Original Research Paper

Role of CBT Intervention on Adjustment of Patients with OCD

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ABSTRACT

Obsessions and Compulsions are integral part of OCD that shares a life time prevalence of around 2%-3%. This disorder causes debilitating effect in patient's overall psycho-social functioning leading to poor adjustment ability with day to day life situations, which further add-on to the stress level of the individual and increases burden on family and society. This calls for timely management. Literature favors use of CBT intervention in managing symptoms severity in OCD. Present study attempts to look its role on adjustment level of such patients. Pre and post intervention with a control group design were made to conduct this study involving 20 OCD patients. Patients were equally divided in two groups where one group was given intervention with CBT sessions for 10 weeks. Pre and post intervention assessment was done using YBOCS and Bell Adjustment Inventory (Hindi form) and results were compared. Obtained data indicates significant changes in YBOCS and adjustment inventory scores, in the intervene group. Finding reveals that CBT has a role in improving the adjustment level in daily living of OCD patients along with remission of the primary symptoms.

Keywords: Obsessions, Compulsions, OCD, Adjustment, CBT, YBOCS.

Repetitive thoughts, urges, impulse etc are a part of day to day living. However, when these starts affecting our normal daily functioning, then they needs attention (Clark, 2007). According to ICD-10, any thought or impulse, when becomes intrusive, repetitive and distressing is termed as Obsessions, where-as Compulsion involves repetitive rituals (WHO, 1992). Obsessions and Compulsions are believed to be functionally related, generally, obsession elicits anxiety, whereas accompanying compulsion is performed to reduce anxiety (Clark, 2007). The vast majority of patients with Obsessive Compulsive Disorder (OCD) (75-91%) have both obsessions and compulsions (Akhtar et al, 1975; Black, 1974). Literature across the world has put OCD as a type of mental illness that often has a debilitating effect on patient's life having a life time prevalence rate of around 2-3% in general population (Antony et al 1998; karno et al, 1988). OCD does not appear to have a typical mode of onset. A

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substantial number of patient experiences a gradual onset of the disorder where as others report an acute onset, often in response to a particular life experience (Black, 1974, Rachman & Hodgson, 1980). OCD believed to have a chronic, debilitating course and strikes individuals during their youth (adolescence) and then persists often for a life time with an intermittent worsening of symptoms that can have severe and fairly generalized negative effects on daily living and personal attainment (Clark, 2007). The high co-morbidity rate of this disorder with depression and other anxiety disorders especially social phobia and possibly panic disorder, makes assessment and treatment of OCD more difficult (Sadock & Sadock, 2007). The clinical presentation in OCD may involve a single primary obsession occurring as a repetitive distressing thought, image or impulse or it may involve multiple obsessions and compulsions. The content of obsessional thoughts, images or impulses are highly individualistic in nature and is shaped by client's personal experiences and life events. Apart from this, various socio-cultural and demographic variables are also believed to influence the focus of an individual's obsessive rumination (Buyers et al, 1998; Rasmusen & Eisen, 1992).

Available literature points towards the incapacitating nature of OCD (Rachman & Hodgson1980). This illness has a significant negative impact on a person's ability to function socially and occupationally especially in more severe cases. However, it has been suggested that many patients with severe OCD are often unable to carry out their usual work or social activities shortly after onset of the illness (Ponniah et al, 2013; Rachman & de Silva, 1978; Pollitt, 1957). It is well established fact that OCD usually impairs patient's psycho-socio and occupational functioning significantly and condition become worse with chronicity of illness. It has been reported that as the time progress this illness has an adverse effect on the patient's daily life adjustment in different areas, as most of the patient's quality time is engaged in tackling or managing obsessive ideations and carrying out the ritualistic behavior (compulsion) (Bhatia & Srivastava, 2008; Srivastava & Bhatia, 2007; Bystritsky et al, 2001). As a result, patient becomes more of unproductive for himself, for his family and for the society at large (Moritz et al, 2005). Keeping adverse impact of OCD on individual's ability to adjust to his daily life needs, the impetus is on, finding such intervention strategies, that not only take care of primary obsessive compulsive symptoms of the patient but would also helpful in improving his adjustment ability towards day to day practical living.

Management of symptom severity in patients with OCD has radically changed in past years with the evolvement of new treatment strategies. Use of non-pharmacological approaches like integration of behavioural and cognitive strategies has been found to be helpful in managing the symptom's severity in OCD. The present study was planned to see the role of cognitive behavioural intervention strategies on adjustment level of patients with OCD.

METHODOLOGY

Aim and Objectives

This study has been undertaken with the aim of examining the role of cognitive behaviour therapy on the adjustment level of patients having obsessive compulsive disorder.

Study design

The study was a pre-post intervention based study with control group design, which was conducted at Ranchi Institute of Neuropsychiatry and Allied Sciences, Ranchi.

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 alternately placed into two operational sub groups, experimental and control, having ten OCD patients each.

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 co- morbid psychiatric conditions except secondary depression.
2. Patients having brain damage.
3. Patients having mental retardation or epilepsy.
4. Patients with substance or drug 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. **Mohsin-Shamshad Adaptation of Bell Adjustment Inventory- (Hindi Form)** (Mohsin & Shamshad, 1987) **-** This inventory was originally developed by Bell in 1934. It was adapted in Hindi language according to Indian standards by Mohsin and Shamshad (1987) and this Hindi adaption has been used in present study. Thus, now it is popularly called as Mohsin - Shamshad adaptation of Bell Adjustment Inventory (Hindi form). It is one of the widely used personality inventories to assess adjustment of people. Originally it has 140 items but in the final adaption 135 items were retained. Basically it is used to measure adjustment in four different areas like home, health, social and emotional. Home adjustment is expressed in terms of satisfaction or dissatisfaction with home life, health adjustment is measured in terms of illness, social adjustment is measured in terms of submissiveness, shyness and emotional adjustment is measured in terms of depression, nervousness. Out of total 135 items, home area has 35 items, health area has 31 items, social area has 34 items and emotional has 35 items. It's a self administered inventory and three response categories have been provided for answering each items. Scoring is done by counting the number of responses marked in each area of adjustment. A score of one is given to each response. High score indicates low adjustment and low score indicates high adjustment. The inventory has test retest reliability of 0.92. The validity of this scale has been found to be very satisfactory and the internal consistency of this scale is alpha > or =0.73.   In this study this is used to measure the subject's level of adjustments in different areas and subjects overall level of adjustment.

4. **Intervention Package-** In this study CBT has been used as an intervention package (Clark, 2007). Following cognitive and behavioural therapeutic components were used-

   1. Psycho-education- It is the educative component of the cognitive behavioural intervention. Initial phase of psycho-education is quite important for the intervention package to become effective.

   2. Cognitive Restructuring Techniques- This is one of the main therapeutic components of CBT intervention. Available literature suggests that the pre condition for cognitive restructuring process is patient's ability to distinguish their appraisals from obsessions. It is recommended to use these techniques after initial sessions of psycho-education (Clark, 2007). In the present study downward arrow and Socratic questioning techniques were used (Beck, 1995).

   3. Behavioural intervention- For success of CBT, these are significant. Depending upon the nature of symptoms presentation, exposure and response prevention (ERP) and thought stopping method has been used in this study.

Procedure

The present study has been carried out in three steps

Step I- This step initially involved enrolment of patients in to two groups i.e. experimental and control. Patients were enrolled in these groups in an alternate manner, such as first patient in experimental group and second available patient in control group and likewise. Only those patients were enrolled in the study that fulfils the inclusion criteria and aggress to be a part of the study. The purpose of the study was explained in Hindi language and their

queries were answered. A consent form was presented to them and they were asked to read the form and after satisfaction were requested to sign it. Those patients who gave their written consent for participation were listed down and were given appointments for baseline assessments on all clinical tools. The assessment procedure was started with an informal discussion to make the patients comfortable. After this a clinical interview was conducted to list their current obsessive and compulsive symptoms and to understand other clinical aspects of illness like presence of insight, avoidance behavior, resistance etc. Baseline assessment of obsessive compulsive symptoms of all patients in both groups has been done using YBOCS. Further assessment of current adjustment problems has been done using Mohsin-Shamshad Adaptation of Bell Adjustment Inventory (Hindi- Form).

Step II- In this step OCD patients in the experimental group were demonstrated sessions of cognitive behaviour therapy. Intervention with psycho-education, cognitive restructuring methods (downward arrow or socratic questioning) and Behavioural techniques (ERP or thought stopping) were provided. A minimum of 20 sessions of CBT were demonstrated with session duration of 45 minutes and a frequency of two sessions per week. Intervention started with psycho-educational phase followed by introduction of cognitive interventions and subsequently behavioural components of intervention were applied.

Plan of Sessions: A minimum of 20 intervention sessions were demonstrated for OCD patients of experimental group. Out of twenty sessions, in the beginning, around three sessions were involved in psycho-educating the client about various aspects of OCD and to develop a positive therapeutic relationship with the patient. During psycho-education, cognitive behavioural model of OCD and issues of normal and abnormal obsessions were discussed to normalize them with regard to their intrusive obsessions. The underlying idea during these sessions has been to develop an understanding that obsessions are as normal as any other intrusive thoughts and often their frequency is increased by focusing on them, as we tend to make them significant for ourselves by our focus. Efforts were made for the successful acceptance of cognitive behavioural explanations of the OC phenomenon during psycho-education with patients. After initial sessions of psycho-education, cognitive intervention involving restructuring strategies were introduced from fourth session onwards. The sessions were focused on helping the patient understand that, their own ways of automatic interpretation of unwanted intrusive thought (obsessions) is only one way of reacting to it out of the several possible ways. This means that, it's a selective approach that patients are using. Restructuring process focussed on inculcating an understanding in the patients about their different ways of dealing with low frequency intrusive thoughts (non obsessive) and high frequency intrusive thoughts (obsessive). In those patients who were having overestimated threat appraisals, downward arrow technique has been used to challenge the excessive negative fear. A step-wise questioning (probing) has been used to reach the core fear about obsession and then to challenge overestimation/unrealistic fear related with 'that particular obsession'. Socratic questioning method was used for challenging other types of appraisals like appraisal of inflated responsibility and perfectionism. On an average five sessions of cognitive restructuring were introduced for all patients of

experimental group. Efforts were made during these sessions of cognitive interventions to generate an alternative appraisal for their specific obsession which is readily accepted by them. After cognitive intervention sessions, behavioural interventions consisting of ERP and thought stopping were introduced. In this manner, intervention has been given to all OCD patients of experimental group. Along with the CBT intervention, all patients in experimental group were allowed to continue with their 'Treatment As Usual' on the grounds of clinical and ethical management. No session of CBT intervention has been demonstrated to OCD patient of control group, but they were allowed to continue with their 'Treatment As usual'.

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 minimum 20 intervention sessions (ten weeks) of CBT and OCD patients of control group were assessed after ten weeks of their baseline assessment. During this step, obsessive and compulsive symptoms were assessed on YBOCS and patient's adjustment level with regard to home, health, social and emotional areas of daily living were assessed using Mohsin-Shamshad Hindi adaptation of Bell adjustment inventory. After the re-assessment, all OCD patients in control group were also given therapeutic sessions of CBT 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 variables and continuous variables respectively, where-as 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.

Subjects / Variables		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			
	M	±SD	M	±SD	Exp. Group	Control Group	U	Z
Age	28.90	±3.38	26.90	±1.72	12.10	8.90	34.00	1.23 NS
Age of Onset	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 reflects the comparison between experimental and control group of OCD patients on age and clinical variables. Results indicate that there is no significant difference between patients of both groups in terms of age and clinical variables.

Table-3: Shows Baseline Assessment of OCD Patients of Experimental Group 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			
	M	±SD	M	±SD	Exp. Group	Control Group	U	Z
YBOCS 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. Results indicate that both groups did not differ significantly with regard to their total scores on YBOCS indicating that both compared groups' exhibit impairment at baseline with regard to obsessive compulsive features.

Table–4: Shows Baseline Assessment of Experimental Group and Control Group of OCD Patients on Mohsin-Shamshad Hindi Adaptation of Bell Adjustment Inventory.

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		
Domain One Score (Home Area)	25.80	±2.69	25.10	±2.92	11.25	9.75	42.50	0.57 NS
Domain Two Score (Health Area)	25.30	±2.00	24.60	±2.54	11.60	9.40	39.00	0.84 NS
Domain Three Score (Social Area)	25.80	±3.39	24.10	±3.24	12.05	8.95	34.50	0.17 NS
Domain Four Score (Emotional Area)	26.20	±3.64	24.60	±2.59	11.85	9.15	36.50	1.02 NS
Composite Score	103.10	±8.78	97.40	±7.97	12.25	8.75	32.50	1.32 NS

NS = P value not significant.

Table - 4 represents comparison between experimental and control group of OCD patients on Adjustment Inventory at the baseline phase. The data revealed that there is no statistical significant difference between both compared groups in terms of their composite score as well as their domain wise scores indicating that both groups were alike and exhibited impairment with regard to their adjustment level.

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

Subjects / Variable	Experimental Group of OCD Patients (N=10) M ± SD	Control Group of OCD Patients (N=10) M ± SD	Mann Whitney U Test			
			Mean Rank		U	Z
			Experimental Group	Control Group		
YBOCS: COMPOSITE SCORE	14.40 ± 2.11	26.60 ± 2.17	5.50	15.50	0.00	3.80**

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

Table-5 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 in terms of composite score on YBOCS (Exp. Group: M=14.40 ±2.11; Control Group: M= 26.60±2.17) at post intervention phase.

Table-6: Shows Post Intervention Assessment of Experimental Group and Control group of OCD patients on Mohsin-Shamshad Hindi Adaptation of Bell Adjustment Inventory.

Subjects / Variable	Experimental Group of OCD Patients (N=10) M±SD	Control Group of OCD Patients (N=10) M±SD	Mann Whitney U Test			
			Mean Rank		U	Z
			Exp. Group	Control Group		
Domain One Score (Home Area)	13.10 ± 2.18	20.40 ± 1.50	5.50	15.50	0.00	3.80**
Domain Two Score (Health Area)	13.30 ± 2.58	20.40 ±1.50	5.50	15.50	0.00	3.79**
Domain Three Score (Social Area)	13.60 ±3.06	21.40 ±3.37	5.85	15.15	3.50	3.52**
Domain Four Score (Emotional Area)	14.20 ± 2.20	22.10 ±2.60	5.50	15.50	0.00	3.79**

** P value significant at 0.01 levels.

Table-6 reflects post intervention comparison between OCD patients of experimental group and control group with regard to their adjustments in different areas of daily living on adjustment inventory. As the table indicates, patients in experimental group has improved significantly as compared to patients of control group in terms of home adjustment (Exp. Group: M=13.10 ±2.18; Control Group: M=20.40± 1.50). Similar trends has been observed for health, social and emotional adjustment respectively (Exp. Group: M=13.30±2.58, M=13.60± 3.06 & M=14.20±2.20; Control Group: M=20.40± 1.50, M=21.40± 3.37 &M=22.10± 2.60). Also, when composite score of adjustment inventory were taken in to account it has been observed that experimental group of OCD patients has shown marked improvement as compared to OCD patients in control group(Exp. Group: M=54.20 ±7.62 ;Control Group: M=83.60±7.19). Therefore it is evident from the table that after intervention experimental group exhibited significant improvement on all areas of adjustment of daily living.

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

Variables	Wilcoxon Sign Rank Test		
	Mean Rank	Sum of Rank	Z value
YBOCS Composite Score Post Intervention – YBOCS Composite Score Pre Intervention	5.50	55.00	2.81**

**P value is significant at 0.01 level.

Table -7 represents comparison of obtained scores of experimental group patients at pre intervention and post intervention phase on Yale Brown Obsessive Compulsive Scale (YBOCS). The data revealed that the mean rank and sum of rank for the compared variable were 5.50 and 55.00 respectively. Further 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 symptoms after the intervention in experimental group of OCD patients.

Table–8: Shows Pre and Post Intervention Analysis of Experimental Group on Mohsin-Shamshad Hindi Adaptation of Bell Adjustment Inventory.

Variables	Wilcoxon Sign Rank Test		
	Mean Rank	Sum of Rank	Z value
Domain One Score Post Intervention - Domain One Score Pre Intervention	10.50	210.00	3.92**
Domain Two Score Post Intervention - Domain Two Score Pre Intervention	10.50	210.00	3.92**
Domain Three Score Post Intervention - Domain Three Score Pre Intervention	10.00	190.00	3.83**
Domain Four Score Post Intervention - Domain Four Score Pre Intervention	10.00	190.00	3.82**
Composite Score Post Intervention - Composite Score Pre Intervention	1.00	1.00	3.88**

** P value is significant at 0.01 level.

Table-8 depicts comparison of scores on Adjustment Inventory by patients of experimental group at pre and post intervention phase. Finally table reflects that there is significant difference (p>0.01) between the scores on adjustment inventory of patients of experimental group at pre and post intervention phase. This is suggestive of the fact the after the intervention, there is considerable improvement in the overall adjustment ability of the patient of the experimental group.

DISCUSSION

The present research work focussed on the role of CBT on the adjustment in different areas of daily living of patients with OCD. With the increasing rate of prevalence of this disorder and its debilitating effect on patient's overall daily functioning ability, the onus is on finding such treatment strategies, which were not only effective enough in managing the severity of primary obsessive compulsive symptoms of OCD patients but may also helps in improving adjustment level of such patients with respect to common daily life situations. It has been well documented that following the onset of OCD, patients' exhibits poorer or diminished adjustment level towards daily life situations (Srivastava & Bhatia, 2007; Rachman & de Silva, 1978) and this may worsen with increase in severity and duration of illness. Analysis of result (Table 1) indicates that both group share similar level of sample characteristics. Further data (Table2) revealed that there has been no significant difference between the compared groups with regard to clinical features like age, onset of illness and duration of illness, factors that might affect the overall outcome of any intervention (Husted &Shapira, 2004). Baseline analysis of patients of both groups on YBOCS (Table 3) indicates that obsessive compulsive symptoms severity in patients of both groups was also comparable at baseline. Overall raw scores on adjustment inventory (Table 4) indicate that patients of both groups experienced overall equally poorer adjustment level at baseline. Further domain wise

analysis also indicates that in all four adjustment domains both groups were comparable for their poorer level of adjustment in home, health, social and personal areas of daily living. Our findings are consistent with previous studies (Hertenstein et al, 2013; Norberg, 2008) that also suggested that patients having high or severe obsessive compulsive symptoms exhibits poorer adjustment level in life.

After 10 weeks time period (20 sessions of CBT intervention for experimental group) patients of both groups were again assessed on YBOCS and adjustment inventory. Analysis of data (Table 5) revealed that the total mean score has been considerably decreased in experimental group from their baseline mean score for total YBOCS score. On the other hand the mean score at the post intervention phase for subjects of control group was similar to their mean score at the baseline phase. Similar findings were also obtained when Pre and post intervention analysis (Table 7) for subjects of experimental group for YBOCS was done. Therefore, findings do suggests considerable change in OCD patients of experimental group after CBT intervention in terms of decrease in symptoms severity but not so in control group of OCD patients. Researchers previously pointed out that OCD had a great negative impact on patient's ability to maintain good adjustment in different domains of daily living (Hertenstein et al 2013; Subramanian et al 2013; Diefenbach , 2007; Husted &Shapira, 2004; Koran et al , 1996). Thus it remains to be seen that whether this remission in obsessive compulsive symptoms (in experimental group) also reflects on their adjustment level in life. The analysis of obtained data with respect to adjustment inventory at post intervention phase (Table 6) reveals that patients in experimental group generally has scored higher than average mean composite scores and mean domain wise scores, which is suggestive of their improvement in adjustment level in daily living from baseline assessment. More-so in control group, the mean composite scores and mean domain wise scores were still lower than average after 10 weeks (from baseline), this indicates that this group of subjects has not exhibited significant change for level of adjustment in daily living in contrast to experimental group patients from baseline. It has been witnessed that OCD patients of experimental group has shown improved level of adjustment in daily life areas along with remission of OC symptoms after 20 sessions with CBT. Similar trends were obtained when pre and post analysis (Table 8) was carried out for subjects of experimental group for adjustment Thus it appears that, improvement in primary OC symptoms of patients is reflected in improved level of adjustment in daily living, a finding that is also shared by previous researchers (Clark, 2000; Stewart et al, 2005). In other words we can infer that, improvement in obsessive and compulsive symptoms has an impact on adjustment level in different areas of living, as was also reported by Husted & Shapira (2004). They argued that cognitive and behavioural intervention strategies may change patient's outlook with regard to intrusive and repetitive thoughts. That reflects in adaptive handling of obsessive compulsive phenomenon, there-by subsequently they (patients) feel more symptoms free in a day and as a result could carry out their day to day social, personal and vocational obligations more effectively. So one can say that cognitive and behavioural interventions does have an impact on adjustment level of patients with OCD with regard to different domains of daily living, a finding that has been

shared by few others previously (Srivastava, & Bhatia, 2007; Husted & Shapira, 2004; Bystritsky et al, 2001; Antony et al, 1998).

However present research work involved small sample size therefore generalization may be shadowed. Further the compared groups were not matched on their 'treatment as usual' (drugs), which might have a role in the outcome.

CONCLUSION

Present study was undertaken to see the role of cognitive behaviour therapy on adjustment level of patients with OCD. Study concluded that use of CBT is helpful in improving the overall adjustment level in such patients along with remission of their primary obsessive compulsive symptoms. Thus, conclusively this study calls for incorporating CBT intervention in the treatment of patients with OCD for having greatest impact on improving adjustment ability in different areas of daily living of such patients.

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