RESEARCH ARTICLE

Frequency of obsessive compulsive symptoms in depression: A hospital-based cross-sectional study

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Abstract

Objective: To determine the frequency of obsessive compulsive symptoms in patients suffering from depression.

Methods: This cross-sectional study was conducted at the Allama Iqbal Memorial Teaching, Sialkot, Pakistan, from February 2014 to March 2017, and comprised patients suffering from depression. Every patient was examined by a consultant psychiatrist or a senior medical officer in psychiatry, and a psychologist to establish clinical diagnosis of depression according to the tenth revision of the International Statistical Classification of Diseases and Related Health Problems. Adult patients suffering from depression were included. Patients with severe physical illnesses, other psychiatric illnesses, current, past or family history of obsessive compulsive disorder and drug abuse were excluded. Beck Depression Inventory and Yale Brown Obsessive Compulsive Scale were also administered. Data was analysed using SPSS 21.

Results: Of the 5,127 patients, 2,318(45.21%) were males and 2,809(54.79%) females. The mean age of the male and female patients was 35.17±12.39 years (range: 18-73 years) and 33.67±13.27 years (range: 18-70 years), respectively. Besides, 1,991(38.83%) patients had moderate depression, 1,647(32.13%) had mild depression and 1,489(29.04%) had severe depression. Moreover, 1,673(32.63%) patients had obsessive compulsive symptoms, including 497(29.70%) patients with mild depression, 599(35.80%) with moderate depression and 577(34.49%) with severe depression.

Conclusion: Around one-third participants had obsessive compulsive symptoms.

Keywords: Obsession, Compulsion, Depression, Obsessive compulsive symptoms. (JPMA 68: 231; 2018)

Introduction

Obsessions along with compulsions are central symptoms of obsessive compulsive disorder (OCD). These symptoms are also described in other psychiatric illnesses.[1,2] These are also present in people who have no psychiatric diseases.[3] The presence of obsessive and compulsive symptoms (OCS) in people have been documented in many studies,[3,4] but these studies were smaller in size and were done on students mainly.[5,6] Studies done in community are fewer in number and these studies only see OCD in the form of category. The estimated prevalence of OCD in community as current estimate was 1.5%[7] while for the preceding month it was 35%.[8] Limitations of these studies included limited number of participants[7] and only OCD was assessed while other psychiatric illnesses were not taken into account.[8]

OCS are found frequently in general population although the studies were limited to students. Other studies have focussed only on OCD. There are other psychiatric disorders in which obsessive and compulsive symptoms are present and need further exploration and explanation. The presence of such symptoms might influence the presentation, management and prognosis of these disorders. Recognising that obsessive and compulsive symptoms occur in other psychiatric disorders might sensitise the clinicians and academics of the importance of these symptoms for making better management plans according to needs of the individual patients leading to better patient outcomes and lesser burden on patients, families, health care resources and community as a whole. There are people who do not meet the full diagnostic criteria of OCD but they have obsessive and compulsive symptoms. It might be useful to see what level of interference these symptoms are causing. As one study has pointed out that we need not only to see the OCD as category but also look for subclinical symptoms that might interfere with the life of a person.[9]

Depression is one of the leading causes of morbidity and has high incidence and prevalence. It is projected to be second leading cause of morbidity by the year 2020.[10] The research on the subject of depression with obsessive and compulsive symptoms is scarce in Pakistan and no such study has been done in our institution to date. The

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current study was planned to assess the frequency of obsessive compulsive symptoms in patients suffering from depression.

Patients and Methods

This cross-sectional study was conducted from February 2014 to March 2017 at the department of psychiatry and behavioural sciences at the Allama Iqbal Memorial Teaching (AIMT) Hospital, affiliated with Khawaja Muhammad Safdar (KMS) Medical College, Sialkot, Pakistan, and comprised patients suffering from depression. It is a large public-sector hospital; the department of psychiatry was established about 30 years ago. The department has six-days-a-week outpatient department (OPD) and a 20-bedded indoor unit. It caters to the needs of psychiatric patients of a large catchment area from surrounding districts too. The non-probability purposive sampling technique was used. Andy Field described "the bigger the sample, the more likely it is to reflect the whole population".[11] Assessment was carried out in the OPD and for admitted patients it was carried out during their admission in the psychiatry ward. Adult patients suffering from depression and who gave consent were included. Patients suffering from severe physical illnesses, other psychiatric illnesses, current or past OCD, family history of OCD and patients who were unconscious or with altered state of mind were excluded. Patients with current or past history of drug abuse were also excluded. The purpose and title of the study were explained to all the patients. Written informed consent was taken. The institutional ethics committee approved the study.

The assessment was carried out in two stages. In the first stage, every patient coming to the department for the first time was assessed in detail by a consultant psychiatrist or if consultant was not present by a senior medical officer trained in psychiatry for three years and a qualified psychologist to establish the diagnosis of depression according to the tenth revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) criteria and to rule out physical causes. In difficult cases, opinion of a consultant physician or surgeon was sought according to the clinical situation. A clinical psychologist, with masters or equivalent degree in psychology and one-year training in psychiatry, administered Beck Depression Inventory- II (BDI- II)[12] and Yale-Brown Obsessive Compulsive Scale (Y-BOCS)[13] to each patient. BDI- II and Y-BOCS were translated into Urdu using translation, and then back-translation as well as translation by a committee procedure by seven bilingual qualified psychiatrists and psychologists. Conceptual rather than literal translation was done. They were used in a pilot study and ambiguities were removed after panel discussion. The pilot study was conducted by all the team for one month before the start of the main study to train them and to remove any practical difficulties by detailed team discussions.

In the second stage, BDI- II was administered first. It is a 21-item self-administered questionnaire to assess the severity of depression. It has questions for sadness like "I do not feel sad". Each item is scored on a four-point Likert scale from 0 to 3. The range of total BDI- II score is from 0 to 63. A cut-off score for depression is 14. Mild depression is when score ranges from 14-19, moderate depression is 20-28 and severe depression is 29-63. The Cronbach's alpha for the current study was 0.85. Y-BOCS has a symptom checklist. A list of target symptoms was generated by asking questions from the checklist of symptoms in Y-BOCS. The principal symptom was then identified. A 10-item observer-rated Y-BOCS scale, which can be used as a semi-structured interview to measure the severity of obsession and compulsions during the last seven days, was then applied.[14] There are five items (time spent, interference, distress, resistance and control) each for obsessions and compulsions. Each item is scored on a five-point Likert scale from 0 (none) to 4 (extreme). The sum of the first five items is the total score for obsessions, i.e. a maximum score of 20. The same is the case with next five items which deal with compulsions. The scores for obsessions and compulsions subscales are added to give the total score out of 40. The interpretation of Y-BOCS is subclinical 0-7, mild 8-15, moderate 16-23, severe 24-31 and extreme 32-40.[13] The Cronbach's alpha for the current study was 0.82. For illiterate patients, data collectors read out all the questions and answers and entered the scores according to the consent of the patient.

A data sheet was prepared. It contained demographic and clinical information along with the BDI- II and Y-BOCS scores for each patient. All the data was coded, verified and re-checked. Descriptive statistics in the form of frequency tables and percentages were calculated using SPSS 21.

Results

Of the 5,268 patients who met the inclusion criteria, 5,127(97.3%) gave consent. Of them, 2,318(45.21%) were males and 2,809(54.79%) females. The mean age of the male patients was 35.17±12.39 years (range: 18-73 years) and that of female patients was 33.67±13.27 years (range: 18-70 years). Moreover, 2,759(53.81%) patients were married and 1,735(33.84%) were single. Besides, 418(8.15%) patients were widowed and 215(4.2%) were divorced. Also, 2,712(52.9%) patients earned Rs26,000-70,000 per month,1,117(21.78%) patients earned less than Rs25,000 and 1,298(25.32%) earned more than Rs70,000

Table-1: Demographic details of the patients N=5127.

Variable	Frequency	Percentage
Gender		
Male	2318	45.21%
Female	2809	54.79%
Age in years		
18-35	2016	(39.32%)
36-60	2269	(44.26 %)
> 60	842	(16.42%)
Marital status		
Single	1735	(33.84%)
Married	2759	(53.81%)
Widowed	418	(8.15%)
Divorced	215	(4.20%)
Monthly income (Pak Rupees)		
<25000	1117	(21.78%)
26000-70000	2712	(52.90%)
>70000	1298	(25.32%)
Years of Education		
Illiterate	1712	(33.40%)
Up to 10 years	2271	(44.29%)
>10 years	1144	(22.31%)

per month. Further, 1,712(33.4%) patients were illiterate, 2,271(44.29%) had up to 10 years of education and 1,144 (22.31%) had more than 10 years of education (Table-1).

It was found that 1,991(38.83%) patients had moderate depression, 1,647(32.13%) patients had mild depression and 1,489(29.04%) were in severe depression. Of all the patients, OCS were present in 1,673(32.63%), including 497(29.70%) patients with mild depression, 599(35.80%) with moderate depression and 577(34.49%) with severe depression. In mildly depressed patients, subclinical, mild, moderate, severe and extreme OCS were present in 107(6.39%), 128(7.65%), 139(8.31%), 84(5.02%) and 39(2.33%) patients, respectively. In moderately depressed patients, the OCS were present in 143(8.54%), 185(11.06%), 153(9.15%), 75(4.48%) and 43(2.57%) patients, respectively. And in severely depressed patients, the symptoms were present in 66(3.94%), 136(8.13%), 151(9.03%), 147(8.79%) and 77(4.60%) patients, respectively (Table-2).

Discussion

The results of the study showed that about one-third (32.63%) patients had OCS. The frequency of OCS was 497(29.70%) in patients with mild depression, 599(35.80%) in patients with moderate depression and 577(34.49%) in patients with severe depression. The findings from our study corroborate with studies carried out elsewhere. Most studies on depression in OCD found that one-third patients suffer from depression. In a study, the prevalence of OCS was 31% to 49% in people having psychiatric illness other than OCD and 13% to 17% in people with no psychiatric illness.[15]

One of the project reports on obsessions and depression is the Sequenced Treatment Alternatives to Relieve Depression (STAR*D) trial, believed to be the largest effectiveness trial of depression ever conducted. Of the data collected by authors, they reported on 3,984 adult patients having depression. The patients with previous or current OCD were excluded from the analysis, as was the case in the current study. They reported that the prevalence of more than one OCS was53% and that of more than four OCS was 14% at the time of patients' entry into the study. These findings corroborate the results of our study. There was a positive correlation of higher number of OCS with the severity of depression. The authors concluded that OCS are common in patients suffering from depression, but they may go unrecognised. Clinicians need to be vigilant for the OCS as they impact on management strategies, both in the pharmacological and non-pharmacological treatment of such patients.[16]

A community-based US study, planned to find the prevalence of depression and comprising 3,283 adolescents, found that the prevalence of OCD was 3% and subclinical OCD 19%.[17] A population-based study of 900 individuals found OCD and OCS common in geriatric patients and these were related to depressive illness with poor psychiatric

Table-2: Frequency of obsessive compulsive symptoms in depression.

OCS* n (%)	Categories of depression according to severity N=5127		
	Mild depression n=1647 (32.13%)	Moderate depression n=1991 (38.83%)	Severe depression n=1489 (29.04%)
Subclinical	107 (6.39%)	143 (8.54%)	66 (3.94%)
Mild	128 (7.65%)	185 (11.06%)	136 (8.13%)
Moderate	139 (8.31%)	153 (9.15%)	151 (9.03%)
Severe	84 (5.02%)	75 (4.48%)	147 (8.79%)
Extreme	39 (2.33%)	43 (2.57%)	77 (4.60%)
OCS in categories of depression	497 (29.70%)	599 (35.80%)	577 (34.49%)
Total OCS in depression		1673/5127=32.63%	

OCS: Obsessive compulsive symptoms.

functioning.[18] In a study of 815 patients of OCD in Brazil, it was found that co-morbid depression showed higher OCD scores.[19] This finding also supports our study.

The strengths of our study were clinical application, large sample size, easy methodology and use of easy and practical instruments. Urdu translation of Beck Depressive Inventory has been used in research in Pakistan. It has been analysed for its psychometric properties along with reliability and validity for use in Pakistani population. The authors concluded that it can be effectively used for the assessment of depression in Pakistan.[20] However, our study had some limitations as well. We followed Andy Field's view that "the bigger the sample size, the more likely it is to reflect the whole population"[11] in reporting the sample size. It is a general rule used by other renowned experts in the field of statistics. A scientific and systematic way of recruiting patients in our study based on proper statistics would have been better. It is a limitation of the study and this must be taken into account in future studies. Patients coming after OPD timings to the emergency department and consulting causality medical officer were left out. Some patients might have gone to other departments of the hospital so they could not be included. Moreover, the current study's findings cannot be generalised as it was a hospital-based study. Y-BOCS has not been translated to Urdu before our study, to the best of our knowledge. Effort was made to use standard procedures of translation but tests of reliability and validity are needed. Some of the data collectors might be more enthusiastic and encouraged patients to respond in the affirmative. Likert scales were used which have their own limitations. Future studies need more robust methodology and need to be conducted in community to better resolve the issue.

Conclusion

Nearly one-third of the depressed patients had OCS. The frequency of OCS was the highest in patients with moderate depression. Subclinical, mild and moderate OCS were most frequent in patients with moderate depression while severe and extreme OCS were most frequent in patients with severe depression.

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