

A Comparison of Two Brief Interventions for Obsessional Thoughts: Exposure and
Acceptance

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Abstract

LAURA E. FABRICANT: A Comparison of Two Brief Interventions for Obsessional Thoughts: Exposure and Acceptance
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While exposure and response prevention (ERP) is currently the most effective psychological treatment for unwanted, intrusive thoughts associated with Obsessive Compulsive Disorder (OCD), the procedures involved in ERP are challenging and may contribute to treatment refusal. To address this problem, researchers have begun to evaluate alternative treatments for OCD, such as Acceptance and Commitment Therapy (ACT). The purpose of the present study was to examine the relative effects of a single session of ACT or ERP for obsessional thoughts. Fifty-six undergraduate participants with obsessional thoughts were randomly assigned to receive a brief version of ERP, ACT, or a control condition. We found that the ERP group displayed greater willingness and that the ACT group demonstrated lower dysfunctional cognitions at follow-up. There were no differences between ACT and ERP on any other variables. Thus, no clear patterns emerged that suggest substantial differences between ACT and ERP in efficacy or change processes.

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Introduction

Obsessive Compulsive Disorder (OCD) is a complex and disabling condition characterized by intrusive and unwanted thoughts or images that lead to increased anxiety (obsessions) and by repetitious, intentional rituals that are performed to neutralize the anxiety (compulsions) (American Psychiatric Association, 2000). Although OCD only affects 2-3% of adults (Karno, Golding, Sorenson, & Burnam, 1988), research shows that 80-90% of the population experiences unwanted, negative intrusive “obsession-like” thoughts (Rachman & de Silva, 1978). While such “normal obsessions” are less frequent and intense relative to their clinical counterparts, they are similar in content and form to clinical obsessions. That is, they can be unwanted and/or unacceptable personally relevant images, impulses, or doubts (e.g. the thought of stabbing a loved one, the image of having sex with one’s sibling). Furthermore, many individuals who do not have OCD report experiencing distress associated with such intrusive thoughts, and they attempt to resist these thoughts as do people with OCD (Ladouceur et al., 2000).

The most well-articulated psychological theory of obsessional problems begins with the consistent research finding that unwanted intrusive thoughts are normal and not dangerous (Rachman & DeSilva, 1978), and posits that clinical obsessions develop when such thoughts are catastrophically misinterpreted (Rachman, 1997). Specifically, Rachman proposed that when one appraises a normally occurring intrusive thought as overly important or dangerous, it leads to anxiety and a preoccupation with the thought – thus the development of an obsession. For example, one might believe that having a harmless thought such as, “I could use that knife to stab my spouse,” is actually indicative of some deep-seated violent tendencies, or that having the thought makes this

event more likely to happen. Misinterpreting unwanted, intrusive thoughts in this way not only causes distress and a preoccupation with the thought, it also leads to maladaptive responses performed to minimize anxiety or prevent feared consequences. These “safety-seeking behaviors” might include reassurance seeking, avoidance, neutralizing, or rituals (Salkovskis, 1991). While these strategies reduce distress and anxiety in the short-term, they actually maintain the salience of the thoughts in the long-run (Roper & Rachman, 1976; Salkovskis, Thorpe, Wahl, Wroe, & Forrester, 2003). Specifically, they increase one’s preoccupation with the thoughts and prevent erroneous beliefs about the thought from being disproved.

The aforementioned model of obsessions is derived from a broader cognitive model of emotion that posits that maladaptive beliefs and interpretations of events—in this case intrusive thoughts—lead to negative emotions (Beck, 1976). This model has implications for treatment, primarily that reducing negative emotions requires correcting maladaptive thinking patterns. One technique shown to produce such changes is therapeutic exposure, which involves confronting feared stimuli until the associated anxiety/distress is reduced (Abramowitz, Deacon, & Whiteside, 2011). This technique helps individuals form new, non-fearful associations with the stimuli and learn that the associated distress will decrease over time. One particular form of exposure—imaginal exposure—has been used to specifically address obsessional problems. Imaginal exposure involves deliberately confronting an anxiety-provoking intrusive thought by writing it down and reading it over and over, while resisting urges to perform safety-seeking behaviors (i.e., response prevention) (Lang, 1977). This technique not only teaches individuals that their distress can decrease in the presence of such thoughts (i.e.,

habituation), it is also presumed to correct the misinterpretations of intrusive thoughts. Imaginal exposure has substantial empirical support for the treatment of obsessions. For example, Freeston et al. (1997) compared imaginal exposure to waiting list control and found that treated patients improved significantly on measures of obsessions and in their general functioning. Currently, treatments that use exposure (i.e. Exposure and Response Prevention [ERP]) are the most effective psychological treatments for OCD, with effectiveness rates ranging from 60% to 85% (Abramowitz, 1997).

Despite the efficacy of ERP, these procedures are challenging and often provoke high levels of anxiety. This may contribute to the fact that between 25% and 50% of patients refuse this treatment, drop out prematurely, or do not adhere to the treatment instructions and show attenuated response (Franklin & Foa, 1998). To address this problem, researchers have begun to evaluate alternative or augmentative treatments for OCD, such as Acceptance and Commitment Therapy (ACT), that might address some of these adherence and tolerability issues (Twohig, Hayes, & Masuda, 2006; Twohig et al., 2010). A number of studies have examined the effects of ACT for various psychological problems (see Ost, 2008), including OCD (Twohig et al., 2010). In a recent review, however, Ost (2008) noted that most ACT studies lack rigorous control conditions, do not assess treatment credibility, and report small effect sizes. Accordingly, he noted that there were not enough methodologically sound studies that compare ACT to established empirically supported treatments (ESTs). In fact, no study has directly compared ACT to traditional CBT for any disorder.

ACT techniques for OCD are based on a model that emphasizes maladaptive attempts to resist, avoid, or otherwise control intrusive thoughts (Hayes et al., 1996).

Such responses are thought to increase the salience of the intrusion and lead to greater thought frequency. This is similar to what happens when one tries not to think about a white bear and is paradoxically flooded with white bear thoughts (Wegner, Schneider, Carter, & White, 1987). In a broader context, ACT is based on a theory of language and cognition called relational frame theory (RFT; Hayes, Barnes-Holmes, & Roche, 2001). According to RFT, psychopathology is primarily the result of the verbal context through which one experiences thoughts and feelings, rather than the result of the content, form, or frequency of the thoughts and feelings themselves (Twohig, Plumb, Mukherjee, & Hayes, 2010). In other words, stimuli (e.g. intrusive thoughts) can acquire functions without direct experience because of our ability to respond “relationally” and transfer the functions of one stimulus to another (Hayes, et al., 2001).

The focus in ACT is thus not on the validity of cognitions and emotions (as in ERP), but on the context in which the cognitions and emotions occur. RFT posits that applying “verbal rules” to cognitive activity results in behavior that is inflexible in adapting to situations and events (Hayes, 1989). Specifically, particular sorts of verbal rules such as “private events cause behaviors” and “negative private events are dangerous and must be controlled” are thought to lead to maladaptive response styles such as experiential avoidance (Hayes et al., 2004, 2006). Central to acceptance-based treatments is the concept of *experiential avoidance*, which involves avoiding thoughts, feelings, and bodily sensations that are perceived as negative (e.g. unwanted, intrusive thoughts) (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). ACT seeks to help patients adopt a more psychologically flexible relationship with their cognitions and emotions in which these are accepted rather than resisted.

ACT has been applied to the treatment of obsessions using metaphors illustrating the futility of trying to resist, fight, or control intrusive thoughts and unwanted emotions (Twohig, 2009). In other words, ACT techniques foster willingness to encounter unwanted, intrusive thoughts without challenging them. ACT also aims to increase quality of life by focusing on patients' goals and values (Hayes, Strosahl, & Wilson, 1999). Generally, and unlike ERP, the goals of ACT for OCD are not to directly reduce obsessional symptoms, but to help clients function in a way that is more consistent with their values. An initial multiple baseline study evaluated 8-sessions of ACT in four participants with OCD and reported that all participants had significant reductions in compulsions at the end of treatment (Twohig, Hayes & Masuda, 2006). A subsequent randomized control trial compared ACT to progressive relaxation training and found that ACT, without in-session exposure, was an effective and acceptable intervention (Twohig et al., 2010).

Despite the value of both exposure and acceptance-based techniques, virtually nothing is known about the relative acceptability, believability, and impact of these strategies in treating obsessional problems. Furthermore, there is currently much debate in the field as to whether ACT is simply a repackaging of traditional CBT techniques (i.e., ERP) or an entirely distinct intervention. Both ACT and exposure are problem-focused, behaviorally-based treatments (Hofmann & Asmundson, 2008) that aim to broaden the patient's engagement with feared stimuli (i.e., intrusive thoughts). Furthermore, both treatments encourage interaction with feared stimuli and discourage strategies to resist or avoid them. However, these approaches have fundamentally different goals when it comes to the treatment of obsessional problems: whereas exposure

therapy seeks to reduce anxiety and the frequency of unwanted thoughts by promoting direct confrontation to correct mistaken beliefs and interpretations, ACT seeks to change one's *relationship* with the feared stimuli by increasing willingness to accept of the thoughts as part of the normal human experience.

Accordingly, the aim of the current study was to shed light on presumed differences between ACT and ERP as used in the treatment of OCD. Specifically, we were interested not only in how distilled versions of these two interventions affect obsessional symptoms, but in how they might affect variables thought to be related to the interventions' change processes. We were also interested in possible differences in the believability and acceptability of these interventions. To accomplish these aims, undergraduate participants who scored highly on a measure of unwanted intrusive thoughts were randomly assigned to receive a brief (single session) intervention with the core components of ERP, ACT, or an expressive writing (EW) control condition. Obsessional symptoms and related cognitive-behavioral and acceptance-based variables were assessed at baseline, posttest, and one-week follow-up. Ratings of treatment believability and acceptability were obtained at posttest. Although a limitation of this approach is that we were unlikely to observe substantial symptom reduction, researchers routinely use single session interventions to study proposed change processes and evaluate the acceptability and believability of treatments for anxiety disorders (e.g., McManus, et al., 2009; Salkovskis, et al., 2003; Deacon, Sy, Lickel, & Nelson, 2010).

In the present study, we had the following hypotheses: (a) Both ERP and ACT would result in significantly lower scores on measures of obsessional symptoms at post-test and follow-up relative to the control (EW) condition; (b) ACT would result in

significantly lower experiential avoidance (greater psychological flexibility) relative to ERP and EW, (c) ERP would result in greater reductions in dysfunctional beliefs and interpretations of intrusive thoughts relative to ACT and EW; and (d) relative to ERP, ACT would be associated with greater acceptability, but not believability.

Method

Participants

Participants were 24 undergraduate students at the University of North Carolina at Chapel Hill (UNC) and 32 undergraduate students at Utah State University (USU) (total $N = 56$) who scored highly on a measure of the frequency of unwanted intrusive thoughts (the Obsessions subscale of the Obsessive Compulsive Inventory-Revised; OCIR-O) and reported an unwanted obsession-like intrusive thought that produced at least moderate distress. The sample consisted of 22 females and 34 males and was 87% Caucasian, 4% African-American, 2% Hispanic, and 6% “other”. The mean age of our sample was 20 years and 8 months. Aside from an outlier who was 53 years of age, the age range of this sample was 18-26.

Participants were randomized into three groups: ERP ($n=27$), ACT ($n=20$), and expressive writing (EW; $n=9$). The small size of the EW (control) group was planned in order to maximize the number of participants in the ERP and ACT groups and based on our expectation that EW would be an effective intervention for unwanted intrusive thoughts. In exchange for participation, subjects received 3 hours of research credit to be applied to the required 5 hours of research credit as part of Introduction to Psychology. Only one participant (1.7%) discontinued participation in the study between the first session and the follow-up session.

Procedure

The procedures at the UNC and USU sites were identical and IRB approval was obtained at both institutions. Participants were recruited from Psychology 101 classes via email or a brief in-class presentation by study staff. Students were provided with information about the study and the three questions on the OCIR-O (described below). Individuals scoring ≥ 4 on the OCIR-O who expressed interest in participating were asked to contact the research team. A research assistant then explained the study to interested students over the phone and obtained a description of an unwanted intrusive thought to ensure the presence of obsession-like intrusions. Specifically, to be included in the study, the participant must have described the presence of one or more unwanted intrusive thoughts that caused moderate distress and included content similar to that observed in people with OCD (i.e. not primarily related to another construct such as trauma, eating disorders, or generalized worry). Participants were excluded if they described current suicidal ideation or overt psychotic features during screening. Participants who met these criteria were invited to attend two individual experimental sessions. The first session lasted 90-120 minutes and the second session, a week later, lasted approximately 45 minutes. Experimenters were trained and supervised psychology doctoral or undergraduate students at each site.

Upon arrival at the first session, the experimenter obtained informed consent from the participant and the participant was randomly assigned to receive ERP, ACT, or EW. The participant then completed a battery of demographic and self-report questionnaires assessing obsessional symptoms and psychological mechanisms related to intrusive thoughts (see measures described below) on the computer using a web-based program

called LimeSurvey. After completing these measures, the experimenter administered the 45-minute intervention (ERP, ACT, or EW). If the participant provided consent for audio-taping, the session was taped and later evaluated for adherence. Each of the interventions was administered in accordance with a structured protocol developed by psychologists with expertise in that intervention (Jonathan Abramowitz for ERP and Michael Twohig for ACT).

After the intervention, participants were asked to complete a posttest computer survey to assess obsessional symptoms, psychological processes, and treatment acceptability and believability. Participants were then scheduled to return to the laboratory a week later for the follow-up session during which they completed another computerized battery of self-report measures assessing obsessional symptoms and psychological processes related to intrusive thoughts. At the end of the second lab visit, participants were debriefed (Appendix A) and given credit for participation.

Interventions

Exposure. The ERP protocol (Appendix B) was developed based on the imaginal exposure techniques described by Freeston et al. (1997) for the treatment of obsessional thoughts. All experimental sessions were conducted individually with participants. The experimenter first described the cognitive-behavioral theory of obsessions and provided an explanation of exposure and habituation. Next, he or she introduced the exposure exercise and helped the participant develop a detailed description of his or her target thought (as identified during the phone screen). The participant then made a recording of this description using a digital voice recorder (DVR) and the experimenter played the recording continuously for 30 minutes, asking for ratings of subjective discomfort (from

0-100) every 5 minutes. After the exposure exercise was completed, the experimenter obtained a final rating of discomfort and encouraged the participant to confront his or her intrusion in imagery throughout the week. No formal homework assignments were given, however.

ACT. The ACT protocol (Appendix C) was developed based on Twohig, Hayes, and Masuda's (2006) ACT protocol for OCD. The experimenter first introduced the participant to the concept of acceptance or "getting out of the fight" with the unwanted, intrusive thought. Next, a number of verbal strategies and metaphors were used to illustrate how trying to resist or control an intrusive thought paradoxically increases the salience of the thought. The participant was helped to understand that rather than fighting or resisting the intrusive thought, he or she should accept it and allow it to "come and go naturally". The experimenter also introduced the concepts of "willingness," "defusion," and "values" as they relate to the problems of trying to change or control intrusive thoughts. The experimenter and participant discussed how these skills might be applied to the participant's life, in particular, over the next week. Again, no specific homework instructions were given.

Expressive writing. The EW condition (Appendix D) was developed based on Pennebaker's (1997) EW protocol. As an appropriate control for the two active interventions, this intervention lasted the same amount of time (45 minutes) and included a rationale. The experimenter first explained the connection between unwanted intrusive thoughts and unresolved emotional issues and how expressive writing can help reduce distress. The participant was asked to write about unresolved emotional issues for 30 minutes. Following this, he or she was asked to discuss his or her thoughts about the

exercise and encouraged to use this technique over the next week (but without formal instructions to do so).

Measures

Obsessive Compulsive Inventory-Revised (OCI-R; Foa et al., 2002). The OCI-R is an 18-item questionnaire on which participants rate the degree to which they are bothered or distressed by OCD symptoms in the past month on a 5-point scale from 0 (not at all) to 4 (extremely). Six symptom-based subscales, each consisting of three items, include: (a) Washing, (b) Checking, (c) Obsessing, (d) Neutralizing, (e) Ordering, and (f) Hoarding. The OCI-R possesses a stable factor structure and sound reliability and validity, and its factor structure is similar among OCD patients, those with other anxiety disorders, and unscreened college students (e.g., Abramowitz & Deacon, 2006; Hajcak, Huppert, Simmons, & Foa, 2004; Foa et al., 2002). The obsessions subscale was used as a measure of symptom severity and administered at baseline and follow-up.

Acceptance and Action Questionnaire-II (AAQ-II; Bond et al., 2011). The AAQ-II is a 10-item self-report measure of experiential avoidance and psychological flexibility. Psychological flexibility refers to the ability to observe one's own internal experiences (e.g., thoughts, feelings) on a moment-to-moment basis, in an open and non-judgmental manner, even when these experiences are unpleasant or upsetting (Hayes et al., 2006). As such, it is considered to be the inverse of experiential avoidance. The AAQ-II includes 10 statements that are rated from 1 (never true) to 7 (always true). Higher scores represent higher levels of psychological flexibility, while lower scores represent greater experiential avoidance. The initial development study found that the AAQ-II demonstrates satisfactory internal consistency and possesses a unitary factor

structure (Bond et al., submitted for publication). The AAQ-II was used as a measure of experiential avoidance and administered at baseline, posttest, and follow-up.

Interpretation of Intrusions Inventory (III; OCCWG, 2003, 2005). The III is a semi-idiographic measure used to assess negative appraisals of the participant's intrusive thought identified in the phone screen and targeted by the intervention he or she received. The measure includes 31 negative appraisals of the intrusion (e.g., "I would be a better person if I didn't have this thought") which the respondent rates his or her agreement with on a scale of 0-100. Although 3 theoretically derived subscales were initially proposed: (a) importance of thoughts, (b) control of thoughts, and (c) responsibility (OCCWG, 2003), data suggests that only a single factor exists (OCCWG, 2005). The III was used as a measure of misappraisals of intrusive thoughts and administered at baseline, posttest, and follow-up.

Behavioral Approach Test. A Behavioral Approach Test (BAT) based on Steketee, Chambless, Tran, Worden, and Gillis (1996) was developed to provide an in vivo (behavioral) measure of the participant's discomfort with and willingness to experience his or her unwanted intrusive thought. Participants were asked to complete three separate tasks with their identified thought: (a) repeatedly read the thought, (b) repeatedly say the thought aloud, and (c) repeatedly write the thought on a piece of paper. Each task was stopped after two minutes and the participant rated their level of discomfort on a visual analogue scale (VAS) from 0-100. Participants were instructed to inform the experimenter if they would like to stop before the two minutes have passed, or if they had distracted themselves from the thought. The amount of time the participant spent on each task was recorded. Time and discomfort scores were averaged across the

three tasks. Using the same VAS, the participant was then asked to indicate their willingness (0 = completely unwilling, 100 = completely willing) to complete the following activities regarding their target thought: (a) to keep this piece of paper with the thought written down in their pocket all day (b) to sleep with this piece of paper with the thought written down under their pillow (c) to write the intrusive thought on their hand in ink (d) to start their day by reading and thinking about this thought (e) to tell someone else about this thought (f) to hope this thought comes true and (g) to pray that this thought comes true. The BAT was administered at baseline, posttest, and follow-up.

Personal Reactions to the Rationales (PRR; Addis & Carpenter, 1999). The PRR assesses how much the participant perceives the intervention will help them personally. It contains 5 items (e.g., “If you experienced intrusive thoughts and went to see a therapist, how helpful do you think this strategy would be for you?”) rated on a 7-point scale from 1 (not at all) to 7 (extremely) with higher scores indicating more positive personal reactions. The PRR has demonstrated strong internal consistency (Addis & Carpenter, 1999). The PRR was administered at posttest.

Treatment Evaluation Inventory-Short Form (TEI-SF; Kelley, Heffer, Gresham, & Elliot, 1989). The TEI-SF measures the acceptability of behavioral treatments. A modified version of the TEI-SF which contains 7 questions instead of 9 (Twohig & Woods, 2004) was used in the present study (also used by . The two questions that were removed address developmental disabilities and were thus not considered appropriate for this population. Each of the questions is rated on a 5-point Likert-type scale, with higher numbers reflecting greater acceptability. Item scores are summed to produce a total treatment acceptability score. The original TEI-SF instrument has a

reliable factor structure and good internal consistency. The TEI was administered at posttest.

Focal Fear Ratings (FFR). The FFR were developed based on Foa, Steketee, and Grayson (1985) to assess the severity of fear, frequency of rituals or neutralizing behaviors, and avoidance associated with the target intrusive thought. Participants were asked to think of three situations or stimuli that trigger their target thought. They then rated the degree of fear they feel in response to each trigger on a scale of 0 (none) to 8 (severe). Participants were then asked to identify three strategies they currently use to cope with the target thought (e.g. distraction, asking for reassurance) and rate how often they use each strategy on a scale of 0 (never) to 8 (constantly). Participants were then asked to rate how often they avoid each of the feared stimuli that they listed above on a scale of 0 (never) to 8 (always). To assess insight and acceptance, participants were asked to answer six questions (e.g. “When you confronted your thoughts, how much did you allow them to be there?”, “How accurate are your thoughts?”) on a scale of 0 (not at all) to 8 (completely). The FFR was administered at baseline, posttest, and follow-up.

Results

Pretest Group Differences

Demographic characteristics. One-way analyses of variance (ANOVAs) and chi-square tests were conducted to examine group differences on demographic variables. These analyses revealed no significant differences between groups on age, $F(2, 52) = .22, p = .80$, gender, $\chi^2(2) = 1.49, p = .47$, or ethnicity $\chi^2(8) = 12.31, p = .14$.

Outcome measures. Means and standard deviations for each outcome measure by group at each time point are reported in Table 1. To identify any pretest group

differences on outcome measures, we computed a set of oneway ANOVAs. No significant differences were found on the OCIR-O, $F(2, 53) = .26, p = .77$, the AAQ, $F(2, 53) = 2.93, p = .06$, FFR, $F(2, 53) = .32, p = .73$, BAT-distress, $F(2, 53) = .10, p = .91$, or BAT willingness $F(2, 53) = 2.43, p = .10$. However, we did find a significant difference on the III, $F(2, 53) = 3.24, p < .05$. Post-hoc comparisons using Tukey's HSD indicated that the ACT group scored significantly higher than did the ERP group ($p = .04$). Comparisons between the EW group and the other two groups were not statistically significant ($ps > .05$). As a result, we controlled for pretest III scores in all subsequent analyses using this measure.

Effects of Interventions on Obsessional Symptoms

To test our hypothesis that relative to EW, both ERP and ACT would result in significantly lower scores on measures of obsessional symptoms at post-test and at follow-up, we conducted a series of 2 (site) x 3 (condition) x 3 (time) mixed ANOVAs using the OCIR-O, BAT-willingness, BAT-distress, and FFR as the dependent variables (the time factor had three levels for the BAT-willingness, BAT-distress, and FFR, and two levels for the OCIR-O). Group mean scores on these measures also appear in Table 1.

For the OCIR-O, we found a significant within-group effect of time $F(1, 49) = 28.16, p = .01, \eta_p^2 = .37$, but no significant between-group effects of condition, $F(2, 49) = .69, p = .51, \eta_p^2 = .03$, or site, $F(1, 49) = .75, p = .19, \eta_p^2 = .07$. There were no significant two-way or three-way interactions. In other words, OCIR-O scores significantly decreased from pretest to follow-up, but this change did not significantly differ between the three conditions or between the two sites.

For BAT-distress, we found a significant effect of time $F(2, 48) = 28.38, p = .01, \eta_p^2 = .54$. Post-hoc paired t-tests revealed that BAT-distress scores significantly decreased from pretest to post-test ($p < .01$), but not from post-test to follow-up ($p = .07$). We did not find significant effects of condition, $F(2, 49) = .81, p = .45, \eta_p^2 = .03$, or site $F(2, 52) = 1.26, p = .29, \eta_p^2 = .05$. There were also no significant two-way or three-way interactions.

For BAT-willingness we found a significant effect of time $F(2, 49) = 5.12, p = .01, \eta_p^2 = .10$. Post-hoc paired t-tests revealed that BAT-willingness scores significantly increased from pretest to post-test ($p < .01$), and from post-test to follow-up ($p = .05$). The effect of condition approached significance with a moderate to large effect size, $F(2, 49) = 2.93, p = .06, \eta_p^2 = .11$. Post-hoc comparisons using Tukey's HSD indicated that at follow up, the ERP group scored significantly higher (i.e. greater willingness) than the EW group ($p = .02$), but the ACT group's scores were not significantly different from either the ERP or EW group's scores. There was no significant effect of site, $F(1, 49) = .76, p = .39, \eta_p^2 = .02$, and no significant two-way or three-way interactions.

For the focal fear ratings we found a significant effect of time $F(2, 49) = 3.00, p = .05, \eta_p^2 = .06$. Post-hoc tests revealed that FFR ratings significantly decreased from pretest to post-test ($p = .02$), but not from post-test to follow-up ($p = .49$). We did not find a significant effect of condition $F(2, 49) = .95, p = .39, \eta_p^2 = .04$, or site, $F(1, 49) = 2.33, p = .13, \eta_p^2 = .05$. There were no significant two-way or three-way interactions.

Effect of Interventions on Psychological Processes

Our second and third hypotheses were that ACT would result in significantly greater reductions in acceptance-based variables relative to ERP and EW, while ERP

would result in greater reductions in cognitive-behavioral variables relative to ACT and EW. To test this we conducted a 2 (site) x 3 (condition) x 3 (time) mixed ANOVA for the AAQ and two 2 (site) x 3 (condition) ANCOVAs (controlling for pretest III scores) for the III. The means and standard deviations for the three conditions' pretest, posttest, and follow-up scores for each measure are also presented in Table 1.

For the AAQ we found a significant effect of time, $F(2, 49) = 8.41, p = .01, \eta_p^2 = .15$. Post-hoc paired t-tests revealed that scores on the AAQ did not change significantly from pre-test to post-test ($p = .06$), but significantly decreased from post-test to follow-up ($p < .01$). It is important to note that the direction of change indicates a *reduction* in psychological flexibility from posttest to follow-up. We did not find significant effects of condition, $F(2, 49) = .97, p = .38, \eta_p^2 = .04$, or site, $F(1, 49) = .02, p = .89, \eta_p^2 = .00$. There were no significant two-way or three-way interactions.

For the III at posttest, we did not find a significant effect of condition, $F(2, 48) = 2.12, p = .13, \eta_p^2 = .08$, or site, $F(1, 48) = .02, p = .89, \eta_p^2 = .00$, when controlling for pretest III scores. We did, however, find a significant condition by site interaction, $F(2, 48) = 4.51, p = .02, \eta_p^2 = .16$. Adjusted means and standard errors for the III at posttest for each condition by site are reported in Table 2. At follow-up, we found a significant between-group effect of condition, $F(2, 48) = 3.19, p = .05, \eta_p^2 = .12$, but not for site, $F(2, 48) = .04, p = .84, \eta_p^2 = .00$. Post-hoc comparisons indicated that the ACT group scored significantly lower than both the EW group ($p = .03$) and the ERP group ($p = .05$) at follow-up. There were no significant differences between the ERP group and the EW group at follow-up. We also found a significant interaction between condition and site, $F(2, 48) = 3.74, p = .03, \eta_p^2 = .14$. Adjusted means and standard deviations for the III at

follow-up for each condition by site are reported in Table 3. As can be seen, at USU, ACT was associated with substantially lower posttest and follow-up III scores than at UNC. In contrast, for ERP, USU participants had substantially higher posttest and follow-up III scores than did the UNC participants.

Treatment Acceptability and Believability

Our fourth hypothesis was that relative to ERP, ACT would be associated with greater acceptability, but not believability. Two separate 2 (site) x 3 (condition) ANOVAs were conducted to compare PRR and TEI ratings between the three conditions and the two sites. For the TEI, no significant differences were found for condition, $F(2, 49) = .09, p = .92, \eta_p^2 = .01$, or site, $F(1, 49) = .34, p = .56, \eta_p^2 = .01$. There was also no significant interaction between condition and site.

For the PRR, no significant differences were found across condition, $F(2, 49) = .32, p = .73, \eta_p^2 = .01$, or site, $F(1, 49) = .10, p = .76, \eta_p^2 = .00$. There was, however, a significant interaction between condition and site, $F(2, 49) = 3.37, p = .04, \eta_p^2 = .14$. Post-hoc t-tests revealed a significant difference on the PRR between the two sites in the ACT condition $t(18) = 3.07, p = .01$, but not in the ERP condition $t(24) = -1.39, p = .18$, or EW $t(7) = -.13, p = .90$. Specifically, at USU, participants found ACT to be significantly more believable than ERP $t(23) = -2.25, p = .04$, but not more believable than EW $t(16) = .88, p = .39$. There were no differences in believability between ERP and EW $t(17) = -.71, p = .49$. At UNC, there were no differences in believability between any of the conditions (ACT and ERP: $t(19) = 1.94, p = .07$, ACT and EW: $t(9) = -1.48, p = .17$, ERP and EW: $t(14) = -.09, p = .93$). Means and standard deviations for each condition by site are reported in Table 4.

Discussion

The aim of the present study was to examine the effects, acceptability, and believability of brief versions of ERP and ACT, and evaluate these effects relative to a control intervention for intrusive, obsession-like thoughts. While both ACT and ERP are part of a larger constellation of cognitive-behavioral interventions, the goals and proposed change processes involved in ERP and ACT are purported to be different (Öst, 2008).

On the whole, our first hypothesis that both ERP and ACT would result in significantly lower scores on measures of obsessional symptoms at post-test and follow-up relative to the control (EW) condition was not supported. On each of the outcome measures, obsessional symptoms significantly decreased across time, but this change did not significantly differ between the active conditions and the control condition. We did not expect EW to be associated with significant improvement in obsessional symptoms. One explanation for this pattern of results is the present study's use of an analogue sample, rather than a clinical sample. It is possible that simply thinking about these thoughts, answering questions about them, and writing about past emotional experiences helped reduce participants' non-clinical obsessional symptoms.

An exception to the findings discussed above was the nonsignificant trend that participants' willingness to engage with their unwanted intrusive thought was higher following ERP than following EW. Given the emphasis that ACT places on fostering willingness, it is surprising that this trend was observed in the ERP condition, rather than in the ACT condition. Perhaps the discussion of willingness in the ACT condition was overly general and did not directly or immediately impact participants' willingness.

Indeed, the application of ACT in the current study did not involve explicit implementation of willingness; this concept was *discussed*, but not directly *applied*. On the other hand, whereas the ERP intervention did not include an explicit discussion of willingness, the exposure exercises required direct engagement with unwanted thoughts. Thus, implicitly, ERP might have more actively encouraged willingness to experience such thoughts. It is important to note that applications of ACT traditionally involve both discussions of willingness and behavioral practice of this concept. In this study, participants in the ACT condition were encouraged to engage in willingness outside of the session, but did not actually practice it in session. While this was done in an effort to reduce similarities between behavioral practice and exposure exercises, this behavioral practice might actually be the “active ingredient” in increasing willingness.

The second and third hypotheses that ACT would result in significantly greater reductions in acceptance-based variables relative to ERP and EW, while ERP would result in greater reductions in cognitive-behavioral variables relative to ACT and EW were also not supported. Indeed, experiential avoidance increased significantly over time in all three conditions, and participants who received the ACT intervention did not report significantly lower levels relative to the other two groups. As suggested by previous research, perhaps experiential avoidance changes gradually over time (Hayes et al., 1996; Hayes et al., 2004). It is also possible that our measure of experiential avoidance was too general to capture this construct as it relates to unwanted, intrusive thoughts. The AAQ-II is a very broad measure of experiential avoidance that cuts across emotional domains and does not discriminate between specific avoidance strategies. In this way it may not have tapped into specific changes in psychological flexibility around one’s unwanted, intrusive

thoughts. Because of the focus in both active conditions on unwanted, intrusive thoughts, it seems unlikely that the strategies used in these interventions would change an individual's *overall* level of psychological flexibility.

We also found that at follow-up, participants in the ACT condition, but not the ERP condition, reported significantly lower levels of negative appraisals of their intrusive thought than did participants in the control condition. This was surprising given evidence that ERP changes how individuals' appraise their obsessional thoughts (e.g. Whittal, Thordarson, & McLean, 2005). However, the single session of ERP delivered in this study was a pure exposure session involving no discussion of maladaptive cognitions or challenging beliefs related to obsessional thoughts. Although we deliberately designed ERP this way for the present study (to examine only the effects of direct exposure), it could be that the lack of discussion of cognitions as well as the use of only a single session explained the lack of cognitive change we observed. On the other hand, although ACT did not involve directly challenging dysfunctional beliefs, perhaps this was implied in ACT's emphasis on changing one's relationship with his or her thoughts. In this way it is theoretically consistent that the ACT intervention would alter one's appraisals of his or her intrusive thoughts.

The significant site by condition interaction we found for appraisals of intrusive thoughts indicates that participants in the ACT condition evidenced greater reductions in their negative appraisals of intrusive thoughts at USU than at UNC. On the other hand, participants in the ERP condition demonstrated greater reductions in their negative appraisals of their intrusive thoughts at UNC than they did at USU. In other words, at USU, those in the *ACT* group had the lowest average score on this measure, while at

UNC participants in the *ERP* group had the lowest average score. This is not entirely surprising given previous research on the role of allegiance in psychotherapy (Luborsky et al., 1999). Indeed, the UNC site specializes in ERP while USU specializes in ACT. It is possible that each intervention was delivered in a more skilled manner at the site where it is routinely used. This study was designed to take place at two sites with different expertise in order to account for potential differences in both allegiance and competence. While teasing apart the differences between allegiance and competence is beyond the scope of the present study, it is clear that these variables may each play an important role in the delivery of these interventions.

Our fourth hypothesis, that relative to ERP, ACT would be associated with greater acceptability but not believability, was also not supported. Specifically, participants in all three conditions found the interventions similarly acceptable. This was surprising given the potentially aversive nature of exposure exercises. One of the primary concerns surrounding the use of exposure based treatments is that exposure itself is an anxiety-provoking experience that is thought to contribute to drop-out and treatment refusal in clinical settings (Franklin & Foa, 1998). Treatments such as ACT have been suggested as alternatives that might increase adherence and tolerability. However, our results do not support the idea that ACT is more acceptable than ERP. While this finding may have potential implications for the use of these two interventions, it is also important to note that these findings might not generalize to clinical samples. The participants in the current study might have found both interventions acceptable in part because they were not experiencing clinical levels of distress associated with their unwanted, intrusive thoughts.

Participants at USU found ACT to be significantly more believable than ERP. Given that the researchers at USU specialize in ACT based treatments, this provides additional support for the view that therapist (or researcher) allegiance plays an important role in a patients' perception of a given treatment (Luborsky et al., 1999). We did not find a similar pattern of results at the UNC site. That is, at UNC there were no differences in believability between the three conditions.

Taken together, no clear patterns of results emerged across the two active treatment conditions that suggest substantial differences between ACT and ERP in either efficacy or in change processes. It was, however, surprising that ACT was associated with changes in cognitive variables not generally focused upon in this treatment, but not with changes in willingness to experience the intrusive thought, which is a purported target of this treatment. Similarly surprising was that the converse was true for ERP (which was associated with changes in willingness but not in cognitive variables). These results indicate similarities in the processes by which ACT and ERP produce change in obsessional symptoms. One of the major questions surrounding the use of third-wave cognitive-behavioral treatments such as ACT is whether they are distinct interventions, or simply a repackaging of traditional CBT techniques. While the results of the current study are mixed, they raise the possibility that ACT and ERP enact change using similar mechanisms; perhaps they both increase willingness *and* reduce dysfunctional cognitions.

This study had a number of limitations. First, our sample was composed of undergraduates who scored highly on a measure of obsessional thoughts rather than participants with a diagnosis of OCD. In this analogue sample it is likely that the distress and interference associated with participants' unwanted, intrusive thoughts was lower

than in a clinical sample. This may have affected how participants responded to each condition, as well as the acceptability ratings. That is, participants reported reductions in obsessional symptoms at follow-up regardless of condition and found the conditions equally acceptable. It would be interesting to examine this question using a clinical sample. Second, this study consisted of a one-session intervention. While this was designed to focus on the core processes of each intervention, it is difficult to enact change in only one session. It is possible that a longer period of time would have been needed to result in the active conditions being more effective than the control. The vast majority of investigations into ERP and ACT involve multi-session interventions (e.g. Abramowitz, Deacon, & Whiteside, 2010; Twohig et al., 2010). This may have contributed to the limited effects of the interventions that we observed. Third, our small sample may have contributed to our inability to detect between group differences. Fourth, we did not measure adherence to the therapy instructions during the week between posttest and follow-up assessment. It is possible that there were systematic differences in how much participants employed the strategies they learned. Finally, as previously mentioned, the AAQ is a nonspecific measure of psychological flexibility that likely did not capture experiential avoidance as it directly relates to obsessional thoughts.

Given these limitations as well as our mixed findings, future research is needed to understand the relative effects that ERP and ACT based treatments have on obsessional thoughts. It seems particularly necessary for future investigations to examine the relative effects of multi-session ACT and ERP-based treatments in people with OCD. While previous research suggests that ACT is an effective treatment for OCD (Twohig et al., 2010), it is essential to understand how this treatment compares to the gold standard

intervention (i.e., ERP). To date, there has been no direct comparison of these treatments for people with OCD. Without this evaluation, the relative effectiveness and mechanisms of change involved in these two treatments will remain unclear. Furthermore, the conceptual relationship between these interventions as distinct treatments cannot be evaluated without this direct comparison. Future studies should also consider different ways to evaluate potential mechanisms of change. Specifically, it would be beneficial for the field to develop and evaluate a more focused measure of experiential avoidance as it relates to obsessional thoughts.

Table 1.

Means (and standard deviations) on all measures by condition at pretest, posttest, and follow-up.

	Pre-test			Post-test			Follow-up		
	ACT	ERP	EW	ACT	ERP	EW	ACT	ERP	EW
OCIRO	7.30 (1.87)	7.78 (1.92)	7.44 (3.94)	--	--	--	5.10 (2.17)	5.69 (3.00)	5.00 (3.84)
BATW	15.72 (13.02)	25.13 (19.04)	14.51 (15.48)	25.52 (16.38)	34.91 (25.91)	12.57 (15.94)	30.74 (21.18)	38.16 (28.87)	10.93 (10.22)
BATD	63.80 (18.24)	61.09 (20.01)	62.11 (28.19)	36.88 (19.92)	30.99 (26.29)	47.89 (29.01)	34.37 (21.42)	26.09 (23.61)	44.70 (26.46)
FFR	5.54 (1.04)	5.47 (2.98)	4.82 (2.58)	4.28 (1.52)	4.53 (3.61)	3.94 (2.19)	4.19 (1.87)	3.91 (1.96)	4.43 (1.73)
III	178.15 (62.24)	130.96 (60.60)	141.00 (70.35)	99.65 (52.59)	98.92 (57.31)	130.11 (68.32)	91.65 (53.24)	92.50 (65.87)	120.33 (61.94)
AAQ	42.55 (5.43)	38.59 (8.25)	36.44 (6.37)	41.75 (7.54)	44.04 (10.86)	43.89 (9.64)	38.55 (4.63)	36.00 (6.35)	36.78 (6.42)
PRR	--	--	--	25.80 (4.54)	24.23 (5.75)	25.56 (7.09)	--	--	--
TEI	--	--	--	30.40 (2.76)	30.69 (4.54)	30.78 (4.27)	--	--	--

Table 2.

Means (and standard errors) for posttest III scores by site, controlling for pre-test scores.

Condition	USU	UNC
ACT	60.83 (14.46)	117.32 (16.13)
ERP	118.87 (12.69)	101.34 (13.12)
EW	144.62 (18.87)	112.31 (27.67)

Table 3.

Means (and standard errors) for follow-up III scores by site, controlling for pre-test scores.

Condition	USU	UNC
ACT	55.31 (14.21)	97.75 (15.86)
ERP	120.45 (12.47)	91.25 (12.96)
EW	132.28 (18.55)	109.85 (27.20)

Table 4.

Means (and standard deviations) for the PRR by site.

Condition	USU	UNC
ACT	27.92 (4.12)	22.63 (3.16)
ERP	22.69 (7.00)	25.78 (3.83)
EW	25.33 (8.59)	26.00 (4.00)

Appendix A: Debriefing

Thank you for participating in this research study. This handout is provided to tell you a little more about the purpose of the study.

Intrusive thoughts are experiences that almost everyone has in their day-to-day life. They are normal and universal. However, sometimes people can become distressed over their intrusive, senseless thoughts. When this happens, they might require help to alleviate this distress. One strategy that can be taught to directly address problems with unwanted intrusive thoughts is “exposure in imagery,” or the deliberate provocation of the very intrusive unwanted thoughts that bother you. Exposure in imagery is based on the idea that repeatedly confronting, instead of trying to push away, distressing thoughts helps individuals learn that such thoughts can be regarded as “nuisances” rather than as important or significant. This procedure is also considered an essential ingredient in treatment for obsessional problems.

Another technique that may be helpful for obsessional problems is Acceptance and Commitment Therapy, or “ACT.” ACT is based on the idea that resisting distressing thoughts, emotions, and memories only makes such experiences worse. Thus, in ACT, the person is helped to accept the intrusive thought, rather than to try to avoid, resist, or suppress it.

Clinical evidence suggests that both imagery exposure and ACT can be helpful in reducing problems with intrusive thoughts, but have not been compared to one another in the same study. The purpose of our study is therefore to compare these techniques. Specifically, participants who are identified as having highly distressing intrusive thoughts are randomly assigned to either receive one session of imagery exposure or one session of ACT. These strategies are being compared to a control condition in which study participants write about experiences they have had earlier in life. The study is intended to produce data that can be used to generate recommendations for the optimal method(s) of helping people with distressing unwanted intrusive thoughts.

Thank you again for your participation. If you would like more information, please write to Dr. Jon Abramowitz, the principal researcher for this study (jabramowitz@unc.edu).

Appendix B: ERP Condition

Rationale

Let's talk about why some people have trouble with recurring unwanted intrusive thoughts that make them uncomfortable, and what can be done to get over this problem. First, you should know that unpleasant thoughts are entirely normal. In fact, from time to time, about 99% of the population experiences the same kinds of unwanted or distressing thoughts that you are describing to me. Sometimes, these thoughts seem to come from out of nowhere, but at other times, they might be triggered by something in the environment. For example, a thought about harming someone you care about may be triggered by seeing a large knife, or the person him/herself. To show you that strange and unwanted intrusive thoughts are normal occurrences, take a look at this list of unwanted thoughts, reported by average people who participated in a research study on unwanted thoughts. (*Hand the participant the list of normal intrusive thoughts to read. Ask if they understand that their thoughts are normal*).

So, if nearly everyone has unpleasant thoughts, why are some people not bothered by them very much, but others are? Research shows that when people interpret their negative thoughts as being very significant or meaningful, it leads to feeling distressed about the thoughts. For example, if you interpret your thought about _____ as meaning that _____, it might make you feel uneasy about having that thought. There are some typical ways that people misinterpret their unwanted thoughts, or attach significance to them. For example, you might believe that thinking about this thought means that it's true; or that you're a bad or immoral person, or that you're crazy; or that the thought might lead to something awful happening. Do you see how interpreting a thought in one of these ways would lead you to feel uncomfortable about the thought? (*make sure the participant understands this*)

If a person is upset by a certain thought, it makes sense that they would want to get rid of the thought or make sure that nothing bad will come of it. So, people often use certain strategies to deal with their unwanted negative thoughts. Some of these strategies are to:

- Try to suppress the thought or kick it out of your mind
- Distract yourself from the thought
- Try to replace the bad thought with a good one
- Try to analyze what it means
- Try to get reassurance that the thought is "just a thought"
- Try to avoid the thought or things that trigger it.

What do you do to manage your unwanted thought?

Unfortunately, although these strategies seem to help in the short run, they can actually make the thoughts more intense in the long run. This is because the strategies force you to focus on the unwanted thought even more than you would do otherwise. So, in fact,

trying to fight an unwanted thought might end up working against you. Does that make sense? *(Make sure the participant understands this concept)*

So, what can you do to effectively manage unwanted, intrusive thoughts? It turns out that the best way to do this is to directly confront them. When you confront your unwanted thoughts, instead of trying to push them away, you learn that they are normal and not harmful, and that the discomfort associated with them decreases if you give it some time. I will be teaching you a technique for managing your unwanted thoughts called “exposure.” The basic idea behind exposure is simple: your distress will subside when you confront the unwanted thought over and over and allow it to sit in your head without trying to fight it. In other words, the goal is to make “friends” with the unwanted thought.

This might sound surprising, but exposure works based because of a process called “habituation,” which means that as you repeatedly confront something you’re uncomfortable with, your body gets used to it. This is similar to what happens when you get into a swimming pool and the water feels cold at first, but seems to warm up after a few minutes. The water is not actually becoming warmer, but your body is getting used to it. The same thing happens during exposure to unpleasant thoughts.

So, over the next hour I will help you gradually confront your unwanted, intrusive thought until it no longer makes you feel so uncomfortable. We will practice repeatedly thinking the thought and staying with it instead of blocking it or avoiding it. Throughout the hour we will keep track of how much anxiety you feel. Do you have any questions? *(answer any questions).*

Exposure Exercise

Now that you understand about intrusive unwanted thoughts and exposure, we are ready to move on to the exposure exercise. Let me explain exactly what we are going to do.

First, I’ll ask you to tell me a bit more about the thought that we are working with, including what’s the worst part of the thought, why it distresses you, what you’re afraid it might mean or what might happen.

Then, I’ll ask you to write a brief 1-half page description of the thought.

Next, I’ll ask you to read your description aloud into a recorder that will play your thought back over and over, like a loop tape. Every 5 minutes while you listen to the tape, I’ll ask you to rate your level of discomfort.

It’s important for you to expect that this exercise will cause you some discomfort. After all, I’m asking you to confront thoughts that make you uncomfortable. However, I expect that this discomfort will be temporary since you’ll see that your distress starts to go down once you confront the thought for a little while. Remember that in order to feel comfortable in the swimming pool, you first have to experience the coldness of the water.

Do you have any questions about this process? (*answer any questions*)

Ok, can you tell me in detail exactly what goes through your mind when you think about _____?

Ask the following questions (if not already addressed) to prompt for additional information:

- What images, sounds, smells, etc. are part of this thought?
- How do you feel physically when you have this thought?
- What's the worst part of this thought?
- What do you think this thought means?
- Why do you think is it so bad to think about this?
- What do you think is going to happen?
- What do you try to control or remove this thought?

In asking the above questions, try to elicit the most uncomfortable aspect of the thought for the participant.

In a minute I'll ask you to write down a scenario about the thought, and its potential consequences using these details. Here are some examples of what this might look like. *Hand the participant the sheet of paper with examples.*

When you're ready, you can write down your scenario. (*Hand the participant a half sheet of paper*). It's important for you to make this story as lifelike as possible and to include the parts of the thought that are the worst for you to think about. Make sure not to include any of the strategies that you use to control or remove the thought.

After the participant has finished writing, read over the story to make sure the scene is vivid, and that no neutralizing strategies are included.

Ok great, now you can read the story into this recorder (*hand the participant the DVR*). If you aren't comfortable with your voice being recorded, I can read it, but it will sound more realistic if it is recorded with your voice.

(Participant or experimenter reads scenario into the DVR)

Next, I'm going to let you listen over and over to the story you just read. We'll be keeping track of your level of discomfort using this scale from 0 to 100 (*give participant the SUDS scale*) where 0 means that you have absolutely no discomfort, 25 means mild discomfort, 50 is moderate, 75 is high, and 100 means you are feeling extremely uncomfortable. Your rating, of course, can be any number between 0 and 100. Does this make sense? I'll ask you for your ratings every 5 minutes by asking, "what's your discomfort rating?"

It is also important that while you listen to the thought, you should NOT try to push the thought away, distract yourself, or otherwise try to avoid or cancel the thought in your mind. In other words, you should focus on the thought, allow it to “hang out” in your mind, and try to make friends with it.

Do you have any questions before we get started?

Replay the loop tape and ask for SUDS every 5 minutes in the following way.

What’s your discomfort rating now? (*Record ratings on exposure form*)

Remind the participant not to use any neutralizing strategies in the following way:

Remember to keep the thought vividly in your mind and don’t try to get rid of it.

If SUDS starts off low (SUDS < 25), help the participant generate a more distressing scenario and make sure no neutralizing strategies are being done. `

After 30 minutes of imaginal exposure, ask for a final SUDS rating.

Debriefing:

OK, great job. We’re finished with the exposure part. What was that like for you? What did you notice about your discomfort level as you kept listening to and thinking the thought?

If anxiety came down, say the following:

You see, when you confront this thought, your anxiety naturally begins to subside. That’s because your body learns that you don’t have to be worried about the thought. What do you think of that?

If anxiety DIDN’T go down, say the following:

Well, your anxiety might not have subsided very much, but you got through it. That means that you are able to manage your distress and anxiety—and that’s important for you to remember. Even when this thought comes up and you become anxious, you don’t have to fight the thought or avoid it. You can get through it even though it is uncomfortable. What do you think of that?

Give some instructions to encourage self-practice during the week...

So, even though we’re finished with this exposure exercise in here, the more you continue to expose yourself to this thought in your daily life, the less and less it will bother you. You can take this script with you so that you have something to read to yourself to help you practice. Remember, if one of these thoughts comes up during the week, you can help yourself by just confronting it—doing a mini exposure—rather than trying to avoid it or pushing it out of your head. Do you think you can try that?

Intrusive Unwanted Thoughts Reported by Average People

HARM TO SELF

Thought of jumping off a cliff or from a tall building
Thought of throwing myself down stairs
Thought of jumping off bridge onto highway below
Thought of deliberately crashing car into tree
Thought of driving into a truck
Thought of jumping in front of a car or train
Thought of running car off the road or onto oncoming traffic
Thought of cutting myself with a knife
Thought of slicing my throat
Image of my own funeral
Image of objects poking me in the eye
Thought of someone following me
Thought of having a car accident
Thought of being attacked
Thought of knives slitting my throat
Thought of myself dying
Thought of being trapped in a car under water
Thought of plane I'm on crashing

HARM TO OTHERS

Impulse to attack, hurt, or kill someone I care about
Idea of doing something mean towards an incapable or disabled person
Thought of harming someone who does not deserve it
Thought of pushing someone in front of a car or train
Thought of grabbing someone's head and smashing it against a wall
Thought of wishing that a person would die
Image of threatening someone that I care about
Thought of attacking a stranger or a police officer
Sudden urge to kick a baby
Thought of dropping a baby
Thought of running over an animal on purpose
Impulse to slap someone who talks too much
Thought of putting the cat in the microwave
Wishing someone close was hurt or harmed
Wishing a loved one would die
Worrying that something goes wrong because of my own error
Thought of getting into a car accident while driving with someone I care about
Thought of accidentally hitting someone with my car
Thought that something terrible will happen because I'm not careful
Image of loved one being injured or killed
Image of death or murder of people you care about (such as from an accident or illness)
Thought of receiving news of death of someone I care about

Image of my funeral or someone's I love
Imagining what it would be like if a loved one died
Thought of plane crashing with friends in it

CAUSING SOCIAL DIFFICULTIES THROUGH IMPULSIVE ACTIONS

Idea of insulting or being verbally abusive for no apparent reason to people I care about
Thought of swearing rudely at an authority figure
Thought I might have ruined a relationship with a friend
Impulse to call my significant other and break up
Impulse to say something nasty and damning to someone
Impulse to do something shameful or terrible such as use offensive language toward minorities

DOUBTS ABOUT SAFETY AT HOME AND IN CAR

Thought that I left door unlocked
Thought of my house getting broken into while I'm not home
Thought that I left an appliance (such as an iron or stove) on and cause a fire
Thought that I have left car unlocked
Thought that someone will break in and hurt me or other people I care about

DEVIATION FROM MORAL CODES

Thought contrary to my moral beliefs
Thoughts which are contrary to religious beliefs
Being thoughtless about others
Idea of not being nice all the time to everyone
Thought of intense anger toward someone, related to a past experience
Hoping someone doesn't succeed
Thinking I'm better than other people
Thought of turning my back on a friend

LOSING CONTROL OR ACTING OUT OF CHARACTER

Image of myself singing at friend's funeral
Impulse to do something out of character
Thoughts of smashing a table full of crafts (at a market for e.g.), made of glass
Thought of doing something dramatic like rob a bank

SEXUAL THOUGHTS

Thought of "unnatural" sexual acts
Impulse to sexually assault someone, known and unknown
Image involving sex with inappropriate partners
Image of penis
Image of sex with the old and ugly people on the bus
Thought of sex with grandparent
Image of sex with a teacher
Image of cheating on partner

Examples of Thought Scenarios

Thought: *Unwanted thoughts and images of harming defenseless people.*

I'm walking down the street, and I see an old woman coming towards me. She looks frail and defenseless and is walking with a cane. All of a sudden, that terrible thought comes to me again, "*what would happen if I pushed her down?*" My stomach tightens, I start to sweat, my heart rate increases and I have trouble catching my breath. I'm feeling very anxious. The woman is getting closer and closer to me. My fists clench and I struggle to keep control. It really feels like I might act on the thought this time. She is almost up to me and I start to panic. The thought comes very strong, and I can feel myself wanting to reach out and push her over. I can see her lying in the street rolling around in pain with broken bones. I can hear the wail of the sirens from the ambulance. I'm a terrible person for thinking about this.

Thought: *Unwanted homosexual thoughts and doubts (male).*

I am in the locker room at the gym after working out and I decide to take a shower even though there are other guys in the locker room who are undressed. I can see all of their bodies and I watch as they bend over to pick up their towels. I find myself admiring how they look. Does this mean I'm gay? Then I get the thought of what it would feel like to touch or kiss one of these guys. I don't know if this means I am gay or not. I keep thinking about what it would feel like to kiss and touch another man. Should I even be thinking about this? Does this mean I'm gay?

Thought: *Causing fires by mistake.*

I'm not sure I turned off all the lights in the apartment before I left. What if I left the light on? What if the light catches fire? I've heard this can happen for no reason. My whole apartment building might burn down by the time the fire department arrives. I feel like going back to check, but I know that I shouldn't. But my apartment could be burning down *right now*. I'd lose everything. My roommates would, too -- clothes, furniture, collectibles, pictures, books. What if we have to completely start over? It would be horrible. It will be my fault for leaving the light on and not checking carefully enough and the whole apartment complex would blame me. I really want to make sure it's not really happening.

Appendix C: ACT Condition

Introduction

Therapist orientation: It is assumed that what you are about to present to the participant will be a little confusing. Therefore, it is suggested that you appropriately warn the participant of this prior to beginning the session. This involves informing the participant that:

1. The point of this session is not to beat the thoughts but to learn how to get out of the fight against them.
2. Because this is new it might be experienced as odd or frustrating.
3. Ask the participant to stick with you and try the material from this one hour session to see if it is helpful.

Getting out of the fight: “I understand you are struggling with unwanted intrusive thoughts. I see two ways to work on these types of issues. First we could work on directly changing these thoughts or the anxiety that comes with them. That may be an option. However, because it is likely that you have tried something like this before with limited success, we are going to focus on a different approach. It is more demanding, and it can be confusing. I can’t fully describe this approach to you right now but we will spend the next hour working on it. It is based on the idea that instead of helping you win the struggle against these thoughts, it might work better to help you step out of that struggle. It is focused on the things that have kept you struggling and it seeks to change those things. It is sort of like you are in a losing battle, and instead of teaching you how to win, I will help teach you how to get out of the fight.”

Experienced as odd or frustrating. “The most typical way to handle issues we don’t like it to directly confront them. This approach works well in many situations, but may not be the best move in this situation. But because the material you learn in this session is sort of different, you might find it frustrating or confusing. I just want you to know this is normal and expected. You might think of it like cleaning out a glass with some dirt at the bottom—we are going to stir the dirt up. It might also be useful to think of this as a roller coaster ride. We are going to get somewhere in the end, but there will be some fun ups and downs along the way.”

Commitment to a Course. “The final thing I want to talk to you about is your level of participation in this one hour session. I know you may not have been looking for a session like this. You might have just thought this was a good way to earn extra credit. But here you are, and I am hoping that you are willing to make the most of this session. I am going to show you some things about the way that unwanted thoughts work, and hopefully we can find a way to have them affect you less. But like anything in life I need you to participate in order for it to help. If you work with me during this session it is possible that you will have an easier time with these thoughts, but if you don’t work with me then it is unlikely that much will come of this session. It is sort of like attending a lecture, you have to listen and take notes in order to remember anything you learned. So,

are you willing to participate in this session all the way to the end of it? Of course this is an experiment and you are welcome to stop at any time.”

Any questions about the study can be answered now or as they come up when presenting this material.

Acceptance

Therapist orientation: Acceptance refers to allowing the experience of a private event to occur (these include thoughts, feelings, and bodily sensations) without attempting to regulate, lessen, or change their form or frequency. In this study it will largely refer to the intrusive thought, but will also likely apply to the anxiety that goes along with these thoughts. We are not teaching the participants to accept events in their lives, we are only teaching them to make room for these types of inner experiences based on the assumption that attempting to control or regulate them is counterproductive in terms of quality of life and the actual frequency and severity of these inner experiences.

What do you usually do with things you evaluate as negative?

“Before we get into the things I plan on teaching you today, I want to know a little about the ways you have attempted to regulate these thoughts. We need to look at what is useful and what is not.”

Ask the participant, “**what do you usually do when this thought shows up?**” I often write this on the white board, but it does not have to be. It can be evoked through discussion. Create a list of 5 or so things that the participant does to regulate these thoughts and related anxiety. Likely things on the list include:

- Compulsions
- Avoidance
- Reassurance
- Self-talk
- Toughing it out
- Medication
- Therapy

The experimenter should collect this from the participant in a nonjudgmental sort of way. This information is almost received as though the experimenter did not know what was going to come from the interview.

Ask the participant, “**in the long-run, how successful have these strategies been at controlling these thoughts?**” It might take a little coaching but it is very unlikely that

the participant is able to control the intrusive thoughts in any meaningful sort of way, otherwise he or she would not be experiencing them. Be aware that short-term control is possible, but that long-term control is likely not possible. Help the participant see this.

Suggest to the participant that maybe what he or she is doing is perfectly reasonable or logical for the situation. Say, "In some ways what you are doing makes a lot of sense." When people don't like things they try and control them, right? What do you do when your hair gets too long, or the room gets too cold? We fix them. This process works great for many things in the world. But there is a certain part of the world where this process does not work. I like to call it the **95/5% split** (you can control 95% of your world but there is 5% where attempts at control backfire). The 95% of the world outside of the body is under our control, but the 5% inside the body does not seem to work the same way. Here let me give you a couple examples.

Ask the participant if he or she can do the following three tasks:

1. Not to get anxious if asked to sing the national anthem at the beginning of the next sporting event
2. Not think of the next thing you suggest: **a chocolate donut**

Most participants will fail at these tasks. Tell them that that is expected.

3. Finally, ask the participant not to touch something in the room.

The participant will have no trouble not touching something. Tell the participant that this exemplifies the difference between the 95% percent of the world outside of the body that can be controlled, and the 5% inside the body that is really difficult to control. Say, "so thoughts and feelings are so difficult to control, maybe we need to find another way to deal with them."

The Two Scales Metaphor is a core ACT intervention designed to introduce the concept of willingness and its relationship to psychological distress.

"Imagine there are two scales, like the volume and balance knobs on a stereo. One is right out here in front of us and it is called 'intrusive thoughts'. It can go from 0 to 10. In the posture you're in, what brought you in here, was this: 'These thoughts are too high. It's way up here and I want it down here and I want you, the therapist, to help me do that, please.' In other words you have been trying to pull the pointer down on this scale [the therapist can use the other hand to pull down unsuccessfully on the anxiety hand]. But now there's also another scale. It's been hidden. It is hard to see. This other scale can also go from 0 to 10. [move the other hand up and down behind your head so you can't see it] What we have been doing is gradually preparing the way so that we can see this other scale. We've been bringing it around to look at it. [move the other hand around in front] It is really the more important of the two, because it is this one that makes the difference

and it is the only one that you can control. This second scale is called "Willingness." It refers to how open you are to experiencing your own experience when you experience it--without trying to manipulate it, avoid it, escape it, change it, and so on. When intrusive thoughts are up here at 10, and you're trying hard to control them, make it go down, make it go away, then you're unwilling to experience them. In other words, the Willingness scale is down at 0. But that is a terrible combination. It's like a ratchet or something. You know how a ratchet wrench works? When you have a ratchet set one way no matter how you turn the handle on the wrench it can only tighten the bolt. It's like that. When intrusive thoughts are high and willingness is low, the ratchet is in and intrusive thoughts can't go down. That's because if you are really, really unwilling to have these thoughts then they are something to be anxious about. It's as if when intrusive thoughts are high, and willingness drops down, the intrusive thoughts kind of lock into place. You turn the ratchet and no matter what you do with that tool, it drives it in tighter. So, what we need to do in this therapy is shift our focus from the thought scale to the willingness scale. You've been trying to control these thoughts for a long time, and it just doesn't work. It's not that you weren't clever enough; it simply doesn't work. Instead of doing that, we will turn our focus to the willingness scale. Unlike the thought scale, which you can't move around at will, the willingness scale is something you can set anywhere. It is not a reaction--not a feeling or a thought--it is a choice. You've had it set low. You came in here with it set low--in fact coming in here at all may initially have been a reflection of its low setting. What we need to do is get it set high. If you do this, if you set willingness high, I can guarantee you what will happen to these thoughts. I'll tell you exactly what will happen and you can hold me to this as a solemn promise. If you stop trying to control anxiety, your anxiety will be low ...[pause] or ... it will be high. I promise you! Swear. Hold me to it. And when it is low, it will be low, until it's not low and then it will be high. And when it is high it will be high until it isn't high anymore. Then it will be low again. ... I'm not teasing you. There just aren't good words for what it is like to have the willingness scale set high--these strange words are as close as I can get. I can say one thing for sure, though, and your experience says the same thing--if you want to know for sure where the intrusive thought scale will be, then there is something you can do. Just set willingness very, very low and sooner or later when thoughts start up the ratchet will lock in and you will have plenty of them. It will be very predictable. All in the name of getting it low. If you move the willingness scale up, then thought is free to move. Sometimes it will be low, and sometimes it will be high, and in both cases you will keep out of a useless and traumatic struggle that can only lead in one direction."

At this point, the participant will not know exactly what willingness is. Even though the therapist has made it clear that it is not a feeling or a thought, the participant will look for willingness of exactly this kind: a feeling of willingness or a belief that is helpful. The participant may also believe that the therapist is saying to ignore or tolerate discomfort. It is essential that the therapist be on the lookout for and detect these misunderstandings, as is demonstrated in the following dialogue:

Client: "I'm not really sure I know what willingness is."

Therapist: "And you don't need to right now. Mostly right now I'm just putting an alternative on the table, but I don't expect you to go out and hit home runs just because of a little talk. It will take some experience of actually doing it. It is not a verbal skill."

Client: "I understand in the abstract, but I can't imagine actually being willing to feel the obsession."

Therapist: "And that is exactly some of the verbal glue that your mind has given you to keep the scale down at zero. The fantasy has been that if you have willingness down at zero, anxiety will go down. If you demand that it go away, it will. That is what your mind says, and it keeps holding out for that effect. Yet that is not what your experience tells you, is it?. That is not how it actually works. It says the exact opposite, right? It is almost as if you are being victimized by your feelings."

Client: "I do feel that way. It is almost a family tradition. My mother used to say "that's what happens to us. We get screwed in the end." She was always playing the victim. I guess I learned it early."

Therapist: "It wouldn't be so bad except that this victim stuff doesn't do anything positive. It just makes your feelings your own enemy and makes life unlivable. Because no matter how hard you play victim, your own anxiety doesn't care. Remember I was talking about response-ability. Well in this metaphor, you do have an ability to respond--it's just only on the Willingness scale, not on the Anxiety scale. If you were in control, you would have set this discomfort at 0, and it wouldn't be here, right? Who wouldn't have? If we had our way we'd all be swimming in treacle and sugar cubes all day long. But suppose life is giving you this choice: you can choose to try to control what you feel and lose control over your life, or let go of control over discomfort and get control over your life. Which do you choose?"

Client: "I'd rather be in control of my life--I've always thought I couldn't do that unless anxiety went away first."

Therapist: "Exactly. That is how our minds are trained to think. So what we need to learn is where control works and where it doesn't; never mind what your mind tells, your experience tells you... It doesn't work over here with the emotional discomfort and disturbing thoughts knob. However, over here on the Willingness knob--who sets this one?"

Client: "I do."

Therapist: "Only you. Only you. I can make you feel things--I can't make you stay open or not to what you have. That is up to you. It is the one thing that always is up to you."

After introducing willingness as the alternative to control, it is important to explain to the client that willingness is not something that can be done directly:

“So, we know that the alternative to control is willingness. Unfortunately, practicing willingness is not something that can be done directly. Especially from where you are... It wouldn't be safe to for me to ask you to just start being completely willing to experience all the painful things you've been struggling with all this time without first putting something else into place. So what we need to do is to find a safe place from

which you can choose to experience your thoughts and feelings. And this might be more difficult than you might think, because there are actually four of us in the room right now: me, you, my mind, and your mind. And your mind is going to fight this willingness move. So let's see if we can find a new context where willingness is an option."

Defusion is the process of seeing language as what it is, just words in the head, and not something more powerful. This phase involves working through this concept with the participant. The experimenter can say something such as, "But let's talk about what this thought is that you are going to practice making room for. I don't think it is what it presents itself to be. This thought presents itself as very disturbing, but do thoughts like these deserve these powers?"

First, you should know that unpleasant thoughts are entirely normal. In fact, from time to time, about 99% of the population experiences the same kinds of unwanted or distressing thoughts that you are describing to me. Sometimes, these thoughts seem to come from out of nowhere, but at other times, they might be triggered by something in the environment. For example, a thought about harming someone you care about may be triggered by seeing a large knife, or the person him/herself. To show you that strange and unwanted intrusive thoughts are normal occurrences, take a look at this list of unwanted thoughts, reported by average people who participated in a research study on unwanted thoughts. (hand the participant the list of normal intrusive thoughts to read. Ask if they understand that their thoughts are normal).

So, if nearly everyone has unpleasant thoughts, why are some people not bothered by them very much, but others are? Could it be that our thoughts only have power over us – to the extent that we give them that power?

Let's do an exercise with this thought.

"I want you to look around this room and find something that you don't evaluate and name. Find something that just is what it is and your mind has no opinion about it. [Give the participant a minute. It is very unlikely that the participant can do this.] Our minds will immediately judge and evaluate everything. After the participant has struggled with this process for a little while, inform him or her that, "our minds will always judge and evaluate everything that we encounter—and this includes our own thoughts and feelings. I doubt that you were able to look at anything without your mind jumping in and telling you something about it. If we can do it with all the things in this room, then we can do it with our thoughts and feelings. Thoughts like yours are evaluated as bad, and feelings

like anxiety are also rated as bad. We work to get rid of bad things. But here is the question, do thoughts deserve as much attention as events on the outside of us? Is the thought about stabbing someone as big a deal as actually stabbing someone [or use appropriate example]. Do we really have to run from the words in our heads?"

What if it is sort of like this...

Passengers on the Bus Metaphor

The Passengers On The Bus Metaphor is a core ACT intervention aimed at deliteralizing provocative psychological content through objectification. This is a particularly effective strategy for those with OCD because it assists them in looking at the obsession in a way that is less threatening and easier and more rewarding to accept.

"It's as if there is a bus and you're the driver. On this bus we've got a bunch of passengers. The passengers are thoughts, feelings, bodily states, memories, and other aspects of experience. Some of them are scary, and they're dressed up in black leather jackets and they've got switchblade knives. What happens is, you're driving along and the passengers start threatening you, telling you what you have to do, where you have to go. "You've got to turn left," "you've got to go right," etc. The threat that they have over you is that, if you don't do what they say, they're going to come up from the back of the bus.

It's as if you've made deals with these passengers, and the deal is, "You sit in the back of the bus and scrunch down so that I can't see you very often, and I'll do what you say, pretty much." Now what if one day you get tired of that and say, "I don't like this! I'm going to throw those people off the bus!" You stop the bus, and you go back to deal with the mean-looking passengers. Except you notice that the very first thing you had to do was stop. Notice now, you're not driving anywhere, you're just dealing with these passengers. And plus, they're real strong. They don't intend to leave, and you wrestle with them, but it just doesn't turn out very successfully.

Eventually you go back to placating the passengers, to try to get them to sit way in the back again where you can't see them. The problem with that deal is that, in exchange, you do what they ask in exchange for getting them out of your life. Pretty soon, they don't even have to tell you, "Turn left"--you know as soon as you get near a left-turn that the passengers are going to crawl all over you. Eventually you may get good enough that you can almost pretend that they're not on the bus at all, you just tell yourself that left is the only direction you want to turn. However, when they eventually do show up, it's with the added power of the deals that you've made with them in the past.

Now the trick about the whole thing is this: The power that the passengers have over you is 100% based on this: "If you don't do what we say, we're coming up and we're making you look at us." That's it. It's true that when they come up they look like they could do a whole lot more. They've got knives, chains, etc. It looks like you could be destroyed. The deal you make is to do what they say so they won't come up and stand next to you and make you look at them. The driver (you) has control of the bus, but you trade off the control in these secret deals with the passengers. In other words, by trying to get control, you've actually given up control! Now notice that, even though your

passengers claim they can destroy you if you don't turn left, it has never actually happened. These passengers can't make you do something against your will.

Values as a concept in ACT are thought of as directions for treatment and motivators for behavior change. Participants often come into therapy hoping to get some particular private experience under control (obsessions and anxiety in this case) in the hopes that they will be able to pursue valued directions in the future (e.g., “once I get these thoughts under control then I will...”). In this phase, we want to help make the value the goal of therapy and live rather than the reduction of the inner experience.

Help the participant see that there is sometimes meaning to experiencing certain inner experiences when they are in the service of something important. The experimenter might say, “It is not necessarily comfortable with the passengers on the bus—let’s look at why we might do this.”

Introduce the bullseye form by saying, “this form is just a quick exercise that helps clarify some of the things that are important to people. It is easy to get sidetracked with other things in life and spend less time in these areas. I just want to spend the next 10 minutes or so discussing this issue.”

“Values are areas in life that we care about. They can never be accomplished like a goal. They are just things that we work towards. For example, someone can never accomplish being a great father. Once they do something great there are additional opportunities to be a great father. Parenting, for example, is a value not a goal. Whereas, a goal might be to teach a child to swim. That can be accomplished. Values are useful, because if we are clear about what we care about, we can use them as guides throughout our lives. They are almost like compasses, they point us in the directions that we want to go.”

“I have a short exercise for you that helps clarify some of these values.” Go over some of the important things in the participant’s life. [bullseye exercise] This exercise will help the participant see where he or she is on each of four values. It is very unlikely that he or she will be doing perfectly on all areas. In the areas where the participant is not in the bullseye, ask he or her the following question:

“Can you tell me how trying to manage your intrusive thoughts is getting in the way of pursuing these values.” First, the experimenter should understand that, from the ACT perspective, the intrusive thought does not get in the way of pursuing values. Actions taken to regulate or control the thought get in the way. If the participant can take an accepting stance towards the thought, then it will not be in a place to control the events in his or her life. Have a brief discussion of the ways that trying to control the intrusive thoughts takes the participant away from his or her values.

Behavioral Commitments

After the participant's values have been identified, it is time to start talking about living in a way that is more consistent with these values.

“I would like to talk about some of the little changes that you can do to make your life more about these things that are important to you and less about controlling this thought. This involves turning up your willingness scale, letting those passengers on the bus, and deciding where to take it while they yell at you. It is not a question of how loud they are, but where you are going.

“I would like to come up with a few simple steps of ways that you can change your behavior over the next week. Can you tell me a couple small things that you have been avoiding or not doing because of this thought?

Get a couple examples from the participant. Simple things the following are great.

- Avoiding situations
- Compulsions
- Not talking to people
- Etc

Tell the participant that working on these things are great opportunities to practice the work that we have gone over in session thus far.

Appendix D: Expressive Writing Condition

Rationale

I would like to talk to you now about one theory for why people experience unwanted intrusive thoughts, and what can be done to overcome them.

Some research suggests that unwanted, intrusive thoughts may be linked to things like unresolved emotional issues from your past, and that an activity called “expressive writing” can help you to think more carefully about, work through, and resolve these issues.

To talk more about expressive writing for a second -- for well over two decades psychology researchers have been exploring the role that expressive writing might play in improving mental health, and specifically, in helping people who suffer from anxiety, intrusive thoughts, and who have suffered traumatic events. For example, one notable researcher has demonstrated that college students who write expressively about traumatic experiences subsequently visited the doctor for illness nearly half as often as the control group. This research led to further studies with results indicating that expressive writing can help enhance immune function, lower blood pressure, decrease heart rate, reduce symptoms in asthma and arthritis sufferers, and lessen sleep disturbance in patients with metastatic cancers. Psychological benefits such as lowered anxiety, less rumination and fewer depressive symptoms have also been demonstrated.

Since the mid-1980's an increasing number of studies have focused on the value of expressive writing as a way to bring about healing. The evidence is mounting that the act of writing about traumatic or emotional experiences for as little as fifteen or twenty minutes a day for three or four days can produce measurable changes in physical and mental health. Emotional writing can also affect people's sleep habits, work efficiency and how they connect with others.

As mentioned previously, research suggests that unwanted intrusive thoughts may be linked to unresolved emotional issues from your past, and expressive writing can help you to think more carefully about, work through, and resolve, these issues. When people fail to work through unresolved issues, the result can be stress and unwanted intrusive thoughts. If these are not resolved, the unwanted intrusive thoughts persist, which leads many people to become concerned about them. When people take steps to work through and better understand their emotional issues, it can help decrease stress and unwanted intrusive thoughts.

So, the technique you will use today is to write about unresolved emotional issues for a period of 30 minutes. Now...I acknowledge that this may seem like a long time to write continuously – but I would encourage you to give it a try. While it may seem tedious and meaningless at first, once you “get into” it, you may find that it really helps you begin to

identify, and even work through some of the core issues that could be leading to your unwanted, intrusive thoughts.

If you are willing, start writing about an emotional upheaval that is bothering you, and if you find yourself moving to another topic, go with it. As long as other topics are emotionally important, follow them. Also, if you find yourself getting bored with your writing, switch topics. Trust where your writing takes you.

You may choose to write about topics such as past relationships with friends, family members, or significant others, academic or financial struggles, or any other topic that has emotional significance for you. The exact words you write are not that important as long as you are writing about past experiences that caused you to experience negative emotions. If you feel so led, you might write about a very embarrassing experience that you had when you were younger. Alternatively, maybe there was a tragedy involving your family or a close friend that you feel you never completely got closure about. You can write about as many different past experiences as you want—this does not have to be just about one thing.

All of your writing will be completely confidential. Unless you to share parts of it with me after the exercise, I will not be reading what you write, and you will take your writing home with you. Don't worry about sentence structure, grammar, or spelling; as no one will be reading this but you. The only rule is that you begin writing and continue to do so for the 30 minutes. I will let you know how much time you have left.

So, the point of practicing this expressive writing exercise is to help you think about and work through in your mind, emotional issues from your past so that you may better understand them and their effects on you. This, in turn, may reduce your stress level and your unwanted intrusive thoughts. Do you have any questions?

Expressive Writing

Now I would like you to spend the next 30 minutes writing about your unresolved emotional issues. *Hand participant stack of blank papers.* Again, it is very important that you continue to write throughout the entire writing period. Ok, please begin writing. *Record time of expressive writing using the stopwatch. The participant should continue writing until 30 minutes has passed.*

Debriefing

Great job! We're finished with the writing part.

What was that like for you?

What did you notice as you wrote about your thoughts, feelings and experiences?

Is there anything about the experience that you would like to discuss?

Did you find that this experience was helpful to you in any way?

Give some instructions to encourage self-practice during the week...

So, even though we're finished with this expressive writing exercise, the more you continue to write expressively during your daily life, the better you may feel overall, and less your intrusive thoughts might bother you. Over the next week, feel free to sit down from time to time to repeat this exercise, as often as you'd like. Do you think you can try that?

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