



A CROSS SECTIONAL DESCRIPTIVE STUDY OF OCD IN CHILDREN AND ADOLESCENTS

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ABSTRACT This study was a part of a bigger multicentric study to examine the socio-demographic and clinical characteristics of children and adolescents (age ≤ 18 years) with OCD. Our sample comprised 30 subjects with OCD. Socio-demographic data was collected on a proforma specifically designed for this study. Clinical information was obtained on Structured clinical interview for Diagnostic and Statistical Manual, 5th edition Research Version (SCID), Children's Yale Brown Obsessive Compulsive Scale (CYBOCS), the Children's Depression Rating Scale-Revised (CDRS) and the Family Interview for Genetic Studies (FIGS). In our sample 70% of participants were male and 67.7% had onset of symptoms before 14 years of age. Most common obsessions in our participants were of doubts about contamination and magical thinking/superstitious while the most common compulsions were those involving checking, washing and rituals involving other persons. Comorbid psychiatric disorders were seen in 63.3% patients with most common being depression, Obsessive Compulsive Related Disorders (OCRDs), intermittent explosive disorder and anxiety disorder. The associated OCD symptoms on CYBOCS including lack of insight, avoidance and indecisiveness were on a spectrum. 46.6% had positive family history of OCD in first degree relative.

KEYWORDS : OCD, obsessive compulsive disorder, children, adolescents

Introduction

Obsessive-compulsive disorder (OCD) is a debilitating psychiatric disorder that can severely disrupt academic, social and vocational functioning and is characterized by recurrent, persistent, unwanted and intrusive thoughts, ideas, images and urges (obsessions) and repetitive behaviors or mental acts (compulsions). It has a chronic and fluctuating course. Once considered to be rare in youth, epidemiological studies have found that it is common not only in adults, but also in children and adolescents with a lifetime prevalence of 0.25%–4%¹. Up to 80% of those who develop OCD have their onset before 18 years of age².

However, paediatric OCD differs from its adult counterpart in clinical correlates such as a distinct peak of onset at age 11, over representation of males, high levels of comorbid behavioral and specific developmental disorders. It has a significant negative impact on the individual and caregivers³ with a marked functional impairment across multiple domains, including home, school and social functioning⁴. Mean YBOCS scores are higher in patients with juvenile onset OCD than in patients with adult onset, suggesting greater severity of disorder in the former group. Clinical presentation also differs in children suggesting the effect of developmental level on symptom expression. Obsessions associated with aggression and compulsions of hoarding occur with higher frequency in juvenile onset cases. Sexual obsessions are more prevalent in adolescents compared with children or adults^{5,6}. Approximately 4 in 10 cases with OCD run a chronic fluctuating course, and many seek to conceal their OCD from others⁷. The World Health Organization (WHO) places OCD in the top ten of the most handicapping disorders of humans⁸. Comorbid disorders are present in 68% to 100% of cases⁹. The most common types of comorbidities are anxiety disorders, tic disorders, attention deficit/hyperactivity disorder (ADHD) and conduct disorders^{10,11}.

There is relatively little research on paediatric OCD in the Indian population. However a recent Indian study¹² of 58 children and adolescents (below 16 years of age) found that contamination obsessions were the commonest in 62% followed by obsessions related to aggression (57%), symmetry (34%), sex (22%), religion (22%), somatic (12%), and hoarding (7%). Regarding compulsions,

cleaning and washing was the commonest (69%) followed by repeating (52%), checking (47%), ordering (29%), counting (15%), and hoarding (7%). The phenomenology of OCD in these studies is similar to that reported in a group of 70 young patients at the National Institute of Mental Health (NIMH) in USA¹³.

Aim of present study

This study was done as part of a bigger multi-centric study that recruited subjects from 6 centres from across India with the aim to study the socio-demographic and clinical characteristics of children and adolescents (age ≤ 18 years) with OCD¹⁴. The dataset described in this study is from our centre, the Psychiatry department at Motilal Nehru Medical College (MLNMC), Prayagraj so that the data may be more applicable to our local population.

Material and methods

All children and adolescents aged < 18 years, who attended psychiatry Out Patient department of Motilal Nehru Medical college, Prayagraj, from 8th January to 30th June 2016 with a primary diagnosis of OCD were included in the study. Patients with a history of psychosis or bipolar disorder antedating the onset of OCD, obsessive-compulsive symptoms occurring as part of a general medical, neurological (including neurodevelopmental) or medication/substance induced disorder were excluded from the study. Written informed consent was obtained from parents/legal guardian and assent from the patient. Study was approved by the Institutional Ethics Committee.

Detailed sociodemographic and clinical information was collected on a proforma specifically designed for this study. **Structured clinical interview for Diagnostic and Statistical Manual, 5th edition Research Version¹⁵ (SCID)**, a semi-structured interview, was used for making diagnoses of psychiatric disorders. **Children's Yale Brown Obsessive Compulsive Scale (CYBOCS)¹⁶**, an interviewer administered semi-structured interview, was used to assess the severity of obsessive and compulsive symptoms. The Children's Depression Rating Scale-Revised¹⁷ (CDRS), a clinician rating scale for assessing severity of depression, was used to record depressive symptomatology. The Family Interview for Genetic Studies¹⁸ (FIGS), a clinician administered tool was used to collect data on the family history of psychiatric disorders.

Results

Table 1: Socio-demographic And Clinical Characteristics

VARIABLE	MEAN (SD)/ FREQUENCY (%)
Gender distribution (males)	21 (70%)
Age (years)	15.17 (2.74) Range= 9-17
Education (number of years)	9.5 (2.9)
Nuclear family	17 (56.7%)
Urban residence	24 (80%)
Age at onset of OCD (years)	12.87(2.96) Range= 5-17
<5	0
5-9	4(13.3%)
10-14	16(53.3%)
>14	10(33.3%)
Age at first consultation (years)	14.1 (2.80) Range= 9-17
Duration of illness (months)	29.8 (18.3) Range= 2-60
Duration of treatment (months)	8.67 (11.3) Range= 0-42
Adequate treatment with at least 1 SRI	15 (50%)
Adequate treatment with ≥2 SRIs	4 (13.3%)
History of past psychotherapy	10 (33.3%)
Continuous course	23(76.7%)
Informant relation with child	
Father	13 (43.3%)
Mother	8 (26.7%)
Mother & father	3 (10%)
Paternal uncle	1 (3.3%)
Self informant	5 (16.7%)
Presence of precipitating factor	6 (20%)
Comorbid psychiatric illnesses, n (%)	19 (63.3%)
Depressive disorder	15 (50%)
Substance use disorder	0
Sleep wake disorder	0
Anxiety disorder	3 (10%)
OCRDs	
Hoarding disorder	2 (6.6%)
Body dysmorphic disorder	2 (6.6%)
Trichotillomania	2 (6.6%)
Skin picking	0
Feeding and eating disorder	1 (3.3%)
Somatic symptom disorder	3 (10%)
Externalizing disorders	4 (13.3%)
ADHD	0
Intermittent explosive disorder	4 (13.3%)
Trauma and stress related disorder	0
Tic disorders	0
Childhood depression rating scale scores, mean (SD)	
Score <20 (no depression), n (%)	4 (13.33%)
Score 20-30 (borderline), n (%)	11 (36.67%)
Score >30 (depression), n (%)	15 (50%)
Family history of psychiatric illnesses in first degree relatives, n (%)	14 (46.6%)
OCD	8 (26.7%)
Depressive disorders	4 (13.3%)
Tic disorders	0
Bipolar disorder	2 (6.6%)
Anxiety disorders	1(3.3%)
Psychotic disorders	0
Substance use disorders	1 (3.3%)
Feeding/eating disorders	0

Table 2: Cybocs Assessment Of The Sample

CYBOCS global severity	N(%)	
No illness	1 (3.3%)	
Slight illness	4 (13.3%)	
Mild symptoms	1 (3.3%)	
Moderate symptoms	12 (40%)	
Moderate –severe symptoms	5 (16.7%)	
Severe symptoms	7 (23.3%)	
Extreme symptoms	0 (0)	
CYBOCS symptom dimensions- Obsession	Current N(%)	Lifetime N(%)

Contamination, n (%)	13 (43.3%)	14 (46.6%)
Aggressive, n (%)	8 (26.7%)	10 (33.3%)
Magical thinking/superstitious, n (%)	9(30%)	10 (33.3%)
Sexual, n (%)	4 (13.3%)	5 (16.7%)
Religious, n (%)	3(10%)	4 (13.3%)
Somatic, n (%)	8 (26.7%)	8 (26.7%)
Hoarding/saving, n (%)	1(3.3%)	2 (6.7%)
CYBOCS symptom dimensions- Compulsion		
Washing/cleaning, n (%)	10 (33.3%)	12 (40%)
Checking, n (%)	13 (43.3%)	17 (56.7%)
Repeating, n (%)	8 (26.7%)	9(30%)
Counting, n (%)	7 (23.3%)	7 (23.3%)
Ordering/arranging, n (%)	4 (13.3%)	7 (23.3%)
Hoarding/saving, n (%)	1(3.3%)	1(3.3%)
Excessive games/superstitious behaviors, n (%)	4 (13.3%)	5 (16.7%)
Rituals involving other persons (proxy), n (%)	10 (33.3%)	13 (43.3%)
CYBOCS INSIGHT		
None	8 (26.7%)	
Mild	6 (20%)	
Moderate	8(26.7%)	
Severe	7 (23.3%)	
Extreme	1(3.3%)	
CYBOCS AVOIDANCE		
No deliberate avoidance	6(20%)	
Minimal	3 (10%)	
Some avoidance clearly present	9 (30%)	
Avoidance prominent	11 (36.7%)	
Extreme avoidance	1(3.3%)	
CYBOCS -INDECISIVENESS		
None	10 (33.3%)	
Mild	7 (23.3%)	
Moderate	9(30%)	
Severe	4(13.3%)	
Extreme	0 (0)	
CYBOCS -OVERVALUED SENSE OF RESPONSIBILITY		
None	14 (46.7%)	
Slight	5 (16.7%)	
Significant	8(26.7%)	
Severe	3(10%)	
Extreme	0 (0)	
CYBOCS -PERVASIVE SLOWNESS		
None	13 (43.3%)	
Mild	4(13.3%)	
Moderate	8(26.7%)	
Severe	5 (16.7%)	
Extreme	0 (0)	
CYBOCS -PATHOLOGICAL DOUBT		
None	11 (36.7%)	
Mild	5 (16.7%)	
Clearly present	9 (30%)	
Prominent	4(13.3%)	
Constant	1(3.3%)	

A total of 30 subjects were included in the study, of which 70% were males. Mean age of the patients was 15.17 years (range 9-17). 80% of the subjects were urban resident while 56.7% belonged to nuclear families. In most cases, patients were accompanied by their parents (father 43.3%, mother 26.7% or both 10%).

While the mean age of onset was 12.87 years (range 5-17), mean age at first consultation was 14.1 years suggesting a gap of more than 1 year before seeking help. Similarly, the mean duration of illness at the time of recruitment in this study was 29.8 months but the mean duration of treatment was only 8.67 months suggesting a significant period of untreated illness. Majority [23(76.7%)] of patients had a continuous course and only 6 (20%) had an identifiable precipitating factor. While 50% received an adequate trial with at least 1 Serotonin Reuptake Inhibitor (SRI), only 13.3% had 2 adequate treatment trials. 33.3% had received some form of psychotherapy although we could not get adequate details to be able to comment on the quality or duration. Co-

morbid psychiatric illnesses were seen in 19 (63.3%) of the patients, most common of which were depression [15(50%)], Obsessive Compulsive Related Disorders (OCDs) [6(20%)], intermittent explosive disorder [4(13.3%)] and anxiety disorders [3(10%)]. While depression was severe enough to be diagnosed in 50% of cases, another 36.67% had borderline depressive symptoms on CDRS. The OCDs [6(20%)] in our sample included hoarding disorder, trichotillomania and body dysmorphic disorder in equal numbers. There was no case of ADHD or tic disorder. Psychiatric illnesses were present in 46.6% of the first degree relatives (FDR), with the most common ones being OCD (26.7%) and depressive disorders (13.3%).

Most common obsessions in our participants were of doubts about contamination [13 (43.3%) current and 14 (46.6%) lifetime] and magical thinking/superstitious [9(30%) current and 10 (33.3%) lifetime], while the most common compulsions were those involving checking [13 (43.3%) current and 17 (56.7%) lifetime], washing [10 (33.3%) current and 12 (40%) lifetime], and rituals involving other persons [10 (33.3%) current and 13 (43.3%) lifetime]. 26.7% had full insight into their illness while the same number had severe to extreme impairment of insight. In the rest, insight impairment was on a spectrum with 20% showing mild and 26.7% showing moderate impairment. 70% of cases showed at least some avoidance of daily activities secondary to their OCD while 53.3% cases showed mild to moderate indecisiveness in their daily activities. Overvalued sense of responsibility, pervasive slowness and pathological doubt were absent in significant number of cases and in those present is often of mild to moderate intensity. Most of the patients (80%) had at least moderate or higher severity of illness (YBOCS score >15).

DISCUSSION

The aim of the present study is to describe the overall socio-demographic and clinical profile of a sample of treatment seeking children and adolescents with OCD at one of the centres, which was part of a bigger multicentric study¹⁴. The high male to female distribution of cases in our study partly reflects the general gender distribution of our OPD sample but it is also consistent with a number of other studies done in this age group¹⁹. 66.7% of our cases had an onset before the age of 14 years with an overall mean of 12.87 years (\pm 2.96). This is slightly lower than the mean age of onset of 14.36 years (\pm 3.13) found in another study by Jaisooriya et al²⁰. Another study by Delorme et al²¹ found that the first peak age of onset in OCD is at around 11 years of age. Early onset OCD symptoms have been associated with poor outcome and prognosis, and have a significant impact on the socio-cultural and occupational abilities of the child so its early identification is imperative from the management point of view^{22,23}. This is especially relevant in our setting as there was a mean delay of more than 1 year in our sample before treatment was sought following onset of OCD.

The common obsessions and compulsions of contamination, magical/superstitious thinking, checking, washing and rituals involving other persons found in our study are consistent with other studies^{12,24}. Associated symptoms in OCD including avoidance behaviors, indecisiveness, pervasive slowness, pathological doubting, overvalued sense of responsibility and poor insight lead to long term maintenance of OCD symptoms. Indecisiveness, in particular, has a hypothesized importance in OCD, based on both self-reports and measured executive functioning deficits and has been thought to be impaired in OCD²⁵. Avoidance, indecisiveness, pervasive slowness, and overvalued sense of responsibility are related to functional impairment in childhood OCD²⁶. Both our sample and previous studies have found that these phenomena are prevalent in children and adolescents. So it is of utmost significance that clinicians ask for these during the evaluation of paediatric OCD.

Psychiatric co-morbidity is common in adults with OCD. Co-morbid psychiatric disorders in our sample of 63.3% was in accordance with western studies that have reported co-morbidity in up to 80% cases^{27,28}. Depression, anxiety disorders and OCDs, the main comorbidities found in our study have been similarly reported in other studies²⁹. However, it was surprising that our sample did not have any case of ADHD or tic disorder. This may be due the small sample size of our study and is in contrast with the high rates of tic disorders reported in other studies²⁹. Family history of psychiatric illnesses in 46.6% of our sample is similar to another study from India³⁰. While it was expected to find that the most common ones were OCD and depression, absence

of tic disorders was somewhat surprising. Research has shown a stronger familial component in childhood onset cases of OCD in comparison with the adult ones³¹. The family history data in this study relied on reports from the primary caregiver of the patient, which may have underestimated the rates.

CONCLUSION

This dataset is part of a bigger multicentric study published earlier¹⁴. This dataset has the advantage of being applicable to the local population from which the subjects were selected but the analysis suffers from the disadvantage of small sample size of only 30 subjects. The sample being recruited from a treatment seeking clinic population cannot be generalised to the community. Nevertheless, it provides valuable information on OCD in a relatively poorly studied population of children and adolescents. The dataset found that the age of onset < 14 years in majority (66.7%) of subjects, male preponderance (70%), rates of comorbidity (63.3%), rates of family history and themes of obsessions and compulsions in our study are broadly consistent with other studies although absence of tic disorder as a comorbidity in our sample was surprising. This dataset therefore adds valuable information to the existing literature in this area.

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