

A Study of Obsessive Beliefs among Patients with Obsessive Compulsive Disorder and their First Degree Relatives

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ABSTRACT

Higher percentage of familial transmission has been reported in relation to OCD patients. Consistent findings as to role of cognitive factors such as obsessive beliefs among first degree relatives of patients with OCD have not been reported and thus these phenomena need more research. Thus the aim of the current research was to study the difference in obsessive beliefs in patients with OCD and their first degree relatives. 30 patients diagnosed with OCD were checked for severity of obsessions and compulsions using Yale Brown Obsessive Compulsive Scale (Y-BOCS) and for the severity of obsessive beliefs, Obsessive Beliefs Questionnaire-44 (OBQ-44). General Health Questionnaire (GHQ-12) was administered on 30 first degree relatives of the patients with OCD to rule out the presence of any mental health conditions. Obsessive Beliefs Questionnaire (OBQ-44) was administered on them as well. The difference between the scores of both the patients and their relatives was calculated using t-test. There was a significant difference between scores on OBQ-44 of patients and that of their first degree relatives.

Keywords: *OCD, Obsessive Beliefs, First Degree Relatives*

Obsessive compulsive disorder (OCD) is a disabling mental health condition which involves repetitive thoughts, images or urges which are believed to be unwanted, illogical, disturbing and anxiety provoking. In order to get relief from the anxiety that is created by these obsessions, the individual tries to neglect the same by performing some repetitive behaviours or mental acts. These mental acts or rituals are termed as compulsions which are not directly or logically connected to the obsessions and/or are performed in excess (American Psychiatric Association, 2013). In a 12 month prevalence study of OCD in US, 1.2% prevalence has been found which is similar to the international prevalence of 1.1%-1.8% (American Psychiatric Association, 2013). A recent study conducted in India reported the point prevalence of OCD to be 3.3% among adults and 8.5% of students fulfilled criteria for subthreshold OCD (Jaisoorya T. e., 2017).

It has been found from the twin studies that the concordance rate in the monozygotic twins is 80-87% and in the dizygotic twins it is 47-50%. This indicates that genetic factors can make

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an individual liable to OCD (Pauls, 2010). In the family studies, it has been found that the immediate relatives of those suffering from OCD are about fourfold greater at risk than the controls. The proneness to acquiring this disorder among the relatives increases proportionately with the degree of genetic relation with the patient (Mataix-Cols, Boman, & Monzani, 2013). Thus, it can be seen that OCD is a familial disorder. There are many different theories which attempt to explain the emergence of OCD. One of the main theories amongst them which is empirically supported and which provides a base for one of the most successful treatments for OCD is the cognitive model (Mckay, et al., 2015). Out of various cognitive models explaining OCD, the one given by Beck has been the most promising one. According to the cognitive specificity hypothesis psychopathology may arise because of a major role played by different dysfunctional beliefs which underlie them (Beck, 1976) (Abramowitz, 2005). Thus it has been a topic of interest for several theorists to understand the specific dysfunctional beliefs underlying the phenomenology of obsessions and compulsions. Though intrusive thoughts, images or impulses are experienced by majority of people on regular basis (Rachman S. &, 1978), only a few get converted into clinically diagnosable obsessions because of the meaning that the person seems to attach to those intrusions. Specific dysfunctional beliefs at the root of the meanings being attached to the intrusions have been given by a few theorists (Rachman, 1997) (Salvovskis, 1996) which are further extended by group working on cognitions related to OCD (OCCWG, 2005). Intrusive thoughts, images or impulses are basically emotionally neutral in the beginning. But the way in which these intrusions are appraised results in the positivity or the negativity of the emotions (Edwards & Dickerson, 1987).

Certain environmental factors such as parenting (Rector, Cassin, Richter, & Burroughs, 2009) and early familial experiences (Salvovskis, 1985) play a very important role in developing these beliefs in an individual. Factors such as extremely strict parenting, high expectations from the children i.e. setting higher goals and standards for them, parents who are perfectionists modelling perfectionism to their children, taught by some significant other regarding the importance of assuming responsible roles since the childhood or being protected from the responsibilities in childhood such that the individual feels incapable to facing any dangers in the life, etc. are some of the events that contribute in development of major beliefs underlying this disorder (Rector, Cassin, Richter, & Burroughs, 2009). OCD has been considered as a familial disorder where there have been many empirical findings showing higher rates of this disorder among blood relatives (first degree) of patients than that of control groups. One such finding shows 6.2 times greater risk of OCD in blood relatives of patients with OCD (Grabe, 2006). Thus it can be said that an individual who is a first degree relative of patient with OCD, might be cognitively vulnerable to OCD. When faced to stressful life events, he/she might take a form of full blown disorder.

Studies have attempted to understand the potential role of obsessive beliefs in the pathogenesis of OCD in case of patients and their first degree relatives. Majority of these studies report that patients diagnosed with OCD and their first degree relatives score higher in terms of various kinds of obsessive compulsive beliefs such as perfectionism, threat estimation and responsibility beliefs respectively (Umberto, et al., 2015) (Rector, Cassin, Richter, & Burroughs, 2009) (Jacobi, Calamari, & Woodard, 2006). A study aimed to assess obsessive beliefs among patients with OCD, GAD and a non-clinical control group. OBQ-44

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was used to assess the severity of obsessive beliefs among all the three groups. It was found that obsessive beliefs (perfectionism, threat estimation and inflated responsibility) were more in OCD and GAD groups as compared to non-clinical control group. Specific role of these beliefs in case of OCD could not be established in this study. Studies have compared and assessed obsessive beliefs among OCD patients and their first degree relatives and respective controls. These studies have established that OCD patients and their first degree relatives score higher on the obsessive belief scales and their respective domains as compared to the control groups. Consensus regarding the role of various sub-domains of obsessive beliefs i.e. perfectionism, threat estimation and inflated responsibility have not been yet obtained (Rector, Cassin, Richter, & Burroughs, 2009) (Jacobi, Calamari, & Woodard, 2006).

The researches on the role of beliefs as one of the cognitive factors contributing to OCD are inconsistent (Rector, Cassin, Richter, & Burroughs, 2009). Also, there is a dearth of researches in India regarding the understanding of the vulnerability of the family members of patients with OCD, indicating the need of further exploration.

METHOD

A cross sectional study was conducted over a period of 1 month in government hospital setting in Gwalior. 30 patients diagnosed as having OCD according to DSM-V criteria as well as ICD-10 criteria were included in the sample. Patients ranging from 18 years to 50 years of age were included in the sample. Patients with a history of organic mental disorders, substance use, major disorders from the spectrum of psychotic disorders (schizophreniform, schizophrenia etc.) along with presence of any other major mental disorders apart from depression were excluded. 30 first degree relatives of these patients were also included in the study. They were screened by using the GHQ-12 in order to rule out the presence of any kind of mental disorders. Patients and first degree relatives (FDR) were given entire information regarding the purpose of the study and an informed consent was taken.

Patient and their FDR were first given a socio-demographic form which obtained information regarding their age, gender, education, occupation and other relevant socio-demographic variables.

Y-BOCS was used to know the severity of OCD. Y-BOCS was drawn on the basis of clinical features of OCD (American Psychiatric Association, 2013) (Goodman, et al., 1989). Y-BOCS measures severity of obsessions along different dimensions such as: time consumed, interference, distress, resistance and control. It involves 10 items: 5 belonging to obsessions and 5 to compulsions. OBQ-44 was used to determine severity of obsessive beliefs altogether as well as in relation to sub-domains of the same. OBQ-44 assesses three domains of obsessive beliefs. This test has been developed by a group working on cognitions related to OCD in order to examine dysfunctional thought patterns that underlies the obsessive compulsive disorder. The three domains are overestimation of danger and responsibility appraisals related to harm, significance and regulation of unwanted thoughts and perfectionist attitude and the intolerance of uncertainty. The items are rated on 7-point scale. The higher scores indicate greater belief strength of that particular individual.

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Pearson product moment correlation was used to study the relationship between Obsessive beliefs and severity of obsessions and compulsions. Correlations were also calculated for each specific domains of OBQ with Y-BOCS. T-test was used to test significance of difference on scores of obsessive beliefs between the patients and their first degree relatives.

RESULTS

Table 1: Showing Socio-demographic characteristics of patients with OCD and their first degree relatives (FDR)			
Variables		Patients (%)	FDR (%)
Age [Mean±SD (n=30)]		27.7±6.7	33.9±12.1
Gender	Male	50	40
	Female	50	60
Education	Under-graduate	40	40
	Graduate	36	40
	Post-Graduate	23.33	20
Socio-economic Status	Lower	23.3	23.3
	Lower-Middle	30	30
	Upper-Middle	40	40
	Upper	6.7	6.7
Religion	Hindu	96.7	96.7
	Muslim	3.3	3.3
Habitat	Rural	3.3	3.3
	Urban	96.7	96.7
Marital Status	Single	56.7	43.3
	Married	40	56.7
	Divorced	3.3	0
Family Type	Nuclear	63.3	63.3
	Joint	36.6	36.6
Occupation	Student	33.3	33.3
	Homemaker	23.3	30
	Service	30	16.7
	Business	13.3	16.7
	Unemployed	0	3.3

Table 1 shows the socio-demographic profile of the OCD patients included in the sample. Mean age of the sample was 27.7±6.7 years with a range of 18-50 years. Equal number of males and females were included in the sample. Majority of patients were undergraduates and belonged to a lower socio-economic status. A majority of patients were unmarried, belonged to a urban background and came from nuclear families.

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Table 2: Showing clinical characteristics of patients with OCD	
Variables	Patients (%) Mean±SD (n=30)
Age of Onset (years)	21.6±7.9
Duration of Illness (Months)	75.9±61.9
Time gap between the onset of illness and first psychiatric treatment (Weeks)	35.60±41.7

Table 2 indicates that age of onset on an average was found to be 21±7 years. Duration of illness on an average was found to be 76±61.9 months and delay between onset of symptoms and psychiatric treatment was 35.60±41.7 weeks on an average.

Table 3: Showing percentages of FDR's relation with the patients.	
Relation	%
Father	10
Mother	26.7
Brother	26.7
Sister	30
Son	3.3
Daughter	3.3

Table 3 indicates the percentages of the relationships of the first degree relatives with the patients. Sister was found the highest (30%) among the first degree relatives and the lowest was son and daughter (3.3% each).

Table 4: Showing Pearson Product-moment correlation of Y-BOCS scores with the scores of three domains of OBQ and its total score								
	RT		PC		ICT		TOTAL	
	Correlation	Significance	Correlation	Significance	Correlation	Significance	Correlation	Significance
Y-BOCS	0.26	0.16	0.37*	0.04	0.25	0.18	0.35	0.06

*Significant at 0.05 level

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Table 4 indicates the correlation of the scores of Y-BOCS with the three domains of OBQ and its total scores. The correlation of Y-BOCS with the total scores of OBQ-44 was found to be weak and so is with the two domains of Responsibility/Threat (RT) and Importance/Control of Thoughts (ICT). The correlation of the scores of Y-BOCS was found to be significant at 0.05 level with the Perfectionism/Certainty (PC) domain of OBQ-44.

Table 5: Showing Mean and t-test of OBQ scores in patients with OCD and their FDR						
Variable	Groups	N	Mean±SD	t	DF	P
OBQ	OCD	30	220.8±45.4	1.47	58	0.15
	FDR	30	201.6±54.1			

Table 5 indicates the t-test between the scores of OBQ-44 of the patients with OCD and their first degree relatives. Mean and SD of the scores of OBQ-44 of patients with OCD and their first degree relatives has also been indicated. The scores of patients on the questionnaire was found to be 220.8±45.4 on an average and that of their first degree relatives is found to be 201.6±54.1. The t-test between these two has been found to be 1.47 which is found to be not significant.

DISCUSSION

Obsessive Compulsive Disorder is found to be a disorder with the major familiarity component to it (Pauls, 2010). With the closeness in degree of relationship with the patient, the degrees of chances of vulnerability also seems to be increasing. Hence indicating the direct proportion between the two (Grabe, 2006). A number of studies have indicated the role of obsessive beliefs underlying the cognitive vulnerability of an individual (Rector, Cassin, Richter, & Burroughs, 2009). This study indicated how no significant differences were found between the obsessive beliefs of patients and their first degree relatives indicating the vulnerability of the first degree relatives for OCD. In another study it was found that a lot of childhood experiences (with siblings and parents) determine in formation of various obsessive beliefs in an individual. As the same environment is shared by the siblings or the parents of the patient with OCD, the presence of obsessive beliefs has been found in the family members (Careau, O'Connor, Turgeon, & Freeston, 2012).

The present study examined the obsessive beliefs in patients as well as their first degree relatives on the sample of 30 each. The objective was to understand whether there is any difference in the scores of the obsessive beliefs in the patients and their family members. No significant difference was found between the obsessive beliefs in patients and their family members (table 5) indicating that the obsessive beliefs in patients and their relatives are found to be similar. This result is supported by various studies that show the similarity between the patients and their relatives in terms of obsessive beliefs (Rector, Cassin, Richter, & Burroughs, 2009) (Grabe, 2006). Thus it can be said that the first degree relatives who has the same amount of obsessive beliefs as the patients might be having these beliefs at the ideas level which might turn into an obsession once some stressful live event takes place (Brander, Vigil, Larsson, & Cols, 2016). It has been found specifically that perfectionism domain of OBQ-44 has significant correlation with the scores of Y-BOCS indicating that perfectionism might have been found as a significant domain in familial transmission which is also

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supported by a study (Soenens, Elliot, Goossens, Vansteenkiste, Luyten, & Duriez, 2005). In this study, the researchers have studied the transmission of maladaptive perfectionism from the parents to their children and had found significant results.

The OCCWG has found out that the total scores of Y-BOCS fail to show stronger correlations with the Obsessive Beliefs Questionnaire-44 total scores (OCCWG, 2005). This is in support to the results found in this study (table 4). The domain wise correlations has been found to be stronger in their study, which this study has failed to show except for the domain of Perfectionism. This may be due to the smaller sample size of the current study.

CONCLUSION

There is no significant difference in the severity of obsessive beliefs among patients with Obsessive Compulsive Disorder and their first degree relatives, thus indicating the cognitive vulnerability of the later to Obsessive Compulsive Disorder.

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Conflict of Interest

The authors carefully declare this paper to bear not a conflict of interests

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