Bulletin of Environment, Pharmacology and Life Sciences
Bull. Env. Pharmacol. Life Sci., Spl Issue [5] 2022 :492-497

Online ISSN 2277-1808
Journal's URL:http://www.bepls.com
CODEN: BEPLAD

ORIGINAL ARTICLE **OPEN ACCESS**

Relationship between Cognitive Risk Factors and Severity in Obsessive Compulsive Disorder

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ABSTRACT
In view of the limited studies on the causal factors of patients presenting with Obsessive Compulsive Disorder, the present study was carried out to study the severity in obsessive-compulsive disorder in relation to cognitive risk factors in clinical outdoor patients with Obsessive Compulsive Disorder. 60 patients of Obsessive-compulsive disorder, who presented with obsessive-compulsive features and were diagnosed according to DSM5 criteria, comprised the sample. Both males and females from urban as well as rural domicile from age range of 20-40 years were chosen. Five measurement devices were applied on the clinical patients after a brief interview. Measurement devices used were: Y-BOCS, Rosenberg Self-esteem scale, Cognitive style Questionnaire, Seligman attribution style questionnaire and Thought Control Questionnaire. Statistical analysis was done after analyzing the data. The results suggested that the severity of Obsessive Compulsive disorder is significantly negatively correlated with self-esteem, cognitive intuitive and systematic style, whereas positively correlated with the Punishment dimension of thought control, Good affiliation, Bad achievement, and Combined bad achievement affiliation dimensions of attribution style.
Keywords: Severity in Obsessive Compulsive Disorder, Cognitive risk factors, Clinical patients.

Received 21.10.2022 Revised 27.11.2022 Accepted 23.12.2022

INTRODUCTION

Obsessive-Compulsive Disorder (OCD) is characterised by obsessions and compulsions. Obsessions are persistent, inappropriate intrusive thoughts, ideas, images, or impulses that cause anxiety and subjective resistance, and Compulsions or urges to engage in overt or covert behaviours to allay obsessional fear or in accordance with rigidly enforced rules. The most typical signs of OCD include an excessive need for order and symmetry, intrusive thoughts of a somatic, violent, or sexual character, frequent checking, and a fear of contamination by dirt or germs. Around 2% of the general population worldwide suffers from obsessive-compulsive disorder (OCD) [1-5].

According to cognitive models of the disorder [18], the causes and maintenance of OCD are assumed to be [2] catastrophic misinterpretations of intrusive thoughts, pictures, and impulses in terms of significance, harm, and responsibility. People who interpret their intrusions negatively are thought to be more susceptible to obsessions [19]. OCD involves some dysfunctional and unhelpful belief domains elevations which are assumed to serve as a vulnerability in the development of the disorder [3-9].

Cognitive style is the manner in which a person thinks, perceives and retains information or uses said information to solve problems. Field independence is the degree to which an individual is able to isolate an item from the field in which it is embedded and actively deal with the item independently of the field. He asserted relationships between individual differences in personality characteristics, forms of psychopathology, and performance on field independence measures. He based these assertions upon an emphasis on style rather than capacity as an explanation for performance on field independence tasks. He also believes that an individual exercises a preference to perceive in a manner which is consistent with his/her personality as if the person were choosing a style from among a wide range of open alternatives..

In psychology, self-esteem refers to an individual's total emotional assessment of their own value; it is both a judgment and an attitude toward the self. Self-esteem includes thoughts that one is unqualified or unworthy, as well as feelings like joy, gloom, pride, and shame. Self-concept is what we believe about ourselves, and self-esteem is our positive or negative assessments of ourselves, or how we feel about ourselves, according to Smith and Mackie [27]. The evaluative aspect of the self, often known as self-esteem, encompasses sentiments of worthiness, pride, and discouragement [16]. Self-consciousness is also directly related to one's self-esteem [26]. According to Clark and Purdon [6] and Purdon and Clark

[5], intrusions that are judged to be at odds with a person's sense of self, beliefs, and values may intensify into obsessions. The term "control of thoughts" refers to an excessive emphasis on the significance of one's thoughts and the notion that having full control over intrusive experiences is possible as well as desirable [18-28].

Those suffering from OCD experience disturbing thoughts with much more intensity and frequency than those who do not have the disorder. Additionally, those without OCD are able to dismiss these thoughts more easily, while individuals with OCD often become hyper-focused on the thoughts and make attempts to change or eliminate them. These unwanted intrusive thoughts are often a central feature for many individuals with OCD. Purdon [20] observed that one usually suppresses one's obsession thoughts. Active resistance is, in fact, a defining feature of obsessional thoughts.

MATERIAL AND METHODS

Sample - The sample of the proposed study was drawn from psychiatric outpatients diagnosed with Obsessive-Compulsive Disorder from various psychiatric clinics in Jaipur (State of Rajasthan). 60 subjects constituted the sample.

The sample was chosen as per the following criteria: -

Age range	20-40 years
Type	Outpatients (with only OCD)
Gender	Both Males and Females
Domicile	Urban and Rural

Sample selection - The hospital authorities (Medical superintendent, Psychiatrists and Clinical Psychologists) were approached prior to the process of data collection and their approval to collect data from enrolled outdoor patients was obtained. Further, participants were approached and rapport was formed with the participants. They were briefed about the study. Participation in the study was voluntary. All the questionnaires were administered personally by the investigator and special care was taken in administering the test properly. The participants took roughly 45 minutes to 1 hour to respond to the questionnaires and no compensation was provided to them for their participation in this study. Since a large number of patients came from rural areas and had no understanding of the English language, therefore questions were translated to them into Hindi.

MEASURES

Following measurement devices were applied to the clinical patients:

A. Yale-Brown Obsessive-Compulsive Disorder Scale (Y-BOCS) developed by Goodman et al. in 1989:
B. Rosenberg Self-esteem Scale (RSES): The field of social-science research frequently utilizes this measure developed by Dr. Morris Rosenberg.
C. Cognitive Style Questionnaire: The Cognitive-Style Questionnaire contains twenty statements of the systematic style and twenty of the intuitive style.
D. Thought Control Questionnaire: The Thought Control Questionnaire (TCQ) is a 30-item instrument devised by Adrian Wells and Mark I. Davies (1994).
E. Seligman Attributional Style Questionnaire: The SASQ (also known as the ASQ) is one of the most validated profiling tools in the world.

Order of administration of devices:- Random.

DATA ANALYSIS

The current study's data were not normally distributed. Following is a description of the analyses used in the study: Descriptive analysis was performed using frequency, percentage, mean, standard deviation, and range. The correlation Pearson's r was used to perform inferential analysis. Prior to the main analysis, a correlation analysis was performed to determine the association between obsessive-compulsive disorder and other factors in the study. SPSS 20.0 was utilised as the statistical package for the analysis.

RESULTS

Table 1 :*Description of the Sample (N=60).*

Variable	Frequency	Percentage
Gender		
Male	44	73.3
Female	16	26.7
Domicile		
Urban	39	65.0
Rural	21	35.0

Table 2 indicates the categories of obsessive-compulsive disorder in which 45.0 % of the respondents reported in the moderate range of OCD followed by moderate-severe, mild and severe range (31.7 %, 18.3 %, and 5.0 %) respectively.

Table 2:*Categories of Obsessive-Compulsive Disorder*

Categories	Frequency	Percentage
Mild	11	18.3
Moderate	27	45.0
Moderate-Severe	19	31.7
Severe	03	5.0

Table 3 : ***Description of variables- self-esteem, cognitive style, thought control and attribution style:***

Variables	*N*	Mean	*SD*
OCD	60	22.35	8.03
Self-esteem	60	13.55	5.51
Cognitive intuitive style	60	60.63	7.61
Cognitive systematic style	60	60.03	8.35
TCQ Distraction	60	10.98	3.28
TCQ Punishment	60	11.48	3.01
TCQ Reappraisal	60	11.21	3.07
TCQ Worry	60	11.40	3.37
TCQ Social Control	60	10.75	2.89
Overall TCQ	60	55.83	10.64
Good Achievement	60	4.87	1.24
Good Affiliation	60	4.54	1.23
Bad Achievement	60	4.93	1.25
Bad Affiliation	60	3.59	1.20
Good Achievement + Good Affiliation	60	4.70	.97
Bad Achievement + Bad Affiliation	60	4.2	1.06

Table 4 : ***Correlation of variables self-esteem, cognitive style, thought control and attribution style with Obsessive-Compulsive Disorder (OCD):***

OCD	Self-esteem	CIS	CSS	TCQ D	TCQ P	TCQ R	TCQ w	TCQ S	Total TCQ	G ach	G aff	B ach	B aff	G ach + G aff	B ach + B aff
Self-esteem	-.284*														
CIS	-.290*	.394**													
CSS	-.263*	.470**	.655**												
TCQ D	-0.236	.433**	.610**	.611**											
TCQ P	.267*	0.157	.256*	0.158	.298*										
TCQ R	0.1	0.005	.340**	.491**	.459**	.365**									
TCQ W	-0.19	0.152	.319*	.328*	.559**	.281*	0.183								
TCQ S	0.204	0.047	.264*	0.207	.259*	.333**	0.147	.369**							
Overall TCQ	0.027	0.24	.531**	.535**	.772**	.660**	.632**	.721**	.605**						
G ach	-0.186	-0.081	-0.016	0.075	0.135	0.141	.339**	0.171	0.024	.240*					
G aff	.265*	0.162	0.022	0.098	.312*	0.197	0.238	.337**	.351**	.422**	0.213				
B ach	.330*	-0.153	-.419**	-.501**	-.453**	0.102	-.346**	-0.186	-0.041	-.281*	-0.089	-0.025			
B aff	0.249	-0.069	-0.235	-.308*	-0.024	0.241	-0.071	-0.007	0.003	0.039	-0.19	0.014	.480**		
G ach +G aff	0.054	0.05	0.001	0.113	.286*	0.213	.372**	.324*	0.237	.423**	.779**	.778**	-0.071	-0.113	
B ach + B aff	.335**	-0.13	-.380**	-.463**	-.279*	0.202	-0.24	-0.115	-0.017	-0.139	-0.162	-0.006	.863**	.856**	-0.107

Note. *p<.05 and **p<.01, *. Correlation is significant at the 0.05 level (2-tailed), **. Correlation is significant at the 0.01 level (2-tailed).

The result of the bi-variate analysis suggests that Obsessive Compulsive Disorder is significantly negatively correlated with Self-esteem (r=-.28; < 0.05). This indicates that people with low self-esteem are more likely to develop Obsessive Compulsive Disorder than people with high self-esteem.

A person's aggregate perception of their own value and worth is reflected in their self-esteem. Self-esteem includes ideas like "I am capable," "I deserve," and feelings like "victory," "desperation," "pride," and "shame" [12].

Self-esteem is one of the human needs Maslow included in his hierarchy of needs. He considers esteem to be of two different types, the first being the need to be respected by others and the other to respect oneself [13]. Obsessive thought and conduct is found to be compounded by intrusions at odds with an individual's sense of self and his/her beliefs and values [2, 16]; and, the extent to which these intrusions distress the individual is determined by the extent of inconsistencies in his/her sense of self and the domain being disturbed [6-8].

The above table also depicts that Obsessive-compulsive disorder is significantly negatively correlated with cognitive Intuitive style (r=-.29; < 0.05) and with cognitive systematic style (r=-.26; <0.05). The cognitive learning style refers to an individual's information-processing patterns and is used in cognitive psychology to define how people think, interpret, and recall information, as well as how they use that information to solve issues. Theories on cognitive style created as a result of the research conducted by [20-27]. The systematic style employs logical, rational behaviour by following a sequential, step-by-step approach to thinking learning, problem-solving, and decision-making. It is therefore generally considered to be "good".The alternative, intuitive style, which is typically regarded as "poor," is associated with a spontaneous, all-encompassing, and visual approach. The results showed that patients who normally used a systematic style, employing a well-defined, step-by-step approach to problem-solving and who looked for an overall technique or programming approach scored low on the obsessive-compulsive scale. The findings also revealed that clinical patients who used the intuitive style too scored low on the obsessive-compulsive scale.

In their study, Gomez and Oscar (1999) investigated a model of obsessional behaviour that suggests cognitive impairment as a component of the pathological processes causing Obsessive-Compulsive Disorder (OCD). In their study of six adolescents, Williams et al. (2002) discovered an intrinsic association between cognitive style and OCD through a case series where measures of inflated responsibility declined as OCD symptoms diminished.

Another interesting observation of the present study reveals that obsessive-compulsive disorder is significantly positively related to the Punishment dimension of Thought Control (r=0.27<0.05). These results indicate that people who tend to punish themselves for having the obsessive thought: telling themselves not to be stupid, getting angry or shouting at themselves for having the thought, slapping/pinching themselves to stop the thought, or telling self that something bad will happen if one thinks about the thought will lead to an increase in the obsessive-compulsive Disorder. Similar findings were given by the researchers. Thought control methods such as self-punishment and worrying were more significantly connected with obsessional symptoms than other control strategies such as distraction. According to Purdon (2001), individuals often repress their obsessional ideas; active resistance is a distinguishing aspect of obsessional thinking. Abramowitz, Whiteside, Kalsy, and Tolin (2003) discovered that OCD patients used to worry and punishment tactics more frequently than anxious and non-anxious participants. OCD patients reported increased use of distraction methods and decreased use of punishment after successful therapy.

The above table also depicts a significant positive correlation between obsessive-compulsive disorder and the Good affiliation dimension of the attribution style (r=0.26<0.05). This means that people, who attribute the reasons for good affiliation internally, believe that it will remain stable and influence them globally to score higher on obsessive-compulsive features. The results also indicate a significant positive correlation between the severity of obsessive-compulsive disorder with bad achievement (r= .33< 0.05) and with the combined bad achievement affiliation dimension of attribution style (r=.33<0.01). This gives an explanation that people who tend to attribute bad achievement causes to self-believe that causes will remain stable and influence all aspects of their lives were found to be severe on the obsessive-compulsive scale. Similarly, people who tend to attribute the reasons for combined bad achievement affiliation to self, and believe that causes will remain stable and will influence all aspects of their lives were again found to score high on the severity of the obsessive-compulsive scale. Thus, to conclude, the results overall suggest that attributing uncontrollable bad events to internal, stable, and global factors leads to anxiety disorder i.e. obsessive-compulsive disorder.

Researchers have also shed light on the link between attribution style and obsessive-compulsive disorder.Anxiety stems from a sense of uncontrollability associated with potential future dangers, danger, or disagreeable events. Barlow implies a difference between people responding to imagined threats on

one hand and genuine ones on the other, something that can be found in the current models of OCD phenomenology. Anxiety, he claims, can therefore be understood as the state of helplessness that results when an individual believes himself/herself to be incapable of predicting, controlling and achieving desirable outcomes. The third component of his diathesis-stress or tripartite model is the conditioned tendency of an individual to focus his/her worry on a specific item or event. He highlighted the 'thought-action fusion', especially in relation to OCD [26, 28, 29]. Being able to give credit for one's improvement to oneself, rather than attributing it to external factors, is found to be an indicator of better progress [14].

On the contrary, the above result table shows no significant correlation between obsessive-compulsive disorder and the following dimensions: Distraction, Reappraisal, Worry, and Social Control dimensions of Thought Control, and Good achievement, Bad affiliation, Combined Bad achievement affiliation dimensions of thought Control. These dimensions seem to have no effect on the severity of Obsessive-compulsive disorder [10-13].

This study is a step toward the identification of cognitive risk factors in patients with obsessive-compulsive disorder. It will provide a degree of clarity in understanding how these cognitive vulnerability factors lead to the development of obsessive-compulsive disorder. The results of the study will lead to increased awareness regarding Obsessive-compulsive disorder and its prevention. Also, it will not only expand the scientific literature but will also help in the development of more advanced psychotherapeutic techniques for treating obsessive-compulsive disorder.

Though there are important implications of the study, there are a few limitations as well. Taking into consideration the number of psychiatric clinics spread over the state of Rajasthan, this is a smaller sample. Therefore, future studies should focus on larger samples. The sample included in the present study is only clinical patients in the age range of 20-40 years. Future research should focus on the heterogeneous sample. Researchers in the future should also consider children, adolescents, and the geriatric population. Researchers in the future should also consider differences in the educational qualification of clinical patients with obsessive-compulsive disorder which has been missed in the present study. The study considered only cognitive variables affecting the severity of obsessive-compulsive disorder. There is scope for further studies to take into consideration the social and emotional variables affecting vulnerability to obsessive-compulsive disorder.

CONCLUSION

On the basis of the findings it can be concluded that cognitive risk factors contribute to the increasing problem of Obsessive-compulsive disorder and hence, cognitive behaviour therapy could be employed to enhance the impact of positive cognitive factors and reduce the impact of negative cognitive factors among patients with obsessive-compulsive disorder. It has also been suggested that the use of the Punishment technique used in the therapeutic process needs to be minimized to reduce the problem of OCD.

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CITATION OF THIS ARTICLE

Bhanupriya Rathore, Uma Mittal, Anita Manglani. Relationship Between Cognitive Risk Factors And Severity In Obsessive Compulsive Disorder. Bull. Env.Pharmacol. Life Sci., Spl Issue [5]: 2022: 492-497.