

Management of OCD Co-Morbid with Depression

Laxmi Narayan Rathore^{1*}, Jai Prakash²

ABSTRACT

Depressive disorder has been known to co-exist with OCD since a very long time. Studies reported that presence of mood state (disorder) in patients having primary OCD could pose challenges in management. Literature favours use of cognitive behaviour therapy in managing symptoms severity in OCD. Present study attempts to look its role on co-morbid depressive disorder as well as on primary obsessive compulsive symptoms. Pre and post intervention with a control group design were made to conduct this study involving 20 OCD patients, which were equally divided in two groups. One group was given cognitive intervention sessions for 10 weeks. Pre and post intervention assessment was done using YBOCS and BDI and results were compared. Obtained data indicates that there is noticeable decrease in composite YBOCS and BDI scores at post intervention stage, in the group which has been given cognitive intervention as compared to the control group. Finding reveals that cognitive intervention has a role in improving the co-morbid depressive features along with remission of primary obsessive compulsive symptoms in OCD patients.

Keywords: *Depressive Disorder, OCD, Cognitive Intervention, YBOCS, BDI*

Depressive disorder has been known to co-exist with Obsessive Compulsive Disorder (OCD) since a long time by various clinical researchers (Clark, 2007; Overbeek et al., 2002; Chen & Dilsaver, 1995; Milanfranchi et al., 1995, Pigott et al., 1994; Rosenberg, 1968; Stengel, 1945; Lewis, 1936). Literature suggests about two thirds of individuals having OCD does have some or other depressive disorder in their lifetime (Sadock & Sadock, 2010). The rate could be as high as 65-80% (Brown et al., 2001; Crino & Andrews, 1996). Presence of co-morbid depressive disorder has been reported to worsen or exacerbate the primary Obsessive Compulsive (OC) symptoms (Clark, 2007), which may further results in deterioration of overall psycho-social functioning of the OCD patients. It has been observed that, the persistent and debilitating effect of OCD eventually leads to the development of a secondary depressive disorder (Clark, 2007; Demal et al., 1993; Rasmusen & Eisen, 1992). Further, the impact of depressive disorder on treatment response in patients with OCD is complicated. It

¹ Clinical Psychologist, Dept. of Clinical Psychology, Gwalior Mansik Arogyashala (Govt. Mental Hospital), Gwalior, M.P. India

² Additional Professor and Head, Department of Clinical Psychology, RINPAS, Kanke, Ranchi. Jharkhand, India

[*Responding Author](#)

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has been reported that depression may have a greater negative impact on obsessive than compulsive symptoms (Basso et al, 2001; Ricciardi & McNally, 1995), leading to assumption that involvement in mood state can have a beneficial impact on obsessive compulsive symptoms (Rachman, 1985) recovery and thus may have an implication on the type and nature of treatment style for the patient with OCD co-morbid with depressive disorder.

Management of mental illnesses with co-morbid conditions does present challenges. However, It has been suggested in some previous studies that psychological treatments (Cognitive Therapy) that is effective in treatment of primary depressive illness, could well be used in individuals having OCD co-morbid with mild to moderate depressive disorder (Clark, 2007; Roberts, et al 2003). Present study aims to see the role of cognitive intervention on patients with OCD co-morbid with mild to moderate depression.

METHODOLOGY

Aim

- This study has been undertaken with the aim of examining the role of cognitive intervention on patients with OCD co-morbid with depression.

Study design

It was a pre and post intervention with control group design, which was conducted at Ranchi Institute of Neuropsychiatry and Allied Sciences, Ranchi, Jharkhand, India.

Sample

A total of twenty patients diagnosed with OCD as per ICD-10-DCR (WHO, 1992) criteria were enrolled for this study using purposive sampling. Patients were placed into two sub groups, experimental and control, having ten OCD patients each, using draw of lots method.

Inclusion Criteria for Both Groups

1. Patients diagnosed with Obsessive Compulsive Disorder as per ICD-10 DCR criteria.
2. Age ranges between 25 to 40 years.
3. Duration of illness between 2 to 5 years.
4. Patients who have attained education of at least primary level.
5. Patients who are able to understand Hindi.

Exclusion Criteria for Both Groups

1. Patients having any neurological disorder, brain damage, mental retardation or co-morbid psychiatric conditions except mild to moderate depression.
2. Patients having any chronic medical disorder.
3. Patients with any substance or drug dependence except nicotine dependence.

Instruments

1. **Socio-demographic and Clinical data sheet-** A socio-demographic and clinical data sheet has been prepared and was used to collect information regarding various socio-

demographic variables like age, domicile, socio-economic status, religion, education, marital status, family type and clinical variables like onset of illness, duration of illness, presence of precipitating factor and treatment undertaken.

2 Yale-Brown Obsessive Compulsive Scale (Y-BOCS) - This rating scale was originally developed by Goodman et al (1989). It is a widely used instrument to rate the severity of obsessive and compulsive symptoms in patients having OCD and to monitor the improvement in OCD patients. This scale measures obsessions and compulsions separately. It is a clinician rated 10 items scale. Each item is rated from 0 (no symptoms) to 40 (severe symptoms). The scale includes item about the amount of time the patient spends on obsessions, how much impairment or distress they experience and how much resistance and control they have over these thoughts. The cut off point for presence of obsession and compulsions is 7, that is a score of 7 or less indicates no obsessions and/or compulsion. A score of 8-15 indicates mild, 16-23 indicates moderate, a score of 24-31 indicates severe and a score of 32-40 indicates extreme obsessions and /or compulsion. The internal consistency of YBOCS was found to be of acceptable level and the inter-rater reliability has been found to be excellent that is, correlation coefficients is $r = 0.85$ for the total YBOCS score.

3 Beck Depression Inventory (BDI)- This inventory is originally developed by Beck (1961). It is one of the most popular research tools to measure the severity of depressive features in the patients. It is basically a self administered rating scale. It consists of few categories were each category describes a specific behavioural manifestation of depression and consists of a graded series of four to five self evaluative statements. The statements are ranked to reflex the range of severity of the symptoms from neutral to maximum severity. Scoring is done by assigning the numerical values form 0-3. A total of 21 symptoms categories are included in the inventory. A score of 0-16 indicates low level of depression, 16-32(mild level), 32-48 (moderate level) and a score of 48-64 indicates severe level of depression. This scale will be used in this study to assess the presence of depressive features in the subjects. The internal consistency of BDI was satisfactorily high ($\alpha > \text{or} = 0.84$) and retest reliability exceeded $\alpha > \text{or} = 0.75$.

4- Intervention tool: Techniques of Socratic Questioning and Downward Arrow (Clark, 2007) has been used as a means of providing cognitive intervention in this study.

Procedure

The present study has been carried out in three steps-

Step I- This step involved enrolment and baseline assessment of patients. Initially, based on inclusion criteria 20 patients were selected who gave their written consent for participation and divided equally in to two groups, experimental and control, using draw of lots method. The baseline assessment was started with an informal discussion to make the patients comfortable. After this a clinical interview was conducted to list and rate severity of their current obsessive compulsive and depressive symptoms, using YBOCS and BDI respectively.

Step II- In this step OCD patients in the experimental group were given 20 sessions of cognitive intervention featuring restructuring component using Downward Arrow and Socratic Questioning techniques, with a frequency of two sessions per week and session duration of 45 minutes. Along with the cognitive intervention, all patients in experimental

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group were allowed to continue with their medications as usual, on ethical grounds. No session of cognitive intervention has been given to control group, but they were allowed to continue with their respective medications as well.

Step III- This is the final step of data collection. It involves post intervention assessment. Experimental group of OCD patients were again assessed after administration of 20 sessions (ten weeks) of cognitive intervention and OCD patients of control group were assessed after ten weeks of their baseline assessment. During this step, severity of obsessive compulsive and depressive symptoms was assessed on YBOCS and BDI. After the re-assessment, all OCD patients in control group were also given cognitive intervention sessions on moral and ethical grounds.

Statistical Analysis

The obtained data has been analyzed using Statistical Package for Social Sciences (SPSS) version 16.0 of windows. As the study sample was small, non parametric test measures were used for data analysis. Chi square and Mann Whitney U test has been used to see the difference between both groups for categorical and continuous variables respectively, whereas comparison of pre and post intervention scores in case of experimental group subjects has been done using Wilcoxon Sign Rank test.

RESULTS

Table-1: Shows Comparison between Experimental Group and Control Group of OCD Patients on Socio-Demographic Variables.

Variables	Subjects	Experimental Group of OCD Patients (N=10) (n = %)	Control Group of OCD Patients (N=10) (n= %)	Fisher Test Value
Sex	Male	7(70)	4(40)	1.72
	Female	3 (30)	6 (60)	NS
Type of Family	Joint	3(30)	3(30)	0.00
	Nuclear	7 (70)	7(70)	NS
Marital Status	Married	5(50)	4(40)	0.19
	Unmarried	5(50)	6(60)	NS
Education	Graduate	7 (70)	8(80)	1.12
	Matriculate	2 (20)	2(20)	NS
	Primary	1 (10)	0(0)	
Occupation	Employed	4(40)	2 (20)	0.90
	Unemployed	6 (60)	8 (80)	NS

NS = P value not significant.

Table - 1 shows comparison between both groups on various socio-demographic variables. Results indicate that both compared groups did not differ significantly in terms of socio-demographic variables such as sex, type of family, marital status, education and occupation.

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Table-2: Shows Comparison of age and Clinical Variables between Experimental Group and Control Group of OCD Patients.

Subjects Variable	Experimental Group of OCD Patients (N=10)		Control Group of OCD Patients (N=10)		Mann Whitney U Test			
					Mean Rank		U	Z
	M	SD	M	SD	Exp. Group	Control Group		
Age (Years)	28.90	3.38	26.90	1.72	12.10	8.90	34.00	1.23 NS
Age of Onset of illness	25.80	3.52	24.20	1.75	11.50	9.50	40.00	0.76 NS
Duration of Illness	3.10	0.56	2.70	0.82	12.10	8.90	34.00	1.31 NS

NS = P value not significant.

Table - 2. Results indicate that there is no significant difference between patients of both groups in terms of chronological age, age of onset of and duration of illness.

Table-3: Shows baseline assessment of OCD patients of experimental group and control on YBOCS and BDI.

Subjects Variable	Experimental Group of OCD Patients (N=10)		Control Group of OCD Patients (N=10)		Mann Whitney U Test			
					Mean Rank		U	Z
	M	SD	M	SD	Exp. Group	Control Group		
Obsession Domain Score	15.20	1.54	15.40	2.59	10.05	10.95	45.50	0.34 NS
Compulsion Domain Score	13.70	1.33	14.10	2.02	9.80	11.20	43.00	0.54 NS
YBOCS: Composite Score	28.90	1.28	29.50	1.43	9.30	11.70	38.00	0.99 NS
BDI Score	19.90	4.14	21.90	4.14	10.05	10.95	45.50	0.34 NS

NS = P value not significant

Table - 3 suggests that both groups were alike at baseline with regard to their performance on YBOCS and BDI, meaning that OCD patients of both groups exhibit impairment and depression at baseline.

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Table-4: Shows Baseline Assessment of Severity Level of Experimental Group and Control Group of OCD Patients on YBOCS and BDI.

Subjects		Experimental Group of OCD Patients N=10 (n = %)	Control Group of OCD Patients N=10 (n = %)	Fisher value
Obsession Score	Domain Moderate	6(60)	5 (50)	0.19 NS
	Severe	4 (40)	5 (50)	
Compulsion Score	Domain Moderate	10 (100)	7 (70)	3.35 NS
	Severe	0 (0)	3 (30)	
YBOCS: Score	Composite Moderate	1(10)	0(0)	1.00 NS
	Severe	9 (90)	10 (100)	
BDI	Mild	3 (30)	4(40)	1.72 NS
	Moderate	7(70)	6(60)	

NS = P value not significant.

Table - 4 shows that there is no significant difference between both compared groups with respect to severity of depressive symptoms on BDI and in overall impairment of their composite as well as obsession and compulsion domain score on YBOCS at baseline stage.

Table-5: Shows Post Intervention Assessment of Experimental Group and Control Group of OCD Patients on YBOCS and BDI.

Subjects Variable	Experimental Group of OCD Patients (N=10)				Control Group of OCD Patients (N=10)				Mann Whitney U Test			
	Pre		Post		Pre		Post		Mean Rank		U	Z
	M	SD	M	SD	M	SD	M	SD	Experimental Group	Control Group		
Obsession Domain Score	15.20	1.54	7.60	1.17	15.40	2.59	13.70	1.63	5.50	15.50	0.00	3.84**
Compulsion Domain Score	13.70	1.33	6.80	1.55	14.10	2.02	12.90	1.91	5.50	15.50	0.00	3.82**
YBOCS: Composite Score	28.90	1.28	14.40	2.11	29.50	1.43	26.60	2.17	5.50	15.50	0.00	3.80**
BDI Score	19.90	4.14	8.90	3.44	21.90	4.14	20.30	4.39	5.50	15.50	0.00	3.79**

** P value is significant at 0.01 level.

Table 5 It is evident from the table that experimental group improved significantly as compared to control group in terms of obsessive compulsive and depressive symptoms.

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Table-6: Shows Post Intervention Assessment of Severity Level of Patients of Experimental Group and Control Group on YBOCS and BDI.

Subjects		Experimental Group of OCD Patients N=10 (n =%)	Control Group of OCD Patients N=10 (n=%)	Fisher Value
Variables				
Obsession Domain Score	Mild	10(100)	0(0)	19.00**
	Moderate	0(0)	10 (100)	
Compulsion Domain Score	Mild	10 (100)	0 (0)	16.54**
	Moderate	0(0)	9(90)	
	Severe	0 (0)	1 (10)	
YBOCS: Composite Score	Mild	7(70)	0(0)	20.65**
	Moderate	3(30)	0(0)	
	Severe	0(0)	9(90)	
	Extreme	0 (0)	1 (10)	
BDI Score	Minimal Depression	10(100)	0(0)	20.86**
	Mild Depression	0(0)	4 (40)	
	Moderate Depression	0(0)	6(60)	

** P value is significant at 0.01 level

Table - 6 reflects that experimental group has shown improvement with regard to impairment severity in obsession, compulsion and depressive symptoms.

Table-7: Shows Pre and Post Intervention Analysis of Experimental Group of OCD Patients on YBOCS and BDI.

Variables	Wilcoxon Sign Rank Test		
	Mean Rank	Sum Rank	Z value
Obsession Domain Score Post Intervention – Obsession Domain Score Pre Intervention	5.50	55.50	2.82**
Compulsion Domain Score Post Intervention – Compulsion Domain Score pre Intervention	5.50	55.50	2.81**
YBOCS Composite Score Post Intervention – YBOCS Composite Score Pre Intervention	5.50	55.00	2.81**
BDI Score Post Intervention - BDI Score Pre Intervention	9.54	124.00	2.90**

**P value is significant at 0.01 level.

Table – 7- It is evident from the table that there is significant difference between obtained scores at pre and post intervention levels which is suggestive of decrease in severity of obsessive and compulsive and depressive symptoms after the intervention in experimental group of OCD patients.

DISCUSSION

The present study has been undertaken to examine the role of cognitive intervention on patients with OCD co-morbid with mild to moderate depression. Out of the total 20 OCD patients who were enrolled in the study, 20 sessions of cognitive intervention has been provided to 10 patients who formed the experimental group. All patients in both groups were having mild to moderate level of depressive disorder co-morbid to primary OCD.

Findings of the study indicates (Table 1&2) that both compared groups were having similar sample characteristics in terms of various socio-demographic and clinical variables like sex, education, marital status, chronological age, onset and duration of illness. Variables like age of onset and duration of OCD have been known to influence treatment outcome (Clark, 2007), thus, similarity between groups on such variables was significant.

Baseline stage findings (Table 3) indicate presence of significant impairment in patients of both groups. YBOCS and BDI scores suggest presence of obsessive compulsive and depressive features in all patients at baseline. Findings further reveals (Table 4) that both groups were comparable in terms of presence of illness symptoms, as majority of patients in both groups were having severe level of OC symptoms along with moderate level of co-morbid depressive symptoms. After 10 weeks of cognitive intervention, which comprises of 20 sessions of cognitive restructuring exercise, it has been observed that experimental group of OCD patient's exhibit improvement in symptom severity as compared to control group. It has been witnessed that after cognitive intervention majority of the patients in experimental group were having mild level of OC symptoms and minimal depressive features. As compared to this, majority of patients in control group (which has not been provided cognitive intervention sessions) continue to exhibit severe and moderate level of OC and depressive symptoms respectively, which is similar to their pre-intervention stage assessment. Our study findings were supported by Abramowitz et al (2000) & Roberts et al (2003). They have also reported decrease in symptoms severity as measured on YBOCS after using cognitive therapy in such population having co-morbid depression. Present findings also found significant decrease in YBOCS and BDI scores after intervention involving cognitive techniques. As highlighted by Roberts et al (2003), in present study also, during intervention, only the primary obsessive thoughts were targeted in terms of identification of faulty appraisal and subsequent sessions involved challenging and acceptance of alternative appraisal (which is less threatening and more rational one). Alternatively this has also yielded in decrease of co-morbid depressive symptoms. Therefore, it can be inferred that improvement in primary OC symptoms would result in changes in co-morbid mood state of the patients, an observation that has also been found previously by others (Jenike, 2001; Clark, 1999; Friedman et al., 1998; Steketee & Frost, 1998; Steketee, 1993). Clark (2007)

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argued that when OCD is co-morbid with mood symptoms then, cognitive therapy that is used for altering cognitive triads in depressive disorders, could be effective in managing the depressive disorder which is secondary to OCD. He further pointed out that secondary depressive symptoms (mood state) are the result of (due to) primary OC symptoms, thus as the severity of primary OC symptoms decreases, gradual decrease in co morbid depressive symptoms could also happen. The study findings as reflected in Table no. 7 were also in line with Clark's explanation, as the pre and post intervention assessment of same patients in experimental group indicates significant improvement in OC and co-morbid depressive symptoms.

CONCLUSION

The study concludes that cognitive therapy (intervention) is effective in decreasing the severity of OC and depressive symptoms in patients suffering from OCD co-morbid with depressive disorder. Thus the present study implies that cognitive therapy alone could be used for treatment in patients with OCD having co-morbid mild to moderate depressive disorder. However, in the present study only the cross sectional (immediate) effect of cognitive intervention has been seen and effect of medications was not excluded. Thus in future research protocols, follow up effect of cognitive intervention may be examined and patients could be controlled on medications to rule out its effect in outcome.

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