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# OCD in children: phenomenology, impairment, and psychiatric co-morbidity—an experience from Kashmir

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## Abstract

**Introduction** Obsessions are recurrent ego-dystonic thoughts, images, or urges followed by compulsion to reduce them. The phenomenology of obsessive-compulsive disorder (OCD) along with comorbidities is essential for understanding treatment response. This study aimed to assess phenomenology, impairment, and psychiatric co-morbidity associated with OCD in children and adolescents.

**Methodology** A cross-sectional study was done among 36 patients suffering from OCD. Socio-demographic and clinical details were collected with the application of Children's Yale-Brown Obsessive Compulsive Scale for severity of illness, Children's Global Assessment Scale for impairment assessment, and Kiddie-Sads-Present and Lifetime Version for comorbidity.

**Result** Thirty-six patients, comprising 20 male and 16 female subjects, with a mean age  $\pm$  SD of  $11 \pm 3.4$  years and a mean duration of illness of 12.30 months, were included in the study. A positive family history was noted in 30.6% of subjects. Mean C-YBOCS score was 24.44 (moderate to severe OCD) and the mean C-GAS score was 47.86, with 55.6% of subjects suffering from other comorbidities. Fear of contamination with washing and cleaning was among the most common themes in the population. Data was analyzed and presented as mean  $\pm$  SD, frequencies, and percentages.

**Conclusion** Considering the increased prevalence of OCD in children and adolescent populations, a thorough symptom evaluation and any co-morbidities related to OCD should be considered by clinicians.

**Keywords** OCD child, Adolescent psychiatry, Kashmir OCD

## Introduction

Obsessions are recurrent thoughts, images, or urges that are ego-dystonic in nature and are usually followed by a conscious, standardized, repetitive activity called compulsion, which is aimed at reducing them. Previously, this condition of obsessive-compulsive disorder (OCD)

was named monomanie raison nante (by esquirol), folie de doute (by janet), abortive insanity (by westphal), and obsessive-compulsive neurosis (by fenichel), as cited in a review article [1]. As per les obsessions et al. Psychasthenie (1903), there is the involvement of psychasthenia and forced agitation, which leads to the development of obsession and compulsion [1]. Later in 1963, Jaspers described five essential characteristics of obsessions, comprising non-relevant thoughts and actions that can make things happen: magical thinking, compelling nature, the need for order, and the subsequent impulses that are unacceptable. The basic meaning of obsession is preoccupation or haunting thoughts or ideas [1]. OCD is the fourth most common psychiatric illness and is

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counted as the fifth most disabling psychiatric morbidity as per the World Health Organization (WHO) [2]. The lifetime prevalence of this disorder in India is 0.6% in the adult population [3] and 0.8% among adolescents [4].

The term phenomenology means the symptoms and signs of the disease. Various factors determine the phenomenology of OCD and it is important for us to understand as it plays a role in determining treatment response. A child accumulates formalization and repetition in their routine activities, like hopping at every 5th step, not walking over connecting joints of tiles or marble flooring, or doing anything in a particular fashion that is not relevant. The way of doing these activities becomes integrated with fantasy and imparts a sense of good and bad, which might elaborate on magical thinking in the future, like not doing something in a particular ritual could lead to bad things or make you unlucky [1]. Later on, it transforms into superstition in adults [1], like a cat crossing a path or starting any activity with the left hand is considered unlucky while doing an activity three times or with turns in an odd number is considered lucky, which links these irrational ideas to the tradition. Children who were brought up in a culture of perfectionism with strong moralistic values might develop obsessive–compulsive symptoms, which could be explained by the model of theoretical complex [5]. It may also develop due to an empathy disorder, i.e., a deficiency in theory of mind skills [6].

Previous studies have shown aggressive, sexual, and religious themes of obsessions to be common in the adult population, while symmetry, were common in the pediatric population [7]. A number of comorbidities have been found associated with OCD in children, including mood and anxiety-related disorders dominated by aggressive obsessions, while movement disorders like tics were associated with contamination and symmetrical obsessions [8]. Other comorbidities like attention deficit hyperactivity disorder (ADHD), Tourette syndrome, trichotillomania, eating disorders, and impulse control disorders were also found in the child and adolescent population [9, 10]. OCD, along with these comorbidities, often takes a toll on the daily lives of children, creating significant impairment in their personal, social, and academic life profiles. Despite the limited research conducted in India regarding the phenomenology of obsessive–compulsive disorder (OCD) in pediatric age groups, this has never been investigated in our region. As a result, it is crucial that we investigate the phenomenology of OCD in children and adolescents, in addition to assessing impairment and psychiatric co-morbidity.

## Methodology

This research was cross-sectional in design and was conducted at the Child Guidance and Wellbeing Center (CGWC), Department of Psychiatry, Community General Hospital Unit of the Institute of Mental Health and

Neurosciences-Kashmir (IMHANS-K), Government Medical College, Srinagar, Jammu and Kashmir, India, among 36 consecutive patients in the month of April 2024. This study was approved by the Institutional Review Board of Government Medical College, Srinagar, Jammu and Kashmir, Srinagar, India with reference number: IRBGM-C-SGR/PSY/453.

The inclusion criteria consisted of (a) patients of age between 6 and 17 years, (b) diagnosis of obsessive–compulsive disorder as per the Diagnostic and Statistical Manual of Mental Disorders–fifth edition, and (c) those guardians of patients who provided written informed consent. The exclusion criteria were any comorbid physical or medical condition.

The diagnosis was confirmed by a qualified child psychiatrist, and subjects of age with or within 9 years were grouped into children, and  $\geq 10$  years of age were considered adolescents [11, 12]. Those patients or attendants who had given written informed consent were further taken up for the exploration of socio-demographic details, which included age of onset, gender, education, dwelling, socioeconomic status, total duration of illness, and family history of OCD.

A structured interview was held for assessment of the phenomenology and severity of OCD by the Children's Yale-Brown Obsessive Compulsive Scale (C-YBOCS) [13]. It is a clinician-rated five-point scale that comprises a total obsessions and compulsions domain score. Some of the obsessions, like fear of saying bad things or recurrent intrusive images or sounds, were placed under the Miscellaneous Obsessions category, while compulsions like the need to confess, the need to touch or rub, breathing, not talking, and blinking rituals were placed under the Miscellaneous Compulsions category.

Kiddie-Sads-Present and Lifetime Version (K-SADS-PL) is a clinician-assigned rating scale for clinical assessment and diagnosis of major Axis-I co-morbidities [14], and the Children's Global Assessment Scale (C-GAS) [15] was utilized for evaluation of comorbid psychiatric diagnosis and impairment, respectively.

The scales were explained in the native language in the most understandable form in the presence of a child psychiatrist, and information was gathered accordingly. All queries raised by the participant or guardian were answered during the conduct of the study.

Data were tabulated in Microsoft Excel and analyzed using Statistical Package for Social Sciences (SPSS) 25.0 (IBM Corp.), presented as mean  $\pm$  standard deviation (SD), frequencies, and percentages.

## Result

This study was conducted among 36 patients suffering from OCD, out of which 20 subjects were male and 16 were female, with a total mean age of  $11 \pm 3.4$  years, with

equal representation from urban and rural populations. The majority of the subjects (55.6%) were in secondary school, i.e., studying between 5 and 10th grade at school.

A positive family history of OCD was present in 30.6% of subjects, with a total mean duration of illness was  $12.30 \pm 10.07$  months. As per C-YBOCS, subjects were suffering from moderate to severe OCD, with a mean score of  $24.44 \pm 4.69$ . The mean C-GAS score of our study sample was  $47.86 \pm 8.46$ , with the majority (38.9%) falling under Grades 60–51 and exhibiting “some noticeable problem”. Approximately a quarter of our population was suffering from serious problems in several areas and was unable to function. The rest of the demographic and clinical details are mentioned in Table 1.

Table 2 shows a comparison of symptoms among children and adolescents, the theme of contamination was predominant in both age groups, with an increased prevalence of pathological doubt in adolescents. In compulsion, washing and cleaning were dominant. Interestingly, aggressive obsession (33.3%) and blasphemous or religious thoughts (25%) were observed more in the adolescent population. Similarly, repeating rituals, hoarding, hair pulling, nail-biting, and skin-picking were observed more in the adolescent population. A higher severity of impairment was seen in the children age group ( $50.67 \pm 8.25$ ) compared to adolescents ( $46.46 \pm 8.39$ ). Details of individual obsession and compulsion are represented in Figs. 1 and 2.

Comorbidity was present (55.6%) in the majority of our subjects, with a dominant major depressive episode

(16.7%) in the sample. Other comorbid diagnoses are shown in Table 3.

## Discussion

After reviewing previous literature on the knowledge of OCD in children and adolescent populations, we can uphold that no similar research in the past has been done in Kashmir Valley, so it becomes imperative to conduct this study in our region. Our study was done on patients visiting our child and adolescent psychiatry clinic, which is the only specialized institute in Kashmir focusing on child guidance and well-being at a United Nations Children’s Fund (UNICEF)—a collaborated center. Thus, our study comprises subjects from multiple nearby cities, representing the whole pediatric and adolescent population of Kashmir Valley, rather than from a specialized OCD clinic.

In relation to previous studies, males predominantly (55.6%) exhibited OCD, which highlights the role of gender distribution [10, 16]. According to prior research [9, 17], obsession with contamination and compulsion-based washing rituals were dominant. Intrusive or magical thoughts and pathological doubt, along with repeating rituals, were followed by it. Miscellaneous obsessions (like fear of saying bad things or recurrent intrusive images or sounds) and compulsions (like the need to confess, the need to touch or rub, breathing, not talking, or blinking rituals) can also be a part of an underlying disorder, which the healthcare provider should be concerned about. Interestingly, a pattern of contamination with washing in children compared to aggressive, blasphemous, and religious obsession with religious rituals was more observed in adolescents [10, 18, 19]. It may be due to the development of abstract thinking and concepts of religion becoming fully formed in the adolescent age group, leading to an increased frequency of religious obsession [20]. Due to embarrassment, guilt, and the belief that they are representing sin, it is also possible that children may underreport it. These aggressive and blasphemous thoughts cause them to compensate by either praying, performing religious rituals, or washing to cleanse themselves from this distress.

Approximately 30.6% of subjects had a family history of OCD, which associates it with the age of onset of symptoms and is similar to previous studies [21]. The family members suffering from OCD have a rigid concept and a habit of being correct, which might influence children to develop OCD [22].

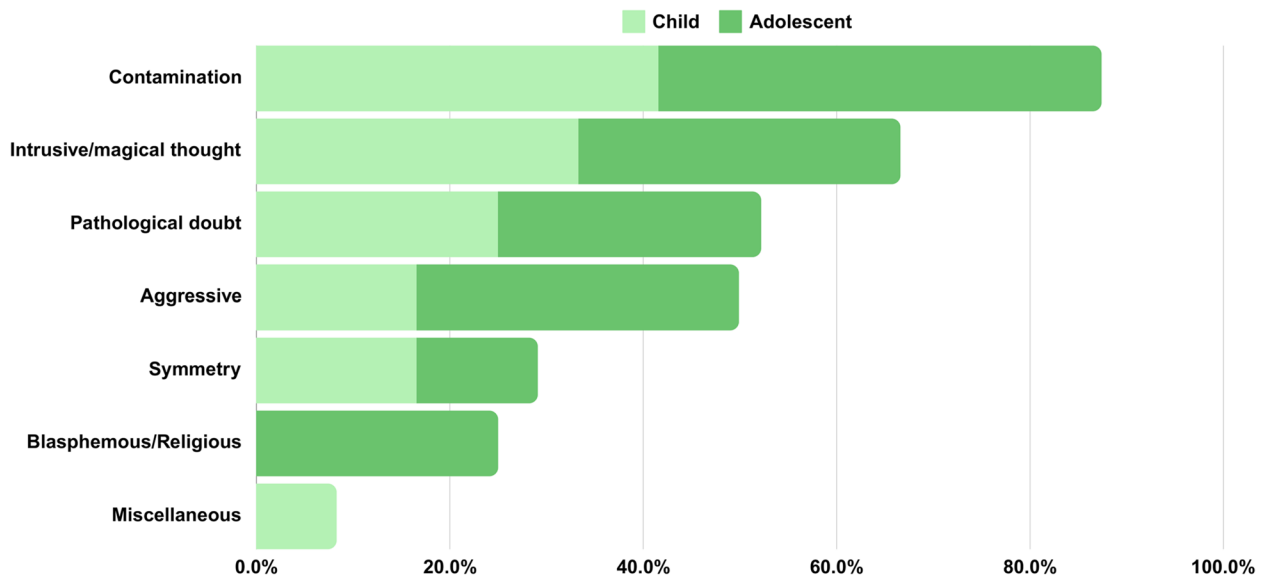
Our subjects were suffering from moderate to severe OCD with a mean of  $24.44 (\pm 4.69)$  on C-YBOCS, with greater severity in the adolescent age group ( $25.21 \pm 4.65$ ), compared to children ( $22.92 \pm 4.60$ ), which is in line with previous studies [23, 24]. Whereas, there was

**Table 1** Socio-demographic and psychiatric details of the sample

Age of onset (years), mean $\pm$ SD	11 $\pm$ 3.4
Gender	
Male, N(%)	20 (55.6%)
Female, N(%)	16 (44.4%)
Education	
Primary, N(%)	11 (30.6%)
Secondary, N(%)	20 (55.6%)
Senior Secondary, N(%)	5 (13.9%)
Dwelling	
Urban, N(%)	18 (50%)
Rural, N(%)	18 (50%)
Duration of illness (months), mean $\pm$ SD	12.30 $\pm$ 10.07
Family history of OCD, N(%)	11 (30.6%)
C-YBOCS, mean $\pm$ SD	24.44 $\pm$ 4.69
C-GAS, mean $\pm$ SD	47.86 $\pm$ 8.46
•Some problem (70–61)	1 (2.8%)
•Some noticeable problem (60–51)	14 (38.9%)
•Obvious problem (50–41)	12 (33.3%)
•Serious problem (40–31)	9 (25%)

**Table 2** Clinical characteristics of the sample

	Children, N = 12(%)	Adolescent, N = 24(%)
<b>Obsession</b>		
Contamination	5 (41.6%)	11 (45.8%)
Intrusive/magical thought	4 (33.3%)	8 (33.3%)
Pathological doubt	3 (25%)	9 (27.2%)
Aggressive	2 (16.6%)	8 (33.3%)
Symmetry	2 (16.6%)	3 (12.5%)
Blasphemous/religious	0 (0%)	6 (25%)
Miscellaneous	1 (8.3%)	0 (0%)
<b>Compulsion</b>		
Washing/cleaning	5 (41.6%)	12 (50%)
Repeating rituals	3 (25%)	5 (20.8%)
Checking	2 (16.6%)	4 (16.6%)
Ordering/arranging	2 (16.6%)	3 (12.5%)
Counting	1 (8.3%)	3 (12.5%)
Religious rituals	0 (0%)	6 (25%)
Hoarding	0 (0%)	2 (8.3%)
Hair pulling/nail biting/skin picking	0 (0%)	3 (12.5%)
Miscellaneous	2 (16.6%)	3 (12.5%)
C-YBOCS (mean ± SD)	22.92 ± 4.60	25.21 ± 4.65
C-GAS (mean ± SD)	50.67 ± 8.25	46.46 ± 8.39

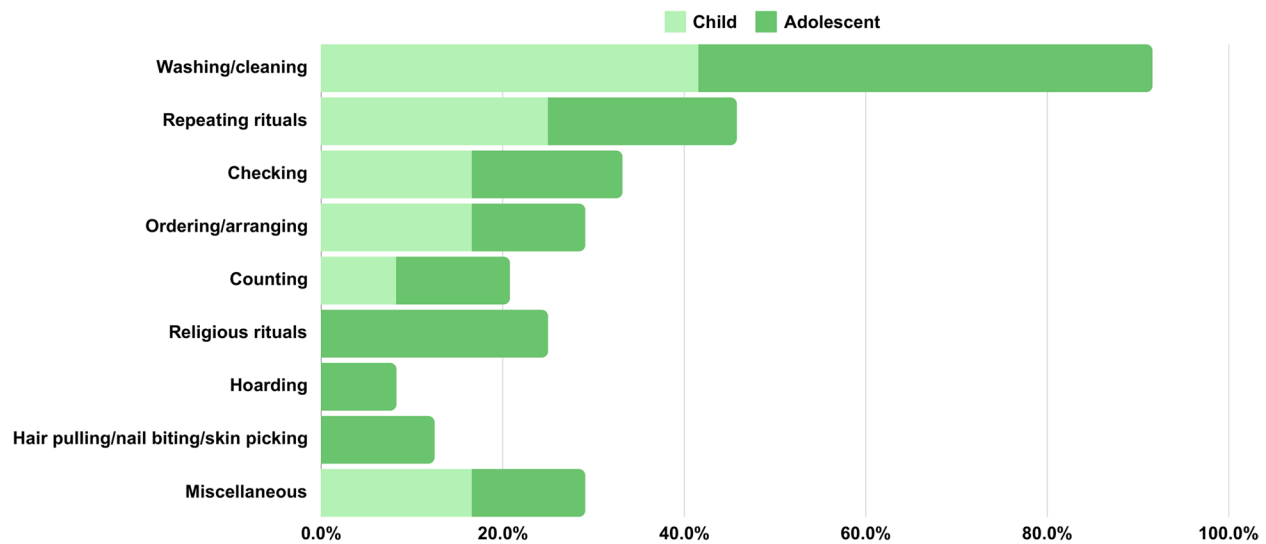


**Fig. 1** Obsessive symptom distribution among child and adolescent

greater severity of impairment in the children group (50.67 ± 8.25) compared to adolescents (46.46 ± 8.39) in C-GAS. Both of these findings can be attributed to the hiding or underrepresentation of symptoms by children because of less awareness and insight, and when they are not able to hide their distress or compulsion, the severity of the disease increases. Regarding greater impairment

in children as per C-GAS, but less severity on C-YBOCS when compared with adolescents, can be attributed to immature cognitive, emotional, and coping mechanism development in children.

Approximately less than one-third of our population was suffering from other comorbid psychiatric diagnoses. Similar to previous studies, major depressive episodes and



**Fig. 2** Compulsive symptom distribution among child and adolescent

**Table 3** Details of the comorbidity in the sample

Comorbidity	N = 20 (%)
Major depressive episode	6 (16.7)
Generalized anxiety disorder	3 (8.3)
Attention deficit hyperactivity disorder	2 (5.6)
Trichotillomania	2 (5.6)
Panic disorder	2 (5.6)
Social phobia	1 (2.8)
Tic disorder	1 (2.8)
Tourette syndrome	1 (2.8)
Specific learning disorder	1 (2.8)
Excoriation disorder	1 (2.8)

anxiety disorder were dominant in comorbidity [25, 26], followed by ADHD and trichotillomania. Hypotheses suggesting ADHD as a developmental marker for OCD have been explored and tried in the past [10]. Various research has revealed a genetic abnormality linking Tourette syndrome and Tic disorder with OCD [27–29], along with common neuroanatomical involvement of the basal ganglia. Although distinguishing tics from compulsive behavior remains a challenge, those are performed to reduce somatic symptoms rather than anxiety [30, 31]. Subjects should also be further evaluated for the diagnosis of Pediatric Acute-Onset Neuropsychiatric Syndrome (PANS) spectrum.

This study comes with the following limitations. First, evaluating patients based on their age of onset could be imprecise, as it has been collected based on the patient’s memory of the probable onset of symptoms and even the verbatim of the guardian in some cases. Second, a small subject population reduces its generalizability. Third, as

it was a cross-sectional study, a cause-to-effect outcome along with detailed psychopathological evaluation over time could not be explored. Future studies should be done taking into account these limitations.

**Conclusion**

This study highlights the growing concern about obsessive–compulsive symptoms progressing into OCD at an early age. Children should be looked out for the presence of classical symptoms as well as other miscellaneous symptoms to understand the phenomenological aspect beginning from the developmental age. Proper assessment of comorbidities associated with OCD could help plan a better management plan for the patient.

**Abbreviations**

- OCD Obsessive-compulsive disorder
- WHO World Health Organization
- ADHD Attention deficit hyperactivity disorder
- CGWC Child Guidance and Wellbeing Center
- IMHANS-K Institute of Mental Health and Neurosciences-Kashmir
- C-YBOCS Children’s Yale-Brown Obsessive Compulsive Scale
- K-SADS-PL Kiddie-Sads-Present and Lifetime Version
- C-GAS Children’s Global Assessment Scale
- SD Standard deviation
- SPSS Statistical package for social sciences
- UNICEF United Nations Children’s Fund
- PANS Pediatric Acute-Onset Neuropsychiatric Syndrome

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**Authors’ contributions**

All authors have contributed significantly to the study design, collecting the data, and writing the manuscript.

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**Availability of data and materials**

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

**Declarations****Ethics approval and consent to participate**

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**Consent for publication**

Not applicable.

**Competing interests**

The authors declare that they have no competing interests.

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