

**RESEARCH ARTICLE****Diagnosis and Out-Patient Treatment of Early Childhood Obsessive Compulsive Disorder****Author**

Veronika Brezinka, PhD

Department of Child and Adolescent Psychiatry and Psychotherapy

University Hospital of Psychiatry Zurich

University of Zurich

Switzerland

Email: [veronika.christiaanse-brezinka@puk.zh.ch](mailto:veronika.christiaanse-brezinka@puk.zh.ch)

**Abstract**

Paediatric obsessive compulsive disorder [OCD] is a chronic condition often associated with severe disruptions of family functioning and key developmental milestones. Mean age of onset of juvenile OCD is between 10 and 11 years; however, studies on young children with OCD show that the disorder can manifest itself much earlier. OCD is characterized by a long duration of untreated illness, which, together with an earlier age of onset, has been associated with increased persistence. Although there are disease-specific treatments for OCD, there seems to be difficulty for health professionals to recognize and diagnose the disorder in young children appropriately. This may prolong the interval between help seeking and receiving an adequate diagnosis and treatment. The objective of this review is to give an overview of studies on the clinical presentation, diagnosis and treatment of OCD in very young children.

**Keywords**

Obsessive compulsive disorder, early childhood, early intervention, cognitive behaviour therapy

## 1. Introduction

Paediatric obsessive compulsive disorder [OCD] is a chronic condition with lifetime prevalence estimates ranging from 2% to 4%<sup>1, 2</sup>. The disorder is often associated with severe disruptions of family functioning<sup>3</sup> and impairment of peer relationships as well as academic performance<sup>4</sup>. Mean age of onset of juvenile OCD is 10.3 years, with a range from 7.5 to 12.5 years<sup>1</sup>. However, reports on young children with OCD show that the disorder can manifest itself at an earlier age - in a sample of 58 children, mean age of onset was 4.95 years<sup>5</sup>. A study from Turkey reported clinical manifest OCD in children as young as 28 months<sup>6</sup>.

Both an earlier age of onset and a longer duration of illness have been associated with increased persistence of OCD<sup>7, 8</sup>. The main predictor for persistent OCD was duration of illness at assessment, which underlines that early recognition and treatment of the disorder is crucial to prevent chronicity<sup>9, 10, 11</sup>. A younger age at onset of OCD also predicts an increased risk for comorbid disorders like ADHD or anxiety disorders<sup>12</sup>.

Early childhood OCD can be so severe that it has to be treated in an inpatient-clinic<sup>13</sup>; this might be prevented if the disorder were diagnosed and treated earlier. However, obsessive-compulsive symptoms may be mistaken as a normal developmental phase in very young children<sup>14</sup>. Parents as well as professionals not experienced with OCD may tend to 'watch and wait' instead of asking for referral to a specialist, thus contributing to the long delay between symptom onset and diagnosis and treatment.

## 2. Diagnostic assessment

Generally, the presentation of OCD in children is similar to that in adults, and severity levels of the disorder in young children are comparable to those observed in older children and adolescents<sup>15</sup>. However, symptomatology often shows specific profiles depending on the age and developmental level of the child. Symptoms in younger children may therefore differ from OCD in older youth<sup>16</sup>. In very young children (between 3 and 5 years of age), who have to master autonomy and separation from attachment figures, OCD may result in separation anxiety and reassurance seeking compulsions<sup>8</sup>. Also, more hoarding is reported for the younger age group, whereas school age children show more sexual and somatic obsessions as well as counting and checking compulsions<sup>16</sup>.

Practice parameters recommend that the psychiatric assessment of children should routinely screen for OCD, even if OCD is not the presenting complaint<sup>12</sup>. Yet there is a high rate of OCD symptom misidentification for adults in primary care<sup>17</sup>, and health professionals not experienced with OCD may be even more reluctant to diagnose the disorder at an early age. Symptoms of OCD may be hidden or not recognized if they are different from the 'typical' washing or checking rituals. OCD symptoms tend to change over time<sup>12</sup>, which can contribute to a reluctance of parents to seek diagnosis and treatment quickly. Besides the well-known cleaning and checking rituals<sup>8</sup>, 'just-right' compulsions are frequently reported for young children, often concerning clothes which have to be put on and off again and again. Other compulsions are blinking and breathing rituals, toilet behaviour such as having to pee

frequently, having to dry oneself excessively after peeing as well as rituals concerning flushing, counting rituals, pronouncing certain words or phrases compulsively, insisting on a 'perfect' action and claiming that time or situations must be played back like a video or DVD<sup>18, 19</sup>.

The *Children Yale-Brown Obsessive Compulsive Scale CY-BOCS*<sup>20</sup>, a clinical interview, is regarded as the gold standard to assess OCD severity in youth. The CY-BOCS has excellent inter-rater and test-retest reliability as well as construct validity<sup>20, 21</sup>; it has been validated in very young children by obtaining information from the parent. As in the clinical interview Y-BOCS for adults, severity of obsessions and compulsions are assessed separately. If both obsessions and compulsions are reported, a score of 16 is regarded as the cut-off for clinically meaningful OCD. If only compulsions are reported, Lewin et al.<sup>22</sup> suggest a cut-off score of 8. In their CY-BOCS classification, a score between 5 and 13 corresponds to mild symptoms / little functional impairment or a Clinical Global Impression Severity (CGI-S) of 2. A score between 14 and 24 corresponds to moderate symptoms / functioning with effort or a CGI-S of 3. Generally, it is recommended to obtain information from both child and parent; however, in the case of very early OCD, CY-BOCS scores are usually obtained from the parents only.

Typically, young children with OCD have poor insight into their symptoms and are less able to recognize the excessive nature of their anxiety<sup>23</sup>. It is therefore crucial to assess the functional impairment of OCD symptoms such as time consumed by rituals, and extent of family accommodation and avoidance

behaviour that can create important barriers to developmental milestones. The topic of family accommodation has to be addressed with all OCD patients<sup>24</sup>, but especially with young children and their parents. The process of family accommodation, also referred to as a 'hallmark of early childhood OCD'<sup>11</sup> means that parents of children with OCD tend to accommodate and even participate in rituals of the affected child. Although driven by love for and compassion with the child, family accommodation is reported to be detrimental because it further reinforces OCD symptoms and avoidance behaviour, thus enhancing stress and anxiety<sup>3 25</sup>. In order to avoid temper tantrums and aggressive behaviour of the child, parents often adapt daily routines by engaging in child rituals or facilitating OCD by allowing extra time, purchasing special products or adapting family rules and organisation to OCD<sup>26 27</sup>. It is therefore recommended to aggressively target family accommodation in young children with OCD<sup>11</sup>.

### 3. Differential diagnosis and comorbidity

In general, comorbidity in children with OCD is high, with more than half of the children fulfilling criteria for an additional psychiatric diagnosis<sup>12</sup>. However, only few data are available on comorbidity in very young children with OCD. For these patients, comorbidity with separation anxiety is common<sup>16</sup>. Of the 25 very young children described by Coskun et al.<sup>6</sup>, all subjects had at least one comorbid disorder, and the most frequent comorbidity was an anxiety disorder.

Overlap with Autism Spectrum Disorder (ASD) is also important for differential diagnosis, as the need for sameness as well as stereotypies might be

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mistaken as symptoms of OCD. In a study on 127 children between 5 and 8 years with OCD who participated in the POTS Jr. Study, elevated autistic traits in one of two diagnostic instruments for Autism Spectrum Disorders (ASD) were found<sup>28</sup>. According to the authors, this might be due to shared topographical features of OCD and ASD or indicate a continuum of severity of ASD in children with OCD. Only a thorough clinical and functional assessment of the behaviour in question will lead to a classification of it being either a stereotypy or a compulsion.

Tic disorders were found to be a frequent comorbidity in children with early onset OCD, defined as an onset before ten years of age<sup>14</sup>. It is up to the clinician to decide whether a certain behaviour is a motor or vocal tic or a compulsion.

Comorbidity with attention deficit disorder (ADHD) and disruptive behaviour disorder has been reported for school children and is associated with higher rates of educational and social problems, with both disorders requiring independent treatment<sup>1</sup>. In a study on 192 youth (between 6 and 19 years) with a principle diagnosis of OCD, those with comorbid disruptive behaviour disorder exhibited greater OCD symptom severity, OCD related impairment and anxiety than those without comorbidity<sup>29</sup>.

#### 4. Treatment

Practice Parameters from the American Academy of Child and Adolescent Psychiatry recommend cognitive behaviour therapy (CBT) as the first line treatment for mild to moderate cases of OCD; for severe OCD, medication with an SSRI is indicated in addition to CBT<sup>12</sup>. Sertraline is labeled for this indication from the age of 6 years.

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Treatment is generally continued for 6 to 12 months and withdrawal should be very gradual<sup>30</sup>. Although Clomipramine (approved for OCD from the age of 10 years) has been reported to have a comparable or higher effect size than SSRI's, it is not recommended as first-line medication in children and adolescents due to its less favorable side effects<sup>12 30</sup>. In the case of treatment-refractory OCD, raising SSRI dosage to the maximum is recommended, as well as a change to a different SSRI. If this does not lead to an improvement, different augmentation strategies with Clomipramine or antipsychotics are the second or third choice of medication<sup>12 31</sup>. Yet, due to the absence of studies in very young children (under six years of age), pharmacotherapy is not recommended for this age group<sup>31</sup>. Moreover, medication is often undesirable to parents, which is important because treatment preference and acceptability are associated with improved outcomes.<sup>32</sup>

Instead, an increasing number of studies show that CBT, the treatment of choice according to current treatment guidelines<sup>12</sup>, is a well-tolerated and acceptable treatment option also for families with young children<sup>11</sup>. The core element of CBT for OCD is exposure with response prevention (E/RP). This means that the child has to stay in the anxiety provoking situation (exposure) without performing rituals (response prevention) until the unpleasant feeling weakens due to the process of habituation. While the efficacy of CBT for childhood OCD was already well documented for school age children (7 years onwards)<sup>33</sup>, it took longer to establish evidence based knowledge about treatment in younger children. Freeman et al.<sup>34</sup> were the first to develop a family based cognitive-  
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behavioural treatment (CBFT) for young children with OCD, including the core components of CBT (psychoeducation, E/RP and relapse prevention) but with significant family involvement and less focus on cognitive therapy. In a controlled trial with 42 children (between 4 and 8 years) diagnosed with OCD, CBFT was significantly more effective than relaxation training offered as alternative<sup>35</sup>. In a much larger randomized clinical trial for 127 young children (5 to 8 years of age) with OCD, family-based CBT was again superior to a relaxation protocol for this age group<sup>10</sup>.

Lewin et al.<sup>11</sup> randomized 31 children (3-8 years of age) with a primary diagnosis of OCD to either a developmentally tailored E/RP treatment or treatment as usual (TAU). The E/RP group received twelve sessions of family-based E/RP twice weekly within six weeks. E/RP was adapted to address family accommodation from the beginning, prior to asking the child to engage in E/RP. In the first session, parents got specific instructions to reduce their accommodation. Participants randomized to the TAU condition were permitted to continue prior interventions such as psychotherapy or social skills training, or to seek new treatment at a different place. Results showed a large group effect in favor of the E/RP group. There was no attrition from the E/RP group and parental satisfaction with E/RP was high, suggesting that E/RP is acceptable and efficacious even for very young children.

Rosa-Alcázar et al.<sup>36</sup> assigned twenty families with young children (between 5 and 7 years old) with OCD to one of two treatment conditions: one offering CBFT for early OCD involving both parents and children, the other

offering only parent training. In the CBFT-condition, parent and child attended twelve weekly individual sessions of 60 minutes. Mothers and children participated together in the first 30 minutes of each session, receiving developmentally tailored psychoeducation, cognitive training to externalize OCD and graded E/RP. The remaining 30 minutes were attended by the mother only and dedicated to the topics of family accommodation, training in contingency management and training to conduct and assist the child with E/RP exercise at home. In the parent training condition, only mothers attended the twelve weekly sessions with the therapist. Both treatments were successful in significantly reducing OCD symptomatology at post-treatment and at 3 months follow-up. Because of the small sample size, it is not clear whether a larger sample size would have shown significant differences between the two treatment conditions. Still these results suggest that it may not be necessary to have the child present at every session with the clinician, thus allowing treatment services to reach out to families who live far away or to help families whose children refuse to participate in treatment.

Brezinka et al.<sup>18</sup> report on five very young children (between four and five years old) with OCD who were so severely impaired at the moment of first presentation that attendance of compulsory Kindergarten was uncertain. Parents were deeply involved in accommodating their child's rituals. Families were offered a minimal CBT intervention for parents, mainly focusing on reducing family accommodation. After a first session with parents and child within one week of referral, the following sessions were done with the parents only, who were encouraged to bring

video tapes of critical situations. The scenes were watched together and parents were coached to reduce family accommodation for OCD, while enhancing praise and reward for adequate behaviour of the child. Parents were taught to use ignoring and time-out for problematic behaviour such as screaming or kicking as reaction to their refusal to accommodate obsessive-compulsive behaviour. As some families lived far away and had to take care of younger siblings as well, telephone sessions were offered as an alternative whenever parents felt the need for it. Parents were also encouraged to facilitate developmental tasks of their child such as attending Kindergarten regularly, or building friendships with peers. Assessment of OCD-severity by means of the CY-BOCS showed an impressive decline after three months that remained stable at six months. At three months follow-up, all children were able to attend Kindergarten daily, and at six months follow-up, every child was admitted to the next level of Kindergarten or school.

## 5. Conclusion

Obsessive compulsive disorder often has a long duration of untreated illness compared to other psychiatric disorders; in children, the delay between onset and clinical diagnosis is on average more than two years<sup>8</sup>. Both an earlier onset and a longer duration of illness have been associated with increased

persistence of the disorder<sup>7</sup>. In order to prevent chronicity, early detection and intervention are crucial. Clinicians should not hesitate to think of OCD in a young child when obsessive-compulsive symptoms are reported.

The first line treatment recommendation for paediatric OCD is CBT with E/RP<sup>12</sup>. Although studies on paediatric OCD initially focused on school-aged children, there is scientific evidence that this treatment is an effective and well-tolerated option also for very young children with OCD. Medication is not recommended for very young children and often undesirable to parents<sup>32</sup>.

As children with OCD have a heightened risk for clinically significant psychiatric and psychosocial problems as adolescents and adults, intervening early offers an important opportunity to prevent the development of long-standing problem behaviours<sup>9, 34</sup>. Especially in the case of very young children, early and disease-specific intervention is regarded as paramount<sup>11</sup>. It is therefore important to disseminate knowledge about the clinical presentation, diagnosis and treatment of early childhood OCD in order to shorten the long delay between first symptoms of OCD and disease-specific treatment that is reported as main predictor for persistent OCD.

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