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Research Paper

Obsessive Compulsive Disorder and Cognitive Intervention

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ABSTRACT

Obsessive compulsive disorder (OCD) is an anxiety disorder that includes repetitive thoughts and or rituals. Having a life time prevalence rate of 2-3%, this disorder is amongst the fourth most commonly made clinical diagnosis in, out patients department of mental health settings globally. OCD is associated with impairments in overall psychosocial functioning of the patient. Traditionally combinations of behavioural and cognitive therapeutic measures were used to treat patients of OCD. Use of cognitive intervention alone has been the recent trend, which has gained impetus after the popularity of cognitive models of OCD, few decades back. Present study aims to see the role of cognitive intervention on symptoms of patients with OCD. 20 OCD patients were selected using purposive sampling and were equally divided in to two groups using draw of lots method. One group was given 20 sessions of cognitive intervention using Down Ward Arrow or Socratic questioning techniques, spanned over 10 weeks. Pre and post intervention assessment was done for both groups using YBOCS and scores were compared. Results indicate significant reduction in YBOCS scores at post intervention assessment in the group which was given 20 intervention sessions in contrast to the other group. Study concludes that cognitive intervention was useful in decreasing the severity of symptoms in patients with OCD.

Keywords: *OCD, Cognitive Intervention, YBOCS, Downward Arrow, Socratic Questioning*

Obsessive Compulsive Disorder (OCD) involves obsessions and/or compulsions. This disorder is characterised first, by recurrent, unwanted thoughts or impulses that evokes affective distress (obsessions) and second, by repetitive behavioural or mental rituals performed to reduce this distress (compulsions) (Abramowitz, 2006). It has been reported about symptoms presentations in OCD that certain types of obsessions and compulsions occur together in patients, such as, obsessions regarding contamination are combined with decontamination rituals; obsessions regarding responsibility for harm are combined with reassurance seeking rituals; sexual or blasphemous obsessions are combined with mental

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rituals etc. (Abramowitz et al, 2003). Literature also suggests that, Individuals with OCD are generally known to have primary obsessive thoughts which may or may not yield to compulsive acts or rituals. Co-morbid anxious and or depressive symptoms are commonly found to exist with OCD, which has a life time prevalence rate of around 2-3% (Clark, 2007). This disorder is usually known to occur during the adolescent period of life (Sadock & Sadock, 2010) and does not display any typical gender biasness. Studies have consistently reported a chronic course of this illness, if remain untreated, leading to debilitating effect in patients overall psycho social functioning, thus timely management if very much required. (norberg et al, 2008; srivastava & Bhatia, 2008 & 2007).

Cognitive therapy have been a treatment of choice in variety of anxiety related disorders specially in unipolar depression since a long time and were proven effective in minimizing the symptoms in such conditions (Hunsley et al., 2013). However use of cognitive therapy alone to treat patients with OCD is not that popular, possibly due to the overemphasis on the behavioural explanation behind the obsessive compulsive behaviours of the patients. Thus use of cognitive behavioural therapy (CBT) in treating OCD were in clinical practice for more than 6 decades and there is substantial evidence for their efficacy in minimising severity of obsessive compulsive symptoms in OCD patients (Foa, 2010; Cordioli, 2008; Veale, 2007; Freeman et al, 2007; Butler et al., 2005). Use of cognitive therapy alone in handling symptoms in patients with OCD is comparatively newer approach that gains importance after popularisation of cognitive models of OCD (Clark, 2007). Some researchers like Abramowitz (2006) also suggested that cognitive therapy should 'accompany' rather than 'replace' behavioural techniques (in CBT framework) in for treating patients with OCD. However, present study focuses on use of only cognitive component (cognitive restructuring) from CBT framework (for OCD) in handing symptoms in OCD patients.

Aim

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

METHODOLOGY

Sample

Present study involved pre and post with control design and was conducted at Gwalior Mansik Arogyashala, Gwalior, M.P. India. A total of twenty patients were enrolled for this study using purposive sampling method. 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 (WHO, 1992).
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.

Tools

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. In this study this scale was used to assess the severity of current obsessive compulsive symptoms of the enrolled subjects.
3. **Intervention tool**: Downward Arrow and Socratic Questioning techniques (Beck, 1995) were used as a mode of 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 all patients on Y-BOCS. Initially 20 patients were selected on the basis of inclusion criteria from the out-patient department by requesting referrals from psychiatrists. Only those patients were enrolled in the study who gave their written consent for participation. All patients were 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 symptoms using YBOCS.

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

Cognitive intervention involved restructuring to modify the erroneous appraisal and belief of the patients. Initial sessions of restructuring focussed on developing understanding of difference between appraisals and intrusive thought. Subsequent sessions focussed on helping OCD patient to realize that their automatic appraisal or interpretation of an unwanted thought is only one of several possible ways to react to the obsessive thought, demonstrating that appraisal (importance or significance) of the obsessions is based on possibility interference and highlighting to the patient that the faulty appraisal and his tendency for over-control of the obsession is a highly selective approach to a particular type of unwanted thought.

Along with the cognitive intervention, all patients in experimental group were allowed to continue with their medications as usual, on ethical grounds. However, no session of cognitive intervention has been given to control group patients, 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. After passing of ten weeks since baseline assessment, in which patients in experimental group were given 20 sessions of cognitive intervention, all patients in both groups were again assessed on YBOCS for severity of their obsessive and compulsive symptoms. After the re-assessment is completed, OCD patients in control group were also given cognitive intervention sessions on moral and ethical grounds.

Statistical Analysis

Appropriate statistical analysis was done using Statistical Package for Social Sciences (SPSS) 16.0. 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.

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 NS
	Female	3 (30)	6 (60)	
Type of Family	Joint	3(30)	3(30)	0.00 NS
	Nuclear	7 (70)	7(70)	
Marital Status	Married	5(50)	4(40)	0.19 NS
	Unmarried	5(50)	6(60)	
Education	Graduate	7 (70)	8(80)	1.12 NS
	Matriculate	2 (20)	2(20)	
	Primary	1 (10)	0(0)	
Occupation	Employed	4(40)	2 (20)	0.90 NS
	Unemployed	6 (60)	8 (80)	

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.

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 Depicts 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.

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

NS = P value not significant

Table - 3 represents baseline assessment of experimental and control group of OCD patients on YBOCS. It appears from the table that both groups did not differ significantly with regard to their obsession and compulsion domains as well as on total scores on YBOCS at the baseline assessment. It suggests that patients of both groups exhibit impairment at baseline.

Table 4: Shows Post Intervention Assessment of OCD Patients of Experimental and Control Group on YBOCS

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	7.60	1.17	13.70	1.63	5.50	15.50	45.50	3.84**
Compulsion Domain Score	6.80	1.55	12.90	1.91	5.50	15.50	43.00	3.82**
YBOCS: Composite Score	14.40	2.11	26.60	2.17	5.50	15.50	38.00	3.80**

*** P value is significant at 0.01 level.*

Table-4 depicts post intervention assessment of experimental group and control group of OCD patients on YBOCS. It is evident from the table that experimental group improved significantly as compared to control group at post intervention in terms of obsessive, compulsive and collective features.

DISCUSSION

Cognitive intervention alone has been used on patients having obsessive compulsive disorder in this study. The findings of present study revealed that both groups were having similar sample characteristics in terms of clinical variables (Table 2) related with OCD like total duration and onset of symptoms and with regard to demographic variables (Table1). Finding further indicates that OCD patients of both group exhibit impairment in terms of presence of severe level of obsessive and compulsive symptoms collectively at baseline as suggested by their respective YBOCS ratings (Table 3) in domains of total time spent, interference, distress, resistance and control with regard to their obsessive and compulsive symptoms at baseline. Similar trends were obtained for assessment in terms of level of severity for specific domain of obsessive symptoms and compulsive symptoms at baseline. However, post intervention findings (Table 4) revealed that OCD patients of experimental group improved significantly as compared to control group of OCD patients after the intervention. It has been found that those patients who were provided 20 cognitive intervention sessions exhibited reduced obsessive and compulsive features. The improvement in experimental group of OCD patients has been observed for their total time spent on obsessions in a day, interference from obsessions in carrying out daily activities, distress experienced from obsessions, resistance showed for obsessive thoughts and improvement in terms of having control over obsessions. Interestingly similar trends of improvement were also noticed for compulsive rituals by the patients of experimental group after intervention. Mc lean et al's (2001) study has also found improvement in composite YBOCS scores in OCD patients in the group which was provided cognitive intervention. In accordance with Mclean et al finding we also argues that change in ways of dealing with primary appraisal (for obsessive thought) by patients (achieved through cognitive restructuring) could have helped them to control or handle their repetitive rituals (compulsions) in much adaptive way, resulting in decrease in

frequency of compulsive behaviours. Although other studies like Dordon & Moulding (2009), Freeman et al (2007), Veale (2007) and some meta analytical reviews (Butler et al 2006 & Rosa-Alcazar et al 2008) does advocates integration of behavioural techniques with cognitive intervention to achieve a composite improvement in primary obsessive compulsive symptoms in OCD, but others like Hunsley et al (2013), Anholt et al (2008) and Vogel et al (2004) does favour improvement in OCD symptoms by using cognitive approaches alone. Similar findings have been demonstrated by Haraguchi et al (2011). According to them, the psycho-educative component (in the beginning session of cognitive intervention) is helpful in developing an understanding in terms of nature of obsessions and to develop a deeper insight in patients mind regarding their intrusive repetitive thoughts (abnormal obsessions) and normal pleasant intrusions (normal obsessions), which are a part of patients normal day to day experience. They further observed that cognitive restructuring in subsequent sessions (after psycho-educative component) prove effective in identifying and dealing with primary appraisal related with obsession. Clark (2007) argued that, with cognitive restructuring, patients with obsessive compulsive disorder were able to delineate appraisal from obsessive thought and subsequently were able to delay or decrease the amount of time in associated rituals (compulsions). Our findings also revealed that patients in experimental group were having less interference from obsessions and compulsions and the time spent on obsessions and compulsions in experimental group of OCD patients were also reduced in comparison to OCD patients of control group after intervention, thus our findings goes well with Clark's observation. Cabedo et al (2010) also concluded that improvement in patients with OCD is a collective or global phenomenon which is characterised by gradual reduction in both obsessive and compulsive features, as shown by our findings.

CONCLUSION

Present study focused on managing symptoms in patients with OCD using cognitive intervention alone utilizing restructuring techniques. The study concluded that cognitive intervention is effective in decreasing the severity of obsessive compulsive symptoms in patients with OCD, their-by, study implies that cognitive intervention alone could also be used as a treatment modality in dealing with patients having OCD. However in this study the patients were not followed up for one more assessment, thus, the study fails to comment upon whether the cognitive change has been carried over by the OCD patients for a longer time period. Also our study has not matched the patients in both groups on their medication type. Thus we suggest that in future research protocols follow up assessment should also be involved and patients in both groups could be matched on medication type, to exclude its effect in the outcome.

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Conflict of Interest

The authors colorfully declare this paper to bear not conflict of interests

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