

## ROLE OF ACCEPTANCE AND COMMITMENT THERAPY (ACT) IN MANAGEMENT OF PATIENTS WITH OBSESSIVE COMPULSIVE DISORDER (OCD)

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### ABSTRACT

Obsessive-compulsive disorder is chronic and long lasting chronic illness which affects the 2% of the population. ACT is a useful approach to treat OCD which focus on both the behavioral and cognitive processes of the patient. Numerous studies have reported that prevalence of OCD and role of psychological intervention in treating patients with OCD by ACT (Jaisoory et al., 2017; Ruscio et al., 2010; Cherian and Philip, 2021; Philip et al., 2020; Shabani et al., 2019, & Lee et al., 2018). The study aimed to compare the total scores of OCD, total types of obsessions and compulsions, and total change in psychological flexibility among patients with OCD at pre and post-treatment levels. Further, it also compares the different types of obsessions and compulsions at pre and post-treatment levels of ACT. Through purposive sampling technique, 20 patients with OCD were selected for ACT. Yale Brown Obsessive Compulsive Scale (YBOCS; Goodman et al., 1989) and Yale Brown Obsessive Compulsive Symptom Checklist (YBOCS-SC; Goodman et al., 1989), and Acceptance and Action Questionnaire (AAQ-II; Bond et al., 2011) were used. Ten therapeutic sessions were given to 4 groups (5 members in each). Per week each session was given and on average it took 1 hour. Findings indicated a statistically significant differences in total OCD ( $M=23.20$ ,  $SD=6.55$ ,  $M=7.05$ ,  $SD=5.186$ ,  $p<.001$ ), total types of obsessions and compulsions ( $M=7.45$ ,  $SD=2.259$ ,  $M=.85$ ,  $SD=1.565$ ,  $p<.001$ ) and total change in psychological flexibility ( $M=14.95$ ,  $SD=5.880$ ,  $M=40.45$ ,  $SD=5.472$ ,  $p<.001$ ) of patients with OCD at pre and post-treatment levels. Further, it also indicated reduction in types of obsessions and compulsions at post-treatment level as compared to pre-treatment level.

**KEYWORDS:** Cognitive process, Obsession, Compulsion, Acceptance and Commitment Therapy, and Psychological flexibility

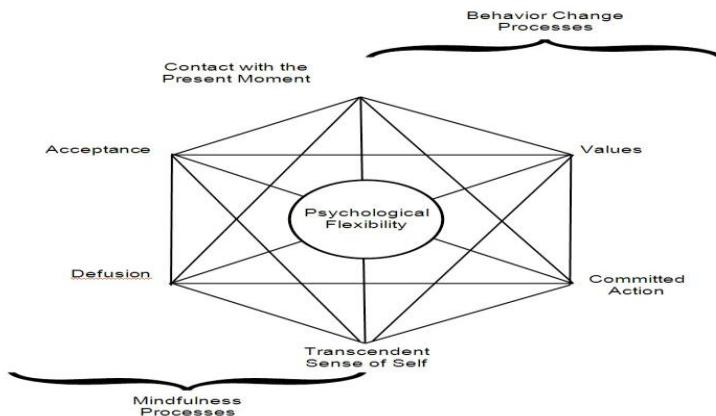
### INTRODUCTION

ACT is a useful approach to treat OCD which focus on both the behavioral and cognitive processes of the patient. Acceptance and defusion will be beneficial in the treatment of OCD. Individuals with OCD are overly focused on their obsessive thoughts and participate in a variety of avoidance and escape activities to change the form or frequency of their obsessions (American Psychiatric Association, 2000).

Smout (2012) defines Act as an intervention which teaches mindfulness and acceptance. Through this therapy individuals not only learn to focus their attention on the issue without being

judgmental at the present moment and accepting attitude with openness but they also learn how to value their own presence in any difficult situation. The two main objectives of ACT were explained by Hayes et al. (2001): (i) acceptance of disruptive thoughts and feelings which do not have control of occurrence or disappearance (to function with them), (ii) Commitment to live a valued life and action (increase the quality of life). The ACT based on six interlinked process to treat OCD that are acceptance, diffusion, present moment, self as context, value and committed action (Hayes et al., 2006).

**Figure-1.1: Core ACT Processes**



ACT is used to demonstrate the futility of resistance and struggle to control unwanted inner experience (i.e. intrusive thoughts and anxiety) in obsession with exercises and metaphors (Ruiz, 2010 & Twohig, 2009). This work is intended to encourage readiness without being challenged or resisted to engage with obsessions and associated anxieties. In this way, ACT seeks to support patients in their cognitions and emotions in psychologically more flexible relationships. ACT is also aimed at improving quality of life by concentrating on the values of patients or what is most important in patient lives. The ACT objective does not consist in reducing obsessional symptoms directly, but rather to help the patient to function in accordance with their values, unlike traditional exposure practices (Hayes et al., 2011).

ACT has some promising results and compelling arguments for its use in clinical practice, particularly with individuals suffering from OCD. Fabricant et al. (2013) revealed a significant decrease in the severity of obsessional thoughts, the power of negative thoughts, readiness to experience intrusive thoughts and behavioral distress. Similarly, ACT showed that reduction in the scores OCD symptoms (CYBOCS) among children with OCD participants mean average 69% (Barney et al., 2016) and 40% (Armstrong et al., 2013) and daily average compulsion decreased in YBOCS scores at pre-treatment, post-treatment and follow up among adults (Delhinch et al., 2013).

### **Objectives of the Study**

- Assess the severity levels of OCD at pre and post-treatment levels of ACT among patients with OCD
- Assess the obsessions and compulsions at pre and post-treatment levels of ACT among patients with OCD
- Compare the total scores of OCD, total types of obsessions and compulsions and total change in psychological flexibility among patients with OCD at pre and post- treatment levels
- Compare different obsessions types and compulsions types in patients with OCD at pre and post-treatment levels of ACT

### **Material and Methods**

Informal pre and post experimental research design (Kothari, 2004) was used to measure the acceptance and commitment therapy with patients suffering from OCD. Diagnosed adult participants of OCD were targeted. Sample of 20 adults (18 years or above) was selected through purposive technique diagnosed with OCD from Gujrat city, Pakistan. Keeping in use of metaphors one group of four members formulated. Initially 28 participants of OCD were approached for the psychological intervention. Only 23 participants participated in first session of ACT with written consent. During acceptance and commitment therapy program, three participants were dropped due to three consecutive absentees from ACT sessions. Total 20 participants completed the

therapeutic program. Patients were screened out through structured clinical interview for diagnosis (SCID-5) prior to the intervention. The diagnosed patients of OCD (male & female), age ranging from 18 years or above with minimum education of Matric to read or write and for better understanding of different metaphors for engaging in ACT program and who had not attended any psychological intervention earlier were included in current study. Patients with any other physical disability or comorbidity of mental illness were excluded from the study. The measure of the present study consist of the consent form, demographic form, YBOCS; Goodman et al., 1989, YBOCS-SC; Goodman et al., 1989 and AAQ-II; Bond et al., 2011. The YBOCS developed by Goodman et al. (1989) used to assess the severity symptoms of OCD. It consists of 10-items severity scale which is divided into obsession and compulsion subscales with five items in each subscale. Further, each subscale items designed to assess frequency, interference, distress, resistance and control. Response format of YBCOS based on '5' point Likert scale ranging from no symptoms (0) to severe symptoms (5). The score range from "0" to "40". The total severity scores ranges from subclinical (0–7), mild (8–15), moderate (16–23), severe (24–31) and extremely severe (32–40). YBOCS-SC developed by Goodman et al. (1989) to assess the presence of different types of obsessions and compulsions. Respondents are asked to indicate whether the symptoms are present currently (last 30 days including the interview day) or present in the past (more than 30 days to initial assessment). It consists of 63 items symptom checklist organized under comprehensive list of 15 categories of obsession and compulsions. In the YBOCS symptom checklist, different types of obsessions (aggressive, contamination, sexual, hoarding religious, symmetry & somatic) and compulsions (cleaning, checking, repeating, counting, ordering & hoarding) are present. The symptom categories (e.g. aggressive obsession) are coded 0 (absence of all the specific symptoms of the category) and 1 (at least one of the specific symptoms of the category was present). The participant's symptom scores are calculated by adding the scores of categories of symptoms under each dimension. The AAQ-II was developed by Bond et al. (2011) was to measure the psychological flexibility. It consists of 7 items. The

respond pattern was based on 7 item Likert scale ranging from never true (1) to always true (7). The low scores indicate the low psychological flexibility and high scores indicate the greater psychological flexibility. It had demonstrated good Cronbach's alpha .84 (Bond et al., 2011). After getting permission from Medical Superintendent/ Head of Psychiatry Department, the participants were informed about the purpose and procedure of the research. They were also guided about the ethical principal of confidentiality. Total 28 participants gave verbal consent for participation in the research but only 23 participants came for first session. They gave written consent and pre-assessment was done by participants YBOCS, YBOCS-SC and AAQ-II. ACT was implemented from March, 2021 to May, 2021 by the researcher. Three participants were dropped due to three consecutive absentees from therapeutic sessions. Ten therapeutic sessions were given to participants in group settings of 5 members in each group (Shabani et al., 2019; Izadi et al., 2012; Brown and Hooper, 2009). Total 20 participants completed the ACT program. Once a week therapeutic sessions consisted of 1 hour on average was given to each group. Same therapeutic protocol was used with four groups. Post-assessment was done by using the same assessment procedure. The treatment procedure was planned bases on ACT Manual for OCD. The goal of first session was to develop rapport and assessed the target variables of the participants at pre-treatment level. Pre-treatment assessment was carried out through Yale- Brown Obsessive Compulsive Scale (Y-BOCS; Goodman et al. 1989), Yale Brown Obsessive Compulsive Symptoms Checklist (YBOCSC: Goodman et al. 1989) and Acceptance and Action Questionnaire (AAQ-II; Bond et al., 2011). The goal of the second session was designed to introduce the treatment and assessed the participant's obsessions and compulsions in detail through general assessment questions. The homework assignment was given to fill up the "Obsession and Compulsion Tracking Sheet". At the start of the third session, feedback about the last session and homework assignment of "Obsessions and Compulsions Tracking Sheet" was taken from participants. The goal of third session was the "*Location of "Os" and "Cs" Exercise*" helped participants to distinguish between obsessions and compulsions. Secondly introduced the "*Creative Hopelessness*" in which

discussed the lists of efforts to control obsessions and workability for those efforts. “*Man in the Hole*” or “*Tug-of-War*” with Monster metaphors was discussed to the participants. Homework was given to the participants to write down everything about the benefits of these strategies for you to control the obsessions and practiced these exercises. Feedback about homework assignment of controlling obsessions was taken in the start of the session to assess the effectiveness of his/her strategies to control obsessions. The goal of third session was introduced the acceptance which helped the participants to start the alternative point and control agenda through “Chocolate Cake exercise”. Different metaphors “Fall in Love” and “Quicksand metaphor” were used to the clients for control obsessions. Homework assignment was given to the participants to practice the acceptance of obsessions exercises for the purpose of behavioral commitment (reduce compulsions not obsessions) and write down the compulsions (if perform more than 20 times per day) in her/her record diary. In the start of every session, feedback about the homework assignments of the previous session was taken and recorded.

Participants gave feedback about their previous session and it was recorded in the participant’s compulsions record diary. In the fifth session, cognitive defusion was introduced in which the participants were taught to separate the language of the obsessional thoughts through “Milk, Milk, Milk” exercise, “Take your mind for a walk exercise”, “Obsessions on paper” exercise or “Leave floating on the stream exercise”. The “Passengers on the bus Metaphor” and “Two Scales Metaphor” were discussed to the participants. Homework assignment was given to participants to doing “Milk” exercise”, “Take your mind for a walk exercise” or “Obsessions on paper” exercise. Sixth session was aimed to introduce the client to contact with the present moment through practice the mindfulness exercises such as “Counting breath exercise” with the participants. The “Kindergarten teacher metaphor” was discussed with the participants. Homework assignment was given to the participants to practice the mindfulness exercise when intrusive thoughts appear. Goal of seventh session was related to learn about self-as-context for encouraging the participants to view their inner experiences as

simply transient occurrences rather than personal characteristics through “Visualize thoughts on a screen”. “Chessboard Metaphor” and “TV set Metaphor” was discussed with the participants. Homework assignment of practicing these metaphors (such as watch thoughts as images on the screen) was given for behavioral commitment. The goal of eighth session was related to “values” of the participants. The “Heart Shaped box exercise” and “Bull’s eye exercises” was practiced to the participants with discussed the “Annoying part guest” metaphor. Homework assignment of “Epitaph exercise” was given to the participants to briefly summarize their values. The goal of ninth session was related to “committed action” in which participants were encouraged to change their behavior after chosen values. In this session the participants were encouraged to revise the exercises or skills which learned in the previous weeks and to practice them through mindfulness practices, accepting troubling thoughts, and defusing obsessive thoughts. The last session also included a post-treatment evaluation. This session was used to properly end the sessions. Post-treatment assessment was done in tenth session. The instruments were used to collect at post-treatment level assessment of ACT. Termination of sessions was done formally in this session.

Statistical Package of Social Sciences 21 (SPSS) was used to analyze the data. For demographic variables, descriptive statistics were used and inferential statics were used for inferential findings of the study.

Permission was taken from authors for using the scales in the study. Confidentiality of participants and their consented participation were made sure by the researcher. Further, risk benefit ratio was also maintained. Each participant was given the right to withdraw from the study at any time. Video recording was not done due to unwillingness of the participants.

## Results

The current study findings to examine the effects of ACT among patients with OCD. Statistical Package for Social Sciences 21 was used to the analyzed data. The effect of ACT on patient’s OCD, types of obsessions and compulsions and change in psychological flexibility were measured.

**Table-1: Frequencies and Percentages of Severity Levels of OCD at Pre and Post- Treatment Levels of ACT(n=20)**

Severity Levels	Pre	Post
	f (%)	f (%)
Subclinical (0-7)	0 (0.0)	14 (70.0)
Mild (8-15)	2 (10.0)	4 (20.0)
Moderate (16-23)	7 (35.0)	1(5.0)
Severe (24-31)	9 (45.0)	1(5.0)
Extreme (32-40)	2 (10.0)	0 (0.0)

Note: f= frequency, % percentage, OCD=Obsessive Compulsive Disorder

Table 1 indicated the severity levels of OCD before and after applying the ACT. Most of the participants (45%) indicated experiencing symptoms of OCD at severe level at pre-treatment level following the moderate, extreme, and mild level (35%, 10 %, 10% respectively). However, not a signal patient was experiencing the OCD symptoms in the subclinical level of obsessive compulsive disorder at pre-treatment level. Similarly, majority of the patients (70.0%) experienced OCD symptoms at subclinical level of OCD following the mild level, moderate level, and severe level (20.0 %, 5.0 %, 5.0 % respectively) at post-treatment levels. Further, no patients reported OCD symptoms at extreme level after taking the ACT at post-treatment level.

**Table- 2 : Mean and Standard Deviation of Subscales of Obsession and Compulsion among Patients at Pre and Post-Treatment Levels (n=20)**

YBOCS Subscales	Pre-Treatment		Post-Treatment	
	M	SD	M	SD
Obsessions Subscale	11.65	3.897	1	3.316
			1.	
			5	
			5	
Compulsions Subscale	3.80	2.876	3.	2.511
			2	
			5	

**Note: M= Mean, SD= Standard Deviation, YBOCS=Yale Brown Obsessive Compulsive Scale**

Table 2 indicated that the mean and standard deviation of subscales of obsessions and compulsions among patients at pre and post-treatment levels of ACT. At pre- treatment level of ACT, patients with OCD have more obsessions ( $M=11.65$ ,  $SD=3.897$ ) and compulsions ( $M=3.80$ ,  $SD=2.876$ ) as compared to post-treatment levels of obsessions ( $M=11.55$ ,  $SD=3.316$ ) and compulsions ( $M=3.25$ ,  $SD=2.511$ ).

**Table-3 : Mean Differences of Obsessive Compulsive Disorder, Types of Obsessions and Compulsions, and Change in Psychological Flexibility at Pre and Post-Treatment Levels (n=20)**

Pair

Variables	Pre	Post	T	P	95% CI		Cohen's d
	M(SD)	M(SD)			LL	UL	
Total OCD	23.2 (6.5)	7.05(5.18)	13.6	.000	13.66	18	.63
Total TOC	8.0 (2.2)	1.60(2.11)	13.5	.000	5.411	79	.302
Total CPF	14.9(5.88)	40.4(5.47)	-18.1	.000	-28.44	-22	-4.05

Note: OCD= Obsessive Compulsive Disorder, TOC= Types of Obsessions and Compulsions, CPF= Change in Psychological Flexibility

Table 3 showed the mean differences at pre and post-treatment levels of intervention in OCD, types of obsessions and compulsions, and change in psychological flexibility among patients with OCD using paired sample t test. The scores of OCD statistically significantly reduced at post-treatment level of ACT ( $M=7.05$ ,  $SD=5.186$ ,  $p<.001$ ) when comparing it to pre-treatment level of ACT

( $M=23.20$ ,  $SD=6.55$ ). Similarly the scores of types of obsessions and compulsions reduced at post-treatment level of ACT ( $M=.85$ ,  $SD=1.565$ ,  $p<.001$ ) when compared it to pre-treatment scores ( $M=7.45$ ,  $SD=2.259$ ). Further, patients increased the psychological flexibility scores at post-treatment level ( $M=40.45$ ,  $SD=5.472$ ,  $p<.001$ ) as compared to pre-treatment level ( $M=14.95$ ,  $SD=5.880$ ).

**Table-4 : Mean Differences in Types of Obsessions at Pre and Post-Treatment Levels of ACT (n=20)**

Variables	Pair		t	p	95% CI		Cohen's d
	Pre M(SD)	Post M(SD)			LL	UL	
<b>Obsessions</b>							
Aggression	.70(.47)	.10(.30)	.48	.000	.320	.880	1.00
Contamination	.80(4.1)	.30(.47)	.35	.000	.260	.740	0.97
Sexual	.40(.50)	.05(.22)	.66	.015	.075	.625	0.59
Hoarding	.35(.48)	.05(.22)	.34	.030	.033	.567	0.52
Religious	.65(.48)	.00(.00)	.94	.000	.421	.879	1.32
Symmetry	.45(51)	.10(.30)	.33	.031	.036	.664	0.52

Somatic	.35(.48)	.10(.30)	.03	.056	-.007	.50	0.45
Miscellaneous	.30(.47)	.10(.30)	.17	.042	.008	.39	0.48

Table 4 depicted mean differences in the types of obsession at both treatment levels of ACT among patients with OCD using paired sample t test. It showed statistically significant differences present

in types of obsessions ( $p \leq .05$ ) at both treatment levels. Mean difference indicated that treatment reduces the mean values at post-treatment levels among patients with OCD.

**Table-5: Mean Differences in Types of Compulsions at Pre and Post-Treatment Levels of ACT (n=20)**

Variables	Pair		<i>t</i>	<i>p</i>	95% CI		Cohen's d
	Pre <i>M(SD)</i>	Post <i>M(SD)</i>			<i>LL</i>	<i>U</i>	
<b>Compulsions</b>							
Cleaning	.75(.44)	.15(.36)	45.3	.000	.365	.8 35	1.19
Checking	.70(.47)	.15(.36)	4.81	.000	.311	.7 89	1.07
Repeating	.65(.48)	.10(.30)	4.06	.001	.267	.8 33	0.90
Counting	.60(.50)	.10(.30)	4.35	.000	.260	.7 40	0.97
Ordering	.55(.51)	.10(.30)	3.94	.001	.211	.6 89	0.88
Hoarding	.40(.50)	.10(.30)	2.34	.030	.033	.5 67	0.52
Miscellaneous	.35(.48)	.10(.30)	2.03	.056	-.007	.5 07	0.45

Table 5 presented mean differences in the types of compulsions at pre and post-treatment levels of ACT among patients with OCD using paired sample t test. It showed statistically significant difference in types of obsessions ( $p \leq .05$ ) at pre and post-treatment levels. Mean differences highlighted that treatment which treatment reduces the mean values at post-treatment levels among patients with OCD.

## Discussion

In the current study, through the application of ACT on patients with OCD, types of obsessions and compulsions and psychological flexibility were assessed at two levels of pre and post-treatment.

The first objective was to assess the severity levels of OCD at two levels treatment by applying ACT among patients with OCD. Table 1 indicated pre-treatment level of ACT, 45% patients experienced

severe level of OCD, followed by the moderate, extreme, and mild level of OCD (35%, 10%, and 10% respectively). While after the implementation of ACT 70% patients experienced subclinical level of OCD following by mild, moderate, severe and extreme level of OCD (20 %, 5%, 5%, 0% respectively). Findings are consistent with the study of Izadi et al. (2012) which highlighted a clinically reduction improvement in the symptoms of OCD at post-treatment level among adults. Results are also supported by Thompson et al. (2021) who reported a reduction in the OCD severity symptoms after ACT. Further, various other studies also supported the findings by indicating a reduction in severity level of OCD through implement of ACT (Ghanzanfari et al., 2015; Baghooli et al., 2014). The second objective was to assess the obsessions and compulsions at pre and post- treatment levels of

ACT among patients with OCD. Table 2 indicated that the patients reported a reduction in obsessions ( $M=11.55$ ) and compulsions ( $M= 3.25$ ) scores at post-treatment levels as compared to pre-treatment of obsessions ( $M=11.6$ ) and compulsions ( $M=3.80$ ). Findings are similar with the Izadi and Abedi, (2013) study which elaborated that ACT improved the YBOCS scores of obsessions and compulsions in patients of OCD. Similarly, the findings of Armstrong et al. (2013) reported a reduction in the mean scores of compulsions from 40.4% to 59.8% at post-treatment levels of ACT. Moreover, Twohig et al. (2015) showed significant decrease in the scores of self-reported compulsions, experiential avoidance, and believability of obsessions at the end of the treatment.

The third objective was to compare the total scores of OCD, types of obsessions and compulsions and change in psychological flexibility among patients with OCD at pre and post-treatment levels. Table 3 indicated statistically significant improvement in OCD, types of obsessions and compulsions, and change in psychological flexibility at post-treatment levels when comparing it to pre-treatment scores. Results are consistent with the study of Philip and Cherian (2021) who reported a significant reduction in the OCD symptoms and increased the psychological flexibility at post-treatment levels. Various other studies indicated that ACT reduced the symptoms of OCD and increase the psychological ability among OCD patients at post-treatment level (Philip et al., 2020; Shabani et al., 2019). Moreover, Lee et al. (2018) indicated that ACT was more effective to improve the psychological flexibility and decrease the scrupulosity of OCD. Similarly, the symptoms of OCD significantly decreased as well as psychological flexibility significantly increased at post-treatment level. Rohani et al., 2018). Vakili et al. (2015) reported that OCD symptoms and experience of avoidance improved through treatment. Findings are also confirmed by Valiki and Gjarraee (2014) who reported that the ACT is an effective treatment to decrease the OCD symptoms. Further, Izadi et al. (2014) reported ACT increase the psychological flexibility at post-treatment levels among OCD patients.

The types of obsessions and compulsions in patients with OCD were measured at both levels of ACT as a fourth objective. Table 4 and 5 indicated statistically significant reduction in types of

obsessions and compulsions at post level of treatment among patients with OCD. Findings are supported by Philip and Cherian (2021) which reported a significant reduction in the symptoms of OCD (fear of contamination, compulsive hand washing, repeating checking & need for symmetry) at post-treatment level through ACT. Similarly, a significant reduction in the subtypes of OCD (contamination, symmetry, harm, checking, sexual & hoarding) at post-treatment levels of ACT was also reported by Shabani et al., 2019. Moreover, Lee et al. (2018) findings are in line with the current findings of significant reduction in scrupulosity/sexual symptoms of OCD at post-treatment levels. Further Vakili et al. (2015) reported a clinical significant difference in the scores of symptoms of OCD were (44.4%) at post-treatment levels among OCD patients.

### Strengths and Limitations

One of the strength of the study is that up to researcher's knowledge current study is the only study designed to evaluate the efficacy ACT OCD patients in Gujrat and Gujranwala.

The present study had some limitations. Findings of the study cannot be generalized to all OCD patients because the sample was restricted to adult population in Gujrat and Gujranwala cities.

### Clinical Implications of the Study

Results indicated the effectiveness of the ACT. Through the findings of the current study, it is inferred that ACT performed without inside-the-session exposure, so it can be a suitable therapy for those patients who have fear to exposure condition of OCD. An active government involvement is suggested in the mental health treatment centers and psychiatric settings of hospitals. It can be helpful for behavioral health practitioners to conduct researches to compare with other CBT approaches in practical setting for the benefits of improving the quality of life.

### Recommendations for Future Research

In order to get a comprehensive picture of patient's problems, a mix method approach (qualitative & quantitative) can be adopted in future researches. Future researchers can use longitudinal study design for highlighting the issues related to patients of OCD at different developmental levels. Experimental design with control group can give a clear picture about the efficacy of ACT. Future

researches can be designed for comparing the differences of ACT with other therapeutic interventions. For future studies, it can be selected comparative age groups (adolescence & adults) of ACT among patients with OCD.

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