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Original Article

Psychiatry/Mental Health Section

A Study on the Prevalence and Phenomenology of Hoarding in Patients with Obsessive Compulsive Disorder

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ABSTRACT

Introduction: Hoarding behaviour is a common symptom seen in patients with Obsessive Compulsive Disorder (OCD). The phenomenology and prevalence of hoarding in OCD have been under studied in India and the phenomenon is less explored on routine clinical examination.

Aim: To study the prevalence and phenomenology of hoarding as a symptom in patients with OCD and tried to elucidate some differences between OCD patients with and without hoarding symptoms.

Materials and Methods: A total of 50 patients with OCD and 50 relatives of psychiatric patients were the subjects for the study. The OCD group was administered the Yale Brown Obsessive Compulsive Scale (YBOCS), the Hoarding Rating Scale and the Clutter Image Rating Scale. The 50 cases of OCD were further divided on the presence and absence of hoarding as a symptom into 2 groups and the scores on the scales used were statistically analysed using descriptive statistics like frequency and percentages, chi-square test and unpaired t-test.

Results: The mean duration of illness was 8.01±5.17 years and the mean age of onset of the illness was 27.28±7.11 years for all patients with OCD. OCD patients with hoarding had a shorter total duration of illness than those without hoarding. Newspapers and scrap were hoarded the most with sentimental reasons along with importance of goods were cited as reasons for the behaviour. The two groups showed significant differences on compulsive sub scale of the YBOCS and no differences were noted in the other scales used.

Conclusion: Patients having OCD with hoarding as one of the symptoms may differ from those not having hoarding. However larger studies across diverse groups are needed to corroborate these findings.

Keywords: Compulsion, Hoarding habit, Obsession

INTRODUCTION

Obsessive Compulsive Disorder (OCD) is a disorder with heterogenous presentation characterised by intense distress to patients and caregivers alike [1]. The most commonly noted obsessions concern contamination, fear of illness, responsibility for harm or mistakes, guilt, religion and morality, exactness and symmetry and sexual obsessions [2]. The compulsions resorted in order to tackle the obsessions include decontamination and washing/cleaning, keeping and arranging things in order, atonement for sins and guilt, excessive praying and religious activities and excessive hoarding [3]. Hoarding is defined as "the acquisition of and failure to discard a large number of possessions that appear (to others) to be useless or of limited value, where living or work spaces are sufficiently cluttered that they do not look like what these spaces were designed for and significant distress or impairment in functioning is caused by the hoarding behaviour or clutter" [4].

Hoarding has been related as a primary symptom in OCD [5] and while it has been included as a separate disorder in Diagnostic and Statistical Manual for the Classification of Psychiatric Disorders-5th edition (DSM-5), it's presentation in that regard is rare [6,7]. Hoarding as a symptom is seen in clinical practice as a part of disorders like schizophrenia [8], major depressive disorder [9], dementias [10], autism spectrum disorders [11] and intellectual impairment [12]. Hoarding Disorder (HD) as per DSM-5 follows a chronic and progressively deteriorating course over time with age of onset reported between 11 and 15 years [13]. In adults, the point prevalence of hoarding is estimated to be in range of 2-6% [14,15]. Phenomenological studies indicate that between 18-42% patients suffering from OCD report hoarding as a symptom [16,17]. Treatment outcome studies in OCD posit hoarding symptoms as poor predictor of treatment response [18]. Details of the types of hoarding, prevalence in Indian patients and detailed phenomenology of hoarding have not been studied well in India. Considering the same, this study was aimed at studying the prevalence and phenomenology of hoarding behaviour in patients with OCD.

MATERIALS AND METHODS

The present study was cross-sectional study carried out in a Tertiary care general teaching hospital over a period of 12 months from August 2017 to July 2018. The sample for the study were 50 patients diagnosed with OCD as per DSM-5 criteria [6] and 50 subjects with no diagnosed psychiatric illness that would serve as a control group. These were relatives of patients that accompanied patients to the psychiatry outpatient department. Convenience sampling was followed with patients and controls were selected based on certain inclusion criteria.

The inclusion criteria for the study included age of the patient being above the age of 18 years and being diagnosed with OCD as per DSM-5 criteria and no comorbid psychiatric diagnosis being present. The control group needed the participant to be a relative of a patient and with no history suggestive of psychopathology and having taken no psychiatric treatment in their lifetime. In both the groups, subjects having chronic medical diseases like diabetes mellitus, hypertension etc. that would affect the study was excluded. Written informed valid consent was taken from patients and control group participants. The study was approved by the Institutional Ethics Committee. The first 50 consecutive OCD patients attending the psychiatric outpatient department were subjects for the study. No formal sample size calculation was made for the study.

A semi-structured proforma was used for the study where patients answered questions related to the phenomenology of OCD, age of onset and duration of illness, symptomatology, severity of symptoms and general course. The phenomenology of the hoarding behaviour if present like age of onset and duration of hoarding behaviour, items hoarded reaction on discard and reasons for hoarding were noted. The following scales were used in the assessment of the patient group:

Yale-brown obsessive-compulsive scale (Y-BOCS): This is a self-rating scale used to assess the severity of the symptoms in patients with obsessive compulsive disorder. In this scale severity is judged on the obsession subscale (score 0-20), compulsion is judged on the compulsion subscale (Score 0-20) and total score (0-40). The range of severity varies from subclinical (0-7), mild (8-15), moderate (16-23), severe (24-31) and extreme (32-40) [19]. The scale has 10 items scored on a scale of 0-4. The first five items pertained to obsessions and the next five items pertained to compulsions. The scale has been widely used clinically in various studies in patients with OCD [20,21].

The hoarding rating scale (HRS): This is a brief 5-item semi-structured interview completed by the assessor to rate clutter, difficulty discarding, acquisition, distress, and impairment on a scale from 0 to 8. All 5 items were summed to yield a total score ranging from 0 to 40. The HRS has shown high internal consistency and reliability across time, context, and raters, as well as known groups and constructs validity [22].

The clutter image rating scale (CIRS): This scale is used to judge the impact of hoarding on person with hoarding behaviour. In this scale, photos of the kitchen, bedroom and living room are shown to the participant and a score is awarded from 1 to 9. The score range on the scale is 3-27 [23]. People can just pick out the picture in each sequence comes closest to the clutter in their own living room, kitchen and bedroom. This requires some degree of judgment because no two homes look exactly alike, and clutter can be higher in some parts of the room than others. Still, this rating works pretty well as a measure of clutter. In general, clutter that reaches the level of Picture 4 (9 pictures of each room on the scale) or higher impinges enough on people's lives that the present authors would encourage them to get help for their hoarding problem. Based on the picture picked the subject gets a score of 1-9.

STATISTICAL ANALYSIS

The data obtained were entered into an MS Excel sheet and data analysis was done with the help of SPSS Version 20.0. Descriptive statistics with frequency and percentage for hoarding phenomenology and presence or absence, mean and standard deviation for scores, Chi-square test for demographic non-continuous data and unpaired t-test for continuous data and rating scale scores were used in the analysis. The p-value was obtained for all statistical analyses and $p \leq 0.05$ was considered as statistically significant for the study.

RESULTS

Demographic Data and Hoarding

The socio-demographic details of patient and control groups have been described in [Table/Fig-1]. Both groups were well matched in all respects except education which was significantly greater in the patient group. Seven patients out of 50 patients with OCD reported hoarding behaviour as a symptom. Hence the prevalence of hoarding behaviour ascertained from the present study was 14%. None of the subjects in the control group reported hoarding or had any psychopathology and hence were not included in the hoarding assessment or OCD assessment which was restricted between hoarders and non-hoarders.

Demographic details	Cases (n=50)	Controls (n=50)	Statistical analysis
Age (in years) Mean±SD	35.38±9.55	39.40±12.94	t=1.77, df=98,1, p=0.08 NS[a]
Gender			
Male	38	32	χ^2=1.714, df=98,1, p=0.19 NS[b]
Female	12	18	
Education (years) Mean±SD	9.80±3.67	7.72±4.67	t=2.47, df=98,1, p=0.015*[a]
Religion			
Hindus	37	39	χ^2=0.219, df=98,1, p=0.64 NS[b]
Non-Hindus	13	11	
Marital status			
Married	39	41	χ^2=0.25, df=98,1, p=0.617 NS[b]
Unmarried	11	9	
Family type			
Nuclear	29	28	χ^2=0.041, df=98,1, p=0.84 NS[b]
Joint	21	22	
Occupational status			
Employed	39	31	χ^2=3.048, df=98,1, p=0.081 NS[b]
Unemployed	11	19	

[Table/Fig-1]: Sociodemographic Data of patient and control groups.
*significant (p<0.05), NS: Not significant
[a]Unpaired t-test used in the assessment, [b]Chi-Square test used in the assessment

Phenomenology of OCD

The phenomenology of OCD in the sample revealed that the mean duration of illness was 8.01±5.17 years and the mean age of onset of the illness was 27.28±7.11 years. A total of 37 (74%) subjects had moderately severe OCD as per DSM-5 while 25 (50%) had moderate severity on the basis of the YBOCS assessment. Hand washing and checking were the commonest obsessions reported with 29 (58%) subjects and 12 (24%) respectively and they reported that they repeated the compulsive behaviour in response to an obsession at least 10-20 times a day. A total of 36 (72%) subjects took no precautions to prevent an obsession [Table/Fig-2].

Phenomenology of Hoarding

When assessing the phenomenology of hoarding in the seven subjects that reported the same, it was noted that the mean duration of hoarding behaviour was 13.43±5.35 years. The mean age of onset of OCD for this group was 22.85±6.34 years. Newspapers and scrap were hoarded the most. Hoarding was mild to moderate and sentimental reasons along with importance of goods were cited as reasons for the behaviour [Table/Fig-3].

Comparison between Hoarders and Non-hoarders

When OCD patients with hoarding and those with no hoarding behaviour were compared it was noted that there were no differences in mean age, duration of illness and frequency of compulsive behaviours, On the YBOCS assessment, the hoarding group showed significantly greater scores in the compulsion domain (p=0.03) while obsessions and total scores showed no statistical differences. The HRS also showed no differences between the two groups while on the CIRS significant differences were seen in the total scores, living room and kitchen scores [Table/Fig-4].

DISCUSSION

In the present study it was found that the prevalence of hoarding as a symptom was 14%. This is in accordance with other studies on OCD that have yielded prevalence rates in the range of 12-40% [24-26]. The difference in prevalence rates across studies can be explained due to various criteria used by different studies and different rating scales administered. In the general population, prevalence of hoarding is estimated to be about 2-5% [27,28].

Obsessive compulsive disorder (N=50)		
Parameter	**Mean±SD/N (%)**	**Range**
Mean duration of illness (years)	8.01±5.17	0.8-23
Mean age of onset (years)	27.28±7.11	13-39
Severity of the Illness (DSM-5)		
Mild	1 (2%)	
Moderate	37 (74%)	
Severe	12 (24%)	
Severity of the illness (YBOCS)		
Subclinical	Nil	
Mild	12 (24%)	
Moderate	25 (50%)	
Severe	13 (26%)	
Extreme	Nil	
Types of obsessions		
Hand washing	29 (58%)	
Checking	12 (24%)	
Sexual thoughts	10 (20%)	
Thoughts of insults	4 (8%)	
Acquiring HIV	3 (6%)	
Praying	2 (4%)	
Checking blood	1 (2%)	
Grooming	1 (2%)	
Intrusive child harm	1 (2%)	
Lift travel fear	1 (2%)	
Thought of physical assault	1 (2%)	
Thought of sickness	1 (2%)	
Thought of death	1 (2%)	
Unfaithful thoughts	1 (2%)	
Urination	1 (2%)	
Frequency of distress		
<10 times a day	18 (36)	
10-20 times a day	29 (58)	
>20 times a day	3 (6)	
Precautions to prevent OCD		
Nil	36 (72)	
Avoid people	3 (6)	
Avoid touch	5 (10)	
Listen to music	2 (4)	
Read books	2 (4)	
Praying	2 (4)	

[Table/Fig-2]: Phenomenology of OCD.

Hoarding symptoms (N=7)		
Parameter	**Mean±SD/N (%)**	**Range**
Mean age of onset of hoarding behaviour (years)	22.85±6.34	15-33
Mean duration of hoarding behaviour (years)	13.43±5.35	4-18
Items hoarded		
Newspapers	2 (28.57%)	
Books	1 (14.29%)	
Machinery items	1 (14.29%)	
Shoes	1 (14.29%)	
Sarees	1 (14.29%)	
Scrap	2 (28.57%)	
Reasons for hoarding		
Sentimental	3 (42.86%)	
Collector items	0	
Important items	4 (57.14%)	
Relationship with obsessions		
Increases	5 (71.43%)	
Decreases	0	
No change	2 (28.57%)	
Reaction after forceful discard		
Anger	1 (14.29%)	
Irritability	4 (57.14%)	
Restlessness	2 (28.57%)	
Impairment in socio-occupational functioning		
Mild	4 (57.14%)	
Moderate	2 (28.57%)	
Severe	1 (14.29%)	

[Table/Fig-3]: Phenomenology of hoarding.

Characteristic	Hoarding present (n=7)	Hoarding absent (n=43)	Statistical analysis
Age in years (Mean±SD)	29.29±6.96	26.95±7.16	t=0.80, df=48, 1, p=0.426 NS
Duration of illness (years) (Mean±SD)	6.86±2.97	8.20±5.45	t=0.63, df=48, 1, p=0.528, NS
Frequency of compulsive behaviour (times/day) (Mean±SD)	10.14±2.85	11.40±8.30	t=0.39, df=48, 1, p=0.697, NS
Scores on the YBOCS scale			
YBOCS-Obsession (Mean±SD)	11.43±1.81	10.21±3.97	t=0.79, df=48, 1, p=0.432, NS
YBOCS-Compulsion (Mean±SD)	12.86±1.34	8.81±4.9	t=2.16, df=48, 1, p=0.036*
YBOCS-Total (Mean±SD)	24.29±2.43	19.05±7.88	t=1.73, df=48, 1, p=0.089, NS
Hoarding rating scale (Mean±SD)	5.29±0.95	1.49±1.31	t=1.16, df=48, 1, p=0.2545 NS
Clutter Image Rating Scale (CIRS)			
CIRS-Kitchen (Mean±SD)	2.57±0.53	1.09±0.29	t=1.96, df=48, 1, p=0.055 NS
CIRS-Bedroom (Mean±SD)	2.43±1.27	1.02±0.15	t=2.31, df=48, 1, p=0.0257*
CIRS-Living room	2.55±1.19	1.03±0.18	t=2.37, df=48, 1, p=0.0233*
CIRS-Total	7.56±2.98	3.19±0.71	t=2.07, df=48,1, p=0.0435*

[Table/Fig-4]: Comparison between OCD patients with and without hoarding behaviour.
*significant (p≤0.05), NS: Not significant. Unpaired t-test used in the analysis

The mean age of onset of hoarding was 22.85±6.34 years. Thus, patients with long standing OCD have a greater chance of developing hoarding behaviour, a finding supported in other studies as well [29]. In the present study main items hoarded were newspapers and scrap (28.6%), while other items hoarded were books, sarees, shoes, machinery items. The present findings do correlate with a similar study where newspapers, magazines, old clothing, bags, books, mail, notes and lists were the most commonly hoarded items [30]. A study has shown that patients with OCD and hoarding are also more likely to hoard bizarre items like rotten food, trash, faeces, urine, nails, hair, used diapers; which is rarely seen when hoarding is unrelated to OCD [31]. This was not seen in the present subjects.

In our study, it was found that almost half of the patients would hoard items as they would feel that those items were very important for them or they might lose some important details which might be of their use in future. This finding is corroborated by various studies in literature too [30]. Various reasons are given for not discarding items were the perceived utility or aesthetic value of the items or strong sentimental attachment to the possessions. There is a fear of catastrophic consequences if the things are discarded and there

is a need for rituals and compulsions associated with the process of discarding that does not allow the discarding to occur [32]. This was seen in the present study as well.

In the present study, it was observed that patients suffering from OCD and having hoarding behaviour had shorter duration of illness than those without hoarding. This was just an observation and no particular reason can be attributed to this.

The mean Y-BOCS score was more in hoarding group compared to non-hoarding group in the present study which shows that more severe the OCD, more is the prevalence of hoarding. However, a statistically significant association was found only for the compulsive subscale of YBOCS because hoarding is a form of compulsive behaviour. Studies have supported the finding that patients with OCD and hoarding behaviour have greater compulsive acts and researchers have also found that hoarding patients had higher Y-BOCS scores compared to non-hoarders and hoarders were more likely to have symmetry obsessions and repeating, counting, and ordering compulsions [19,26]. On the CIRS, hoarders had significantly greater scores than non hoarders that is bound to be present due to enhanced hoarding perceptions seen in hoarders.

LIMITATION

In this study we have specifically focused on hoarding as a symptom in patients with OCD and it's correlation with OCD. We have also compared OCD patients with and without hoarding. We have not looked at the phenomenology of OCD in general as that was beyond the scope of the current study. The study has its limitations in that it is very circumscribed cross-sectional study limited to just 50 patients and its findings cannot be generalised. Larger studies across multiple centres in larger populations are needed to understand the phenomenology of hoarding further. Details of hoarding as a disorder and its phenomenological correlation need to be studied further in Indian populations along with the phenomenology of hoarding seen as a part of disorders other than OCD.

CONCLUSION

Hoarding is an important compulsion to be studied in the context of OCD. In our study, patients with hoarding showed greater scores on the YBOCS scale and also had greater compulsions than the non-hoarding group. Hoarding as a symptom must be explored in patients with OCD and must be studied further to elucidate whether Hoarding with OCD is a distinct subset of OCD patients.

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