journal of
Adolescent and Youth Psychological Studies
www.jayps.iranmehr.ac.ir

Spring and Summer 2022, Volume 3, Issue 1, 99-104

The effectiveness of Acceptance and commitment therapy on experiential avoidance, uncertainty intolerance and positive metacognitive beliefs in women with obsessive-compulsive disorder

Shirin. Yadollahi Ardestani[1], Moloud. Keykhosrovani[2]*, Naser. Amini[3]

1. *PhD student, Department of Psychology, Boushehr Branch, Islamic Azad University, Boushehr, Iran.*
2. *Assistant Professor, Department of Psychology, Boushehr Branch, Islamic Azad University, Boushehr, Iran.*
3. *Assistant Professor, Department of Psychology, Boushehr Branch, Islamic Azad University, Boushehr, Iran.*

ARTICLE INFORMATION

Article type
Original research
Pages: 99-104

Corresponding Author's Info
Email:
Moloud.keykhosrovani@gmail.com

Article history:
Received: 2022/06/30
Revised: 2022/09/10
Accepted: 2022/09/20
Published online: 2022/10/02

Keywords:
Acceptance and commitment therapy, experiential avoidance, uncertainty intolerance, metacognitive beliefs, obsession.

ABSTRACT

Background and Purpose: The purpose of this research was the effectiveness of Acceptance and commitment therapy on experiential avoidance, uncertainty intolerance and positive metacognitive beliefs in women with obsessive-compulsive disorder. **Methods:** The current research method is semi-experimental and the design used in this research is a pre-test-post-test design with a control group and a follow-up period. The statistical population of the research was all women suffering from obsessive-compulsive disorder who referred to counseling and psychotherapy centers in Tehran in the months of February and March of 2021. The research sample included 30 women with obsessive-compulsive disorder who referred to counseling and psychotherapy centers in Tehran between February and March of 1400. Data were collected using the Yale-Brown Obsessive Compulsive Questionnaire (1989), the Experiential Avoidance Questionnaire by Bond et al. (2011), the Intolerance of Uncertainty Questionnaire by Friston et al. Obtained. In this research, the protocol of Wells (2000) was used to perform Acceptance and commitment therapy, which was performed once a week for 8 sessions of 90 minutes on the experimental group. The data was analyzed using the method of analysis of variance with repeated measurements and SPSS software. **Results:** The findings showed that Acceptance and commitment therapy on experiential avoidance (P<0.001), uncertainty intolerance (P<0.001), and positive metacognitive beliefs (P<0.001) was effective in women with obsessive compulsive disorder. **Conclusion:** It can be concluded that Acceptance and commitment therapy was effective on experiential avoidance, intolerance of uncertainty and positive metacognitive beliefs in women with obsessive compulsive disorder, and this therapy can be used to reduce the problems of obsessive-compulsive patients.

This work is published under CC BY-NC 4.0 licence. © 2022 The Authors.

How to Cite This Article:
Yadollahi Ardestani, Sh., Keykhosrovani, M. & Amini, N. (2022). The effectiveness of Acceptance and commitment therapy on experiential avoidance, uncertainty intolerance and positive metacognitive beliefs in women with obsessive-compulsive disorder. *jayps*, 3(1): 99-104

Introduction

In epidemiological studies, the lifetime prevalence of obsessive-compulsive disorder in the general population has been estimated at 3.8%-3.2% (Vicheva, Butler, & Shotbolt, 2020). Three separate components know this disorder; the first component is constant thinking or imaginations or ideas whose distinctive features are their unwantedness and intrusiveness, which in the image section includes; Insulting the religious, sexual ideas or violent images and disturbing thoughts about contamination or doubting the completeness or incompleteness of some works. The second component of obsessions is compulsions, which are specific behavioral activities, unconscious mental rituals (rituals), and attempts to neutralize obsessions or behaviors that indicate indecisiveness. In addition to these two components, people with this disorder show avoidance behaviors to prevent the stimulation of obsessions and the compulsions that accompany them (Kayser, Haney, Raskin, Arout, & Simpson, 2020). Despite various psychological and neurobiological studies, there is still no accurate and sufficient information to explain the etiology of obsessive-compulsive disorder. Despite this, many studies have investigated factors likely to correlate significantly with obsessive-compulsive symptoms. Among these factors that have aroused the interest of many researchers are experiential avoidance (Angelakis & Gooding, 2020), uncertainty intolerance (Whitton, Messner Marks, 2021), and positive metacognitive beliefs (Kim & Lee, 2020).

In their model, Maraj, Singh, Kar, Sharma, and Saraf (2020) hypothesize that experiential avoidance and intolerance of uncertainty can cause the formation of a motivating force related to various disorders by invoking worry and intellectual and practical obsessions. Even though worry leads to the continuation of pathology, patients often get caught in its trap. This type of involvement in processes that also disadvantage patients is due to the benefits these people consider for worrying and tolerating uncertainty (Hezel, Stewart, Riemann, & McNally, 2019). According to Wells (1997), these benefits are positive metacognitive beliefs. Positive metacognitive beliefs mean beliefs about the usefulness of worry, rumination, and other cognitive processes that lead to and perpetuate psychological disorders in the long run. Wells (2009) states that obsessive-compulsive patients actually engage in experiential avoidance and uncertainty intolerance to find a solution to their problem. Positive metacognitive beliefs about worry relate to a person's positive beliefs about the efficacy of worry-based coping methods when these methods are inconsistent. For example, worry means: I am prepared, and if I am worried, I am better able to deal with risks (Lee et al., 2020). Another treatment strategy to improve the effectiveness of treatment for people with OCD is acceptance and commitment therapy (Bai et al., 2020). Treatment based on acceptance and commitment is one of the third-wave behavior treatments that is important to change the function of thoughts and feelings and does not believe in changing the form and content of thoughts and feelings (Hayes, 2019). Acceptance and commitment therapy helps patients commit to action to serve life values rather than spending too much time trying to reduce obsessions or avoid anxious feelings. Also, this treatment helps patients to accept their obsessive thoughts and negative feelings and to try to serve the values of life, whether these obsessions happen or not. Therefore, acceptance and commitment therapy increases psychological flexibility (the ability to strive toward meaningful life orientations regardless of unpleasant internal experiences) (Tohing et al., 2015).

Due to the multidimensional nature of obsessive-compulsive disorder and its many sub-categories, and the importance due to the significant prevalence of this disorder, new studies will go in this direction to find different treatments, including different treatments, in different subsets of obsessive-compulsive disorder. Investigate between women and men separately and possibly identify treatments with different potential effectiveness levels for women and men

involved with obsession. On the other hand, finding efficient and effective short-term treatment methods is one of the necessities of research in the treatment field.

Method

The present research method is quasi-experimental, and the design used in this research is a pre-test-post-test design with a control group and a follow-up period. The statistical population of the research was all women suffering from obsessive-compulsive disorder who were referred to counseling and psychotherapy centers in Tehran in February and March of 2022, and the research sample included 30 of these women. Two groups were randomly assigned using the available sampling method, 15 subjects in the experimental group and 15 subjects in the control group (random assignment). Also, after two months, a follow-up test was performed on the groups. Cohen's formula was used to determine the sample size.

Tools

1. Yale-Brown Obsessive-Compulsive Inventory (1989): Goodman et al. (1989) created this inventory in 1989 and has two subscales related to obsessive thoughts and compulsive behaviors. In both scales, the severity of symptoms is assessed 7 days before the interview. A score of zero is given for "no problem" and a score of 4 is given for "too much problem". Goodman et al. (1989) used Cronbach's alpha to measure the reliability of this scale, and its correlation coefficient for the obsession subscale was 0.97; Compulsions obtained 0.96 and 0.98 for the whole scale. Also, to calculate the validity of the scale, they used the correlation of each item with the total score, which was obtained in the range of 0.36 to 0.77.

2. Bond et al.'s Experiential Avoidance Questionnaire (2011): This questionnaire was created in 2011 by Bond, Hayes, Bayer, Carpenter, Gino, et al., which has ten questions and two subtests and a seven-point Likert scale (1. It is never like this, 7. It is always like this). The Acceptance and Action Questionnaire measures a construct that refers to diversity, experiential acceptance and avoidance, and psychological inflexibility. Higher scores indicate greater psychological flexibility. Bund et al. (2011) reported that the results of 2,816 participants across six samples showed that the instrument had satisfactory reliability, validity, and construct validity. The average Cronbach's alpha coefficient was 0.84, and the retest reliability was 0.81 and 0.79, respectively, between 3 and 12 months.

3. Friston et al.'s intolerance of uncertainty questionnaire (1994): This scale was designed by Friston et al. in 1994. This test has 27 items related to the unacceptability of uncertainty and ambiguity and usually leads to failure, stress, and inability to act. This test is answered with a five-point Likert scale (never, rarely, sometimes, often, and always) and each option is scored 1, 2, 3, 4, and 5 respectively. Bohr and Degas (2006) calculated Cronbach's alpha coefficient of 0.94 and the retest coefficient of 0.78 for this scale. In Iran, the validity and reliability of this test have been reported as favorable in the research of Ebrahimzadeh et al. (2006). Cronbach's alpha was reported as 0.88, and retest reliability (within three weeks) was 0.76.

4. Wells and Cartwright-Hatton Positive Metacognitive Beliefs Questionnaire (2004): It will be used to measure positive metacognitive beliefs by Wells and Cartwright-Hatton (2004). This questionnaire has 30 items, and each subject answers these items in the form of four options (I do not agree = 1, I slightly agree = 2, I somewhat agree = 3, I completely agree = 4). Cronbach's alpha coefficient and retest reliability coefficient (after one month) of this questionnaire were reported as 0.93 and 0.78, respectively. The correlation coefficient of the metacognition questionnaire with the Spielberger trait-state anxiety questionnaire (0.53), the state anxiety questionnaire (0.54), and the Padova obsessive-compulsive disorder questionnaire (0.49) is significant. Wells and Cartwright-Houghton (2004) reported internal consistency, convergent validity and test-retest validity as appropriate and acceptable. In Iran, Narimani and Abolghasemi (2004) reported Cronbach's alpha coefficient between 0.72 and 0.89 and correlation coefficient

with Spielberger trait anxiety scale between 0.26 and 0.73.

5. Acceptance and commitment therapy: In this research, Hayes et al.'s (1999) intervention based on acceptance and commitment is performed once a week for eight sessions of 90 minutes in the experimental group. The validity of these sessions has been confirmed in the research of Heydarian Fard and Aman Elahi (2016).

Results

To check the significance of the difference between the experiential avoidance score in the two treatment groups, acceptance and commitment, and control, variance analysis with repeated measurements was used.

Table 1. Central indices and dispersion of research variable scores in the experimental and control groups

Variable	Group	Pre-test		Post-test		Follow-up	
		Mean	SD	Mean	SD	Mean	SD
Metacognitive Beliefs	ACT	58.84	18.35	89.25	12.27	74.30	21.38
	Control	55.67	19.01	54.89	18.71	55.30	19.39
Experiential avoidance	ACT	29.74	7.64	39.29	8.90	38.86	6.06
	Control	29.61	6.37	30.55	8.49	30.24	7.43
Intolerance of uncertainty	ACT	77.66	20.99	63.16	15.86	61.20	14.70
	Control	73.13	21.62	72.49	20.90	73.38	19.76

The results show that the analysis of variance is significant for the intra-group (time) and inter-group factors. These results mean that considering the group effect, the time effect alone is significant. Also, the interaction of group and time is significant.

Conclusion

According to the obtained findings, acceptance and commitment therapy is effective in experiential avoidance in patients with obsessive-compulsive disorder. The results of this research were aligned with the research of Maleki Pirbazari et al. (2021), Danesh Mirkohan (2020), Faraji (2016), Meraj et al. (2020), and Twohig et al. (2015). In explaining this finding, it can be said that in therapy based on acceptance and commitment, it is believed that thoughts are the product of a natural mind. What turns thoughts into beliefs is the person's merging with the content of thoughts (Komala et al., 2018). it works, that is, the act of eating is mixed with the content of that thought, and the result of this mixture is overeating, which is considered a self-pattern of experiential avoidance (Khosravi et al., 2021). Acceptance and Commitment Therapy, through interventions related to cognitive dissonance, seeks to help clients not flexibly to surrender to their thoughts and mental rules and instead find ways to interact more effectively with the world they face.

In explaining this finding, it can be said that acceptance and commitment therapy has been effective in improving the intolerance of obsessive-compulsive disorder. It seems that the ACT reduces obsessive-compulsive disorder symptoms by changing the way of thinking, and the changes in the way of thinking and perception of the sufferings and injuries that require human life can greatly reduce negative emotions such as intolerance of uncertainty. Therefore, ACT has taught these OCD sufferers how to cope with life's sufferings, identify their life values and take steps in line with them by teaching techniques and strategies. Consider their negativity and impurity as part of the stages of being human and learn how to deal with these emotions (Faragheb et al., 2020). The reason for this effect is the change in the client's attitude towards the cause of illogical thoughts, the negative and defective cycle of these thoughts and the purpose of training, starting exercises based on awareness and creating creative helplessness compared to past solutions, cognitive breakdown and emphasis on committed action. It encourages OCD patients to clarify their values, set goals, predict obstacles and finally, commit to doing actions to achieve goals and move towards values, despite the existence of problems, making

them realize their goals. Moreover, the resulting happiness increases and improves the quality of life of obsessive-compulsive disorder sufferers, freeing them from being stuck in a cycle of negative thoughts and feelings (Papagiogiou et al., 2018). Hence, ACT effectively increases positive metacognitive beliefs in OCD patients.

Also, the results indicate the effectiveness of ACT on the cognitive improvement of the emotion of approval. In explaining this finding, it can be stated that acceptance and commitment therapy with creative frustration training helps people become aware of their emotions and cognitions and put aside their previous incompatible strategies to reach better and more compatible strategies and achieve their goals. For this reason, this therapy method helps the client get out of the self-destructive conflict that he is caught in, which may lead him to harm himself and others and take refuge in emotion-oriented solutions such as risky behaviors and improves positive metacognitive beliefs and the mental and social health of OCD patients.

Conflict of Interest

According to the authors, this article has no financial sponsor or conflict of interest.

References

Angelakis, I., & Gooding, P. (2020). Obsessive–compulsive disorder and suicidal experiences: The role of experiential avoidance. *Suicide and Life-Threatening Behavior*, *50*(2), 359-371.

Asli Azad, M., Manshaei, G. R., & Ghamarani, A. (2019). Effectiveness of Acceptance and Commitment Therapy on the Signs of Obsessive-Compulsive Disorder and Thought-Action Fusion in the Students with Obsessive-Compulsive Disorder. *Psychological sciences,* 18(73), 67-76.

Bai, Z., Luo, S., Zhang, L., Wu, S., & Chi, I. (2020). Acceptance and commitment therapy (ACT) to reduce depression: A systematic review and meta-analysis. *Journal of Affective Disorders*, *260*, 728-737.

Borghei, S., Roshan, R., & Bahrami, H. (2020). Treatment Based on Acceptance and Commitment and Spirituality of Religious Therapy in a Group Method Improvement of the Severity of Obsessive-Compulsive Symptoms and Obsessive Beliefs and Quality of Life in People with Obsessive-Compulsive Disorder. *MEJDS,* 10 :6-6.

Danesh Mirkohan, R. (2020). *Comparing the effectiveness of treatability and commitment and cognitive therapy based on mindfulness on emotional self-control, emotional flexibility and value of life in women with shopping obsession.* PhD thesis, Islamic Azad University, Ardabil branch.

Eftekharzade, R., Hosseinian, S., Shams, J., & Yazdi, S. M. (2016). The effectiveness of psycho education on expressed emotion and decreasing severity of diseases in patient with obsessive compulsive disorder, Quarterly *Journal of Psychological Studies,* 12(2), 67.

Ghazanfari, F., Amiri, F., & Zangi Abadi, M. (2015). The Effectiveness of Acceptance and Commitment Therapy and Meta Cognitive Treatment on Improvement of the Symptoms in Women with Obsessive-Compulsive Disorder in Khorramabad City. *MEJDS,* 5:160-168.

Hayes, S. C. (2019). Acceptance and commitment therapy: towards a unified model of behavior change. *World Psychiatry*, *18*(2), 226.

Hezel, D. M., Stewart, S. E., Riemann, B. C., & McNally, R. J. (2019). Clarifying the thought-action fusion bias in obsessive-compulsive disorder. *Journal of Obsessive-Compulsive and Related Disorders*, *20*, 75-84.

Hood, H. K., Wilson, G. A., Koerner, N., McCabe, R. E., Rowa, K., & Antony, M. M. (2019). Poor insight in obsessive-compulsive disorder: Examining the role of cognitive and metacognitive variables. *Journal of Obsessive-Compulsive and Related Disorders*, *23*, 100447.

Hooper, N., Larsson, A., & Hayes, S. C. (2015). *The research journey of acceptance and commitment therapy (ACT).* Basingstoke, UK: Palgrave Macmillan.

Izadi, R. (2012). *Investigating and comparing the effectiveness of acceptance and commitment therapy and cognitive behavioral therapy on obsessive symptoms and beliefs, quality of life, psychological flexibility, depression and anxiety of treatment-resistant obsessive-compulsive patients.* Doctoral thesis, University of Isfahan.

Kayser, R. R., Haney, M., Raskin, M., Arout, C., & Simpson, H. B. (2020). Acute effects of cannabinoids on symptoms of obsessive-compulsive disorder: A human laboratory study. *Depression and anxiety*, *37*(8), 801-811.

Kim, J. E., & Lee, S. J. (2020). Thought-Action Fusion as Predictors of Obsessive-Compulsive Symptom Dimensions. *Psychiatry Investigation*, *17*(12), 1226.

Levy, H. C., Hannan, S. E., Diefenbach, G. J., & Tolin, D. F. (2018). Change in obsessive beliefs in therapist-directed and self-directed exposure

therapy for obsessive-compulsive disorder. *Journal of obsessive-compulsive and related disorders*, *18*, 1-7.

Mauzay, D., Spradlin, A., & Cuttler, C. (2016). Devils, witches, and psychics: The role of thought-action fusion in the relationships between obsessive-compulsive features, religiosity, and paranormal beliefs. *Journal of Obsessive-Compulsive and Related Disorders*, *11*, 113-120.

Meraj, M. B., Singh, S., Kar, S. K., Sharma, E., & Sarraf, S. R. (2020). Metacognitions in Symptomatic and Remitted Patients with Obsessive Compulsive Disorder: Preliminary Evidence for Metacognitive State and Trait Markers. *Indian Journal of Psychological Medicine*, 0253717620975295.

Onaral, G. (2021). Effectiveness of Third Wave Therapies for Treatment of Obsessive-Compulsive Disorder: A Review. *Current Approaches in Psychiatry/Psikiyatride Guncel Yaklasimlar*, *13*(2).

Philip, J., & Cherian, V. (2021). Acceptance and Commitment Therapy in Obsessive–Compulsive Disorder: A Case Study. *Indian Journal of Psychological Medicine*, 0253717621996734.

Pozza, A., Domenichetti, S., Giaquinta, N., & Davide, D. (2017). Efficacy of cbt plus acceptance & commitment therapy versus cbt alone for obsessive-compulsive disorder. Protocol for a randomised single-blinded superiority trial. *Eur Psychiatry*, *41*.

Rajabi, F., Hasani, F., Keshavarzi Arshadi, F., & Emamipour, S. (2019). Effectiveness of Acceptance and Commitment Therapy on Symptoms of Obsessive-Compulsive Disorder and Guilt Feeling in Patients with Obsessive-Compulsive Disorder. *IJRN,* 6(2): 140-147.

Simons, M., & Kursawe, A. L. (2019). Metacognitive therapy for posttraumatic stress disorder in youth: a feasibility study. *Frontiers in Psychology*, *10*, 264.

Siwiec, S. G., Davine, T. P., Kresser, R. C., Rohde, M. M., & Lee, H. J. (2017). Modifying thought-action fusion via a single-session computerized interpretation training. *Journal of Obsessive-Compulsive and Related Disorders*, *12*, 15-22.

Thompson, B. L., Twohig, M. P., & Luoma, J. B. (2021). Psychological flexibility as shared process of change in acceptance and commitment therapy and exposure and response prevention for obsessive-compulsive disorder: A single case design study. *Behavior Therapy*, *52*(2), 286-297.

Twohig, M. P., Vilardaga, J. C. P., Levin, M. E., & Hayes, S. C. (2015). Changes in psychological flexibility during acceptance and commitment therapy for obsessive compulsive disorder. *Journal of Contextual Behavioral Science*, *4*(3), 196-202.

Vicheva, P., Butler, M., & Shotbolt, P. (2020). Deep brain stimulation for obsessive-compulsive disorder: A systematic review of randomised controlled trials. *Neuroscience & Biobehavioral Reviews*, *109*, 129-138.

Wells A. (2009). Metacognitive therapy for anxiety and depression. NewYork, London: Guilford Press.

Wells, A., McNicol, K., Reeves, D., Salmon, P., Davies, L., Heagerty, A.,... & Fisher, P. (2018). Metacognitive therapy home-based self-help for cardiac rehabilitation patients experiencing anxiety and depressive symptoms: study protocol for a feasibility randomised controlled trial (PATHWAY Home-MCT). *Trials*, *19*(1), 1-13.

Wheaton, M. G., Messner, G. R., & Marks, J. B. (2021). Intolerance of uncertainty as a factor linking obsessive-compulsive symptoms, health anxiety and concerns about the spread of the novel coronavirus (COVID-19) in the United States. *Journal of Obsessive-Compulsive and Related Disorders*, *28*, 100605.