Self-, parent-report and interview measures of obsessive–compulsive disorder in children and adolescents

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Abstract

Self-report measures of obsessive–compulsive disorder (OCD) in children and adolescents are needed for practical evaluation of severity and treatment response. We compared the self- and parent-report Obsessional Compulsive Inventory Revised (CHOCI-R) to the interview-based Child Yale-Brown Obsessive–Compulsive Scale (CY-BOCS) in a clinical sample of 285 children and adolescents with OCD. Classical test theory and item-response theory were applied to compare the instruments. The self- and parent-report CHOCI-R had good internal consistency and were strongly related to each other. The self- and parent-report CHOCI-R severity scores correlated with the CY-BOCS (Pearson's r 0.55 and 0.45 respectively). The CY-BOCS discriminated better at the severe end of the spectrum. The CHOCI-R provided better discrimination in the mild to moderate range. The time-efficient self- and parent-report alternatives will enable routine measurement of OCD severity in clinical practice. Estimates of equivalent summed scores are provided to facilitate comparison.
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1. Introduction

Obsessive–compulsive disorder (OCD) commonly starts in childhood and adolescence (Fontenelle, Mendlowicz, & Versiani, 2006). If untreated, child and adolescent OCD is associated with substantial disability and chronicity (Heyman, Mataix-Cols, & Fineberg, 2006). Reliable, valid and easy-to-use instruments are needed to routinely assess the severity and response to treatment of OCD in children and adolescents.

While self-report screening measures are available for the detection of OCD in children and adolescents (Bamber, Tamplin, Park, Kyte, & Goodyer, 2002; Berg, Rapoport, & Flament, 1986; Hudziak et al., 2006; Uher, Heyman, Mortimore, Frampton, & Goodman, 2007), these measures are not validated to discriminate between varying levels of OCD severity. Currently, the assessment of OCD severity in children and adolescents relies on structured clinical interviews and the most widely used measure is the interview-based child version of the Yale-Brown Obsessive–Compulsive Scale (CY-BOCS, Goodman et al., 1989;

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Scahill et al., 1997). The CY-BOCS has good psychometric characteristics (Scahill et al., 1997), but the requirement of a 30–60 min interview with a trained clinician limits its routine use outside clinical trials and specialized centers. Therefore, development of alternative self- and parent-report measures has been initiated in the recent years (Shafran et al., 2003; Storch et al., 2006).

We have previously reported on the development of Child Obsessional Compulsive Inventory (CHOCI) as a self- and parent-report alternative to CY-BOCS (Shafran et al., 2003). The CHOCI was shown to discriminate well between children with OCD and healthy children and to correlate with CY-BOCS scores in a small clinical sample (Shafran et al., 2003). The aim of the present study is to establish the psychometric properties of a revised version of CHOCI (CHOCI-R) in a large clinical sample of children and adolescents with OCD. The focus is primarily on the concurrent validity of CHOCI-R and CY-BOCS impairment scores.

While self-report is considered suitable for internalizing symptomatology in older children and adolescents (Goodman, Meltzer, & Bailey, 2003), some investigations indicate that parent-report version may achieve closer correspondence with clinician's rating (Shafran et al., 2003; Storch et al., 2006). However, the estimates of parent–clinician agreement in some studies may have been inflated by parents' contribution to the clinical interview and completing a questionnaire afterwards. We therefore compare both self- and parent-report, completed independently and prior to clinical interview taking place, with the CY-BOCS. We apply the item-response theory (IRT) to examine measurement accuracy across the spectrum of severity and to estimate equivalent scores.

2. Methods

2.1. Participants

Consecutive referrals to the specialist clinic for child and adolescent obsessive–compulsive disorder in the years 2000–2006 were asked to complete the CHOCI-R questionnaire prior to clinical assessment. Referred children and adolescents were eligible if they (i) received a diagnosis of OCD according to ICD-10 criteria (WHO, 1992) established in a structured clinical interview with parents and the child, (ii) provided data on either self- or parent-report CHOCI-R. The study was approved by the Ethical Committee at the Institute of Psychiatry, London.

Of the 330 referred children and adolescents, 285 (203 boys and 127 girls) provided consent and data on CHOCI-R. The mean age for girls was 13.7 years, with a standard deviation of 2.3 and range 9–18. The mean age for boys was 13.7 years, with a standard deviation of 2.6 and range 7–18. The CY-BOCS interview was completed with 273 of the same individuals. There were no significant differences between boys and girls on any of the scales (all $p > 0.05$, two-tailed) and therefore results are reported for the whole sample.

2.2. Measures

2.2.1. CHOCI-R questionnaires

The CHOCI-R is a self- and parent-report questionnaire designed to assess the content and severity of OCD symptoms in children and adolescents (Shafran et al., 2003). It follows the format of the CY-BOCS interview. The CHOCI-R has two sections: (A) compulsions and (B) obsessions, each comprising 16 questions. Each section starts with 10 questions about the presence of common OCD symptoms, with a three-option response format ('not at all' = 0, 'somewhat' = 1, 'a lot' = 2). The symptom items serve to focus the subsequent severity ratings on OCD symptoms as well as produce symptom scores for obsessions (10 items, score range 0–20), compulsions (10 items, score range 0–20), and total (20 items, score range 0–40), reflecting the complexity and pervasiveness of OCD symptomatology. In each section, the symptom items are followed by six questions with five-option response format (scored 0–4) probing the severity and impairment associated with OCD symptoms. Severity items include time spent with the symptoms, interference with functioning, distress, resistance, control and avoidance. Severity scores (obsessions, compulsions and total) can be obtained by summing up all item responses. The 'obsessions impairment' (6 items, score range 0–24) and 'compulsions impairment' (6 items, score range 0–24) scores were combined to produce the 'Total Impairment Score' (12 items, score range 0–48), which is designed to be comparable to interview-based CY-BOCS total score. The same 32 items are scored in the self-report and parent versions.

Parents and children were asked to complete the respective versions independently and not to discuss their ratings. In all cases, self- and parent-report CHOCI-R were completed before the clinical assessment and CY-BOCS interview took place so that the reporting was not influenced by the input from the interviewer.

The CHOCI was developed based on experience with several previously available instruments. The