ORIGINAL ARTICLE

Association of insight, avoidance behavior, indecisiveness, and inflated responsibility with other clinical characteristics in children and adolescents with obsessive-compulsive disorder

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Objectives: Although the Children's Yale-Brown Obsessive-Compulsive Scale (CY-BOCS) includes ancillary symptom dimensions – insight, avoidance, degree of indecisiveness, inflated sense of responsibility, pervasive slowness/disturbance of inertia, and pathological doubting –, we know little about their clinical/scientific utility. We examined these ancillary dimensions in childhood obsessive-compulsive disorder (OCD), and tested their associations with clinical characteristics.
Methods: Treatment-seeking children and adolescents (n=173) with a DSM-5 OCD diagnosis were recruited from six centers in India and evaluated with a semi-structured proforma for socio-demographic/clinical details, the Structured Clinical Interview for DSM-5, the CY-BOCS, the Children's Depression Rating Scale, and the Family Interview for Genetic Studies. Regression analysis was used to study the associations between ancillary dimensions (independent variables) and clinical variables (dependent variables).
Results: 87.9% of the sample reported at least a mild-moderate severity of ancillary dimensions, which were highly intercorrelated. Multiple ancillary dimensions were correlated with illness severity on the CY-BOCS. On regression analysis, only insight and avoidance retained significance. There were few differential associations between OCD symptom and ancillary dimensions.
Conclusion: Ancillary dimensions are more a feature of illness severity than differentially associated with individual symptom dimensions in childhood OCD. Insight and avoidance should be considered for inclusion in the assessment of illness severity in childhood OCD.

Keywords: Obsessive-compulsive disorder; childhood; insight; avoidance

Introduction

Obsessive-compulsive disorder (OCD) has a lifetime prevalence of 1-4%[1,2] and shows significant variation in clinical presentation and comorbidity profile. It runs a chronic, fluctuating course with significant individual impact and caregiver burden.[3] OCD has a bimodal age of onset, the first peak at around 11 years and a second peak in early adulthood.[4] About 20% of all affected persons develop symptoms by 10 years of age.[5] Childhood onset OCD has evoked significant interest as a distinct phenotype of OCD, with genetic and developmental underpinnings.[6] Childhood OCD commonly presents with contamination, aggressive, somatic, symmetry, and hoarding obsessions and with cleaning, checking, ordering, and repeating compulsions.[7-9]

The Children's Yale-Brown Obsessive-Compulsive Scale (CY-BOCS),[10] in addition to obsessions and compulsions, assesses ancillary dimensions[11] – insight, avoidance, degree of indecisiveness, inflated sense of responsibility, pervasive slowness/disturbance of inertia, and pathological doubting.[10] These ancillary dimensions were originally included in the scale as "investigational items possibly associated" with OCD. Subsequent studies have found associations between these dimensions and other illness characteristics.

In childhood OCD, insight has a positive association with age (better insight with later age at onset), illness severity, avoidance scores, and pervasive slowness/disturbance of inertia scores, as well as with comorbid conditions such as attention deficit hyperactive disorder.[12,13] High avoidance scores have been consistently associated with higher illness severity.[14] Factor-analyzed symptom dimensions in OCD seem to have differential associations with ancillary symptoms. Hoarding was associated with pervasive slowness/disturbance of inertia, indecisiveness, pathological doubting, and inflated sense of responsibility; the obsession (aggressive, sexual, and religious) dimension was associated with inflated sense of responsibility and pathological doubting; contamination/cleaning was associated with avoidance; and symmetry/ordering was associated with indecisiveness.[15] A few studies have also found that ancillary dimensions have a role in functional impairment and that they may mediate cognitive behavioral intervention response.[11,14] There are other contradictory reports. In a 7 year follow-up of children with OCD, ancillary dimensions did not have an impact on the probability of remission.[16] An inflated sense of responsibility also aligns with similarly named obsessive beliefs[17] in adults that characterize underlying cognitive schemas in OCD.

While the symptomatology of pediatric OCD has been extensively reported from various centers in the world, the ancillary dimensions have not been as well examined in terms of their clinical and scientific utility.[11] Even though a phenomenon such as avoidance is frequently encountered in childhood OCD, it is not included in the CY-BOCS illness severity assessment. The aim of this study was to examine ancillary dimensions in childhood OCD and their associations with symptom dimensions and other clinical characteristics.

Methods

The study design, participant recruitment, assessment instruments, and other methodological details have been reported in another publication.[18] The participants were treatment-seeking children and adolescents with OCD, recruited at six centers in India, as part of a multicenter study conducted in 2015-2016. Children aged 6-17 years with a primary diagnosis of OCD according to the DSM-5[19] were screened for participation. Patients were excluded if they had comorbid psychosis or bipolar disorder, intellectual disability, autism spectrum disorder, organic brain syndrome, obsessive-compulsive symptoms occurring as part of a general medical or neurological disorder, or medication-/substance-induced OCD symptoms. This was a cross-sectional study where patients were assessed only once. At the time of recruitment, they may have been at varying stages of illness and treatment.

Instruments

The instruments used in the study are described below.

1. A semi-structured proforma for sociodemographic and clinical details, such as age, education, age at onset, age at initial consultation, comorbidities, duration of illness, course, precipitating factors, duration of treatment, current treatment details, adequate treatment trials, and treatment with psychotherapeutic methods.
2. The Structured Clinical Interview for DSM-5 – Research Version (SCID-5-RV)[20] for diagnosing psychiatric disorders according to DSM-5 criteria.
3. The DSM-5.[19]
4. The CY-BOCS[10] for assessing OCD symptoms and ancillary dimensions, which were of primary interest in this study. Items 11-17 on the CY-BOCS cover insight, avoidance, degree of indecisiveness, inflated sense of responsibility, pervasive slowness/disturbance of inertia, pathological doubting, and global severity. Responses to these items are rated on a scale from 0-4, with 0 indicating the lowest severity/absence of a feature and 4 indicating the highest severity.
5. The Children's Depression Rating Scale – Revised (CDRS-R).[21]
6. The Family Interview for Genetic Studies (FIGS)[22] for eliciting family history of various mental health conditions.

Data analysis

The data were summarized as means and standard deviations for continuous variables, and frequencies and percentages for categorical variables. Spearman correlation analysis was used to examine correlations among CY-BOCS ancillary symptom dimensions. We used linear and logistic regression analysis for continuous and categorical dependent variables, respectively, to test the association of ancillary dimensions with clinical characteristics (CY-BOCS severity measures, CDRS depression scores, age at onset, duration of illness, precipitating factor(s), course of illness, comorbid psychiatric illness, family history of OCD in first-degree relatives, and gender). In all instances, the enter method was used, with the ancillary dimensions as independent variables and the clinical characteristic as a dependent variable. Tolerance and variance inflation factor values were calculated to rule out multicollinearity among variables. We also studied ancillary dimensions across factor-analyzed symptom dimensions of OCD in the sample. All of the main categories from the CY-BOCS symptom checklist, along with those items under the miscellaneous categories that were reported by at least 10% of the sample, were included in the factor analysis. Factors were derived from a tetrachoric correlation matrix, and the varimax method was used for orthogonal rotation of the factor solution. The number of factors to be extracted was decided based on their eigenvalues (greater than 1) and by visual inspection of the scree plot. Items with a loading greater than 0.4 were considered representative of a particular factor. Factor scores for each subject were then extracted using the regression method, which were used for further analyses. The above analysis was done using the psych package (version 1.9.12) in R (version 3.6.1).[23] Linear regression analysis was used to study the associations between factor-analyzed symptom dimensions (dependent variables) and the ancillary dimensions (independent variables).

Despite non-normal distribution of the continuous variables (CY-BOCS scores, age at onset, duration of illness, and CDRS scores), we employed parametric procedures in view of a relatively large sample (n=173). It has been shown that normality testing has little utility with large samples since even minor deviations from normality may be statistically significant, perhaps owing to higher statistical power.[24-26] Moreover, parametric tests are robust even with non-Gaussian distributions if the sample size is large (n > 100).[27,28] Given the exploratory nature of these analyses, an alpha level of 0.05 was used. Despite performing multiple tests, we did not use any correction due to the exploratory nature of the study, given that undue correction could eliminate potentially important clinical associations.

Ethics statement

Institutional ethics committees at all participating centers approved the study. Assent was sought from children, and one/both parents gave written informed consent.

Results

Table 1 presents the sociodemographic and clinical characteristics of the sample. Young adolescent males with OCD for approximately 2 years predominated in the sample. The participants had been treated with selective serotonin reuptake inhibitors for a mean duration of 1 year. The low mean CY-BOCS scores are, thereby, understandable. All major OCD symptoms from the CY-BOCS checklist were represented in the sample – obsessions: contamination (43.4%), aggressive (39.3%), magical thinking/superstitious (29.5%), sexual (22.5%), religious (17.9%), somatic (13.9%), and hoarding/saving (12.7%); compulsions: washing (46.8%), checking (39.9%), repeating (38.7%), counting (23.1%), rituals involving other persons (proxy) (20.2%), ordering/arranging (18.5%), hoarding/saving (15%), excessive games/superstitious behaviors (13.3%), and a miscellaneous compulsion measures to prevent harm (13.9%). The other miscellaneous obsessions and compulsions were present in < 10% of the sample.

Mean scores of the ancillary dimensions are given in Table 1. Ancillary symptom dimensions showed all levels of severity in the sample (Figures 1 and 2). Only 9.2% (n=16) of the sample had the lowest level of severity across all ancillary dimensions (i.e., excellent insight, no deliberate avoidance, no pathological doubts, no indecisiveness, no slowness, and no inflated sense of responsibility) across dimensions. At least mild-moderate severity for any one of the dimensions was present in 87.9% (n=152) of the sample, while a severe-extreme rating in any one of the dimensions was recorded in 48.6% (n=84).

All ancillary dimensions showed statistically significant moderate (magnitude of 0.3-0.6, p < 0.001) correlations among themselves (Figure 3). Ancillary dimensions were used as independent variables in regression analyses to

Table 1 Sociodemographic and clinical characteristics of children and adolescents with OCD (n=173)

| Variable	Finding
Gender (male), n (%)	113 (65.3)
Age (years)	14.4 (2.5)
Education (years)	8.1 (3.1)
Nuclear family, n (%)	108 (62.4)
Urban residence, n (%)	111 (64.2)
Age at onset (years)	12.3 (2.7)
Duration of illness (years)	2.2 (1.8)
Duration of treatment with SSRIs (years)	1.1 (1.6)
History of past cognitive behavioral treatment, n (%)	62 (35.8)
Episodic (vs. chronic) course, n (%)	20 (11.6)
Presence of precipitating factor, n (%)	21 (12.1)
Comorbid psychiatric illnesses (as per DSM-5),* n (%)	82 (47.4)
CDRS score	31.6 (14.9)
Family history of psychiatric illnesses in first-degree relatives, n (%)	55 (31.8)
CY-BOCS severity score	
Total	17.8 (8.3)
Obsessions	8.9 (4.3)
Compulsions	8.8 (4.6)
CY-BOCS dimensions	
Insight	1.53 (1.18)
Avoidance	1.53 (1.19)
Indecisiveness	1.31 (1.09)
Inflated sense of responsibility	1.22 (1.13)
Pervasive slowness/ disturbance of inertia	1.34 (1.13)
Pathological doubting	1.37 (1.18)

Data presented as mean (standard deviation), unless otherwise specified.
CDRS = Children's Depression Rating Scale; CY-BOCS = Children's Yale-Brown Obsessive-Compulsive Scale; OCD = obsessive-compulsive disorder; SSRIs = selective serotonin reuptake inhibitors.
* Depression (19.1%), anxiety disorders (11.6%), obsessive-compulsive related disorders (10.4%), substance use disorders (2.9%), feeding and eating disorders (2.3%), somatic symptom disorders (1.7%), trauma and stress related disorders (1.2%), attention deficit hyperactivity disorder (6.4%), externalizing disorders (5.8%), and tic disorders (3.5%).
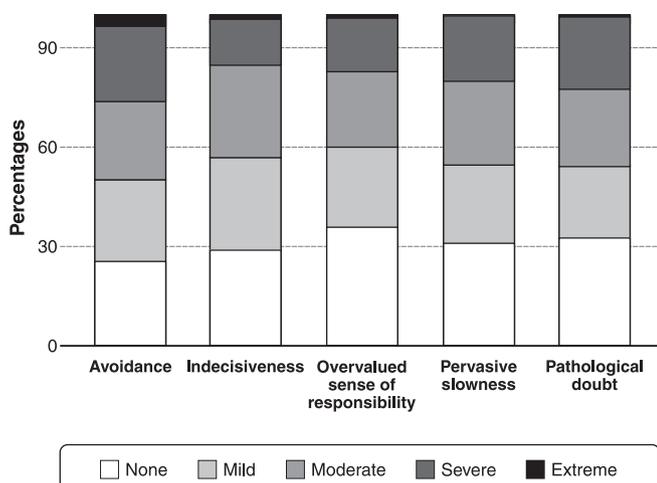
Figure 1 Distribution of avoidance, pervasive slowness, degree of indecisiveness, inflated sense of responsibility, and pathological doubting severity rating in children and adolescents with obsessive-compulsive disorder (n=173).
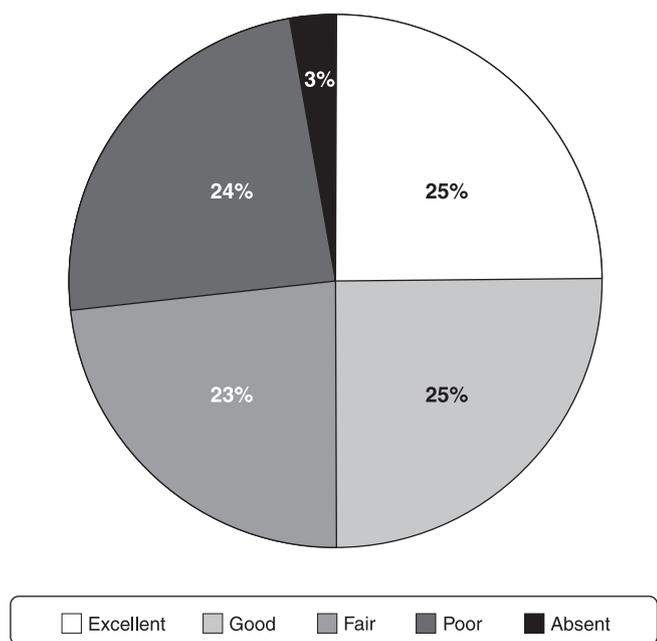
Figure 2 Distribution of insight rating in children and adolescents with obsessive-compulsive disorder (n=173).

test their associations with clinical characteristics (Table 2). The tolerance and variance inflation factor values for ancillary dimensions were examined to rule out multicollinearity. The lowest tolerance values were around 0.4-0.5 and the highest variance inflation factor values were around 2-3, indicating no concerns about multicollinearity.[29] Poorer insight and higher avoidance were significantly associated with the CY-BOCS total and compulsions severity rating, whereas higher avoidance alone was significantly associated with the CY-BOCS obsessions score. Insight and inflated sense of responsibility were significantly associated with CDRS depression

scores. Interestingly, insight had a negative beta coefficient for depression scores, i.e., poorer insight was associated with a lower depression severity. There were no other statistically significant associations among ancillary dimensions and clinical characteristics.

Factor-analysis of the CY-BOCS checklist identified a five-factor solution in our sample – factor 1 (religious): religious obsessions and checking, counting, repeating compulsions; factor 2 (magical/superstitious): magical/superstitious obsessions, superstitious games compulsions, arranging compulsions and proxy compulsions; factor 3 (hoarding): hoarding/saving obsessions and compulsions; factor 4 (contamination): contamination obsessions, washing compulsions, somatic obsessions; factor 5 (obsessions): aggressive and sexual obsessions and measures to prevent harm compulsions. Factor-analyzed symptom dimensions were used as the dependent variables in linear regression analyses to study the associated ancillary dimensions, which were entered as independent variables. As shown in Table 3, the magical/superstitious dimension was associated with pervasive slowness/disturbance of inertia, contamination was associated with avoidance, and the obsessions dimension was associated with pervasive slowness/disturbance of inertia.

Discussion

This is among the few reports of childhood OCD that has systematically examined the ancillary symptom dimensions of the CY-BOCS in a large sample. These items were proposed as investigational dimensions, perhaps purported to reflect etiopathological or consequential cognitive and behavioral phenomena associated with OCD. Ancillary dimensions were reported at all levels of severity in our sample: from absent (0) to severe (4). At least mild-moderate severity for any one of the dimensions was present in more than 85% of the sample, while a severe-extreme rating in any one of the dimensions was recorded in nearly half the patients. These findings are similar to a previous report on ancillary dimensions in childhood OCD[11] and suggest that children with OCD identify with and acknowledge the presence of these phenomena, in addition to the core symptom dimensions of OCD.

High intercorrelations among ancillary dimensions are in keeping with the polysymptomatic nature of OCD, which typically also presents with multiple obsessions and compulsions. Insight significantly correlated with all of the ancillary dimensions: the higher the severity of an ancillary dimension, the poorer the insight. Some ancillary dimensions (indecisiveness, doubting, inflated sense of responsibility) are conceptually similar to maladaptive thinking patterns and cognitive beliefs that have been studied in adults with OCD. Individuals with higher scores for belief in perfectionism, importance of thought control, responsibility, and intolerance of uncertainty typically have poorer insight into their illness.[30] Plausibly, these beliefs impact illness awareness, causal attributions, and treatment acceptability, the key components of insight.
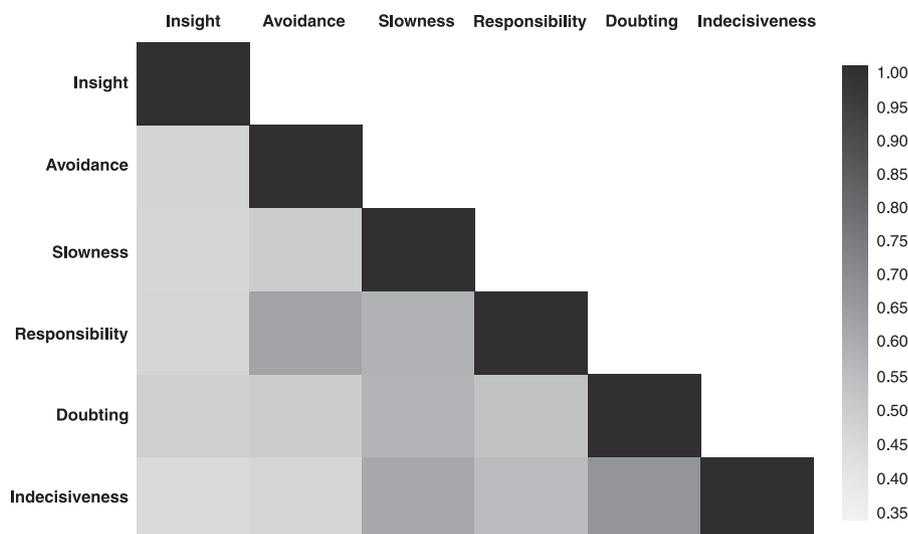
Figure 3 Heatmap for correlations among ancillary symptom dimensions in children and adolescents with obsessive-compulsive disorder (n=173). All correlations significant at p < 0.001.

Table 2 Associations between ancillary dimensions and clinical characteristics in children and adolescents with OCD (n=173)

	Insight	Avoidance	Indecisiveness	Responsibility	Slowness	Doubting
CY-BOCS						
Total severity	0.22*	0.40[†]	0.08	-0.10	0.10	0.06
Obsessions	0.14	0.38[†]	0.05	-0.16	0.12	0.09
Compulsions	0.27[†]	0.36[†]	0.08	-0.04	0.07	0.02
CDRS severity	-0.21[‡]	0.01	0.06	0.24[‡]	-0.13	0.01
Age at onset	-0.04	0.09	0.01	-0.15	-0.10	0.15
Duration of illness	0.08	0.09	0.11	-0.04	0.01	0.02
Precipitating factor	1.42 (0.88-2.27)	0.85 (0.50-1.45)	0.69 (0.37-1.29)	1.37 (0.75-2.52)	1.08 (0.60-1.93)	1.81 (0.95-3.43)
Episodic course	0.90 (0.56-1.46)	0.72 (0.41-1.25)	1.12 (0.62-2.01)	1.36 (0.75-2.47)	1.48 (0.86-2.53)	0.94 (0.53-1.68)
Psychiatric comorbidity	0.98 (0.73-1.31)	1.12 (0.81-1.55)	1.27 (0.86-1.89)	1.16 (0.80-1.68)	0.83 (0.58-1.19)	0.99 (0.68-1.42)
Family history of OCD	1.27 (0.86-1.88)	0.77 (0.50-1.17)	1.08 (0.63-1.83)	1.32 (0.81-2.15)	0.60 (0.38-0.96)	1.17 (0.71-1.94)
Treatment resistance	0.89 (0.54-1.49)	1.49 (0.87-2.57)	1.17 (0.59-2.30)	0.55 (0.27-1.10)	1.54 (0.83-2.85)	0.99 (0.51-1.92)
Gender	0.81 (0.56-1.46)	0.89 (0.41-1.25)	1.11 (0.62-2.01)	1.46 (0.75-2.47)	1.12 (0.86-2.53)	0.81 (0.53-1.68)

Data presented as standardized beta coefficients and odds ratios (95% confidence intervals) from linear/logistic regression analysis with the clinical characteristics as dependent variable and ancillary dimensions as independent variables.
95%CI = 95% confidence interval; CDRS = Children's Depression Rating Scale; CY-BOCS = Children's Yale-Brown Obsessive-Compulsive Scale; OCD = obsessive-compulsive disorder.
* p ⩽ 0.01, [†] p ⩽ 0.001; [‡] p ⩽ 0.05.

Table 3 Associations between ancillary dimensions and factor-analyzed OCD symptom dimensions in children and adolescents with OCD (n=173)

	Insight	Avoidance	Indecisiveness	Responsibility	Slowness	Doubting
Religious	0.06	0.00	0.14	0.02	0.15	-0.04
Magical/superstitious	-0.10	0.03	-0.12	0.09	-0.22*	0.14
Hoarding	0.06	-0.10	-0.11	0.18	-0.06	0.10
Contamination	-0.01	0.22*	-0.05	-0.09	0.04	-0.09
Obsessions	0.09	0.06	-0.09	0.07	0.31[†]	0.04

Data presented as standardized beta coefficients from linear regression analysis with the symptom dimension as dependent variable and ancillary dimensions as independent variables.
OCD = obsessive-compulsive disorder.
* p ⩽ 0.05; [†] p ⩽ 0.001.

It follows that akin to obsessive beliefs, ancillary dimensions are associated with poorer insight.

Poorer insight was associated with lower depression scores in our sample. Insight has garnered significant attention as a study construct in both adult and childhood OCD, with heterogeneous findings across clinical, phenomenological, and neuropsychological constructs.[11,31-33] Given the scope of our study, we have limited ourselves to using the CY-BOCS single item assessment for insight, whereas it has been suggested that insight should be

studied longitudinally and from a multi-informant viewpoint.[33] Children, especially pre-adolescents, more commonly have poor insight into illness due to developmental factors that limit appraisals of obsessive phenomena.[34] Our finding of an inverse association between insight and depression is contradictory to previous literature on childhood OCD, which has suggested higher depression severity with poorer insight.[35,36] However, studies in adults have also found mixed results regarding the association of depression with insight in OCD. While, on the one hand, good insight into illness and a heightened awareness of its dysfunctional consequences may exacerbate depression, on the other hand, if poor insight leads to a long duration of illness, it could also contribute to depression from persistent illness.[37] Perhaps similar complex interactions exist among children with OCD. Our findings may also have been influenced by the low overall illness severity, as well as the low severity of depression in our sample.

The CY-BOCS total severity score and the compulsions severity scores were associated with higher avoidance and poorer insight, whereas the obsessions severity score was associated with avoidance alone. Patients with OCD avoid situations, people, objects, and any stimuli that trigger obsessions. In so doing, they escape the anxiety associated with obsessions and need to perform compulsions to reduce that anxiety. Any OCD symptom dimension can be associated with avoidance. The tendency to avoid is perhaps more reflective of underlying anxiety than a specific symptom dimension. Emotional appraisals have a role in predicting illness severity and impairment, independent of symptom dimensions or obsessive beliefs (Srivastava R, Mahour P, Sharma E, The differential association of cognitive and emotional appraisals with symptoms dimensions and impairment in OCD; manuscript under review).[38] Thereby, as a manifestation of the core anxiety accompanying OCD, avoidance (along with insight) perhaps takes precedence over other ancillary dimensions in predicting illness severity. It may also be that poor insight and high avoidance are the primary ancillary dimensions that, along with increasing illness severity, contribute to other ancillary symptoms. Ancillary dimensions are plausibly state-related variables in children with OCD, rather than trait vulnerabilities. Treatment reduces the severity of ancillary dimensions,[11] and it has been suggested that these dimensions could be additionally targeted in cognitive behavioral treatments of OCD. For instance, an inflated sense of responsibility is often addressed in cognitive restructuring interventions, and this aids with exposure and response prevention. Similarly, unaddressed avoidance may interfere with comprehensive coverage of all obsessive-compulsive phenomena that contribute to illness severity.[12] The association with poor insight and high avoidance implies that these measures, like body dysmorphic disorder, should be considered for inclusion in illness severity assessment in childhood OCD.[39]

There were very few associations between ancillary dimensions and factor-analyzed symptom dimensions in our sample – the obsessions dimension, comprising aggressive and sexual obsessions with measures to prevent harm compulsions, was associated with pathological slowness/disturbance of inertia; the magical/superstitious dimension, comprising magical/superstitious obsessions, superstitious game compulsions, arranging compulsions and proxy compulsions, had a negative association with pervasive slowness/disturbance of inertia; and the contamination dimension, comprising contamination obsessions, somatic obsessions, and washing/cleaning compulsions, was associated with avoidance. Previous examinations of the phenomenon of obsessional slowness differentiate between the primary obsessional slowness typically seen in neurological conditions, resulting from organic brain damage, in which slowness in motor activities is unaccompanied by other psychological phenomena, and a secondary obsessional slowness, typically seen in individuals with psychiatric disorders like OCD, in which different types of compulsive behaviors result in slowness.[40] This association between the obsessions dimension and pervasive slowness in our study could be a secondary impact of the time consumed in compulsions, rather than slower cognitive or motor processing speeds per se. The item assessing pathological slowness in CY-BOCS asks: "Do you have difficulties starting or finishing tasks?"; "Do many routine activities take longer than they should? (distinguish from depression and repetitive behavior)"; "Do you think that your thoughts or rituals make it difficult for you to start or finish things?" Therefore, interference in daily activities due to OC symptoms would be reflected in the rating on this item. While other obsessions and compulsions could similarly be associated with slowness, we did not find this to be the case in our sample. On the contrary, we found a negative association between the magical/superstitious dimension and pervasive slowness.

Our finding of an association between the contamination symptom dimension and avoidance is in keeping with previous studies.[14,41] The CY-BOCS assesses avoidance with the question: "Have you been avoiding doing anything, going any place, or being with anyone because of your obsessional thoughts or out of concern you will perform compulsions?" Contamination obsessions are typically associated with either some harm befalling the person due to contact with a "contaminated source" or with the feeling of disgust from the "contaminated" source, resulting in "harm avoidance" or "disgust avoidance."[42] Contamination obsessions, more than the other dimensions, are typically associated with specific "sources of contamination" that become the triggers for these obsessions and are readily avoided. Avoidance then becomes a maladaptively successful method of dealing with these obsessions.

Key strengths of our study include a large sample from different treatment centers across India, and the analysis of ancillary dimensions as dimensional constructs rather than binary categories. Collapsing the ancillary dimensions into binary outcomes[14] could have biased results. The children and parents were able to report them at different levels of severity, reflecting their truly dimensional nature. Our study has certain limitations. The sample was assessed cross-sectionally, which would limit a dynamic understanding of changes in ancillary symptom dimensions over the course of illness and treatment. We do not have data on the inter-rater reliability of the scales, and we did not examine the ancillary dimensions in a

control group. Children and adolescents with OCD who had any of the comorbid conditions listed as exclusion criteria were not included in the study. Unfortunately, we do not have data on the total number of such children and adolescents. What we know is that there were very few children with OC symptoms secondary to a general medical or neurological disorder or medication/substances. We had children with other comorbid conditions (psychosis or bipolar disorder, intellectual disability, autism spectrum disorder), but we did not keep track of them. This patient sample may have given us some clues as to how the phenomena could differ between groups with and without these comorbid conditions.

In conclusion, in this large sample of children and adolescents with OCD, ancillary symptom dimensions, i.e., insight, avoidance, degree of indecisiveness, inflated sense of responsibility, pervasive slowness/disturbance of inertia, and pathological doubting, were reported by almost 90% of the sample. These dimensions showed strong correlations with each other and with illness severity. There was little symptom specificity in the ancillary dimensions other than the contamination dimension and avoidance, and the obsessions dimension and pervasive slowness. These findings suggest that ancillary dimensions are more a feature of overall illness severity than specific symptom dimensions. Moreover, insight and avoidance take precedence over other ancillary dimensions and perhaps contribute to the other dimensions in those with high illness severity. Measures like the CY-BOCS rely only on obsession and compulsion characteristics to assess severity. However, it has been clinically observed, as well as suggested by our findings, that avoidance and insight can mask true illness severity. Insight and avoidance should be considered in the assessment of childhood OCD illness severity. Future studies should examine the longitudinal profile of ancillary dimensions alongside symptom dimensions to understand their role in the course and outcome of OCD, as well as treatment response.

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Disclosure

The authors report no conflicts of interest.

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