Preliminary test of acceptance and commitment therapy on obsessive-compulsive disorder for patients on optimal dose of selective serotonin reuptake inhibitors

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**Abstract**

The aim of this study was to investigate the effects of adding group acceptance and commitment therapy (ACT) to adults diagnosed with obsessive compulsive disorder (OCD) who were already on an optimal dose of selective serotonin reuptake inhibitors (SSRIs).

Forty-six Iranian women, who were already at optimal dose of SSRIs, were randomized to group ACT + SSRI or continued SSRI conditions. SSRI dosages stayed stable during the study. Assessments included a Structured Clinical Interview (SCID-I), Yale-Brown Obsessive-Compulsive Scale Self report (Y-BOCS-SR), Beck Depression Inventory (BDI-II), Ruminative Response Scale (RRS) and Acceptance and Action Questionnaire (AAQ-II). The results showed significant reductions on the Y-BOCS-SR and BDI-II in both conditions at posttreatment with significantly greater reductions in the ACT + SSRI condition at follow-up. The RRS and AAQ-II saw significant improvements in the ACT + SSRI condition at post and follow-up compared to the SSRI condition. Results provide cross-cultural support for group ACT as a treatment for OCD and as a successful adjunct to SSRI treatment.

**Keywords**: Obsessive-compulsive disorder, Acceptance and commitment therapy, Selective serotonin reuptake inhibitors, Depression, Ruminative thought, Psychological flexibility

Preliminary test of acceptance and commitment therapy on obsessive-compulsive disorder for patients on optimal dose of selective serotonin reuptake inhibitors

Obsessive-Compulsive Disorder (OCD) is a debilitating condition for many individuals. It involves recurrent obsessions that are quelled through recurrent compulsive actions. This pattern of behavior often negatively effects quality of life ([Cicek, Cicek, Kayhan, Uguz, & Kaya, 2013](#_ENREF_9)). Selective Serotonin Reuptake Inhibitors (SSRIs) are effective pharmacological treatments for OCD ([Soomro, Altman, Rajagopal, & Oakley Browne, 2008](#_ENREF_25)). Nevertheless, meta-analyses indicate that behavioral therapies and behavioral therapies plus SSRIs are more effective than SSRIs alone ([Romanelli, Wu, Gamba, Mojtabai, & Segal, 2014](#_ENREF_23)). Behavioral therapies that include exposure and response prevention (ERP) with or without an emphasis on cognitive procedures are the most supported treatments for OCD ([Olatunji, Davis, Powers, & Smits, 2013](#_ENREF_20)), however, they are not effective for all. A recent paper on response rates for cognitive behavior therapy (CBT) showed that only 43% of participants with OCD responded to treatment at posttreatment, with that number dropping to 35% at follow-up ([Loerinc et al., 2015](#_ENREF_18)). Additionally, while not a high number, ERP has a drop out rate of 16% ([Ong, Clyde, Bluett, Levin, & Twohig, 2016](#_ENREF_21)). These data have led researchers to investigate alternative options for the treatment of OCD, with one modern version of CBT being Acceptance and Commitment Therapy ([ACT; Hayes, Strosahl, & Wilson, 2012](#_ENREF_14)). Meta-analyses consistently find that ACT and CBT show similar levels of efficacy ([A-Tjak et al., 2015](#_ENREF_1); [Bluett, Homan, Morrison, Levin, & Twohig, 2014](#_ENREF_7)). There have also been a few useful findings that suggest mediation and moderation differences between ACT and CBT ([Arch, Wolitzky-Taylor, Eifert, & Craske, 2012](#_ENREF_3); [Wolitzky-Taylor, Arch, Rosenfield, & Craske, 2012](#_ENREF_30)). Thus, ACT for OCD continues to be worthy of further study.

A relationship between OCD and psychological flexibility, the key process of change in ACT, has been demonstrated with a meta-analysis finding a correlation of *r* = .36 between psychological flexibility and OCD severity. Additionally, data from a handful of studies has shown associations between improved psychological flexibility and OCD severity (see [Bluett et al., 2014](#_ENREF_7); [Haaland et al., 2017](#_ENREF_13)). In the largest western trial of ACT for OCD to date, 8 sessions of ACT, without in-session exposure exercises, was compared to progressive muscle relaxation ([Twohig et al., 2010](#_ENREF_27)). Results showed that ACT was more effective than the control condition, with 46-56% (depending on analysis) of participants responding to treatment at posttreatment and 46-66% at follow up, compared to 13-18% at posttreatment and 16-18% at follow up for the control condition. Much of the research on ACT for OCD has occurred within one research group, limiting the generalizability of the results. However, recently, multiple researchers out of Iran have systematically studied ACT for OCD in their country.

The work in Iran—by multiple research groups—started with the treatment of five adults with OCD using 10 individual sessions of ACT ([Izadi, Asgari, Neshatdust, & Abedi, 2012](#_ENREF_16)). Individual tracking of data showed notable decreases in compulsions for all five participants and average scores on the Yale Brown Obsessive Compulsive Inventory (Y-BOCS, ([Goodman et al., 1989](#_ENREF_12)) were 30 at pre, 15 at post, and 15 at follow-up. Another small study by the same lead author included three treatment-resistant adults with OCD who were treated using 14 individual sessions of ACT ([Izadi & Abedi, 2013](#_ENREF_15)). Individual tracking showed pretreatment, posttreatment, and follow up scores of 32, 20, and 19.7 on the Y-BOCS. In a large randomized trial, 90 adults with OCD were randomized to one of three conditions: ACT, clomipramine (a tricyclic antidepressant), or ACT + clomipramine ([Baghooli, Dolatshahi, Mohammadkhani, Moshtagh, & Naziri, 2014](#_ENREF_5)). Results were as follows for pretreatment, posttreatment, and follow-up on the Y-BOCS: ACT 24, 14, and 11; clomipramine 25, 17, 14; ACT + clomipramine 25, 15, 13. The results indicated that ACT and ACT + clomipramine were more effective than clomipramine alone. This study was replicated testing a selective serotonin reuptake inhibitor ([SSRI; Vakili, Gharraee, Habibi, Lavasani, & Rasoolian, 2014](#_ENREF_29)). Thirty-two adults were assigned to ACT, SSRI, or ACT + SSRI conditions. ACT and ACT + SSRI outperformed SSRI alone, with ACT and the combination treatment being equivalent. Mean Y-BOCS scores at pretreatment and posttreatment were as follows: ACT 23 and 14, SSRI 25 and 19, and ACT + SSRI 24 and 13. Finally, sixty adults were randomized to ACT, time perspective therapy, narrative therapy, or wait-list conditions ([Esfahani, Kjbaf, & Abedi, 2015](#_ENREF_10)). ACT was the most effective condition with mean Y-BOCS scores at pretreatment, posttreatment, and follow up as follows: ACT 28, 13, and 15; time perspective therapy 31, 28, 31; narrative therapy 23, 18, 18, and waitlist 27, 27, 27. In summary, researchers out of Iran have demonstrated consistent and positive findings for ACT across a variety of conditions and have shown that ACT for OCD can be adapted cross-culturally.

 To continue to investigate the utility of ACT for OCD, the following study will examine the effects of group ACT on a sample of adults who are already on a stable and optimal dose of SSRIs. The study will compare group ACT + continued SSRIs vs continued SSRIs. This study adds to the current literature on ACT and concurrent SSRI while replicating aspects of a previous study ([Vakili, Gharaee, & Habibi, 2015](#_ENREF_28)), while adding follow-up data. It also includes data on rumination, which is a central component in major depressive disorder, which occurs in 41% of those with OCD ([American Psychiatric Association, 2013](#_ENREF_4)), and is the largest predictor of poor treatment response in OCD ([Knopp, Knowles, Bee, Lovell, & Bower, 2013](#_ENREF_17)). Data on psychological flexibility was also collected, offering information on processes of change in therapy.

**Method**

**Participants**

The sample was collected from mental health centers in Kashan, Iran. All participants were at optimal target doses of Fluoxetine, Fluvoxamine, or Sertraline. Optimal does was achieved by starting patients at low doses (Fluoxetine 20mg, Fluvoxamine 50mg, and Sertraline 50mg ) and increasing every 3 or 4 days until maximum with least side-effect. Inclusion criteria consisted of: (a) having a primary diagnosis of OCD (identified from a structured clinical interview); (b) being over 17 years old; (c) having at least a high school education; (d) being female. Of note, Islamic customs make mixed-sex group therapy participation difficult, therefore a single sex group was run, as is common in this culture. Exclusion criteria included: (a) a BDI-II score over 29; (b) current diagnosis of bipolar disorder; (c) current psychotic episode; (d) current suicide ideation; (e) a change in SSRI dose in the last 4 weeks; (f) participation of psychological treatment in the last month; (h) planned changes in SSRI during 16 week study. A psychiatrist screened 111 individuals for the study. Of those, 67 were then assessed by a clinical psychologist who excluded 21 individuals based on inclusion and exclusion criteria. This resulted in 46 participants who were randomly assigned to one of two treatment conditions. Participant mean age was 27.91 (7.26), mean duration of OCD symptoms was 20.28 (14.18) months, 45.7% had a college degree, 82.6% were unemployed and not a current student, and 47.8% were married. See Table 1 for more detailed demographic information by condition. Both conditions saw seven participants drop out over the course of the trial, resulting in 32 participants completing the full 16-week trial. See Figure 1 for a flowchart of participants in the study.

**Procedure**

All participants were provided information about the two study conditions and provided informed consent to participate in the study. Eligible patients were randomly assigned to either continued SSRI management or SSRI + group ACT. All participants provided demographic information at pretreatment. In addition, an assessment battery was completed by participants at pretreatment, posttreatment, and a two-month follow up that included the following measures.

**Continued SSRI management.** The SSRI management condition consisted of the continued use of SSRIs at the same levels prior to entering the study. Clients continued to be monitored by the mental health center’s psychiatrist. The dose of SSRIs did not change during the 16-week trial. No psychological treatment was provided during the trial period. Following the completion of the study, all participants in the SSRI management condition participated in the same treatment provided to those in the ACT condition.

**Adjunctive Acceptance and Commitment Group Therapy (ACT).** The ACT condition consisted of SSRI management in addition to eight sessions of group therapy split into three small groups using an ACT treatment manual that closely followed the one used by Twohig et al. (2010). Groups were run by an ACT-trained therapist with three years of ACT and group therapy experience. All sessions were audio-taped and were reviewed weekly by a supervisor to establish internal validity. All sessions had essential objectives that included: homework and discussion of events between session, centering exercises, metaphors and in-session exercises adapted to Iranian culture, and group discussion. Each session had a main objective based on ACT theory. In order, these included: creative hopelessness, control as the problem and introduction to acceptance, acceptance, defusion, self as context, contact with present moment, values, and committed action.

**Measures**

**Structured Clinical Interview for DSM-IV, Axis I Disorders** ([SCID; First, Spitzer, Gibbon, & Williams, 1995](#_ENREF_11)). The SCID is a commonly used semi-structured interview that to make a reliable psychiatric diagnosis according to DSM-IV criteria([First et al., 1995](#_ENREF_11)). It has demonstrated appropriate psychometric characteristics in the Iranian community ([Sharifi et al., 2009](#_ENREF_24)).

**Yale-Brown Obsessive Compulsive Scale, Self-Report** ([Y-BOCS-SR; Steketee, Frost, & Bogart, 1996](#_ENREF_26)). The Y-BOCS-SR is a ten-item, self-report questionnaire designed to assess OCD severity. The sum of all items yields a total score (range = 0–40), with scores of 16 or greater generally denoting clinically significant levels of OCD symptoms. The scale has demonstrated good psychometric properties ([Steketee et al., 1996](#_ENREF_26)). The Y-BOCS-SR demonstrated acceptable reliability in the current study (Cronbach’s α = .73).

**Beck Depression Inventory** ([BDI-II; Beck, Steer, & Brown, 1996](#_ENREF_6)).The BDI-II is a commonly used, self-report measure of depression. The measure consists of 21 items that are summed to produce a total score (range = 0–63). Total scores are classified into the following categories: minimal (0–13), mild (14–19), moderate (20–28), and severe (29–63). ([Beck et al., 1996](#_ENREF_6)). The BDI-II has demonstrated good psychometric properties in Iranian samples. The alpha coefficient of the Iranian version is 0.86 ([RAJABI & KARJO, 2013](#_ENREF_22)). The BDI-II demonstrated acceptable reliability in the current study (Cronbach’s α = .70).

**Acceptance and Action Questionnaire** ([AAQ-II; Bond et al., 2011](#_ENREF_8)). The AAQ-II is a 10-item, self-report measure of psychological flexibility. Items are summed to produce a total score (range = 10–70). The AAQ-II has demonstrated good psychometric properties in Iranian samples. The alpha coefficient of the Iranian version is consistency ranges from 0.71–0.89. ([Abasi, Fti, Molodi, & Zarabi, 2013](#_ENREF_2)). The AAQ-II demonstrated good reliability in the current study (Cronbach’s α = .81).

**Ruminative Response Scale** ([RRS; Nolen-Hoeksema & Morrow, 1991](#_ENREF_19)). The RRS is a 22 item, self-report measure of ruminative coping responses to depressed mood and other negative symptoms. Items are summed to produce a total score (range = 22–88) with higher scores denoting higher levels of ruminative coping style. The RRS has demonstrated good psychometric properties ([Wu, Zhang, Liu, Zhou, & Wei, 2015](#_ENREF_31)). The RSS demonstrated good reliability in the current study (Cronbach’s α = .85).

**Data Analysis**

Kolmogrov-Smirnov and Levene's methods were used to test for distribution normality and equality of variances (*p* < .05) and parametric tests were utilized for statistical analysis. Demographic data were analyzed employing chi-square and independent two-sample student’s *t*-tests. Mixed models repeated measures (MMRM) analyses were utilized to examine Time by Condition and main Time and Condition effects between the ACT/SSRI and SSRI treatment conditions on outcome measures at pretreatment, posttreatment, and follow-up. This method allows for analysis of the full intent-to-treat sample and all available data points as any missing data points are modeled and included in the analysis. Missing data were modeled in this fashion for 14 participants (30.43% of the sample). All participants completed pre-treatment assessment, 14 did not complete follow-up, and of those, six also did not complete post-treatment. Additional MMRM analyses were utilized to examine within- and between-group changes for each outcome measure.

**Results**

Independent sample t-test and Chi-square analysis showed no significant differences (*p*s> .05) between the treatment conditions for any demographic feature, indicating homogeneity between groups. See Table 1 for detailed demographic comparison results. Table 2 displays descriptive statistics for each variable by treatment condition at pretreatment, posttreatment, and follow-up and Figure 2 displays plots for the same data.

**OCD Symptom Severity**

MMRM analysis indicated a significant Time × Condition interaction for Y-BOCS-SR scores, F(2, 33.057) = 33.35, *p* < .001, Cohen’s *d* = 2.01. Between-group comparisons indicated no significant difference between the treatment conditions at posttreatment *t*(38.778) = -1.347, *p* = .186, *d* = 1.08, however, significant differences were found at follow up *t*(35.765) = -6.583, *p* < .001, *d* = 1.53. Within-group comparisons indicated a significant difference for the ACT/SSRI condition from pre- to posttreatment *t*(20.011) = -10.052, *p* < .001, *d* = 2.19 and from posttreatment to follow up *t*(15.840) = -7.511, *p* < .001, *d* = 1.67. Significant differences were also found for the SSRI condition from pre- to posttreatment *t*(18.134) = -8.315, *p* < .001, *d* = 1.90 and from posttreatment to follow up *t*(17.132) = -4.611, *p* < .001, *d*= 1.10. These findings indicate that both treatment conditions had a large, significant impact on reducing OCD symptoms over the treatment period that continued through follow-up; however, the ACT + SSRI condition saw significantly larger improvements at follow-up than the SSRI condition. Moreover, from baseline to follow-up there was, on average, a 71.3% improvement in Y-BOCS-SR scores in the ACT + SSRI condition compared to a 31.2% improvement in the SSRI condition.

**Depression Symptom Severity**

BDI-II scores demonstrated a nonsignificant Time × Condition interaction, F(2, 36.810) = 36.810, *p* = .089, Cohen’s *d* = 0.53. However, there was a significant main effect of Time, F(2, 36.810)=99.022, *p* < .001, *d* = 3.28, but no main effect of Condition, F(1, 40.654) = 2.820, *p* < .001, *d* = .53. Between group comparisons indicated no significant difference between the treatment conditions at posttreatment *t*(38.778) = -1.347, *p* = .186, *d* = .42, however, a significant difference was found at follow up *t*(37.593) = -2.411, *p* = .021, *d* = .79. Within-group comparisons indicated a significant difference for the ACT + SSRI condition from pre- to posttreatment *t*(20.374) = -8.463, *p* < .001, *d* = 1.83 and from posttreatment to follow up *t*(15.874) = -3.852, *p* = .001, *d* = .95. Significant differences were also found for the SSRI condition from pre- to posttreatment *t*(19.247) = -6.454, *p* < .001, *d* = 1.42 and from posttreatment to follow up *t*(17.659) = -2.524, *p* = .021, *d* = .61. These findings indicate that both treatment conditions had a similar, large impact on reducing depression symptoms over the treatment period that continued through follow-up; however, there was a small, yet significant difference between the groups at follow-up indicating that the ACT + SSRI condition saw greater symptom improvement than the SSRI condition.

**Ruminative Thoughts**

RRS scores demonstrated a significant Time × Condition interaction, F(2, 40.282) = 6.706, *p* = .003, Cohen’s *d* = 0.82. Between group comparisons indicated significant differences between the treatment conditions at posttreatment *t*(42.046) = -2.823, *p* = .007, *d* = .88 and follow up *t*(37.880) = -3.217, *p* = .003, *d* = 1.06. Within-group comparisons indicated a significant difference for the ACT + SSRI condition from pre- to posttreatment *t*(21.345) = -11.051, *p* < .001, *d* = 2.37 and from posttreatment to follow up *t*(17.414) = -4.502, *p* < .001, *d* = 1.07. Significant differences were also found for the SSRI condition from pre- to post-treatment *t*(19.659) = -5.865, *p* < .001, *d* = 1.32 and from posttreatment to follow up *t*(17.596) = -4.292, *p* < .001, *d* = 1.03. These findings indicate that both treatment conditions had a large, significant impact on reducing ruminative coping responses over the treatment period that continued through follow-up; however, the ACT + SSRI condition saw significantly larger improvements than the SSRI condition at post-treatment that were maintained at follow-up.

**Psychological Flexibility**

AAQ-II scores demonstrated a significant Time × Condition interaction, F(2, 38.706) = 40.395, *p* < .001, Cohen’s *d* = 2.04. Between group comparisons indicated significant differences between the treatment conditions at posttreatment *t*(38.752) = 6.849, *p* < .001, *d* = 2.16 and follow up *t*(33.741) = 9.565, *p* < .001, *d* = 3.24. Within-group comparisons indicated a significant difference for the ACT + SSRI condition from pre- to post-treatment *t*(21.563) = -9.890, *p* < .001, *d* = 2.13 and from posttreatment to follow up *t*(17.886) = -3.859, *p* = .001, *d* = .91. Significant differences not found for the SSRI condition from pre- to post-treatment *t*(18.704) = 0.896, *p* = .382, *d* = .20 and from posttreatment to follow up *t*(16.610) = 4.102, *p* = .001, *d* = .97. These findings indicate that both while both treatment conditions had significant impact on increasing psychological flexibility from pre-treatment to follow-up, the ACT + SSRI condition saw much larger and more immediate improvements than the SSRI condition. Moreover, at follow-up there was, on average, a 49.8% increase in AAQ-II scores in the ACT + SSRI condition compared to a 17.2% increase in the SSRI condition.

**Discussion**

The present study demonstrated the impact of group ACT on a sample who was at an optimal dose of SSRI versus continued SSRI management. Specifically, both treatments lowed Y-BOCS-SR and BDI-II scores from pre-to post-treatment, with ACT + SSRI lowering them significantly greater at follow-up. Secondary outcomes showed that ACT + SSRI also reduced ruminative thought (as a mutual component between obsessions and depression) more than SSRI. Psychological flexibility also changed more in the ACT + SSRI condition.

There are a number of important findings from this study. Most notably, this study adds to the, now rather large, literature on ACT and OCD. As covered in review papers ([Bluett et al., 2014](#_ENREF_7)), there has been 1 randomized trial and many single subject designs testing the effects of ACT for OCD in the United States. Iranian researchers have continued this work with two open trials ([Izadi & Abedi, 2013](#_ENREF_15); [Izadi et al., 2012](#_ENREF_16)), two randomized trials comparing ACT plus antidepressants, to antidepressants ([Baghooli et al., 2014](#_ENREF_5); [Vakili et al., 2015](#_ENREF_28)), and one randomized trial comparing ACT to two active control conditions and a waitlist (Esfahani 2015). The current study adds to this support while offering some additional information. The results of all the ACT for OCD studies are supportive of ACT over comparison conditions, and achieving post and follow up Y-BOCS-SR scores that are in acceptable ranges. This mass of data across researchers lends credibility to ACT as a method to address OCD.

It replicates the findings that ACT + an antidepressant is more effective than the antidepressant alone ([Baghooli et al., 2014](#_ENREF_5); [Vakili et al., 2015](#_ENREF_28)), while even replicating the findings with SSRIs ([Vakili et al., 2015](#_ENREF_28)). It adds to the Vakili et al. (2015) study in that follow up was collected in this study. The follow up results showed ACT continued to show gains well beyond SSRIs two months after treatment. This is also the first group ACT for OCD treatment study to be published. This is important in that it highlights that these skills can be taught to a larger group of individuals at one time. This is not surprising because many studies testing ACT are completed with groups ([A-Tjak et al., 2015](#_ENREF_1)). It also adds to the literature on the effects of ACT on depression and ruminative thought.

There were several limitations in this study. First, the population of interest was limited to females. While this would be uncommon in a western society, the cultural rules and conventions in Iran make mixed-sex therapy difficult as participants are less likely to share content of obsessions with members of the opposite sex. On the one hand it limits generalization, on the other hand, it demonstrates a cultural adaption of a therapy to a particular group. Second, the sample size was small. Combined with the Vakili study there is notable support for these general findings. Third, follow-up duration for clinical outcomes was only two months. Even though follow-up was not collected in the other ACT + SSRI trial, a much longer duration would be preferable. Fourth, the primary outcome was measured only by self-report. While, the self-report version of the Y-BOCS has very good psychometric properties and high correlations with clinician ratings of OCD severity, a more objective measure is preferable to the self-report method used in this study and should be employed in future trials. Fifth, assessments and random assignment occurred after all participants were already on SSRIs. Thus, this study really shows the additive effects of psychotherapy to medication versus continued medication. This is still important because adding psychotherapy to medication is common in the treatment of OCD, and it is useful to know it improves outcomes over continued medication. Still, knowing the combined effects versus the stand-alone effects of medication answers additional questions, such as medication alone and the combination. It is worth noting that the pretreatment Y-BOCS scores are consisted with many published outcome studies. Finally, the obsessive-compulsive complaints of participants were mainly contamination-washing symptoms. This is partially a product of the female only participants. In our experience, sexual and religious obsessions are more prevalent in males in Iran, and females are more involved in contamination/cleaning obsessions. Even with these limitations, this study notably adds to the literature on the treatment of OCD in many ways.

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Figure 1.

*Participant Flowchart*

111 invited to study

67 assessed for eligibility

46 randomly assigned to

23 ACT-G/SSRIs

23 SSRIs

44 Excluded:

25 Refuse to participate in ACT-G

12 Not willing to continue SSRIs

7 Medication changed

21 Excluded:

3 being illiterate

4 Severe depressions

3 chronic OCD or SSRI side effects

2 Current bipolar episodes

2 Current suicide ideations

7 Eligible and interested but lost to participate

Pretreatment

Posttreatment

Follow-up

Pretreatment

Posttreatment

Follow-up

2 Dropped

5 Dropped

4 Dropped

3 Dropped

Figure 2.

*Outcome Measures at Pretreatment, Posttreatment, and Follow-Up by Condition*

|  |
| --- |
| Table 1*Demographics by Treatment Condition* |
|  | ACT + SSRI (n = 23) | SSRI (n = 23) | *t* or *χ2* | *p* |
| Age M (SD) | 29.13 (7.48) | 26.70 (6.98) | 1.14 | 0.26 |
| Duration of OCD (months) | 22.26 (14.27) | 18.30 (14.12) | 0.95 | 0.35 |
| Percent with College Degree | 43.48% | 57.83% | 0.57 | 0.90 |
| Percent Married | 52.20% | 43.50% | 0.35 | 0.56 |
| Percent Student or with Occupation | 26.10% | 8.70% | 2.42 | 0.12 |

|  |
| --- |
| Table 2 *Means and Standard Deviations at Pretreatment, Posttreatment, and Follow-Up by Condition* |
| Measure | ACT + SSRI (n = 16) | SSRI (n = 16) |
| Pre | Post | Follow-up | Pre | Post | Follow-up |
| YBOCS | 22.62 (3.07) | 13.50 (5.53) | 6.50 (4.31) | 21.25 (4.18) | 17.56 (4.33) | 14.62 (4.08) |
| BDI-II | 19.31 (4.62) | 9.13 (5.88) | 5.12 (5.90) | 17.75 (5.03) | 10.25 (4.81) | 7.68 (4.58) |
| RRS | 54.06 (10.11) | 34.63 (8.88) | 27.31 (7.26) | 50.75 (9.49) | 39.43 (9.74) | 33.87 (9.50) |
| AAQ-II | 21.56 (6.13) | 37.06 (6.58) | 42.93 (5.05) | 24.12 (4.75) | 25.62 (5.40) | 29.12 (3.86) |
| *Note.* MMRM analyses modeled data for participants who did not complete post and follow-up assessments. This table reports only non-missing data. YBOCS = Yale Brown Obsessive Compulsive Scale, Self Report; BDI-II = Beck Depression Inventory–II; RRS = Ruminative Response Scale; AAQ-II = Acceptance and Action Questionnaire–II  |