.²

¹University of South Florida, Rothman Center for Pediatric Neuropsychiatry, St. Petersburg, FL

²UCLA Semel Institute for Neuroscience and Human Behavior, Department of Psychiatry & Biobehavioral Sciences, Los Angeles, CA

Abstract

Background—Individuals with Obsessive-Compulsive Disorder (OCD) may lack insight into the irrational nature of their symptoms. Among adults with OCD, poor insight has been linked to greater symptom severity, increased likelihood of comorbid symptoms, lower adaptive functioning, and worse treatment outcomes. Parallel work regarding insight among children and adolescents, with OCD, is lacking. The aim of this research was to examine links between insight and demographic, cognitive, and clinical factors among youth with OCD.

Methods—Seventy-one youths with OCD (mean age = 11.7; 63% = male) were assessed as part of a larger treatment trial. Insight was measured via clinician interview.

Results—Youth with low insight had poorer intellectual functioning and reported decreased perception of control over their environment. Additionally, youth with low insight were more likely to be younger, to report higher levels of depressive symptoms, and to report lower levels of adaptive functioning.

Conclusion—This set of cognitive, developmental and clinical factors that may predispose youth with OCD to have diminished insight. Data provide initial empirical support for diagnostic differences between youth and adults with regard to requiring intact insight. Implications for treatment are discussed.

Keywords

OCD; Obsessive-Compulsive-Disorder; Insight; Child

Obsessive-Compulsive Disorder (OCD) is a chronic, impairing condition that affects between 1–4% of children and adolescents (Zohar, 1999). Its presentation is characterized by the presence of obsessions (i.e., recurrent, intrusive and typically distressing thoughts, ideas, or mental images) and compulsions (i.e., repetitive behaviors or mental acts designed to prevent, mitigate or attenuate anxiety) that yield substantial distress and functional impairment (American Psychiatric Association, 2000). The importance of early intervention has been emphasized (American Academy of Child and Adolescent Psychiatry, 1998; Geller, 2006), especially given that as many as 80% of adult OCD cases have an onset during childhood (Millet et al., 2004) and childhood OCD is itself associated with significant multi-domain impairment (Piacentini, Bergman, Keller, & McCracken, 2003). Although pharmacological and psychosocial treatments have yielded promising results

*Corresponding Author: Adam B. Lewin, Ph.D., Assistant Professor, Department of Pediatrics, University of South Florida, 800 6th Street South, 4th Floor North, Box 7523, St. Petersburg, FL 33701, Fax: 727-767-7786, alewin@health.usf.edu.

(Lewin, Storch, Geffken, Goodman, & Murphy, 2006), many youngsters fail to benefit from these interventions (Barrett, Farrell, Pina, Peris, & Piacentini, 2008). Indeed, in the largest clinical trial to date, only 39% of youth with OCD entered remission following cognitive behavioral therapy (CBT; Pediatric OCD Treatment Study, 2004) and only 54% entered remission following combined CBT and pharmacotherapy. Thus, efforts have turned toward understanding factors that may influence treatment outcome for youth with OCD (Lewin & Piacentini, 2009).

There are a number of features (e.g., comorbidity, symptom severity, poor insight) that may explain why certain youth with OCD fail to benefit from CBT (Lewin, Storch, Adkins, Murphy, & Geffken, 2005). Although current diagnostic criteria for OCD in adults requires patient recognition that the obsessions and compulsions are excessive and unreasonable (APA 2000), experts have noted that it is not uncommon for patients to lack insight into the bizarre or excessive nature of their thoughts and behaviors (Carmin, Wiegartz, & Wu, 2008; (Foa, Kozak, Goodman, Hollander, Jenike, & Rasmussen, 1995; Kozak & Foa, 1994). It is estimated that as many as 36% of adults with OCD have poor insight (Alonso et al., 2008). The degree to which a patient possesses insight into the irrational nature of his/her obsessional beliefs and compulsive rituals may contribute to both clinical presentation and treatment outcome (Bellino, Patria, Ziero, & Bogetto, 2005; Catapano, Sperandeo, Perris, Lanzaro, & Maj, 2001; Kozak et al., 1994; Vogel, Hansen, Stiles, & Gotestam, 2006).

Several studies have examined correlates of insight among adults with OCD. Poor insight has been associated with increased OCD symptom severity (Bellino et al., 2005; Catapano et al., 2001; Ravi Kishore, Samar, Janardhan Reddy, Chandrasekhar, & Thennarasu, 2004) and psychiatric comorbidity (Bellino et al., 2005; Ravi Kishore et al., 2004). Other studies suggest that diminished insight is related to longer duration of illness, early onset of symptoms (Kishore et al., 2004), chronic course and increased family history of OCD (Bellino et al., 2005). Others studies have demonstrated that patients with worse insight (1) endorsed greater symptoms of depression and anxiety, (2) were more likely to have a comorbid depressive disorder, and (3) were less likely to resist obsessive and compulsive symptoms (Alonso et al., 2008; Turksoy, Tukul, Ozdemir, & Karali, 2002). One analysis, conducted by Matgunga et al. (2001), found that limited insight was linked to specific OCD symptoms (washing and checking compulsions) (Matsunaga et al., 2002). Studies also suggest that poor insight might contribute to failed responses to CBT and SRI treatment (Alonso et al., 2008; Basoglu, Lax, Kasvikis, & Marks, 1988; Catapano et al., 2001; Erzegovesi et al., 2001; Foa, 1979; Foa et al., 1983; Lax, Basoglu, & Marks, 1992; Neziroglu, Stevens, McKay, & Yaryura-Tobias, 2001; Salkovskis & Warwick, 1985; Shetti et al., 2005).

Despite these findings, clinical correlates of insight among youth with OCD remain understudied. Unlike diagnostic requirements for adults with OCD, intact insight into obsessive-compulsive symptoms is not required for a diagnosis of childhood OCD (APA, 2000); however, youngsters can be diagnosed with the qualifier, “with poor insight” as needed (APA, 2000, pg 463). However, to date, the development of insight across different age groups is not documented. It is plausible that insight develops with age, consistent with higher-order cognitive processes such as abstract reasoning (Indelder & Piaget, 1958). Notably, insight into OC symptoms likely falls on a continuum (Insel & Akiskal, 1986), with severe deficits often bearing resemblance to delusional beliefs associated with Schizophrenia Spectrum Disorders (Rodowski, Cagande, & Riddle, 2008). Whereas clinical observation indicates that most children and adolescents have reasonable level of awareness that their symptoms are unusual and excessive, there are a subset of youth with OCD who deny that their symptoms are problematic or unreasonable (Geller, 2006). These youth often

experience difficulties with CBT and outcomes may be diminished (Lewin et al., 2006; Storch et al., 2008a; Storch et al., 2008b).

To date, only one other study has examined correlates of insight among youth with OCD (Storch et al., 2008b). The authors dichotomized youth into two groups (high and low insight) based on and Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS) item 11, a clinician-rated assessment of the child's insight (Scahill et al., 1997). Children with low insight had higher levels of OCD symptom severity and had more repeating compulsions. Parents rated children with low insight as having more internalizing symptoms and reported higher levels of family accommodation compared to parents of youth with high insight. Although one might expect insight to improve with age, no group differences in age. Similarly, despite (or gender and comorbidity) were identified. Jensen and colleagues (1996) listed demographics, IQ, externalizing/internalizing symptoms, OCD-spectrum severity, parental psychopathology, and family functioning as factors for conceptualizing child psychiatric treatment outcomes (Jensen et al., 1996). Although Storch et al. (2008b) evaluated many of these factors, relations between insight and child intellectual functioning, perceived control, parental psychopathology, and other demographic characteristics that have been shown to relate to treatment outcome (e.g., family history, duration of OCD illness) remain unstudied. This is unfortunate given adult studies suggesting increased insight may bolster treatment outcome.

Building on this work, the present study aimed to provide an initial examination of insight with regard to cognitive and developmental factors. First, we examined the relationship of insight to intellectual functioning and perceived control. In addition, we were also interested in providing an initial, albeit cross-sectional description of insight across age groups. Finally, we aimed to provide the initial replication of findings by Storch et al. (2008b) examining differences in insight across demographic characteristics, clinical symptoms, adaptive functioning, and psychiatric comorbidity. We hypothesized that higher intellectual functioning and older age would predict higher insight. Based on the limited extant literature in this area, we also hypothesized that youth with poor insight would be younger, have a longer duration of illness, greater family history of OCD, increased OCD symptom severity, greater likelihood of psychiatric comorbidity, and lower adaptive functioning.

Method

Participants

Participants were 71 treatment-seeking children and adolescents (Mean age = 11.7 years, range = 8–17 years; 63% male) who were participating in a controlled psychosocial treatment trial conducted at a university medical center-based OCD specialty program. Inclusion criteria included: (1) DSM-IV-TR (American Psychiatric Association, 2000) primary diagnosis of OCD and (2) no psychiatric medication at study entry. Exclusion criteria included the following diagnoses or behaviors that contraindicated participation in the larger treatment study: psychosis, formal thought disorder, suicidality, autism-spectrum disorders (including Pervasive Developmental Disorder, not otherwise specified), mania, or substance dependence. Seventy-six youth were initially screened for participation in the study. One was excluded for failure to meet inclusion criteria (subclinical OCD symptoms) and four were excluded due to the above exclusion criteria. Among participating youth, the ethnic breakdown was as follows: 80% Caucasian/White, 10% Latino/Hispanic, 4% Asian American/Pacific Islander, 3% African American/Black, and 3% other ethnicities.

Procedure

Study materials were administered as part of the baseline assessment for the overarching treatment study. The study received University IRB approval and informed consent and child assent were obtained at the outset of the visit. Evaluations were conducted by doctoral-level psychologists or psychiatrists or pre-doctoral clinical psychology residents and supervised by licensed clinical psychologists with expertise in the assessment of childhood OCD. In-depth training by the clinic directors (JP or RLB) was provided to all assessors, based on the guidelines specified by the authors of the Y-BOCS, CY-BOCS, CGI, K-BIT, and the Anxiety Disorders Interview Schedule, fourth edition (ADIS-IV; Silverman & Albano, 1996). In a sample that overlapped with the present study, excellent agreement ($\kappa = .89$) was found between the study diagnostician and a conference-derived consensus ADIS diagnosis (established by the study directors; see: Wood, Piacentini, Bergman, McCracken, & Barrios, 2002). All diagnoses of youth participating in this study were obtained using the ADIS, which were completed jointly by parent and child. Following administration of the ADIS, Y-BOCS and CY-BOCS, the K-BIT was administered to the child. Subsequently, child self-reports and parent reports were administered with researcher guidance as needed.

Group assignment—Consistent with prior studies (e.g., Erezegovesi et al. 2001; Catapano et al., 2001; Storch et al., 2008b), subjects were dichotomized based on insight ratings (rating procedure and categorical descriptions are described below). Based on both examination of histogram and previous research (e.g., Storch et al., 2008b), individuals rated as having “excellent or good insight” were assigned to the High Insight group and individuals with moderate to severe impairments in insight were assigned to the Low Insight group. Forty-seven youth were identified as having high insight and 24 were classified as having low insight.

Measures

Anxiety Disorders Interview Schedule for Children, Version IV (ADIS-IV)—The ADIS-IV (Silverman & Albano, 1996; Silverman, Saavedra, & Pina, 2001; Wood et al., 2002) is a semi-structured diagnostic interview with strong psychometric properties that assesses the major DSM-IV anxiety, mood, and externalizing disorders experienced by youth.

Yale-Brown Obsessive Compulsive Scale (Y-BOCS) and Children’s Yale-Brown Obsessive Compulsive Scale (CY-BOCS)—The Y-BOCS (Goodman et al., 1989) and CY-BOCS (Scahill et al., 1997) are 10-item semi-structured, clinician-rated measures of adult and child OCD severity, respectively. Cronbach’s $\alpha = .96$ and $.74$ for the Y-BOCS and CY-BOCS (respectively) in the present sample suggesting strong internal consistency (Cronbach, 1951). Specific obsessive and compulsive symptoms (e.g., contamination, hoarding) were obtained as part of the CY-BOCS administration (given prior to the 10-item severity ratings).

Child Insight—Insight was assessed via a semi-structured clinician interview immediately following administration of the CY-BOCS. The child was asked the following series of questions: “1) Do you think your problems or behaviors are reasonable (i.e., make sense)? 2) What do you think would happen if you did not perform compulsion(s)? 3) Do you believe that something would really happen?” The clinician was instructed to probe for clarification or additional details. The clinician was instructed to rate the patient’s insight into the senseless or excessiveness of his/her obsessions beliefs based on beliefs expressed at the time of the interview using a five point scale: (a) Excellent insight, fully rational (42% of the sample); (b) Good insight – readily acknowledges absurdity or excessiveness of thoughts

and behaviors but does not seem completely convinced that there is not something besides anxiety to be concerned about (*i.e.* has lingering doubts; 24% of the sample); (c) Mild insight – patient may reluctantly admit that thoughts or behaviors seem unreasonable or excessive, but wavers. Patient may have some unrealistic fears, but no fixed convictions (15% of the sample); (d) Poor insight – patient maintains that thoughts or behaviors are not unreasonable or excessive, but acknowledges validity of contrary evidence (11% of the sample); and (e) Lacks insight, delusional – patient is convinced that concerns and behaviors are reasonable and cannot acknowledge evidence to the contrary (7% of the sample). Extremely strong inter-rater reliability was obtained for a randomly selected 31% of the sample ($Kappa = .95$).

Child Behavior Checklist (CBCL)—The CBCL (Achenbach, 1994) is an extensively-used parent-report of child behavioral and emotional problems with well-documented psychometric properties. Age and gender corrected T-Scores (Mean [M] = 50; Standard Deviation [SD] = 10) were obtained for broad-based internalizing (e.g., mood, anxiety) and externalizing (e.g., oppositional, inattentive) symptoms.

Children's Depressive Inventory (CDI)—The CDI (Kovacs, 1985) is a 27-item self-report scale for assessing depression in children with well-established psychometric properties. Excellent reliability ($\alpha = .90$) was found with this sample. Age and gender corrected T-Scores are presented with higher scores suggesting greater endorsement of depressive symptoms.

The Multidimensional Anxiety Scale for Children (MASC)—The MASC (March, Parker, Sullivan, Stallings, & Conners, 1997) is an extensively-validated 39-item self-report scale assessing anxiety. In the present sample, Cronbach's $\alpha = .88$. Scores are age and gender corrected T-Scores with higher scores reflecting increased endorsement of anxious symptoms.

Child Obsessive Compulsive Impact Scale, Revised, Parent and Child Reports (COIS-R P & C)—The COIS-R (Piacentini, Peris, Bergman, Chang, & Jaffer, 2007) is a 27-item self-report questionnaire designed to assess the OCD-specific academic, social, and home/family impairment among youth with OCD. Very good internal consistency was found in the present sample for the COIS-R-P ($\alpha = .91$) and the COIS-R-C ($\alpha = .97$).

Perceived Control Scale (PCS)—The PCS (Weisz, Southam-Gerow, & Sweeney, 1998) is a 24-item questionnaire measuring a child's beliefs in his/her ability to exert control over environmental (academic, social and behavioral) outcomes. Half the items are worded in a negative direction and are reverse scored. Reliability and (.88) and test-retest reliability (6 month) was .57 has been established in previous samples (Weisz, Southam-Gerow, & McCarty, 2001). Reliability was strong for the current sample ($\alpha = .93$).

Kaufman Brief Intelligence Test (K-BIT)—The K-BIT (Kaufman & Kaufman, 1990) is an individually administered intelligence test designed to provide a rapid measure of nonverbal (Matrices subtest) and verbal (Vocabulary subtest) abilities. Administration time is approximately 15–30 minutes. Age and gender corrected Standard Scores are generated ($M = 100$; $SD = 15$). The K-BIT has good reliability and validity and is considered a useful screening measure for verbal and nonverbal intellectual functioning (Sattler, 2001).

Clinical Global Impression (CGI)—The CGI (Guy, 1976; National Institute of Mental Health (NIMH), 1985) is a clinician-rated, single-item global Likert-type scale with scores ranging from 0 (“no illness”) to 6 (“serious illness”).

Global Axis of Functioning (GAF)—GAF (American Psychiatric Association, 2000) is a numeric scale (0 through 100) used by mental health professionals to rate overall social, occupational, and psychological functioning.

Demographics

Parents completed a form requesting detailed demographic information. Age of OCD onset was obtained as part of the ADIS. The clinician administering the ADIS assessed, via the parent, whether first-degree relatives had either (1) been formally diagnosed or (2) exhibited significant and impairing symptoms of OCD.

Please note, demographic and psychometric information involving a subset of this sample are described in studies by Peris et al. (2008) and Wood et al. (2002).

Data Analytic Plan

To identify group differences between youth with high and low insight, t-tests and χ^2 were utilized. Given that age-normed data were not available for our measure of perceived control, we controlled for age while examining group differences in perceived control. Kappa was used to assess inter-rater reliability of clinician-rated insight.

Results

Demographics Differences

Youth with low insight were found to be younger ($t = 2.0, p = .05$). Whereas only 48% of preadolescents (age 8–10) were considered to have high insight, 72% of younger adolescents (age 11–13) and 79% of older adolescents (age 14–17) had high insight (see Figure 1). No statistically significant differences were found for onset age, duration of illness, family history, or parental OCD symptoms.

Cognitive Differences

As shown in Table 1, t-tests indicated that youth with lower standard scores on the K-BIT Matrices ($t = 2.5, p = .01$) and Vocabulary ($t = 2.1, p = .05$) tests were more likely to have low insight into their OCD symptoms. Youth with low insight also reported lower levels of perceived control over their symptoms in comparison to those with high insight.

Clinical Correlates

Youth with low insight reported significantly more depressive symptoms ($t = -2.2, p = .03$). There was a trend towards increased symptoms of anxiety although group differences are not significant ($t = -1.7, p = .09$). No group differences were identified on the CY-BOC, CGI-Severity, or parent ratings of externalizing and internalizing psychopathology. Differences in family accommodation were not detected. Whereas we did not find group differences in functional impairment specific to OCD on the COIS-R, youth with low insight were rated as having lower overall psychosocial functioning on the clinician-rated GAF. Data are presented in Table 1.

OCD Symptom Presentation

We failed to identify group differences in OCD symptom presentation. Non-statistically significant trends emerged for superstitious ($p = .06$) and somatic obsessions ($p = .09$) as well as for ordering compulsions ($p = .07$).

Group Differences in Comorbid Symptoms

No significant group differences were found for the presence of comorbid anxiety, ADHD, or tic disorders (see Table 1). Given that comorbid depressive disorders and ODD/CD were rare and occurred in less than 10% of the sample, group differences were not examined.

Discussion

This study examined relations between insight and cognitive, developmental, and demographic factors, clinical correlates, and comorbidity in a treatment-seeking sample of youth with OCD. As expected, youth with low insight were more likely to have lower levels of cognitive functioning and lower levels of global functioning compared to youth with high insight. In addition, low-insight youth were more likely to present with higher levels of depressive symptoms and lower levels of perceived control compared to their counterparts with high insight. Counter to expectation, we found that while younger children exhibited lower levels of insight, insight was not linked to any other demographic or clinical feature including OCD symptom severity, OCD age of onset/illness-duration, family history of OCD, parental OCD symptoms, the presence of DSM-IV Anxiety/Tic/ADHD disorders, and gender.

This study identified two potential cognitive factors that may predispose youth with OCD to low insight. Youth with low insight demonstrated lower levels of intellectual functioning. It may be the case that if children who are less verbal and more concrete in their thinking are more likely to believe that the “danger” (experienced through obsessive beliefs) is real or plausible, and in turn, more likely to adhere rigidly to OC beliefs. Further, we found that youth with low insight reported lower levels of perceived control over their environment. It may be the case that the less a child is able to control his or her symptoms, the more inclined he or she may be to view them as real. Thus reduced intellectual functioning, increased rigidity in thought, and decreased perceptions of environmental control may play a role in poor insight among youth with OCD.

These findings, although preliminary, have significant treatment implications. Experts suggest that patients with low insight into the irrationality of their obsessions and compulsions may be less able to engage in cognitive therapies (e.g., challenging irrational thoughts) and consequently have worse prognoses (O'Dwyer & Marks, 2000; Storch et al., 2008b). Others suggest that individuals with low insight may have increased difficulty incorporating information that is inconsistent with their obsessive beliefs (Foa, Abramowitz, Franklin, & Kozak, 1999; Tolin, Abramowitz, Kozak, & Foa, 2001). Thus, emphasis on behavioral interventions (e.g., E/RP) instead of cognitive treatments (e.g., cognitive restructuring) may be indicated, similar to modifications CBT for OCD in very young children (Lewin et al., 2006; March & Mulle, 1998; Piacentini, Langley, & Roblek, 2007) that minimize cognitive techniques. Other experts suggest that (in adults) poor insight may increase anxiety and consequently encumber habituation, potentially indicating SRI augmentation (Abel, 1993; Foa et al., 1999).

This study also found that youngsters with low insight were more likely to report depressive symptoms on the CDI. By contrast, parent ratings of child internalizing and externalizing behaviors (on the CBCL) did not differ based on insight. This split is perhaps not surprising given the well-documented differences in parent and child reports of psychopathology and the tendency for parents to overlook internalizing symptomatology (Engel, Rodrigue, & Geffken, 1994; Yeh & Weisz, 2001). In keeping with youth reports, we found that clinician-derived ratings of overall functioning (i.e., GAF scores) differed across the two groups with youth with low insight rated as having lower functioning compared to youth with high insight. Although we did not find group differences in ADIS-IV-derived diagnoses of

comorbid anxiety disorders, ADHD, or tic disorders, youth with low levels of insight may contend with noteworthy albeit subclinical levels of psychopathology that may color their ability to think clearly about their illness. Somewhat surprisingly, we failed to find significant differences in specific obsessive and compulsive symptoms or in parent-rated functional impairment.

Although developmental inferences are limited by the cross-sectional nature of the data, this study may provide the first empirical support for adult vs. child differences in DSM-IV-TR diagnostic criteria for OCD requiring intact insight. Specifically, our data suggest that insight may develop with age: approximately 80% of older adolescents possess high insight whereas less than half of youth age 8–11 possess high insight. The developmental literature (Moshman, 1979; Piaget, 1972) suggest that insight, specifically with regard to hypothesis testing, develops with the emergence of abstract thinking/formal operations (which occurs at the entrance of adolescence). This is consistent with our findings. It is noteworthy that a sizable percentage of preadolescents present with good insight. This is not unexpected given that the timeframe for the development of formal operational abilities is variable (Moshman, 1979). Further, higher intellectual functioning and/or perceived control may relate to an earlier age of insight development. Longitudinal analysis is necessary for more conclusive results.

To date, only one other study has examined insight in youth with OCD (Storch et al., 2008b). Our data were mostly consistent with extant findings. Differences in insight on the basis of age, depressive symptoms, and anxious symptoms were not previously reported. However, we did not replicate the finding suggesting that youth with low insight were rated as having more severe symptoms on the CGI. Additionally, while Storch et al., 2008b suggested differences in OCD-specific functional impairment, we found youth with low insight had worse overall adaptive functioning. Consistent with this research, we failed to identify significant differences in obsessive and compulsive symptoms and the occurrence of psychiatric comorbidities.

Correlates of low insight are more extensively studied in adults with OCD. Although our findings are consistent with studies in adults with OCD suggesting that individuals with poor insight have more depressive and anxious symptoms (Turksoy et al., 2002), we failed to document associations between low insight and increased OCD symptom severity (Bellino et al. 2005, Catapano et al., 2001; Rava Kishore et al., 2004) or higher prevalence of psychiatric comorbidity (Bellino et al., 2005; Rava Kishore et al., 2004; Turksoy et al, 2002).

Findings in this study should be interpreted within the context of several methodological limitations. First, although our sample size is a sturdy strength given the base rates for childhood OCD, we may nonetheless be underpowered to detect group differences in insight, especially in the occurrence of comorbidities that occurred at low frequencies in this sample. Along these lines, we lacked power to examine potential mediators and moderators of insight, (e.g., whether youth with low insight reported significantly more depressive symptoms due to a perceived lack of control). Second, to maximize statistical power, we dichotomized insight. Although this is consistent with methodology in prior research (e.g., Erzegovesi et al., 2001; Catapano et al., Matsunaga et al.; Storch et al, 2008b), future research may benefit from examining insight on an ordinal or interval scale. Moreover, the DSM-IV Field Study (Foa et al., 1995) suggested a continuum of insight in adults with OCD and subsequent adult research suggests that treatment interference is linked to severe impairments in insight. Future research should examine this finding in youth with OCD and may also benefit from more rigorous multi-informant, multi-modal assessment of insight. Third, our failure to identify group differences in parent-rated OCD-specific functional

impairment (as identified by Storch et al., 2008b) may relate to different methodologies. Specifically, the current study employed a shorter, revised version of the COIS (Piacentini et al., 2007) which may have been less sensitive to group differences. Fourth, although younger children were more likely to be rated as having lower insight, this may be a function of interviewer bias or developmental differences in expressing insight (e.g., articulation problems). Fifth, although neither K-BIT subtest was timed, variation in OCD symptoms may have impaired scores; the present study lacks statistical power to control for OCD symptoms. Sixth, PDD as an exclusionary criteria prevented us from examining group differences in insight on the basis of autism-spectrum disorders. Clinical observation suggests that youth with OCD and PDD are less insightful and are more difficult to engage in treatment (Lewin et al., 2006). Finally, inferences about development must be considered within the cross-sectional methodology of this research; longitudinal data are needed to better understand the development of insight among youth with OCD.

Findings from this study, in combination with its limitations, suggest several avenues for future research. For example, prospective child research tracking the development of insight in parallel with the development of specific obsessions and consequences is lacking. Specific attention could focus on insight development in youth with OCD who experience “not-just-right“ worries (as opposed to specific feared consequences). In addition, the methodology of assessing insight could be expanded to identify associations between the approach used in the DSM-IV Field Trial (which focused on the participant’s ability to identify a specific, feared consequence) and the more global inventory utilized in the present research.

Taken together, our data generally are consistent with previous findings. Additionally, this research suggests that reduced intellectual functioning and lower levels of perceived control may predispose youth to lack insight into the irrational nature of their OCD symptoms. Although our cross-sectional design limits interpretation of causal relationships, this possibility merits exploration in future research. Given these preliminary findings and research by Erzegoveski et al. (2001) suggesting that insight was the best predictor of a patient’s response to SRI treatment, future research should examine insight-treatment outcome relations in youth with OCD.

Key Points

- Impaired insight is prevalent in adults with OCD and may contribute to both clinical presentation and treatment outcome. Unfortunately, insight remains understudied in youth with OCD.
- This study examines the relationship of insight to cognitive, demographic and clinical factors and provides an initial, albeit cross-sectional description of insight across age groups.
- Data from this research suggest that youth with low insight were more likely to be younger, had poorer intellectual functioning, and reported decreased perception of control over their environment. Reduced adaptive functioning and increased depressive symptoms were more common in youth with low insight.
- As in adults, improving insight may be helpful for maximizing therapeutic approaches for childhood Obsessive-Compulsive Disorder.

Acknowledgments

This research was funded by R01MH 58459 (Piacentini), NIMH T-32 Fellowship, A.F. Leuchter, MD, Chair (Lewin), Joseph Drown Foundation & Friends of the Semel Institute Fellowship (Lewin), & a NARSAD Young Investigator Award (Lewin)

Abbreviations

| | |
|----------------|---|
| OCD | Obsessive Compulsive Disorder |
| OC | Obsessive Compulsive |
| CBT | Cognitive Behavioral Therapy |
| E/RP | Exposure and Response Prevention |
| SRI | Serotonin Reuptake Inhibitor |
| Y-BOCS | Yale-Brown Obsessive Compulsive Scale |
| CY-BOCS | Children's Yale Brown Obsessive Compulsive Scale |
| CGI | Clinical Global Impression |
| K-BIT | Kaufman Brief Intelligence Test |
| GAF | Global Axis of Functioning |
| ADIS | Anxiety Disorders Interview Schedule for Children |
| PCS | Perceived Control Scale |
| COIS | Child Obsessive Compulsive Impact Scale |
| MASC | Multidimensional Anxiety Scale for Children |
| CDI | Children's Depressive Inventory |
| CBCL | Child Behavior Checklist |
| M | Mean |
| SD | Standard Deviation |
| POTS | Pediatric Obsessive Compulsive Disorder Treatment Study |

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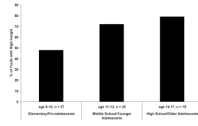


Figure 1.
Insight Changes with Age

Table 1

Demographic, Cognitive and Clinical differences between youth with high and low insight

| Comparative Domain | | High Insight <i>n</i> = 47 | Low Insight <i>n</i> = 24 | <i>t</i> or χ^2 |
|----------------------|----------------------------|-------------------------------|------------------------------|----------------------|
| Demographic | Age | 12.2 (2.3) | 10.9 (2.5) | 2.0* |
| | Onset age | 8.4 (3.8) | 8.7 (2.5) | -.22 |
| | Boys, (%) | 27 (57%) | 18 (75%) | 2.1 |
| | Family History of OCD, (%) | 10 (21%) | 4 (17%) | 2.1 |
| | Parent Y-BOCS | 5.1 (6.7) | 6.2 (8.4) | -.57 |
| Cognitive | K-BIT Vocabulary | 106.0 (12.0) | 98.5 (16.5) | 2.1* |
| | K-BIT Matrices | 115.1 (14.3) | 102.8 (26.5) | 2.5** |
| | Perceived Control | 68.1 (3.9) | 65.6 (4.8) | 2.6** |
| Symptoms/Functioning | CGI-Severity | 4.5 (7.5) | 4.5 (6.6) | .30 |
| | GAF | 52.3 (5.2) | 47.8 (5.2) | 2.2* |
| | CY-BOCS | 24.7 (4.8) | 25.3 (4.6) | -.45 |
| | CDI | 45.7(8.5) | 51.0(11.7) | -2.2* |
| | MASC | 44.8 (14.7) | 51.4 (17.0) | -1.7 |
| | CBCL Internalizing | 62.4 (9.8) | 65.3 (9.7) | -1.2 |
| | CBCL Externalizing | 50.6 (10.9) | 54.2 (9.9) | -1.3 |
| | COIS-R Parent-Rated | 22.1 (15.6) | 21.4 (11.2) | .17 |
| Comorbid Diagnosis | COIS-R Child-Rated | 18.9 (18.2) | 21.6 (15.9) | -.58 |
| | Anxiety Disorders | 21 (45) | 13 (54) | .57 |
| | ADHD | 6 (13%) | 4 (17%) | .20 |
| | Tic Disorders | 4 (9%) | 3 (13%) | .29 |

* $p < .05$;** $p < .01$

Note: Values represent mean (standard deviation) unless otherwise indicated.