

Preliminary evidence of acceptance and commitment therapy for death anxiety in Iranian  
clients diagnosed with OCD

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**Abstract**

This study investigated the effectiveness of Acceptance and Commitment Therapy (ACT) on death anxiety and obsessive-compulsive disorder (OCD) with eight adult females in Iran. The ACT protocol was conducted in 8 weekly solo sessions (45 minutes each). The results were analyzed by visual analysis method and improvement percentage. ACT resulted in decreases in death anxiety (60-80%) and obsessive-compulsive symptoms (51-60%), thereby indicating promise for ACT as a treatment for OCD and death anxiety.

*Keywords:* Terror Management Theory, Death anxiety, Obsessive Compulsive Disorder (OCD), Acceptance and commitment therapy (ACT)

Awareness of one's death can affect behaviors, emotions, and thoughts—even psychological constructs such as anxiety and depression. Terror Management Theory argues that humans who are aware of their own death, consciously or not, use a variety of proximal and distal defenses to protect themselves from these realized and unrealized fears of death (Pyszczynski et al., 1999). For example, practices such as thought suppression and loyalty to one's beliefs and culture are thought to act as protective factors against death anxiety and death-related thoughts (Pyszczynski et al., 1999). Thus, death anxiety has been suggested as a transdiagnostic and pathological factor for several psychological disorders (Iverach et al., 2014). Death anxiety and related symptoms are often conceptualized as a core part of health anxiety (Furer & Walker, 2008), and death anxiety and fear of body failure and disease is related to higher levels of hypochondriasis (Noyes, Stuart, Longley, Langbehn, & Happel, 2002). Multiple studies on other psychological disorders like specific phobia (Strachan, Pyszczynski, Greenberg, & Solomon, 2001), posttraumatic stress disorder (PTSD; e.g. Chatrad et al., 2012), depression (Maxfield, John, & Pyszczynski, 2014), social anxiety (Strachan et al., 2007), panic disorder (Furer & Walker, 2008), separation anxiety (Caras, 1995), eating disorders (e.g. Farber, Jackson, Tabin, & Bachar, 2007) and obsessive compulsive disorder (OCD; Menzies & Dar-Nimrod, 2017) also show a strong link to death anxiety.

Focusing on OCD, research has shown that death anxiety may contribute to OCD related behaviors (Menzies & Dar-Nimrod, 2017; Strachan et al., 2007). In a study of 46 undergraduates, those who endorsed compulsive hand washing spent more time washing their hands when primed about their death with a mortality salience prime (Strachan et al., 2007). This finding was replicated by Menzies and Dar-Nimrod (2017) with 161 individuals diagnosed with OCD; individuals who struggled with compulsive handwashing had significantly more cleaning efforts after being primed with a morality salience prompt. Moreover, Menzies and Nimrod (2017) also reported that higher levels of death anxiety were associated with greater OCD severity, as well as patient distress.

Researchers have scarcely addressed death anxiety as a component of treatment for conditions like OCD. Furer and Walker (2008) explored the assessment and treatment of death anxiety from a broader cognitive-behavioral framework, indicating the theoretical importance of considering death anxiety in the context of cognitive-behavioral treatment. Hiebert and colleagues (2005) reported a significant decrease in death anxiety in patients receiving cognitive behavior therapy (CBT) for hypochondriasis. The CBT treatment protocol included exposures to death-related fears, as well as incorporating death acceptance techniques (Hiebert, Furer, McPhail, & Walker, 2005). In a recent review article, Iverach and colleagues (2014) call for further research on treatments focusing on death anxiety as a transdiagnostic construct, particularly for the incorporation of Acceptance and Commitment Therapy (ACT) as a treatment modality for conditions affected by death anxiety.

Already tested as treatment for OCD, ACT has been found effective for reducing OCD symptoms in fairly large samples of North American ( $N = 79$ ) and Iranian ( $N = 90$ ) individuals (e.g., Twohig et al., 2010; Baghooli, Dolatshahi, Mohammadkhani, Moshtagh, & Naziri, 2014). ACT may be particularly useful because it is a transdiagnostic approach (Dindo, Van Liew, & Arch, 2017), it is functionally rather than topographically oriented to internal events, and it emphasizes sidestepping thoughts with acceptance and mindfulness. Death does not naturally lend itself to critical evaluation because much involved with it is unknown. Given the potential influence of death anxiety on OCD symptoms, ACT may be a relevant treatment to explore for death anxiety symptoms (Menzies & Dar-Nimrod, 2017; Strachan et al., 2007).

To our knowledge, no other studies have examined the effectiveness of ACT on death anxiety. The present study tries to compensate for this deficiency by studying the effectiveness of ACT on death anxiety and OCD symptom severity in a small sample of Iranian patients with OCD. This study chose to focus on death awareness with OCD due to the common phenomenon of death awareness in Iran. The regular experiences of war (e.g. the 1979 revolution, Iraq/Iranian war), military funerals (Shahids) resulting from war, natural disasters such as the Bam earthquake, and

Iranian religious ceremonies like Ashura may elicit death awareness in Iranians. In this research study, we predict that ACT will decrease OCD symptom severity and levels of death anxiety.

## **Methods**

### **Participants**

The present study used Single Case Design (Barlow, Nock, & Hersen, 2009). The inclusion criteria included the following: an OCD diagnosis, between 18 to 50 years old, the ability to speak and communicate, and minimum literacy. The exclusion criteria were death awareness therapy experience in recent six months, absences for more than two sessions, and failure to perform tasks between sessions. Participants were recruited in Tehran through referrals from a psychiatrist and a clinical psychologist, of Taleqani Hospital and evaluated based on inclusion/exclusion criteria. Participants completed a SCID-5-CV (First & Williams, 2016) for OCD diagnosis and were referred for the baseline phase and after collecting data we started treatment phases with ACT.

Eight adult participants (ages 28 to 45, average 36,  $SD= 5.7$ ) with OCD entered the study. All participants were female, 50% of them were married, 6 of 8 graduated from university. Three participants did not finish treatment phase because of the exclusion criteria (two participants refused to complete their after-session worksheets and one participant was excluded due to his father's death). We added their data as long as they were in sessions.

### **Procedure**

Participants were treated using the protocol from Twohig and colleagues (2010) with an emphasis on internal experiences related to fears of death or death related obsessions. The first meeting was for recruitment purposes; participants completed a SCID-5-CV and were assessed for compliance. Following recruitment, participants entered the baseline phase of three assessments during which participants completed DASs and YBOCS to ensure stability of symptoms. After that, participants started the treatment phase during which they received eight weekly sessions of ACT. All the participants received therapy from the same therapist (A.B.) who holds a master's degree in

clinical psychology. This therapist also received supervision from a doctoral psychologist.

Participants also completed assessments at session 4, 6, and 8.

The first session began by examining obsessions and compulsions, introducing the treatment and establishing therapeutic contract. The therapist helped participants to identify and distinguish between obsessions and compulsions. In the second session, participants and therapist reviewed how attempts to control inner experiences like obsessions are ineffective and unsuccessful. These processes were evaluated as shown by “Man in the Hole” metaphor, a metaphor about the futility of digging deeper in order to regulate obsessions. This metaphor illustrates the power of vicious cycles and the futility of focusing on something to make it disappear. Sessions 3 & 4 focused on demonstrating how attempts to control obsession might be exacerbating OCD and limiting quality of life using the “Two Scales Metaphor.” In this metaphor, the therapist uses a scale to show how one can choose to either work on controlling anxiety or obsessions, or work on being more willing to experience anxiety and obsessions. Attempting to regulate obsessions has not been successful, but practicing being open to it might give it freedom to move up and down as situations change. The fifth and sixth sessions focused on changing the psychological function of obsessions from threatening experience to simply another cognitive event. This was achieved with defusion exercises, contact with present moment exercises, and self as context work. Lastly, in sessions 7 and 8, participants’ values were discussed and participants increased their behavioral commitments in order to live more consistently with their values.

### **Measures**

All measures were translated from English into Farsi and had been validated in Iran.

**Templar Death Anxiety Scale (DAS; Templar, 1970).** Created and validated by Donald Templar, DAS has 15 true/false questions with score range between 1 – 15. Higher scores represent higher death anxiety, and lower scores indicate lower death anxiety. Death anxiety levels fall into

three subgroups of mild (0 – 6), middle (6 – 9) and severe (10 – 15) anxiety. The reliability coefficient of this scale was a Cronbach's alpha of 0.83.

**Yale-Brown Obsessive Compulsive Scale (YBOCs; Goodman et al., 1989).** This scale measures the overall symptom severity of OCD. This questionnaire has 10 questions (5 questions for obsessions and five items for compulsions). Each item is evaluated with a Likert scale from asymptomatic (0) to very severe (4). The final scores range from 0 – 7 (insignificant), 8 – 15 (mild), 16 – 23 (middle), 24 – 31 (severe), 32 – 40 (very severe). Using Interrater reliability method, the reliability of our scale is 0.98. The Cronbach's alpha was 0.98 and Test-Retest Reliability with two weeks intervals resulted in test-retest reliability coefficient of 0.84.

### **Data Analysis**

Data analysis was calculated as percent improvement. The scores of each participant on the DAS during baseline and treatment, as well as the improvement percentage can be found in Table 1. YBOCS scores and percent change are presented in table 2.

### **Results**

Overall, the improvement percentages indicate that ACT affected the death anxiety. The greatest improvement percentage belongs to participant 4 with 80%, and participant 7 achieved lowest scores of 15% improvement.

Table 2 represents the YBOCS scores of each participant at baseline and treatment sessions as well as their improvement percentages. Table 2 represent the improvement percentages. The scores for all participants decreased with the highest improvement by participant 3 at 60%, and the lowest improvement by participant 6 with 12%. The improvement percentages show positive effects of ACT on mitigating OCD symptom severity in participants.

### **Discussion**

To date, there has been little research on ACT and death anxiety in OCD. Thus, the present study aimed to assess the effects of ACT on death anxiety and OCD symptom severity. All eight participants of the present study experienced reductions in both OCD and death anxiety across eight sessions of ACT. Scores tended to decrease greatly between sessions six to eight. The results of the study demonstrate preliminary evidence of positive effects of ACT on reducing death anxiety and symptom severity of OCD. While this is the only research on death anxiety and ACT, these results are consistent with past research on ACT as a treatment for anxiety and OCD (Baghooli et al., 2014; Esfahani et al., 2015; Twohig et al., 2018, 2010).

One possible explanation for these findings is that ACT teaches clients to show more openness towards their obsessions and negative thoughts while acting in concordance with their values. Past research has indicated that acceptance and self-awareness methods have shown promising results with suicidal thoughts and mourning in disabled and patients who experienced the presence of death (Davis, Deane, Lyons, & Barclay, 2017; Walser et al., 2015). The decrease in symptoms around sessions 6-8 could also be due to behavioral commitment techniques and emphasis on client values that occurs in sessions 6-8. In fact, based on Terror Management Theory, empowering an “anxiety buffering system” helps individual to efficiently overcome the anxiety of obsessions and compulsions (Pyszczynski, Greenberg, & Solomon, 1998). The achievement of behavioral commitments and values could help to participants create valuable worldviews and stronger self-esteem which potentially empower the “Anxiety Buffering System” as distal defense mechanism in TMT. These changes could reduce death anxiety in the participants. It is also possible that a combination of these factors mitigates the severity of the obsessive-compulsive symptoms in participants. On the whole, the decrease in symptoms around sessions 6-8 is consistent with previous research indicating that session 7 is a crucial point for symptom improvement (Twohig, Vilardaga, Levin, & Hayes, 2015).

One of the limitations in this study was that we did not perform specific analyses regarding mechanisms of change, it is difficult to know what prompted the change in these participants. Future research should therefore explore the mechanisms of change in patients being treated death anxiety. A better understanding of how patients' symptoms decrease will provide valuable information regarding what parts of ACT are most effective, as well as provide some insight on the reduction of death anxiety. Additionally, the present study is limited by the smaller sample size of eight participants all receiving treatment from the same therapist, but this is preliminary work and should be furthered. Additionally, the removal of participants who did not complete all between-session tasks represents another weakness of the study. Future research should not remove noncompliant participants and instead use the data to gain information on dropouts in ACT for OCD and death anxiety. The sample was homogeneous, but use of a fully Iranian sample is also a strength of this study. More frequent data collection along with staggered data collection across participant would strengthen the experimental design. Finally, no follow up was collected. Even with these limitations, the results of the present study indicate the potential of ACT to reduce death anxiety and OCD symptoms.

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Table 1

*Participants' scores and improvement percentages in the death anxiety scale.*

No.	Baseline 1	Baseline 2	Baseline 3	Session 4	Session 6	Session 8	Improvement Percentage
<b>1</b>	11	10	10	10	6	4	60%
<b>2</b>	9	9	9	8	7	3	60%
<b>3</b>	12	11	11	9	9	4	70%
<b>4</b>	10	10	11	10	9	3	80%
<b>5</b>	12	12	12	12	10	5	70%
<b>6</b>	11	11	10	8	Dropped	Dropped	20%
<b>7</b>	12	12	12	9	Dropped	Dropped	15%
<b>8</b>	12	12	12	8	6	Dropped	50%

Table 2

*Participants' scores and improvement percentages on the YBOCS.*

<i>No.</i>	<i>Baseline</i> <b>1</b>	<i>Baseline</i> <b>2</b>	<i>Baseline</i> <b>3</b>	<i>Session</i> <b>4</b>	<i>Session</i> <b>6</b>	<i>Session</i> <b>8</b>	<i>Improvement</i> <b>Percentage</b>
1	27	26	27	20	18	13	51%
2	27	27	28	19	15	11	60%
3	30	30	30	21	18	12	60%
4	26	27	27	19	16	12	55%
5	26	26	25	18	14	10	60%
6	24	25	24	21	Dropped	Dropped	12%
7	24	24	24	19	Dropped	Dropped	20%
8	23	24	24	20	15	Dropped	37%