



Symptoms Analysis of Obsessive–Compulsive Disorder in Adolescents and Adults in a Teaching Hospital

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ABSTRACT

Introduction: Obsessive-compulsive disorder has a broadly diverse clinical expression that reflects heterogeneity. Several studies have identified consistent symptom dimensions of obsessive-compulsive disorder. The purpose of this study was to conduct an exploratory symptoms analysis of obsessive-compulsive symptoms in adolescents and adults with obsessive-compulsive disorder.

Methods: This was a cross-sectional study conducted in the Department of Psychiatry, National Medical College. This study examined lifetime occurrence of obsessive-compulsive symptoms included in the 13 symptom categories of the Yale–Brown Obsessive Compulsive Scale. Symptoms analysis was performed on 60 patients with obsessive-compulsive disorder. Eight categories of obsessions and six categories of compulsions from Yale–Brown Obsessive Compulsive Scale were included in the analyses. SPSS software package (version 16) was used to analyze the data and shown in the table.

Results: Of 60 adolescents and adults, female and male were in the ratio of 1.2:1. Contamination was the most common occurring obsession followed by aggressive obsession. The most common occurring compulsion was checking followed by washing. Only a minority of patients (13.33%) presented predominantly with obsessions however 18.33% patients presented predominantly with compulsions. Certain obsessions and compulsions co-occur to form a cluster.

Conclusions: In adolescents and adults, obsessive-compulsive disorder is a multidimensional disorder. Symptom dimensions are predominantly congruent with those described in similar studies of adults with obsessive-compulsive disorder.

Keywords: *compulsion; obsession; obsessive-compulsive disorder.*

INTRODUCTION

Obsessive–compulsive disorder (OCD) is characterized by the presence of distressing intrusive thoughts, impulses, fears or images (obsessions), and/or repetitive behaviors or mental rituals (compulsions).¹ Obsessions have four essential features: they are recurrent and persistent thoughts, impulses or images that are experienced as intrusive and cause great anxiety; they are not simply excessive worries about real life issues; the affected individual attempts to ignore, suppress, or neutralize them with some other thought or action; and

the affected individual recognizes that these thoughts are a product of his or her mind.²

When obsession causes anxiety, one is compelled to perform repetitive action to relieve the anxiety in part which is called compulsion with essential features: they

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are a form of behaviour which usually follow obsession, they aim at either preventing or neutralizing the distress or fear arising out of obsession, the behaviour is not realistic and is either irrational or excessive and the behaviour is performed with a sense of subjective urge or impulse which may diminish the anxiety associated with obsessions.³

This study was designed to explore and analyze the symptoms of OCD. It also tried to reflect the relationship between certain obsession and compulsion. Apart from this, relation of symptoms within and between obsessions and compulsions were explored.

METHODS

This descriptive cross-sectional study was conducted in the Department of Psychiatry, National Medical College after getting approval from the Institutional Review Committee (IRC). The subjects in this study consisted of 60 adolescents and adult with OCD, evaluated independently and consecutively at outpatient department of National Medical College, Birgunj. Inclusion criteria were defined as a diagnosis of OCD according to the DSM-IV-TR criteria,⁴ and age of 18 years or older. Subjects were excluded if they had ever received a diagnosis of other mental disorder and organic conditions. Following a detailed description of the study to all subjects, written informed consent was obtained for each subject.

All Subjects were 18 years of age and above so they were assessed with the Yale–Brown Obsessive Compulsive Scale (Y-BOCS),^{5,6} a commonly used measure of OCD symptom severity. The instruments are clinician-rated, semi-structured interviews used in rating the presence and severity of obsessions and compulsions. They are divided into two major sections, including a symptom checklist and a symptom severity scale. The symptom checklists are also very similar and assess both current and past symptoms. Y-BOCS checklists have more than 60 items, which are organized into two miscellaneous categories and 13 other categories according to their thematic content (including contamination, aggression, sexual, hoarding, somatic, symmetry, and religious obsessions; and washing, checking, repeating, counting, ordering and hoarding compulsions). In this study we have focused only on symptoms checklists.

A demographic characteristic regarding gender was compared between male and female using chi-square test. Eight categories of obsessions and six categories of compulsions from Y-BOCS were included in the analyses. Somatic symptoms were excluded from the categories because the somatic items may be related

to hypochondriasis, a frequently comorbid illness with OCD.⁷ Moreover it was also difficult to distinguish between those two symptoms. SPSS software package (Version 16, SPSS Inc., Chicago, USA) was used to analyze the data. Descriptive statistics was used to obtain the desired results.

RESULTS

The total 60 patients were evaluated using Yale Brown Obsessive Compulsive Scale Checklist (Y-BOCS). Of the 60 patients, who constituted the study sample, 33 (55.0%) were females and 27(45.0%) were males in the ratio of 1.2:1. There was no significant difference in gender distribution of subjects (chi-square=0.6; $p=0.05$). The age range was between 18 to 56 years. The mean (\pm SD) and median age at the time of study was 27.9 ± 8.9 and 27.5 respectively.

Table 1. Lifetime presence of symptoms from the Y-BOCS (n = 60).

Categories	N (%)
Obsessions	
Contamination	41 (68.3%)
Aggressive	27 (45%)
Sexual	8 (13.33%)
Hoarding	5 (8.33%)
Religious	16 (26.7%)
Pathological doubt	15 (25.0%)
Symmetry	11 (18.33%)
Other obsessions	6 (10.0%)
Compulsions	
Cleaning	38 (63.33%)
Checking	46 (76.7%)
Counting and repeating	29 (48.33%)
Ordering	16 (26.7%)
Hoarding	10 (16.7%)
Other compulsions	13 (21.7%)

The study finding suggests that the most commonly occurring obsessive symptoms were contamination followed by aggressive obsessions (Table 1). Similarly it is followed by religious, pathological doubt, symmetry, sexual and hoarding obsession. Other obsessions or miscellaneous category that include superstitious fears, intrusive meaningless thoughts, images, sounds, words or music consisted of 10% of the patients. The most commonly occurring compulsions were checking followed by hand washing. These are followed by counting and repeating (48.33%), and ordering (26.7%). Other compulsions which is miscellaneous

category that include pathological slowness, excessive list making, need to tell, ask, confess, need to touch, tab or rub etc. constituted 21.7% and hoarding compulsion constituted 16.7%. Only a minority of patients (13.33%) presented predominantly with obsessions however approximately one fifth (18.33%) of them presented predominantly with compulsions.

DISCUSSIONS

Although the standard classification system i.e. diagnostic manuals of the DSM-IV,⁴ and ICD-10,⁸ regard OCD as a unitary nosologic entity, data from clinical, genetic, neuroimaging, and treatment response studies demonstrate that this severe and potentially disabling condition is a heterogeneous disorder.^{9,10} Numerous studies have used different strategies to identify more homogeneous subgroups of this illness using both categorical and dimensional approaches to address this heterogeneity. The categorical strategies include subdividing the illness according to the age at symptom onset,^{11,12} the presence of comorbid disorders,^{13,14} the morbid risk among family members,¹⁵ and differences in treatment outcome.¹⁶ On the other hand, the dimensional strategies have been proposed to address symptom heterogeneity. Several adult factor analytic studies have identified dimensions from symptom categories of the Yale–Brown Obsessive Compulsive Scale (Y-BOCS) that reflect the heterogeneous nature of OCD.¹⁰

Our study explored the heterogeneous nature of OCD as reflected by other researches as well. This study revealed contamination obsession as the most commonly occurring obsession in adolescents and adults. Similar findings were found by numerous researchers.^{4,17-19} Such obsessions in our study mostly consisted of concerned with dirt or germs, insects and animals, and concerned with disgust with bodily secretions. Other contamination obsessions such as excessively concerned with household items cleaners or solvents, concerned will get ill (eg: AIDS) and somatic obsessions etc. were seen rarely. This variation in contents of contamination obsessions might be due to socio-cultural variation since cleaners or solvent are not readily available in every households and most people are illiterate and they might not know regarding disease consequences.

Second most occurring obsession is aggressive obsession which occurred in almost half of patients. Most common contents were violent or horrific images, fear of harming others and fear responsible for terrible happening (eg.fire). Foa and Kozak,¹⁸ in their study found similar finding but the percentage of occurring was 24% which was almost half of our study findings.

In contrast Rasmussen and Eisen,¹⁷ study revealed it as fifth common occurring symptoms. Study in similar context in Pakistan found contamination, pathological doubt and need for symmetry as the major common occurring obsession rather than aggressive obsession.²⁰

Approximately one fourth of respondent had religious obsession. This finding result was in contrast with other study done in western culture.^{9,17,18} Past study revealed that the cultural background could affect the content of obsessions or compulsions.²¹ Moreover, our study sample consisted of adolescents who are not much religious as compared to adults and elderly. Religious obsession might be more common in those ethnic groups or age groups in whom religion has less prominent role which was reflected by the study of Vishne, Misgav and Bunzel.²²

The fourth occurring obsession was pathological doubt. Patients with doubts typically worry that something terrible may happen because they have not completed an act thoroughly or completely. There are evidences showing similar finding by some searches^{9,17,20} while others have contradictory findings in term of occurrence.^{3,18} The reason for this mixed finding may be due to cultural variation, geographical variation or may be some unknown factor. More research should be done to reveal these variations. The fifth occurring obsession in the study was symmetry that consisted of 18.33% of obsessions. Need of symmetry is a drive to order or arrange things perfectly or to perform certain behaviours symmetrically or in a balanced way. Some of them also had slowness, taking hours to perform acts such as grooming, dressing, and brushing teeth etc. These findings were consistent with study in similar settings in India and Pakistan.^{23,24}

Sexual obsession was also found in approximately one seventh of respondent. Sexual obsessions were selectively more prevalent in adolescents compared with adults and children.²⁵ It is possible that sexual obsessions were underrepresented in this sample due to the fact that the subjects kept them secret because of embarrassment and possible guilt associated in revealing them. Other cause may be cultural barrier in exposing this type of secret.

Other obsessions that include superstitious fears, intrusive meaningless thoughts, images, sounds, words or music consisted of 10% obsessions. As most of the researches excluded this category in different factor analysis study due to miscellaneous contents,^{7,9,10,26} inclusion of this category in research could reveal an important factor. Since the occurrence of this other obsessions in our study is common than hoarding, inclusion in all OCD study among adolescents and

adults is recommended to explore more heterogeneity.

The last component is hoarding that accounts for 8.33% of obsessions in which collection of useless items such as newspaper was the commonest content. Different researches result varies in term of frequency and percentage of occurrence of hoarding especially in the western context.^{17,18} However the result was consistent with some research in our context.^{20,23,24}

The most common occurring compulsions were checking followed by cleaning, and counting and repeating. These study finding were consistent with other research finding.^{17,18,19} Excessive cleaning was mostly associated with contamination obsession. The presence of checking compulsions in this study was somewhat surprising since it co-occur with different obsessive and compulsive category. However, it has been recently suggested that the checking category could be a heterogeneous entity, i.e. some symptoms could be associated with one dimension and the others with other dimensions.²⁶ Further it was revealed that checking was found to be associated with contamination and cleaning symptoms,²⁷ with aggressive, sexual, and religious obsessions, miscellaneous symptoms or with symmetry, ordering and repeating symptoms.²⁸ Thus, the integration of the checking category could depend on clinical characteristics that are not directly related to the theme of the associated obsessions and/or compulsions. Other commonly occurring contents of cleaning compulsions such as excessive hand washing, bathing, tooth brushing and grooming were consistent with other previous researches. Similarly counting and repeating compulsions, ordering compulsions and hoarding compulsions were consistent with previous researches however, order of occurrence in term of

percentages were different.^{3,4,17,18,24}

Different recent researches indicated that certain obsessions and compulsions tend to co-occur to form four to five main dimensions across ages from childhood through adulthood.^{8,29,30} Our study finding was also consistent with those recent research findings and several correlations were identified within and between obsessions and compulsions. Although we did not do detailed factor analysis, the study revealed certain obsession and compulsions which co-occur to form the following clusters: 1) contamination obsessions and cleaning compulsions, 2) aggressive, pathological doubts obsessions and checking compulsions, 3) sexual obsessions and religious obsessions, 4) symmetry obsession and ordering, counting and repeating compulsions, 5) hoarding obsessions and hoarding compulsions.

This study had certain limitations as well. This study has several methodological limitations. The sample size of the study was small as compared to other study done on other OCD. The study cohort included only the OPD patients so it was difficult in the generalizing the results as selection bias might have been a limiting factor. Different outcomes may be expected in community setting.

CONCLUSIONS

Obsessive and compulsive disorder is heterogeneous condition. The most occurring obsessions are contamination followed by aggressive. The most occurring compulsions are checking followed by washing. There were correlations within and between compulsions and obsessions and they tend to occur together.

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