The Interaction of Therapist Experiential Avoidance and Extraneous Clinical Information in Predicting Therapist Preference for Exposure Treatment for OCD

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Stephanie J. Rabin
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Dedications

I dedicate this dissertation to individuals who have struggled with, or who currently struggle with anxiety disorders. I am grateful that many of these individuals have trusted me, my fellow graduate students, my wonderful supervisors, and other hard-working mental health professionals to assist them in creating a life worth living.
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Abstract

The Interaction of Therapist Experiential Avoidance and Extraneous Clinical Information in Predicting Therapist Preference for Exposure Treatment for OCD

Stephanie Rabin, M.S.
James Herbert, Ph.D.
Evan Forman, Ph.D.

Despite the overwhelming evidence that the behavioral components of cognitive-behavior therapies (CBTs) are critical for patient improvement, particularly in the case of anxiety disorders, there remains a wide gap between science and practice in their consistent use. In particular, exposure therapy for anxiety is underused and frequently misunderstood, even among self-proclaimed cognitive-behavior therapists. Some have speculated that this underuse is related to therapist discomfort with and avoidance of the temporary increase in distress that patients often experience during exposure therapy, and the secondary distress that this may cause in therapists themselves. Recent studies have begun to examine therapist characteristics that are associated with the use of evidence-based psychotherapies, but these studies have focused on EBP as a whole rather than on specific interventions such as exposure, and have not addressed therapist psychological variables. In addition, there has been a great deal of research on errors and biases in psychodiagnosis and clinician decision-making regarding risk of violence, but there has been little research on factors impacting treatment planning. The current study examined the role of therapists’ experiential avoidance in the use of exposure-based interventions to treat a fictional patient for whom exposure therapy is clearly indicated. In addition, the study experimentally manipulated the presence of extraneous, irrelevant information in the patient’s presentation, and we tested
whether this variable interacted with experiential avoidance in predicting clinician preference for exposure therapy. Results suggested that participants who were higher in experiential avoidance tended to allot less time to exposure therapy, $r(162) = -.30, p < .001$. When vignettes contained extraneous clinical information, participants tended to allot less time to exposure. There was no interaction between experiential avoidance and extraneous information. Additional therapist personality factors were associated with use of exposure therapy as well, including intuitive personality and attitudes toward evidence-based treatments.
Introduction

1.1. Use of Evidence-Based Psychotherapies (EBP)

There is strong and consistent evidence that cognitive behavior therapies (CBTs), broadly defined, are among the gold standard treatments for various psychological disorders, including panic disorder (Barlow et al., 1989), social anxiety disorder (SAD; Rodebaugh et al., 2004), bulimia nervosa (Leitenberg, 1993), obsessive-compulsive disorder (OCD; Stanley & Turner, 1995), and post-traumatic stress disorder (PTSD; Foa et al., 1991). In recent years, various stakeholders have made considerable efforts to disseminate these EBPs to psychologists and other treatment providers. Division 12 of the American Psychological Association (APA), known as the Society of Clinical Psychology, has established a website to allow clinicians and the general public to learn which treatments have the most reliable empirical support for various disorders (APA Presidential Task Force on Evidence-Based Practice, 2006). Some argue that the current system of defining EBPs is flawed for a number of reasons, including that the criteria for EBPs require only that treatments be compared to no-treatment or wait-list control conditions (e.g., Herbert, in press; Herbert & Gaudiano, 2005). Despite these criticisms, there nevertheless exists a strong consensus that CBTs are the treatment of choice for various psychological problems, especially mood and anxiety disorders. In addition, CBTs for anxiety disorders are more cost-effective than existing pharmacological treatments (Heuzenroeder et al., 2004). However, despite the overwhelming scientific evidence in support of the efficacy of CBTs and other EBPs, as well as
widespread dissemination efforts, there remains a substantial gap between science and practice in the consistent use of EBPs (Gaudiano et al., 2011b; Herbert, 2003; von Ranson et al., 2012).

1.2. Use of Exposure Therapy

In addition to general support for CBTs, there is evidence that the behavioral components of CBT (e.g., role-playing, exposure, behavioral activation) are an important—and perhaps the most important—active ingredient in symptom reduction (e.g., Deacon & Abramowitz, 2004; Dimidjian et al., 2006; Feske & Chambless, 1995; Jacobson et al., 1996; Raes et al., 2011). In other words, there is currently little evidence that the addition of other treatment components, such as cognitive restructuring, to behavioral treatments results in consistently better outcomes than those produced by behavioral treatment alone (Longmore & Worrell, 2007).

One form of behavior therapy that is particularly well studied and supported by evidence is exposure therapy for anxiety. Exposure therapies have yielded large effect sizes for symptom improvement in treatment studies of panic disorder (Gould et al., 1995), OCD (Abramowitz, 1996), SAD (Fedoroff & Taylor, 2001), PTSD (Bradley et al., 2005), and generalized anxiety disorder (GAD; Gould et al., 1997). In fact, exposure therapy for anxiety disorders may have more scientific support than any other kind of psychotherapy for any mental disorder (Deacon & Farrell, in press). Despite these findings, published surveys of practicing clinicians report that evidence-based treatments, and especially exposure-based interventions, are often dismissed in favor of modalities with less—and in some cases even minimal—
scientific support (Becker et al., 2004; Freiheit & Vye, 2004; Hipol & Deacon, 2012; Litz et al., 1990; Rosen et al., 2004; Waller et al., 2012). Becker et al. (2004) found that only 17% of clinicians who responded to their survey reported using exposure therapy to treat PTSD, and only about half of those same respondents reported using exposure to treat 50% or more of their patients. Several studies specific to PTSD report that therapists are uncomfortable with exposure because of limited training in the techniques, perceived barriers, and lack of confidence in treatment effectiveness (Feeny et al., 2003; Olatunji et al., 2009). Freiheit and Vye (2004) surveyed licensed, doctoral level psychologists in Minnesota and found that a surprisingly small percentage reported frequently using exposure to treat anxiety disorders—37% for OCD, 12% for panic disorder, and 31% for SAD. In addition, nearly all of the psychologists who reported using “CBT” with their anxious clients reported using relaxation training more frequently than exposure (Freiheit & Vye, 2004). Hipol and Deacon surveyed practicing psychotherapists treating anxiety disorders in Wyoming and found that therapist-assisted in vivo exposure was utilized at a rate of 19.1% for PTSD, 27.3% for OCD, 27.8% for Panic Disorder, and 33.3% for SAD (2012). Self-proclaimed anxiety specialists were more likely to report using thought field therapy than non-anxiety specialists, and were less likely to report using therapist-assisted in vivo exposure (although this trend did not reach statistical significance). Therapists reported using other CBT techniques such as cognitive restructuring, relaxation training, and meditation at rates between 75%-97%, and about 70% of therapists reported using non-directive supportive psychotherapy with their patients with anxiety disorders.
In general, surveys of practicing clinicians find that community therapists report emphasizing client self-directed exposure over therapist-assisted exposure, and typically combine exposure therapy with arousal reduction strategies such as progressive muscle relaxation and breathing retraining. These findings are problematic because 1) exposure seems to be less effective when implemented only in a self-directed manner (Abramowitz, 1996), and 2) pairing exposure with anxiety reduction strategies may actually interfere with recovery from panic disorder (Schmidt et al., 2000), and relaxation treatments have been found to be ineffective for OCD (Greist et al., 2002; Marks et al., 1975).

1.2.1. Common myths about exposure. In order to combat common misconceptions in clinical literature, Feeny, Hembree, and Zoellner (2003) qualitatively identified and addressed several common myths regarding exposure therapy. First, many believe that exposure therapy is inflexible and insensitive to the patient’s needs. They refute this belief by noting that exposure treatments routinely include validation of patients’ feelings and experiences, psychoeducation, explanation of the treatment rationale, and tailoring of exposure treatments to the specific needs of each patient (Zayfert & Becker, 2000).

A second myth is that exposure therapy alone is insufficient for treating psychopathology, and that therapists who include additional treatment components obtain better outcomes. Treatment dismantling studies of PTSD have shown that exposure treatments alone achieve similar or superior results to treatment protocols that include exposure plus cognitive restructuring (Marks et al., 1998) or exposure plus stress inoculation training (Foa et al., 1999). Interestingly, more
patients dropped out in the exposure plus stress inoculation condition (27%) than in the exposure alone condition (9%).

A third common myth is that exposure therapy, although effective in randomized controlled trials, does not generalize to the “real world,” where patients are more “complex.” However, several of the influential randomized controlled trials of exposure therapy for PTSD (Foa et al., 1999; Resick et al., 2002) used minimal exclusion criteria and included participants who had experienced multiple traumas and were diagnosed with co-morbid major depressive disorder (MDD). One study successfully used exposure to treat patients with borderline personality characteristics, and other studies found that both African Americans and Caucasians benefitted equally well from exposure therapy for PTSD (Feske, 2001; Zoellner et al., 1999). Although not mentioned in the Feeny et al. (2003) review, a recent study of exposure and ritual prevention (EXRP) for OCD found that co-morbid Axis I disorders such as MDD, GAD, SAD, and panic disorder were unrelated to treatment failure, treatment response, symptom severity, remission, or clinically significant change rates at post-treatment (Storch et al., 2010).

A fourth common myth, fueled by claims by some researchers and clinicians (e.g., Pitman et al., 1991; Pitman et al., 1996; Tarrier et al., 1999), is that exposure therapy is so difficult and stressful for patients that it leads to symptom exacerbation and high dropout rates. These claims are often based on anecdotal evidence and questionable research methods (Feeny et al., 2003). To address this particularly common and potentially damaging myth, Foa and colleagues (2002) conducted a controlled study and found that although a small minority of patients
reported brief symptom exacerbation during treatment, this was unrelated to eventual symptom reduction or treatment completion. Further, a study of dropout rates from various CBT treatments across 17 controlled studies showed no significant differences between exposure therapy, cognitive therapy, and combined therapies in rate of dropout (Hembree et al., 2003a).

Although the therapists who subscribe to these myths undoubtedly do so because of genuine concerns about their patients’ well-being, these concerns appear to be largely unfounded. Recent studies have found that individuals faced with a hypothetical choice of treatments actually prefer exposure or other variants of CBT (Becker et al., 2007). Becker and colleagues surveyed college students, some of whom had a history of trauma. Participants were asked to picture themselves experiencing a trauma scenario that was presented to them in written form, and then were told to read descriptions of possible treatments (e.g., exposure, CBT, psychodynamic, sertraline, thought field therapy) and to rank their two most- and least-preferred treatment options. Exposure was the most preferred therapy (51%), followed by CBT (22%). In a similar study, Angelo and colleagues (2008) surveyed women with trauma histories and provided them with separate videotaped descriptions of treatment rationales for prolonged exposure and sertraline. When asked to rank their preferred treatments, the majority (81.7%) chose prolonged exposure. When asked why they chose prolonged exposure, about half of the participants reported a desire to talk about what had happened to them because this would help them get better.
In one of the few experimental studies of therapist treatment preference, 255 trauma therapists in the Netherlands were presented with four patient vignettes that represented various types of traumas: two types of single traumas (car accident, robbery) in adulthood, and two types of multiple traumas (sexual abuse, physical plus psychological abuse) in childhood. The experimenters varied whether the vignettes included comorbid depression and whether the patient expressed a preference for exposure therapy. Therapists were then asked to indicate a treatment preference, and choices included imaginal exposure, eye movement desensitization and reprocessing (EMDR), medication, and supportive counseling. Results showed that clinicians tended to underutilize exposure in general, and reported being undertrained in the technique. Clinicians were more likely to offer imaginal exposure as a treatment option when the patient expressed a preference for it, but were less likely to use exposure, and more likely to use medication, when the patient had comorbid depression (van Minnen et al., 2010).

1.3. Therapist Factors Associated with Use of EBPs

More recent studies have shifted focus from cataloguing lack of use of EBPs to identifying specific therapist traits and personality factors that are associated with EBP use. Sharp, Herbert, and Redding (2008) found that therapists who reported using so-called “Power/Energy Therapies” (e.g., Thought Field Therapy, “tapping”), which have little to no empirical support, scored significantly lower on a measure of critical thinking skills than therapists who reported using more cognitive-behavioral techniques. Gaudiano, Brown, and Miller (2011a, 2011b) surveyed psychotherapists from various theoretical backgrounds and found that
negative attitudes toward evidence-based treatments were associated with negative attitudes toward research in general, an intuitive thinking style, lower critical thinking abilities, and endorsement of erroneous beliefs about health. They concluded that efforts at disseminating EBPs should not only focus on education but should also address these specific personality and attitude factors in order to be most effective in changing therapists’ attitudes toward and use of EBPs.

A recent study of social workers found that although 97% of the sample reported using some form of EBPs, 75% reported also using an unsupported, dubious treatment, such as Thought Field Therapy. Therapists who were female and/or reported a specialization in trauma were more likely to use such unsupported treatments (Pignotti & Thyer, 2011).

There may be additional therapist-related factors at play. Even among CBT-oriented psychologists with strong interest and training in behavioral treatments and a commitment to evidence-based practice in principle, exposure therapy in particular is not completely accepted or widely used (Becker et al., 2004). Waller (2009) discusses this reluctance to use exposure, which he speculates is related to therapists’ own erroneous beliefs about exposure, as well as common cognitive errors. For example, the fundamental attribution error (e.g., over-valuing personality-based explanations for behavior while under-valuing situational explanations), may lead therapists to attribute treatment failure to the patient rather than to shortcomings in the way the therapist administered the treatment. Waller further hypothesizes that therapists’ own anxiety, avoidance, and safety behaviors (i.e., avoidance behaviors that are designed to control or prevent anxiety)
may be curbing the use of exposure. Specifically, he suggests that because patients may become temporarily distressed during exposure and may express some hesitation about the procedure, many therapists may choose to forego exposure in favor of talking therapy in order to avoid or reduce their own anxiety and discomfort. He then found that more anxious therapists, as measured by the Brief Symptom Inventory—Anxiety Scale, were less likely to use CBT techniques when treating patients with eating disorders (Waller et al., 2012). Castro and Marx (2007) express a similar concern that exposure therapy is not only strenuous for the patient, but may also evoke secondary distress in the therapist. Hembree, Rauch, and Foa (2003b) highlight the need for therapists to develop or increase their tolerance for patient distress before conducting exposure therapy for PTSD. They recommend that therapists review and accept the rationale for treatment, especially the idea that memories cannot hurt the patient or therapist, and understand that they themselves will begin to habituate to the patient’s trauma memory. However, no research to date has attempted to study systematically whether clinicians’ own psychological characteristics influence their likelihood of using exposure with their patients.

1.3.1. **Experiential avoidance.** Experiential avoidance is the attempt to avoid or escape negative thoughts, memories, bodily sensations, or feelings by attempting to alter the form or frequency of these experiences (Hayes et al., 1996). For example, substance abuse commonly functions as an especially harmful form of experiential avoidance, in that it allows the drug user to temporarily avoid negative thoughts and emotions by inducing euphoria or an otherwise altered mental and
emotional state, but at significant long-term costs to health and well-being. In recent years, experiential avoidance has been studied as a concept that is implicated in a wide variety of behavioral problems and psychological disorders, including panic disorder, SAD, and eating disorders (Hayes & Gifford, 1997). For example, Kashdan, Barrios, Forsyth, and Steger (2006) found that higher experiential avoidance was associated with diminished positive affect, decreased life satisfaction, decreased meaning in life, and fewer daily positive events. Glick and Orsillo (2011) recently found that experiential avoidance partially mediated the relationship between self-focused attention and social anxiety. Many treatment studies have also found significant associations between experiential avoidance and treatment outcome (Dalrymple & Herbert, 2007). Moreover, experiential avoidance varies even within non-clinical populations (Hayes et al., 2004b). Strategies that target experiential avoidance are integral to acceptance-based therapies, including Acceptance and Commitment Therapy (ACT; Hayes et al., 1999).

Although the relationship between experiential avoidance and various forms of psychopathology has been the focus of a growing body of research, no studies to date have attempted to measure therapists’ experiential avoidance in an attempt to explore its potential impact on clinical decision making. Some studies have successfully used training programs based on ACT, which include a focus on reducing experiential avoidance, for therapists in an attempt to improve patient outcomes. Strosahl, Hayes, Bergan and Romano (1998) conducted a one-year intensive training in ACT for therapists at a community mental health clinic. The patients of ACT-trained therapists reported significantly better coping and were
more likely to have completed treatment in the five months following initiation of treatment.

ACT training has been shown to reduce substance abuse counselors’ stigma and prejudice toward their patients (Hayes et al., 2004a), and was more successful than a traditional education workshop in reducing stigma toward individuals with psychological disorders (Masuda et al., 2007). In yet another study of ACT’s impact on therapists, ACT was more successful than traditional multicultural training in increasing positive behavioral intentions to improve multicultural experience such as joining diversity organizations, and willingness to be the lone individual of their ethnic group at a social gathering (Lillis & Hayes, 2007).

As discussed above, exposure therapy typically elicits a temporary increase in patients’ negative affect in the service of facilitating habituation or other new learning. Patients naturally tend to express hesitation about exposure because of this temporary distress, which may lead to secondary distress in the therapist. Hembree and colleagues (2003b) discuss the internal dialogue that many therapists face as they conduct exposure, such as, “Do I stop the imaginal exposure because of how upset the patient is?”, “What if the patient continues to feel this distressed after she leaves my office?”, and “Is the situation the patient is avoiding realistically safe?” Therapists who exhibit a high degree of experiential avoidance may be especially averse to the distress that arises with this internal dialogue paired with an increase in the patient’s negative affect. These therapists in particular may use avoidance to inadvertently deprive their patients of effective exposure treatment in favor of less potent (but more palatable) talking therapies.
1.4. Sources of Bias in Clinical Judgment

In addition to therapist factors, many studies have demonstrated that clinicians tend to show unintentional but predictable biases when making clinical judgments. For example, the forensic psychology literature suggests that using statistical formulae to predict future risk of violence is more accurate than clinician judgments, even when clinicians have access to the results of the formulae (Aegisdottir et al., 2006). Interestingly, this discrepancy becomes even more pronounced when clinicians use data from clinical interviews to make their judgments (Grove et al., 2000). Another well-studied example is the confirmation bias, which is the tendency to seek information that is consistent with one’s pre-existing beliefs and ignore or de-emphasize inconsistent information. The confirmation bias can hinder accurate diagnosis if a clinician comes to an erroneous diagnosis based on initial information, but fails to adjust that diagnosis once disconfirmatory information becomes available (Haverkamp, 1993; Parmley, 2006). There is also evidence that if a therapist is told that a patient has a pre-existing diagnosis, the therapist will be more likely to assign the same diagnosis to that patient, even if the patient is displaying normal behavior in the clinical interview (Herbert et al., 1988).

Meehl (1973) observed that the presence of an explanation for a patient’s current problems makes the patient seem more “normal.” For example, knowing that Jane’s social anxiety disorder started in the third grade after she was embarrassed in front of her class makes Jane’s anxiety seem less pathological and more of a normal reaction than when this context is not presented. More recently,
Kim and LoSavio (2009) studied causal explanations that were either within or outside the patient’s control (e.g., Jane is depressed following her abortion vs. Jane is depressed following her miscarriage), and whether this locus of control influenced observers’ judgments of the patient’s need for treatment. They found that knowing the precipitating event significantly reduced the perceived need for treatment, but only when the precipitating event was outside the patient’s locus of control. Some might argue that considering information regarding a precipitating event in determining whether treatment is warranted is rational because it can provide useful clues for prognosis and treatment (Ahn et al., 2003). However, others argue that it is a fallacy in clinical reasoning to allow a causal explanation to affect a clinician’s judgment of how problematic a patient’s behavior is, or how much the patient needs treatment (Meehl, 1973). Consistent with this perspective, it is rarely clear if any particular event really is causally related to the subsequent onset of pathology, even if the connection seems intuitively obvious. For example, it is now firmly established that there is no relationship between the onset of childhood autism to routine vaccines (Offit, 2011). However, the fact that the onset of autism happens to follow the typical age of first childhood vaccination had led many parents to perceive such a link where none exists (i.e., the logical fallacy of post hoc ergo propter hoc, or “after this therefore because of this”). Moreover, even if a precipitating cause could be identified, there is little evidence that knowledge of the event impacts clinical decision making. In any case, there are multiple factors to take into consideration when determining a patient’s need for treatment, including the patient’s subjective distress and impairment in functioning (Kim & LoSavio,
The tendency to downplay pathology in the context of information regarding precipitating causes could have important implications for treatment, in that clinicians may not be administering adequate psychological treatments to patients who seem to have a coherent, externally-caused “story” leading up to their psychopathology.

1.4.1. Extraneous information. Clinical decision-making might also be influenced by the overall amount of, and type of, information presented to the clinician. As clinicians gather additional information about a case, their confidence increases steadily, but their accuracy quickly reaches a ceiling (Oskamp, 1965; Tsai et al., 2008). One explanation may be that people are poorly equipped to take information redundancy into account, and instead use the information in an additive way (Kahneman & Tversky, 1973). For example, a patient may give five examples of the same symptom (e.g., “I am afraid of germs almost all the time,” vs. “I am afraid of germs in my office, in the shower, when I shake hands with others, in the bathroom, and in the car”), and the clinician may mistakenly interpret each example as separate evidence for their chosen diagnosis. In general, people are not sufficiently aware of the cognitive limitations that prevent them from making use of large amounts of information, but they are nevertheless overconfident that they are using the information effectively (Tsai et al., 2008). In the forensic literature, Bell and Loftus (1989) found that when reading a case summary that included high levels of trivial detail in the prosecution witness’s testimony but low detail in the defense witness’s testimony, research participants were more likely to rate the defendant as
guilty. And when the defense witness’s testimony included more detail, participants were more likely to rate the defendant as innocent.

In real-world clinical decision-making, there is often not only a large amount of information available to the clinician (e.g., from the intake summary, from the patient directly, or from previous clinical records), but much of the information may be incomplete, vague, or irrelevant. For example, a patient may present with several symptoms, although not enough symptoms of a particular disorder to justify a diagnosis, and may also report some symptoms of another disorder simultaneously. In addition, much of the information provided by the patient may be extraneous and/or irrelevant to diagnosis or treatment decisions. This extraneous information often includes multiple examples of a single symptom (as detailed above), describing things in detail rather than succinctly, and discussing details of recent events or social interactions that have little bearing on the reason for seeking treatment. There is a great deal of evidence that the presence of irrelevant information can significantly decrease the accuracy of judgments in a variety of settings (Gaeth & Shanteau, 1984; Shanteau, 1992). A recent study by Brewer, Barnes, and Sauer (2011) found an interaction between detail and ambiguity, such that the presence of irrelevant details led to clinicians rating the patient as more in-need of treatment when presentation ambiguity was high, but not when presentation ambiguity was low. The authors hypothesize that when relevant information becomes difficult to interpret, participants turn to peripheral, or irrelevant cues to make their decision. It is notable that although there is considerable research on extraneous information in psychological literature in
general, there are very few experimental studies of extraneous information affecting treatment planning in the clinical literature. To our knowledge, there are no studies examining the effect of extraneous information on use of exposure therapy, specifically.

The present study attempted to expand upon previous research of both therapist factors and contextual factors associated with diagnostic decision-making. Recent research has highlighted the pernicious role of experiential avoidance, or the tendency to avoid or escape distressing internal experiences, in a wide range of psychopathology. We hypothesized that therapists’ own level of experiential avoidance would result in their tendency to avoid using emotionally laden interventions, even when such treatments are clearly indicated. Clinicians were asked to make treatment decisions regarding hypothetical cases of individuals with OCD. OCD was chosen as the target disorder for two reasons. First, EXRP has been shown to have specific efficacy for OCD (Abramowitz et al., 2003; DeRubeis & Crits-Christoph, 1998; Franklin et al., 2000; Lindsay et al., 1997). Second, administration of EXRP tends to provoke a great deal of distress among patients, and indirectly in therapists themselves, thereby highlighting a context in which high levels of therapist experimental avoidance might come into play.

In addition, this study experimentally tested whether including extraneous information in a clinical vignette would decrease therapist preference for using EXRP. Among clinicians who scored low in experiential avoidance, we did not expect extraneous information to influence their willingness to use EXRP, because such individuals are presumably more likely to be accepting of both the patient’s
and their own negative affect that may arise during exposure therapy. However, in clinicians who scored high on experiential avoidance, we expected that extraneous details would serve as a distractor, and would provide these clinicians with a tangible (but unwarranted) reason to decrease their preference for administering exposure therapy. Although this process may be unintentional, experiential avoidance would serve as a motivating factor in clinicians’ proposed tendency to decrease their preference for exposure therapy.

1.5. Hypotheses

Primary Hypotheses:

1) There would be a significant interaction between therapists’ experiential avoidance and presence of extraneous information about the patient in predicting therapist preference of EXRP treatment. Higher experiential avoidance and presence of extraneous information would interact to reduce preference for EXRP treatment for OCD. If a significant interaction is found, main effects (stated below) should be interpreted with caution.

2) There would be a significant negative relationship between therapists’ level of experiential avoidance and their preference of EXRP treatment for OCD.

3) There would be a significant negative relationship between presence of extraneous information about the patient and therapists’ preference of EXRP treatment for OCD.

Secondary Hypothesis:
4) There would be a significant positive relationship between therapist attitudes toward evidence-based treatment and therapist preference for using EXRP treatment for OCD.

5) There would be a significant negative relationship between therapist intuitiveness and preference for using EXRP treatment for OCD.

**Methods**

**2.1. Participants**

Participants were recruited via email announcements posted to listservs of several CBT-oriented professional organizations: Association for Behavior and Cognitive Therapies (2500 members) and the Anxiety Special Interest Group (60 members), and the Association for Contextual Behavioral Science (2300 members). Advertisements called for self-identified, broadly-defined “cognitive-behavior therapists.” We did not include therapists who self-identified with a different primary theoretical orientation because they are highly unlikely to use exposure treatments to begin with. Including these individuals would not provide useful data in relation to the study hypotheses because they would not be contributing meaningful variance in the study measures. In order to increase recruitment, participants who completed the study were offered a $10 Amazon.com gift card. In order to maximize the external validity of any findings, we included therapists from a range of disciplines (psychologists, psychiatrists, social workers, counselors, etc.) and levels of experience. In order to explore if any such factors were related to
other study measures, a demographics form inquired about therapist training characteristics, as described below.

### 2.2. Materials

**2.2.1. Acceptance and Action Questionnaire (AAQ)-II.** The AAQ-II is the updated version of the AAQ (Hayes et al., 2004b), which is the most widely used measure of experiential avoidance and psychological inflexibility. The questionnaire contains items pertaining to negative evaluation of feelings (e.g., “I’m afraid of my feelings”), avoidance of thoughts and feelings, (e.g., “It’s OK if I remember something unpleasant”), and behavioral adjustment in the presence of difficult thoughts or feelings (e.g., “My thoughts and feelings do not get in the way of how I want to live my life”). The AAQ-II was created to update the AAQ and to improve upon psychometric properties. The AAQ-II demonstrates good internal consistency (α=.84) and good test-retest reliability at 3 months (.81) and at 12 months (.79). Similar to the AAQ, the AAQ-II has strong convergent validity with the Beck Depression Inventory (BDI)-II (r=.71), and is unrelated to social desirability (r=.09) as measured by the Marlowe Crowne Social Desirability Scale (Reynolds, 1982), which suggests that participants’ responses to the AAQ-II are not influenced by any need to react in a socially desirable manner (Bond et al., 2011). This questionnaire, along with all of the other questionnaires, was administered in electronic form via an Internet survey. See Appendix A for this measure.

**2.2.2. Multidimensional Experiential Avoidance Questionnaire (MEAQ).**

The MEAQ is a 62-item self-report measure of experiential avoidance that contains six subscales: behavioral avoidance, distress aversion, procrastination,
distraction/suppression, repression/denial, and distress endurance (Gamez et al., 2011). It demonstrates excellent internal consistency (Cronbach’s $\alpha = .92$) and good convergent and discriminant validity (Gamez et al., 2011). The six-factor solution is highly robust (overall mean comparability: $r=.91$). See Appendix A for this measure.

2.2.3. Evidence-Based Practice Attitude Scale (EBPAS). The EBPAS is a brief measure of mental health provider attitudes toward adoption of new treatments, interventions, and practices (Aarons, 2004). Specifically, it measures four types of attitudes toward evidence-based practice: 1) importance of the intuitive appeal of the treatment, 2) willingness to adopt the treatment if required to do so by a superior, 3) openness to learning new treatments, and 4) perceived divergence between clinical and research practices. It has acceptable internal consistency, with overall Cronbach’s $\alpha = .77$. This measure has been used successfully in similar studies of therapist factors that are associated with use of EBPs (Aarons, 2006; Gaudiano et al., 2011a; Pignotti & Thyer, 2009). See Appendix A for this measure.

2.2.4. Treatment Approaches and Techniques Questionnaire (TATQ). The TATQ (Sharp et al., 2008) is a 42-item self-report questionnaire of clinicians’ preferred therapeutic techniques. Participants rate 42 treatment approaches (which are associated with the six most popular theoretical orientations: cognitive-behavioral, existential/humanistic/phenomenological, psychoanalytic/psychodynamic, power/energy, radical behavioral/applied behavior analysis, and systems/family systems) on a 4-point Likert scale. Composite scores are derived for each of the six theoretical orientations by
summing the Likert ratings for the techniques associated with each orientation. Factor analysis supports the overall content validity of the questionnaire (Sharp et al., 2008). This questionnaire was administered to obtain a more comprehensive picture of participants’ theoretical orientation. See Appendix A for this measure.

2.2.5. **Rational Experiential Inventory.** The REI is a measure that is designed to capture rational versus intuitive thinking (Pacini & Epstein, 1999). In the current study, only the 20-item experiential/intuitive scale was administered. A higher score on the REI indicates greater reliance on intuition. An example item for this scale is “I can usually feel when a person is right or wrong, even if I can’t explain how I know.” Factor analysis has demonstrated good reliability and content validity (Pacini & Epstein, 1999). See Appendix A for this measure.

2.2.6. **Demographics Questionnaire.** This questionnaire asked participants for general demographic information such as gender, race, age, marital status, education, theoretical orientation, and number of years practicing as a therapist. Participants were also asked about their degree of training in, and familiarity with, exposure treatments. See Appendix A for this measure.

2.2.7. **Video recorded intake session.** Patients were portrayed by trained confederate actors, who enacted scripts based on existing OCD case examples (Foa & Wilson, 2001). Two different patients were portrayed so that a within-subjects design could be used. Two versions of each patient intake were recorded: one with extraneous information (EXT) and another without extraneous information (NO EXT). Patient order and EXT vs. NO EXT were counterbalanced to control for order
effects. Videos were chosen over written vignettes because videos more closely approximate an actual intake session, and allowed participants to encounter more of the ambiguities that are present in real-life intake sessions (Loman & Larkin, 1976). In addition, video vignettes are more easily remembered than written vignettes (Kinicki et al., 1995).

Patient 1 was a 30-year-old woman who reported obsessions and compulsions related to contamination. Patient 2 was a 45-year-old woman who reported obsessions and compulsions related to checking, and concerns that she had harmed someone else. Both patients were women to avoid possible gender effects. The patients were presented as approximately equal in symptom severity and functional impairment (e.g., both patients had had trouble keeping jobs because of the OCD, both patients had few social supports). In the EXT conditions, both patients reported the extraneous information that had been approved in pilot testing with experts in exposure treatment. This pilot testing was done to ensure that the extraneous information would in fact not warrant a change in the patients’ treatment plan based on expert knowledge of the EXRP literature and clinical experience. In both the EXT and NO EXT conditions, the patient stated that her primary reason for seeking therapy was to treat the OCD. In addition, both patients briefly cried while describing the stressful life event in the EXT condition. This display of affect was included to make the mock intake appear as realistic as possible, and to activate participants’ experiential avoidance tendencies if they were present. The videos were embedded into the online survey and participants were unable to re-watch the video. This was to make the videotaped intake as realistic as
possible and ensure that all participants had the same amount of time to watch the videos.

2.2.8. Treatment plan assessments. Immediately after watching each video, which was shown on a secure Internet site, participants were asked to “please briefly describe the treatment plan you would implement with this client.” Participants were provided with a free-response box to give their answer, and these responses were coded for the presence of EXRP and the degree to which EXRP was emphasized (see next section for details). The free response box was included so that participants were not primed to include EXRP only because it was mentioned on the following page of the survey. The following page contained a list of several treatment modalities taken from the TATQ (e.g., cognitive restructuring, relaxation training, EXRP, supportive counseling, humanistic/existential, tapping, etc.). Next to each treatment, participants were asked to enter the percentage of time they would spend using each treatment method. For example, a therapist could enter 10% next to relaxation training, 30% next to cognitive restructuring, and 60% next to EXRP. Percentages were required to add up to 100%. On the next page, participants were asked in a second free-response box to indicate why they had chosen that particular combination of treatments. This information was collected in order to encourage therapists to be open and honest about their treatment preferences. Participants were not able to use the “back” button or edit their chosen treatment(s) after they had completed that section.
2.3. Procedure

The study was administered through an online questionnaire created with Qualtrics (Qualtrics Inc., 2011). The Drexel University Institutional Review Board categorized the project as “exempt” and no informed consent document was necessary because identifying information was not collected and there were no risks associated with participation in the study. Participants were given instructions about the task, which emphasized that it was “a study of expert clinician decision-making,” and were encouraged to be as open and honest as possible in their responses. Participants then watched the first video and then completed the first treatment plan assessment, as described above. Participants then watched the second video and completed the second treatment plan assessment. After both videos and treatment plans were completed, participants completed the AAQ-II, MEAQ, REI, EBPAS, TATQ, and demographics questionnaire. As discussed above, participants were not able to use the “back” button to edit information that they had already entered. This was to ensure that participants did not adjust their treatment plans or rationales based on information they gleaned from the questionnaires. All participants were offered a $10 Amazon.com gift certificate in exchange for their participation. Those who wished to receive compensation were directed to a separate, secure, on-line questionnaire on which they entered their email address, and this information was stored separately from the questionnaire data. This ensured that data were not associated with any identifying information.
2.4. Data Analysis Plan

Two trained raters, blinded to condition, rated participants’ treatment plan free response data. Participants were asked to describe their chosen treatment plan, and then were asked in a separate question to explain why they had chosen that particular treatment plan. One graduate student served as the criterion rater, scoring all responses, and the other served as the reliability rater, rating a 30% random sample of the responses. Raters were trained to criterion performance by scoring a subset of responses and discussing the reasons for any discrepancies in order to come to an agreement.

Data from free response boxes following each vignette (when participants were asked to describe their proposed treatment plans) were examined and then coded by the trained raters for the presence of EXRP. After examining all responses, raters agreed that the responses fell into three general categories: 1) strong presence of EXRP/EXRP was the primary intervention, 2) minor presence of EXRP/EXRP was mentioned but not as primary intervention, and 3) EXRP not mentioned. Inter-rater reliability was measured to ensure accurate coding, and these results are reported in the next section.

Data from the remaining free response boxes were examined and coded for the general themes that emerged regarding participant reasons for choosing or not choosing EXRP. As before, raters examined all responses and agreed that responses tended to fall into categories. These categories are listed in Table 15. Inter-rater reliability was measured to ensure accurate coding, and these results are reported in the next section.
A mixed factorial GLM analysis was used to analyze the primary hypotheses. Extraneous information was entered as a categorical within-subjects IV (2 levels: with extraneous information and without extraneous information), and experiential avoidance was entered as a continuous between-subjects covariate. The dependent variable was percentage of time allotted to EXRP. The study employed a within-subjects design for the experimental factor (presence vs. absence of extraneous information) in order to eliminate between-subjects variability for this manipulation. The secondary hypotheses were analyzed using Pearson correlations. Pearson correlations were also used to examine associations between demographic variables (e.g., gender, age, number of years in practice) and study variables.

There are no other known studies examining the relationship between use of exposure therapy and amount of extraneous information or therapist experiential avoidance. The most closely-related study by Brewer et al. (2011) examined the interaction effect of extraneous information and ambiguity of patient presentation on therapist’s perception of the patient’s need for treatment. However, both independent variables were categorical. The researchers found an interaction effect size of $f=0.15$, which is considered medium in magnitude. Regression analyses tend to require approximately 15-20 participants for each predictor, and an additional 50% when there is a proposed interaction effect (Tabachnik & Fidell, 2006). With an alpha level set to .05, power level set to .8, and a proposed interaction effect between 2 predictors, the required number of participants would be approximately 60. In order to account for incomplete or invalid surveys, we planned to recruit a minimum of 100 participants.
Results

3.1. Pilot Study

A link to the pilot study was distributed to 17 experts in research and treatment of OCD using EXRP. Participants were offered a $10 Amazon.com gift card in exchange for their time. Seven individuals completed the questionnaire, which consisted of written scripts for both vignettes, and two possible versions of the extraneous clinical information. The written scripts were used so that the video recorded vignettes could incorporate any feedback or suggestions from the pilot study participants.

Participants were first asked to provide free response comments or concerns about the vignettes, and then were asked to rate on a 5-point Likert scale how likely they would be to offer EXRP to the patient after reading the versions with and without extraneous information. The experts were then asked to provide free-response comments about the rationale for their decision to either offer EXRP or a different treatment, and whether the extraneous clinical information impacted their decision.

For vignette 1, all 7 participants stated they would be “likely” or “very likely” to offer EXRP as the first line treatment. Only one participant changed his or her rating to “undecided” after reading the extraneous information, and stated that the therapist should verify with the patient whether she wanted to prioritize the OCD or other stressor in treatment. Results were nearly identical for vignette 2, with the
exception that one participant stated he or she would provide cognitive therapy for
the patient’s OCD because he or she believed the patient’s OCD was “cognitive in
nature.”

3.2. Main Study

3.2.1. Personal demographics. A total of 172 participants completed the study. An additional 214 individuals began the survey but did not complete it. See Tables 3-6 for personal demographics data.

3.2.2. Professional demographics. See Tables 7-14 for professional demographics data.

3.2.2. Primary analyses. Because regression does not allow for nesting of
within-subject independent variables (IVs) within a between subjects IV, a mixed
factorial GLM analysis was used. Extraneous information was entered as a
categorical within-subjects IV (2 levels: with extraneous information and without
extraneous information), and experiential avoidance was entered as a continuous
between-subjects covariate. The dependent variable was percentage of time allotted
to EXRP. Results revealed a significant main effect for extraneous information, \( F(1, 162) = 7.52, p = .007, \text{partial } \eta^2 = .044 \) (small effect), and a significant main effect for
experiential avoidance as measured by the MEAQ, \( F(1, 162) = 16.37, p < .001, \text{partial } \eta^2 = .092 \) (medium effect). When vignettes contained extraneous clinical
information, participants tended to allot less time to EXRP (See Tables 1 and 2). In
addition, participants who were higher in experiential avoidance tended to allot less
time to EXRP. There was no significant interaction between experiential avoidance
and presence of extraneous clinical information, $F(1, 162) = .16$, $p = .69$ partial $\eta^2 = .001$. See Figures 1 and 2.

Results using the AAQ yielded a similar pattern of results. Results revealed a significant main effect for extraneous information, $F(1, 168) = 8.70$, $p = .004$, partial $\eta^2 = .049$ (small effect) and a significant main effect for experiential avoidance as measured by the AAQ, $F(1, 168) = 4.51$, $p = .035$, partial $\eta^2 = .026$ (small effect). Once again, there was no significant interaction between the two IVs, $F(1, 168) = .30$, $p = .59$, partial $\eta^2 = .002$. See Figures 3 and 4.

2.2.2.1. Primary analyses with only licensed clinicians. Despite inviting clinicians of all experience levels to participate, the majority of the sample consisted of unlicensed participants. To rule out the possibility that the effects were due to clinician inexperience the analyses were repeated with only the licensed participants. Results for the MEAQ remained significant. There remained a significant main effect for extraneous information, $F(1, 52) = 4.71$, $p = .035$, partial $\eta^2 = .083$ (medium effect). When vignettes contained extraneous clinical information, participants tended to allot less time to EXRP ($M=55.09\%, SD=30.34$ for no extraneous information condition vs. $M=50.46\%, SD=29.51$ for extraneous information condition). There also remained a significant main effect for experiential avoidance, $F(1, 52) = 14.16$, $p < .001$, partial $\eta^2 = .214$ (large effect).

Results from the AAQ remained statistically significant for extraneous information, $F(1, 54) = 4.12$, $p < .05$, partial $\eta^2 = .071$ (small effect) but not for experiential avoidance, $F(1, 54) = 1.67$, $p = .20$, partial $\eta^2 = .03$. 
3.2.3. **Free response data.** See Section 2.4 for information about how free responses were coded and analyzed.

3.2.3.1. **Free response treatment plans.** The average inter-rater reliability for treatment plans was excellent (Cronbach’s $\alpha=0.91$, average intraclass correlation $r=0.85$). See Table 15 for responses. There were no significant differences between conditions when analyzing free responses, $\chi^2 (2, N=336) = 0.37, p=0.83, \Phi=.033$.

Free response treatment plans were also coded for the inclusion of both exposure and relaxation strategies within the same treatment framework. There were no significant differences between conditions in combining exposure with anxiety reduction strategies, $\chi^2 (1, N=339) = 0.31, p=0.56, \Phi=.03$. See Table 15 for these results.

3.2.3.2. **Free response explanation for treatment plans.** The average inter-rater reliability for treatment plan explanations was excellent (Cronbach’s $\alpha=0.97$, average intraclass correlation $r=0.94$). When participants were asked to explain their chosen treatment plans in the no extraneous information condition, the most commonly emerging theme was, “EXRP is evidence-based,” which was included in 25% of the responses. The second most common theme was “using supplemental CBT interventions along with EXRP to increase motivation to complete exposures,” which was included in 23% of responses. The theme “another CBT intervention must be included for EXRP to be effective,” was included in 16% of responses. The theme “deep breathing, progressive muscle relaxation, or another anxiety reduction technique is needed in order for EXRP to be effective,” was included in 10% of
responses. The remaining themes were endorsed in fewer than 10% of responses. See Table 16 for complete results.

In the extraneous information condition, the most common emerging theme was “using supplemental CBT interventions along with EXRP to increase motivation to complete exposures,” which was included in 21% of responses. The second most common theme was “EXRP is evidence-based,” included in 21% of responses. The themes “problem solving therapy, supportive therapy, or family therapy is needed to address the patient’s psychosocial stressors” and “another CBT intervention must be included for EXRP to be effective” were each included in 16% of responses. The theme “deep breathing, progressive muscle relaxation, or another anxiety reduction technique is needed in order for EXRP to be effective” was included in 11% of responses. The remaining themes were endorsed in fewer than 7% of responses. See Table 16 for complete results.

3.2.4. Secondary Analyses. Pearson correlations were calculated to examine relationships between the MEAQ, AAQ, EBPAS, REI, demographics variables, and percentage of time participants chose to devote to exposure therapy. See Table 17 for complete results.

3.2.4.1. Relationship between attitude toward evidence-based treatments and percentage of time allotted for exposure. A Pearson correlation revealed that there was a significant positive relationship between attitudes toward evidence-based treatment (as measured by the EBPAS) and percentage of time allotted for EXRP, $r(168) = .32, p < .001$. As positive attitude toward evidence-based treatments increased, time allotted for EXRP increased. There was also a significant negative
relationship between the Divergence\(^1\) subscale of the EBPAS, which measures the degree to which clinicians believe research is applicable to clinical work, and percentage of time allotted for EXRP, \(r(168) = .45, p < .001\). Clinicians who endorsed statements such as “I know better than academic researchers how to care for my clients” and “research-based treatments/interventions are not clinically useful” tended to allot less time to EXRP. There was also a significant positive relationship between the Openness subscale of the EBPAS, which measures clinicians’ interest and openness to manualized treatments, and percentage of time allotted to EXRP, \(r(168) = .40, p < .001\). Clinicians who were more open to and interested in using manualized treatments tended to allot more time to EXRP. In general, participants who were more supportive of evidence-based treatments tended to allot more time for EXRP.

3.2.4.2. Relationship between attitude toward evidence-based treatments and experiential avoidance. There was a significant positive relationship between experiential avoidance (as measured by the MEAQ) and the Divergence subscale of the EBPAS, \(r(162) = .27, p < .001\). Clinicians who believed that research was less applicable to their clinical work tended to exhibit higher levels of experiential avoidance. A similar pattern of results was seen when correlating the AAQ as a measure of experiential avoidance (where lower scores represent higher experiential avoidance) with the Divergence subscale of the EBPAS, \(r(168) = -.25, p = .001\).

\(^{1}\) The Divergence subscale of the EBPAS is reverse scored, unlike the other EBPAS subscales. However, to simplify the language and avoid double negatives, results are presented as though the scale were not reverse scored.
There was a significant negative relationship between experiential avoidance (as measured by the MEAQ) and the Openness subscale of the EBPAS, \( r(162) = .24, p = .002 \). Clinicians who were more open to and interested in using manualized treatments tended to score lower in experiential avoidance. The AAQ showed a similar relationship with the Openness subscale of the EBPAS, \( r(168) = .18, p = .021 \).

In general, participants who were more supportive of evidence-based treatments tended to be less experientially avoidant.

### 3.2.4.3. Relationship between intuitiveness and preference for exposure.

There was a significant negative relationship between intuitive personality style (as measured by the REI-Intuitive subscale) and percentage of time allotted for EXRP, \( r(168) = -.37, p < .001 \). Therapists with a more intuitive personality style tended to allot less time to EXRP than therapists with a less intuitive personality style.

### 3.2.4.4. Relationship between attitude toward evidence-based treatments and intuitiveness.

There was a significant positive relationship between the Divergence subscale of the EBPAS and intuitive personality style, \( r(168) = .44, p = .001 \). Clinicians who believed research was less applicable to their clinical work also tended to have a more intuitive personality style.

There was a significant positive relationship between the Appeal subscale of the EBPAS, which measures the degree to which clinicians would feel comfortable using evidence-based treatments if they were intuitively appealing, and intuitive personality type as measured by the REI, \( r(168) = .39, p < .001 \). Therapists who reported that they would be more likely to use evidence-based treatments if those
treatment were intuitively appealing were more likely to have an intuitive personality style.

3.2.4.5. **Relationship between intuitiveness and experiential avoidance.**

There was a significant positive relationship between intuitive personality style and experiential avoidance, as measured by the MEAQ, $r(162) = .17, p = .035$. Participants with more intuitive personality styles tended to be higher in experiential avoidance.

The AAQ showed a similar relationship with the REI, but results fell short of statistical significance, $r(168) = -.14, p = .062$. In general, participants with more intuitive personality styles tended to be more experientially avoidant and tended to allot less time to exposure. Although participants with intuitive personality styles were more likely to believe that research was not applicable to their clinical work, they reported were more likely to adopt evidence-based treatments if those treatments were intuitively appealing.

3.2.4.6. **Relationship between clinical work and attitude toward evidence-based treatments.** There was a significant positive correlation between the percentage of time spent on clinical work and the Divergence scale of the EPBAS, $r(168) = .15, p = .049$. Clinicians who spent more time on clinical work tended to believe research was less applicable to their clinical work.

3.2.4.7. **Relationship between clinical work and experiential avoidance.** There was a significant relationship between percentage of time spent on clinical work and experiential avoidance as measured by the AAQ, $r(168) = .17, p = .025$. Clinicians who spent more time on clinical work tended to be less experientially
avoidant. Results with the MEAQ were in the same direction but fell short of statistical significance, $r(162) = -.13, p = .092$.

**3.2.4.8. TATQ results.** See Table 14 for TATQ results. The vast majority of participants (85.5%) reported they “always” or “frequently” use exposure exercises with their patients. There was a significant positive relationship between use of exposure in practice and percentage of time allotted to EXRP in the current study, $r(168) = .52, p < .001$. Participants reporting more use of exposure in practice also allotted more time for EXRP in the current study. There was also a significant negative relationship between use of exposure in practice and experiential avoidance, as measured by the MEAQ, $r(162) = -.23, p = .003$. Participants reporting less use of exposure in practice tended to be more experientially avoidant.

There was a significant positive relationship between the use of exposure in practice and both the overall score on the EBPAS, $r(168) = .24, p = .002$ and the EBPAS Openness subscale, $r(168) = .32, p < .001$. There was a significant negative relationship between use of exposure in practice and the EBPAS Divergence subscale, $r(168) = -.24, p = .002$. Participants who reported more use of exposure in practice tended to be more supportive of evidence-based practice in general and more open to the use of new treatments. They also tended not to believe that their clinical experience diverged from research.

There was also a significant positive correlation between use of exposure and practice and whether participants considered themselves specialists in anxiety disorders, $r(168) = .24, p = .002$. Participants who considered themselves specialists in anxiety disorders also tended to use exposure more in practice.
3.2.4.9. **Analyses of participant demographics.** There was a significant negative correlation between participant age and percentage of time allotted for EXRP, \( r(168) = -0.21, p = .006 \). Older participants tended to allot less time to exposure in their treatment plans. Similarly, there was a significant negative correlation between time since receiving highest degree and percentage of time allotted for EXRP, \( r(163) = -0.25, p = .001 \).

There was also a significant relationship between participant age and experiential avoidance, as measured by both the MEAQ, \( r(162) = -0.21, p = .009 \), and AAQ, \( r(168) = .18, p = .022 \). As participant age increased, level of experiential avoidance also tended to increase.

There was a significant positive correlation between participant age and importance of religion in one’s life, \( r(169) = .22, p = .003 \). Older participants tended to regard their religion as more important to them. Similarly, importance of religion was positively related to time since receiving highest degree, \( r(162) = .21, p = .009 \). Importance of religion was also positively associated with intuitive personality, \( r(167) = .16, p = .041 \). Participants who had more intuitive personality styles also tended to regard their religion as more important in their lives.

There was a significant negative correlation between participant age and the overall EBPAS score, \( r(168) = -0.33, p < .001 \). In general, older participants tended to show less affinity toward evidence-based practice. There were also significant relationships between participant age and the Requirement \( (r(168) = -0.32, p < .001) \), Appeal \( (r(168) = -0.17, p = .031) \), and Openness \( (r(168) = -0.22, p = .004) \) subscales of the EBPAS.
Participant gender was significantly related to the EBPAS, with men showing lower affinity toward EBP in general, $t(168) = -3.26, p = .001$. Men also scored significantly lower than women on the Requirement ($t(168) = -3.03, p = .003$) and Appeal ($t(168) = -2.09, p = .038$) subscales of the EBPAS. Gender differences on the Openness subscale approached significance, $t(168) = -1.96, p = .052$, with men tending to score lower than women. Gender differences approached significance on the REI, with women tending to score higher in intuitiveness, $t(168) = -1.88, p = .062$. Men and women did not significantly differ in experiential avoidance, percentage of time allotted to EXRP, or amount of time engaged in clinical work. See Table 18 for gender results.

One possible explanation for the gender differences in affinity for EBP is that in the current sample, women participants were, on average, three years younger than the men; $t(170) = 2.10, p = .037$. The average age of women participants was 31.3 ($SD=7.9$) and the average age of men participants was 34.6 ($SD=11.3$). Given that older participants in the current study were found to be less supportive of EBP, perhaps the gender effects can be explained by the fact that the women in the sample were younger than the men. However, an ANCOVA revealed that the gender effects remained statistically significant when controlling for the effects of age, $F(1, 168) = 7.11, p = .008$, partial $\eta^2 = 0.041$.

Participants who indicated they were specialists in treating anxiety disorders were more likely to report using exposure therapy in their practice, $t(168) = 3.18, p = .002$. 
**3.2.4.10. Secondary analyses with free response data.** The primary goal of EXRP is to teach patients to habituate to their anxiety without resorting to compulsions or other anxiety reduction techniques. Similarly, Schmidt et al. (2000) found that pairing exposure with anxiety reduction strategies may actually interfere with recovery. The data from the current study were coded, and approximately 12% of responses across both conditions included the concurrent use of exposure and anxiety reduction strategies.

**3.2.4.11. Secondary analyses with only licensed clinicians.** The secondary analyses were repeated with only licensed clinicians (n=56). There remained a near-significant relationship between attitudes toward evidence-based treatment (as measured by the EBPAS) and percentage of time allotted for EXRP, \( r(54) = .26, p = .054 \). As positive attitude toward evidence-based treatments increased, there was a trend for time allotted for EXRP to increase. There remained a significant negative relationship between the Divergence subscale of the EBPAS and percentage of time allotted for EXRP, \( r(54) = -.38, p = .004 \). There remained a significant positive relationship between the Openness subscale of the EBPAS and percentage of time allotted to EXRP, \( r(54) = .44, p = .001 \).

The relationship between experiential avoidance (as measured by the MEAQ) and the Divergence subscale of the EBPAS fell below statistical significance after removing unlicensed clinicians, \( r(52) = .25, p = .068 \). However, the correlation coefficient remained very similar. The relationship between the AAQ and the Divergence subscale of the EBPAS became non-significant when removing unlicensed clinicians, \( r(54) = -.005, p = .973 \).
There remained a significant negative relationship between experiential avoidance (as measured by the MEAQ) and the Openness subscale of the EBPAS, $r(52) = -0.28, p = .044$. The correlation between the AAQ and the Openness subscale of the EBPAS became non-significant when unlicensed clinicians were removed, $r(54) = 0.07, p = .607$.

There remained a significant negative relationship between intuitive personality style (as measured by the REI-Intuitive subscale) and percentage of time allotted for EXRP, $r(54) = -0.41, p = .002$. There remained a significant positive relationship between the Divergence subscale of the EBPAS and intuitive personality style, $r(54) = 0.53, p < .001$. There remained a significant positive relationship between the Appeal subscale of the EBPAS and intuitive personality type as measured by the REI, $r(54) = 0.46, p < .001$. Notably, the correlations involving intuitive personality style increased in magnitude when removing unlicensed clinicians from the analysis.

There remained a significant relationship between intuitive personality style and experiential avoidance, as measured by the MEAQ, $r(52) = 0.31, p = .021$.

**Discussion**

4.1. Summary of Results

Despite years of research consistently demonstrating the effectiveness of exposure therapy for treating anxiety disorders, clinicians often report that they are uncomfortable using these methods, and often dismiss them in favor of less potent talk therapies. Despite this troublesome discrepancy, there has been little research
examining therapist factors associated with the use of exposure therapy. The aim of
this study was to examine the roles of 1) clinician experiential avoidance and 2)
extraneous clinical information in clinician decision-making regarding exposure
therapy for treating OCD.

Our findings suggest that clinician experiential avoidance was negatively
associated with the amount of time that therapists allotted to exposure therapy.
Exposure therapy typically elicits a temporary increase in patients' negative affect in
the service of facilitating habituation or other new learning. This may increase
therapist discomfort as therapists interact with the patient and confront their own
uncomfortable private experiences (Castro & Marx, 2007; Hembree et al., 2003b;
Waller, 2009). Previous research suggests that clinicians who are more anxious are
less likely to use CBT (Waller et al., 2012). Results of the current study suggest that
clinicians who are more avoidant of experiencing this temporary discomfort may
reduce the amount of time spent on using exposure therapy in patients with OCD.

Results also suggest that when additional, extraneous clinical information
was added to the vignette, clinicians tended to allot less time to exposure therapy in
their treatment plans. Given the large amount of information that is usually
available to clinicians during the intake process, it is important to consider the effect
that this information can have on therapist decision making. Patients very often
present to therapy reporting high levels of distress and multiple life stressors. The
clinician assessing the patient has the complex task of conceptualizing the case and
prioritizing the patient’s needs for the purposes of accurate assessment (including
psychodiagnosis) and creating an effective treatment plan. Perhaps the extraneous
clinical information decreased clinicians’ accuracy when judging what would be the most effective treatment (Gaeth & Shanteau, 1984; Shanteau, 1992). For example, the extraneous information may have drawn clinicians’ attention away from the patient’s OCD symptoms. This could have led to clinicians undervaluing the need for exposure treatment, or to a decision to offer less exposure treatment and more of a different kind of treatment to address the other problem. Supporting this hypothesis, only 6.1% of participants in the No EXT condition made statements consistent with the theme, “Problem solving therapy, supportive therapy, or family therapy is needed to address the patient’s psychosocial stressors,” whereas 15.9% of participants in the With EXT condition made similar statements.

However, it is important to note that the difference between the two conditions in percentage of time clinicians chose to devote to EXRP is quite small, at only about 5 percentage points. Although this difference is statistically significant, it may in fact be clinically justified and quite reasonable, considering the addition of a stressor in the patient’s life in the extraneous information condition. Clinicians may have reduced the amount of EXRP because they felt that addressing the life stressor with the patient would be important to do along with EXRP. It is unclear from the data whether clinicians intended to delay EXRP in order to help the client address the stressor, or if they intended to offer additional support above and beyond the standard course of EXRP.

There was no significant interaction between experiential avoidance and extraneous clinical information in predicting use of exposure therapy. Contrary to what we hypothesized, clinician experiential avoidance does not moderate the
relationship between extraneous information and time spent on EXRP. Experiential avoidance and extraneous information exert independent effects on the amount of time clinicians chose to allot to EXRP.

Secondary analyses revealed significant relationships between therapist demographics, psychological variables, preference for evidence-based psychotherapies, and amount of time therapists would spend on exposure. In general, clinicians who showed more affinity for EBP tended to allot more time for exposure. This is not surprising, given that exposure methods are well-represented in existing EBPs. Therapists who are more supportive of EBPs are likely to spend more time learning these therapies and using them than therapists who are not supportive.

Interestingly, participants who showed less affinity toward EBP tended to score higher in experiential avoidance. Perhaps the same personality characteristics that lead therapists to avoid uncomfortable private experiences also lead them to reject the use of new treatments that may not be as familiar or comfortable. It is also possible that therapists who use exposure techniques become less experientially avoidant over time in much the same way one expects patient experiential avoidance to decrease after completing exposure therapy. In support of this hypothesis, therapists in this sample who spent a higher percentage of time engaged in clinical work tended to exhibit less experiential avoidance. Given that this study specifically recruited CBT therapists, it may be that therapists who spend more time engaged in clinical work have become highly competent at delivering exposure therapies. Perhaps the more therapists use exposure techniques, the less
experientially avoidant they become. However, the correlational nature of the data precludes definitive causal conclusions. Moreover, there was no significant relationship in this sample between percentage of time engaged in clinical work and amount of time allotted to EXRP in treatment plans.

Interestingly, participants with a more intuitive personality style tended to 1) allot less time for exposure, 2) show a decreased affinity toward EBP, and 3) score more highly in experiential avoidance. Despite the common perception that intuitiveness leads to increased openness to private experience, it appears that intuitive personality characteristics were associated with decreased openness to one’s own private experiences and to using EBP. These results partially replicate those of Gaudiano, Brown, and Miller (2011b), who found that intuitive personality style was associated with both the Divergence and Appeal subscales of the EBPAS.

Another interesting finding was that older participants tended to be more experientially avoidant, allot less time to EXRP, and show less affinity toward EBP. Although the study specifically recruited cognitive-behavior therapists, older participants may have received more training in other theoretical orientations before learning CBT. In addition, because older therapists also tend to have more years of clinical experience, they may have more confidence in their clinical skills than younger, more novice therapists. This confidence may lead older therapists to rely more heavily on their clinical judgment and/or on therapy modalities that they may have learned earlier in training. Waller and colleagues found that older therapists tended to use more unsupported treatments for eating disorders, compared with younger therapists (Waller et al., 2012). Additional research
suggests that more experienced therapists, although perhaps more confident in their clinical skills, tend not to be more effective than novice therapists (Bickman, 1999; Luborsky et al., 1980; Ost et al., 2012; Smith & Glass, 1977).

Although women participants in this sample trended toward exhibiting more of an intuitive personality style than did men, women actually showed more affinity for EBP. This effect remained significant after controlling for age. This tends to contradict the Pignotti and Thyer (2011) finding that women social workers were more likely to use dubious, unsupported therapies such as thought field therapy and tapping. However, the current sample was more heavily weighted toward CBT-oriented doctoral level clinicians and doctoral students. Doctoral programs, particularly those oriented toward CBT and evidence-based practice, tend to include a great deal of coursework relating to research methods. Social work programs tend to emphasize the development of clinical skills and do not traditionally emphasize research methods. In addition, Waller, Stringer, and Meyer did not find a gender difference in therapist use of CBT techniques for treating eating disorders in a sample of mostly psychologists (Waller et al., 2012).

One possible explanation for the gender differences in affinity for EBP is that in the current sample, women participants were, on average, three years younger than the men; $t(170) = 2.10, p = .037$. The average age of women participants was 31.3 ($SD=7.9$) and the average age of men participants was 34.6 ($SD=11.3$). Given that older participants in the current study were found to be less supportive of EBP, perhaps the gender effects can be explained by the fact that the women in the sample were younger than the men. However, an ANCOVA revealed that the gender
effects remained statistically significant when controlling for the effects of age, \( F(1, 168) = 7.11, \ p = .008, \) partial \( \eta^2 = 0.041. \)

It is encouraging to note that, on average, therapists in this sample are choosing to devote over 50% of the treatment plan to EXRP. Across both conditions, approximately 70% of participants emphasized EXRP in their free response treatment plans, and an additional 15% included but did not emphasize EXRP. Only about 10% of participants failed to mention EXRP at all as a treatment component. According to data from the TATQ, over 85% of participants reported using exposure “almost always” or “frequently.” This is significantly different from the data from community surveys where only 27-37% of therapists reported using exposure therapy to treat OCD (Freiheit & Vye, 2004; Hipol & Deacon, 2012). The current study recruited only self-identified cognitive behavioral therapists, while the community surveys were open to all licensed therapists regardless of theoretical orientation. In addition, the current study used standardized patients whose symptoms were relatively straightforward, whereas the community surveys asked therapists about use of exposure in their real-life practice. Perhaps these are the primary reasons why the current study indicated higher rates of EXRP use.

4.2. Limitations

The current study has several limitations. The clinical cases were fictionalized, and participants did not have the opportunity to interact with, question, or assess the patient. In a real-life clinical intake or interview, the clinician would be able to gather additional information as needed, ask the patient to repeat or clarify information if necessary, and choose their own assessment tools to
administer. To reduce the burden on participants, the vignettes in the current study were standardized, shown via an Internet-based survey, and were more concise than a typical, real-life intake. One could argue that, because real-life intakes are more complicated and require more complex processing and decision making, they could render clinicians even more vulnerable to the detrimental effects of experiential avoidance and extraneous clinical information.

The current study focused on the use of EXRP to treat OCD because 1) EXRP has been shown to have specific efficacy for OCD (Abramowitz et al., 2003; DeRubeis & Crits-Christoph, 1998; Franklin et al., 2000; Lindsay et al., 1997), and 2) administration of EXRP tends to provoke a great deal of distress among patients, and indirectly in therapists themselves. Although the principles of exposure therapy are similar regardless of which anxiety disorder is being treated, caution should be used when extrapolating these results to the use of exposure therapy more generally.

Clinicians may have differed in their personal definition of EXRP. For example, some clinicians may consider EXRP to include exposure, reduction of compulsions, and mild cognitive restructuring or defusion, whereas others may have considered EXRP to include only exposure and reduction of compulsions. Participants who believed the latter may have added additional CBT strategies to their treatment plan, whereas participants believing the former definition may have just emphasized EXRP. Although defining EXRP at the outset may have assured that all participants were working under the same definitions, it would have primed participants that EXRP was a target variable of the study.
Although general attitudes toward EBP were measured with the EBPAS, clinicians may have also differed in their attitudes toward EXRP specifically. The TATQ assessed clinicians’ self-reported use of exposure in practice, but it did not specifically measure attitudes toward use of exposure. Clinicians may have had generally positive attitudes toward EBP but still retained negative attitudes about exposure.

Despite the study being open to any CBT oriented clinician, the sample was biased toward psychology doctoral students and doctoral level psychologists. Having a more diverse sample of clinicians would have allowed for additional analyses and comparisons between different types of clinicians. There is evidence to suggest that there are significant differences between disciplines in attitudes and knowledge about EBP. Spring and colleagues (2012) found that psychologists scored higher than other professionals (e.g., social workers, nurses, public health specialists, and physicians) on knowledge of EBP. However, nurses scored higher than other professionals on positive attitudes toward EBP, with psychologists endorsing only intermediary positive attitudes toward EBP, on average.

4.3. Clinical Implications

The current findings have important implications for the continued dissemination and implementation of exposure treatments for anxiety disorders. As discussed by Gaudiano and colleagues (2011b), a meta-analysis of 102 interventions demonstrated that purely educational approaches to improving the practices of health professionals led to little or no change in outcomes (Oxman et al., 1995). Gaudiano and colleagues concluded that future efforts to improve dissemination and
implementation of EBP should address individual psychological factors that influence decision making, such as intuitive personality style.

It appears that trainings focusing on one’s own uncomfortable private experiences, how they serve as barriers to behavior change, and learning to increase psychological and behavioral flexibility in the presence of these uncomfortable private experiences could be a promising intervention for increasing implementation of EBP. One study of drug and alcohol counselors found that an ACT-based training was more effective than an educational workshop for increasing the use of EBP (Varra et al., 2008). The authors argued that utilizing an ACT-based approach can help providers undermine the cognitive rigidity and avoidance that accompanies the uncertainty and anxiety of using new interventions. Mediational analyses revealed that the ACT training reduced the believability of perceived barriers to adopting the evidence-based treatment and increased participant psychological and behavioral flexibility (Varra et al., 2008). This type of experiential training may prove more effective than previous efforts to increase implementation of EBP. Perhaps the various stakeholders in the effort to increase implementation (e.g., National Institute of Mental Health, APA) could help fund research to further test the effectiveness of these workshops.

According to emotional processing theory, exposure therapy 1) corrects patients’ faulty threat-related beliefs and misperceptions through new learning, and 2) eliminates behaviors that interfere with the patient’s incorporation of this new learning (Foa & Kozak, 1986). As patients progress through their fear hierarchies, they are expected to habituate to their anxiety and/or increase their willingness to
confront previously avoided stimuli in the service of decreasing symptoms or achieving valued outcomes. Just as we expect our anxious patients to become more willing to encounter anxiety-provoking stimuli following repeated exposure, therapists can become more willing to conduct exposure therapy following repeated utilization of these methods. The more experience a therapist has with using exposure techniques, the more he or she presumably 1) directly observes patients improving, 2) develops competencies in administering exposure treatments, and 3) increases his or her self-confidence and willingness to take on new cases. This new learning can then contribute to therapists themselves habituating to both patient distress and their own uncomfortable internal experiences that can arise during exposure treatment. For example, Prolonged Exposure therapists often report that as they progress through a course of PE, they habituate to the patient’s trauma account just as the patient does (Hembree et al., 2003b). Given the finding that therapists with more intuitive personality styles are more likely to use an EBP if they find it intuitively appealing, perhaps witnessing patients improve through exposure and noticing one’s own habituation would increase the intuitive appeal of the treatment. Future dissemination and implementation efforts could incorporate more experiential exercises for therapists in order to facilitate this learning process.

The extraneous information findings have important implications for therapist decision making during intake sessions. Despite the common misperception that exposure therapy is inappropriate for patients with psychological comorbidities and current life stressors, several of the influential randomized controlled trials of exposure therapy for PTSD (e.g., Foa et al., 1999;
Resick et al., 2002) used minimal exclusion criteria and included participants who had experienced multiple traumas and were diagnosed with co-morbid major depressive disorder (MDD). Exposure has been used successfully with low-income minority patients and patients with borderline personality traits (Feske, 2001; Zoellner et al., 1999). In a study of exposure and ritual prevention (EXRP) for OCD, Storch et al. (2010) found that co-morbid Axis I disorders such as MDD, GAD, SAD, and panic disorder were unrelated to treatment failure, treatment response, symptom severity, remission, or clinically significant change rates at post-treatment.

Therapists rarely encounter “simple” patients who are not experiencing any comorbid symptoms or life stressors. If enough questions are asked of a patient during an intake session, the therapist is likely to encounter information that makes the patient “complex,” whether it be adverse childhood experiences, past mental health problems, current psychosocial stressors, or medical comorbidities. It is important for therapists to err on the side of providing the most effective treatment for patients, and only withholding or diluting these treatments if there are true, evidence-based contraindications.

Although EBPs tend to be time limited, therapists in private practice may be motivated to keep patients in treatment for longer periods of time in order to increase patient contact hours and ensure continued income. This may translate to therapists spending extra time with patients to address life stressors instead of (or in addition to) exposure therapy. This may be deliberate or inadvertent, but regardless, the contingencies in private practice may run counter to what is most effective for patients. If third party payers viewed exposure therapy as a highly
potent but complex treatment that often requires extra preparation and effort from the therapist, perhaps reimbursement rates for exposure would increase.

4.4. Future Directions

Despite widespread dissemination efforts, there remains a substantial gap between science and practice in the consistent use of exposure therapy for anxiety disorders (Gaudiano et al., 2011b; Herbert, 2003; von Ranson et al., 2012). Many studies have catalogued this problem, demonstrating that few therapists in the community actually use these treatments in the most effective way. Only recently have studies begun to identify specific therapist traits and personality factors that are associated with the use of EBPs (Gaudiano et al., 2011a, 2011b; Pignotti & Thyer, 2009, 2011; Sharp et al., 2008). The area of cognitive bias and contextual factors has received more research attention over the years, but there are few existing, practical guidelines on how to overcome these biases to provide effective assessments and treatments. In order to design more effective dissemination technologies, we must first understand the various personality and contextual factors that influence clinician decision making. There is a pressing need for more studies to further examine these factors and the degree of influence they exert on the use of EBP. As factors are identified, future research can test various methods for training clinicians to understand and counteract these factors to ensure they offer patients the most effective treatments.
References


study in spider phobia. *Journal of Anxiety Disorders, 25*(7), 964-971. doi: 10.1016/j.janxdis.2011.06.003


imaginal exposure in the treatment of chronic posttraumatic stress disorder.


**Appendix A**

**AAQ-II**

Below you will find a list of statements. Please rate how true each statement is for you by circling a number next to it. Use the scale below to make your choices.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never true</th>
<th>Very seldom true</th>
<th>Seldom true</th>
<th>Sometimes true</th>
<th>Frequently true</th>
<th>Almost always true</th>
<th>Always true</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It’s OK if I remember something unpleasant</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>2. My painful experiences and memories make it difficult for me to live a life that I would value</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
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<tr>
<td>3. I’m afraid of my feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>4. I worry about not being able to control my worries and feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
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<tr>
<td>5. My painful memories prevent me from having a fulfilling life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>6. I am in control of my life</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>7. Emotions cause problems in my life</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
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<tr>
<td>8. It seems like most people are handling their lives better than I am</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
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<tr>
<td>9. Worries get in the way of my success</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
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<tr>
<td>10. My thoughts and feelings do not get in the way of how I want to live my life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
<td>6</td>
<td>7</td>
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</tbody>
</table>
Please indicate the extent to which you agree or disagree with each of the following statements

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I won’t do something if I think it will make me uncomfortable</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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<tr>
<td>2. If I could magically remove all of my painful memories, I would</td>
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<td>2</td>
<td>3</td>
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<td>5</td>
<td>6</td>
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<tr>
<td>3. When something upsetting comes up, I try very hard to stop thinking about it</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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<tr>
<td>4. I sometimes have difficulty identifying how I feel</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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<tr>
<td>5. I tend to put off unpleasant things that need to get done</td>
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<td>2</td>
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<td>5</td>
<td>6</td>
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<tr>
<td>6. People should face their fears</td>
<td>1</td>
<td>2</td>
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<td>6</td>
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<tr>
<td>7. Happiness means never feeling any pain or disappointment</td>
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<td>4</td>
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<td>6</td>
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<tr>
<td>8. I avoid activities if there is even a small possibility of getting hurt</td>
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<td>2</td>
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<td>6</td>
</tr>
<tr>
<td>9. When negative thoughts come up, I try to fill my head with something else</td>
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<td>2</td>
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<tr>
<td>10. At times, people have told me I’m in denial</td>
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<td>2</td>
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<td>6</td>
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<tr>
<td>11. I sometimes procrastinate to avoid facing challenges</td>
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<td>6</td>
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<tr>
<td>12. Even when I feel uncomfortable, I don’t give up working toward things I value</td>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
<td>6</td>
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<tr>
<td>13. When I am hurting, I would do anything to feel better</td>
<td>1</td>
<td>2</td>
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<td>5</td>
<td>6</td>
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<tr>
<td>14. I rarely do something if there is a chance that it will upset me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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<tr>
<td>15. I usually try to distract myself when I feel something painful</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>16. I am able to “turn off” my emotions when I don’t want to feel</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
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</tr>
<tr>
<td>17. When I have something important to do I find myself doing a lot of other things instead...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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<tr>
<td>18. I am willing to put up with pain and discomfort to get what I want</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>19. Happiness involves getting rid of negative thoughts</td>
<td>1</td>
<td>2</td>
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<td>6</td>
</tr>
<tr>
<td>20. I work hard to avoid situations that might bring up unpleasant thoughts and feelings in me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>21. I don’t realize I’m anxious until other people tell me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>6</td>
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<tr>
<td>22. When upsetting memories come up, I try to focus on other things</td>
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<td>2</td>
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<td>4</td>
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<td>6</td>
</tr>
<tr>
<td>23. I am in touch with my emotions</td>
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<td>2</td>
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<td>4</td>
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<td>6</td>
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<tr>
<td>24. I am willing to suffer for the things that matter to me</td>
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<td>2</td>
<td>3</td>
<td>4</td>
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<td>6</td>
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<tr>
<td>25. One of my big goals is to be free from painful emotions</td>
<td>1</td>
<td>2</td>
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<td>4</td>
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<td>6</td>
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<tr>
<td>26. I prefer to stick to what I am comfortable with, rather than try new activities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>6</td>
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<tr>
<td>27. I work hard to keep out upsetting feelings</td>
<td>1</td>
<td>2</td>
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<td>4</td>
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<td>6</td>
</tr>
<tr>
<td>28. People have said that I don’t own up to my problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>29. Fear or anxiety won’t stop me from doing something important</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>30. I try to deal with problems right away</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
1. I'd do anything to feel less stressed ............................................................ 1 2 3 4 5 6
2. If I have any doubts about doing something, I just won't do it ...................... 1 2 3 4 5 6
3. When unpleasant memories come to me, I try to put them out of my mind .......... 1 2 3 4 5 6
4. In this day and age people should not have to suffer .................................. 1 2 3 4 5 6
5. Others have told me that I suppress my feelings ........................................... 1 2 3 4 5 6
6. I try to put off unpleasant tasks for as long as possible ................................ 1 2 3 4 5 6
7. When I am hurting, I still do what needs to be done .................................... 1 2 3 4 5 6
8. My life would be great if I never felt anxious ............................................... 1 2 3 4 5 6
9. If I am starting to feel trapped, I leave the situation immediately ................... 1 2 3 4 5 6
10. When a negative thought comes up, I immediately try to think of something else 1 2 3 4 5 6
11. It's hard for me to know what I'm feeling .................................................... 1 2 3 4 5 6
12. I won't do something until I absolutely have to .......................................... 1 2 3 4 5 6
13. I don't let pain and discomfort stop me from getting what I want ................... 1 2 3 4 5 6
14. I would give up a lot not to feel bad ............................................................ 1 2 3 4 5 6
15. I go out of my way to avoid uncomfortable situations .................................. 1 2 3 4 5 6
16. I can numb my feelings when they are too intense ...................................... 1 2 3 4 5 6
17. Why do today what you can put off until tomorrow ................................. 1 2 3 4 5 6
18. I am willing to put up with sadness to get what I want ............................... 1 2 3 4 5 6
19. Some people have told me that I "hide my head in the sand" .......................... 1 2 3 4 5 6
20. Pain always leads to suffering ................................................................. 1 2 3 4 5 6
21. If I am in a slightly uncomfortable situation, I try to leave right away .......... 1 2 3 4 5 6
22. It takes me awhile to realize when I'm feeling bad .................................... 1 2 3 4 5 6
23. I continue working toward my goals even if I have doubts ......................... 1 2 3 4 5 6
24. I wish I could get rid of all of my negative emotions .................................. 1 2 3 4 5 6
25. I avoid situations if there is a chance that I'll feel nervous ........................... 1 2 3 4 5 6
26. I feel disconnected from my emotions ..................................................... 1 2 3 4 5 6
27. I don't let gloomy thoughts stop me from doing what I want ..................... 1 2 3 4 5 6
28. The key to a good life is never feeling any pain ........................................ 1 2 3 4 5 6
29. I'm quick to leave any situation that makes me feel uneasy ....................... 1 2 3 4 5 6
30. People have told me that I'm not aware of my problems ............................ 1 2 3 4 5 6
31. I hope to live without any sadness and disappointment ............................ 1 2 3 4 5 6
32. When working on something important, I won't quit even if things get difficult 1 2 3 4 5 6

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Evidence-Based Practice Attitude Scale (EBPAS)

Instructions: The following questions ask about your feelings about using new types of therapy, interventions, or treatments. Manualized therapy, treatment, or intervention refers to any intervention that has specific guidelines and/or components that are outlined in a manual and/or that are to be followed in a structured or predetermined way. Indicate the extent to which you agree with each item using the following scale.

0 = Not at all
1 = To a slight extent
2 = To a moderate extent
3 = To a great extent
4 = To a very great extent

1. I like to use new types of therapy/interventions to help my clients.
2. I am willing to try new types of therapy/interventions even if I have to follow a treatment manual.
3. I know better than academic researchers how to care for my clients.
4. I am willing to use new and different types of therapy/interventions developed by researchers.
5. Research based treatments/interventions are not clinically useful.
6. Clinical experience is more important than using manualized therapy/interventions.
7. I would not use manualized therapy/interventions.
8. I would try a new therapy/intervention even if it were very different from what I am used to doing.

For questions 9–15: If you received training in a therapy or intervention that was new to you, how likely would you be to adopt it if:

9. it was intuitively appealing?
10. it “made sense” to you?
11. it was required by your supervisor?
12. it was required by your agency?
13. it was required by your state?
14. it was being used by colleagues who were happy with it?
15. you felt you had enough training to use it correctly?
Treatment Approaches and Techniques Questionnaire

This is a list of non-mutually exclusive treatment approaches/techniques. Using the scale below, please indicate your utilization of each of the items in your clinical work.

0 = Never use/Would not use
1 = Sometimes use/Would possibly use
2 = Frequently use/Would probably use
3 = Almost always use/Would definitely use

1. ___ muscle-testing/applied kinesiology
2. ___ shaping
3. ___ analysis/interpretation of transference
4. ___ family mapping
5. ___ time delay prompting
6. ___ mindfulness/meditation practices
7. ___ enactments
8. ___ touch and breathe
9. ___ free association
10. ___ bilateral stimulation (e.g., eye movements)
11. ___ avoidance of loss contingency
12. ___ cognitive restructuring
13. ___ required relaxation
14. ___ genogram work
15. ___ homework/behavioral experiments
16. ___ logical paradoxes
17. ___ body-energy work
18. ___ mirroring
19. ___ exposure exercises
20. ___ unconditional positive regard
21. ___ cognitive “de-fusion” techniques
22. ___ non-directive support
23. ___ experiments in directed awareness
24. ___ family reconstruction
25. ___ self-modeling
26. ___ values/goals clarification work
27. ___ tapping of acupressure/acupuncture points
28. ___ stimulation of energy meridians
29. ___ breathing retraining
30. ___ relaxation methods
31. ___ maintenance of analytic framework
32. ___ use of metaphors/stories
33. ___ promotion of self-actualization
34. ___ social skills training
35. ___ family sculpting
36. ___ dream analysis
37. ___ analysis/interpretation of resistances
38. ___ ego strengthening
39. ___ experiential exercises
40. ___ token economy
41. ___ logotherapy
42. ___ re-authoring
**Rational-Experiential Inventory**

Please use the following scale to answer these questions.

completely false → completely true
1 2 3 4 5

3. _________ I believe in trusting my hunches.
5. _________ I trust my initial feelings about people.
7. _________ I like to rely on my intuitive impressions.
9. _________ I don’t like situations in which I have to rely on intuition.
11. _________ Intuition can be a very useful way to solve problems.
12. _________ I would not want to depend on anyone who described himself or herself as intuitive.
15. _________ I don’t think it is a good idea to rely on one’s intuition for important decisions.
18. _________ When it comes to trusting people, I can usually rely on my gut feelings.
19. _________ I can usually feel when a person is right or wring, even if I can’t explain how I know.
21. _________ I hardly ever go wrong when I listen to my deepest gut feelings to find an answer.
22. _________ I think it is foolish to make important decisions based on feelings.
23. _________ I tend to use my heart as a guide for my actions.
24. _________ I often go by my instincts when deciding on a course of action.
29. _________ I generally don’t depend on my feelings to help me make decisions.
31. _________ I think there are times when one should rely on one’s intuition.
34. _________ Using my gut feelings usually works well for me in figuring out problems in my life.
35. _________ I don’t have a very good sense of intuition.
36. _________ If I were to rely on my gut feelings, I would often make mistakes.
37. _________ I suspect my hunches are inaccurate as often as they are accurate.
38. _________ My snap judgments are probably not as good as most people’s.
Demographic Information

1. What is your gender?
   - Male
   - Female

2. What is your age?

3. What is your race/ethnicity?
   - White, Not Hispanic/Latino
   - Hispanic/Latino
   - Black/African American
   - Asian
   - American Indian/Alaska Native
   - Native Hawaiian/Other Pacific Islander
   - More than One Race
   - Other (please specify)

4. What is your religious/spiritual preference, if any?
   - None
   - Catholic
   - Protestant
   - Jewish
   - Muslim
   - Buddhist
   - Hindu
   - Atheist
   - Agnostic
   - Other (please specify)

5. Based on your preference listed above, how important is religion (or your non-religious belief system) in your day-to-day living?
   - 1 = Of no importance
   - 5 = Of great importance

6. What is your marital status?
   - Single/never married
   - Married
   - Living together as if married
   - Divorced
   - Widowed
Demographic Information, cont.

1. Are you currently a licensed mental health practitioner?
   Yes
   No

2. Do you currently practice a form of psychotherapy or mental health counseling?
   Yes
   No

3. Country where you currently practice?
   United States
   Other (please specify)

4. State where you currently practice (if a U.S. resident)?
   State
   Not applicable

5. What is your highest degree?
   M.A.
   M.S.
   M.Ed.
   Ph.D.
   Psy.D.
   Ed.D.
   M.D.
   L.C.S.W.
   M.S.W.
   D.S.W.
   M.F.T.
   L.P.C.
   Other (please specify)

6. How many years (or months if less than one year) since completing your highest degree?
   Years  ____
   Month   ____

7. What is your profession?
   Psychologist
   Social Worker
   Other Counselor/Therapist
   Psychiatrist
   Nurse
8. How many years (or months if less than one year) have you been practicing as a licensed mental health clinician?

Years ______
Months ______

9. In what type of area do you practice?

Large City (population over 100,000)
Smaller City or Town (population under 100,000)
Suburban
Rural

10. Please check any disorders that you consider yourself a specialist in treating:

- Anxiety Disorders
- Bipolar Disorder
- Cognitive Disorders
- Disorders of Infancy/Childhood/Adolescence
- Depressive Disorders
- Dissociative Disorders
- Eating Disorders
- Personality Disorders
- Schizophrenia/Psychotic Disorders
- Substance Use Disorders
- Sexual Disorders
- Sleep Disorders
- Other (please specify)

11. Please indicate the approximate percentage of your practice in the following age ranges (0-100). Type in just the numbers without the “%” sign. These numbers should sum to 100.

Children (younger than 13)
Adolescents (13-17)
Adults (18-64)
Older adults (65+)

12. Which one best describes your primary therapeutic orientation (check only one)?

- Behavior-Analytic/Radical Behavioral
- Behavioral (Traditional)
- Cognitive (Traditional)
- Cognitive-Behavioral (Traditional)
- Acceptance-based Behavioral/Cognitive
- Mindfulness/Buddhist/Eastern Psychology
- Eclectic
- Energy Psychology
- Existential/Phenomenological
Humanistic/Client-Centered
Psychoanalytic
Psychodynamic/Neo-Freudian
Systems/Family Systems

13. Please indicate the approximate percentage of your practice in which you use the following treatment modalities (0-100). Type in just the numbers without the “%” sign. These numbers should sum to 100.

Individual
Group
Couples/Family

14. Please indicate the primary setting where you practice psychotherapy:

Community Mental Health Center
General Medical Hospital
Mental Health/Psychiatric Hospital
Psychiatric Outpatient Clinic
General Medical Outpatient Clinic
Prison
Private Practice
Residential Treatment Program
School (primary or secondary)
College/University Counseling Center
Academic/Research Setting
Other (please specify)

15. What total percentage of your work time do you spend engaged in clinical work and related activities (0-100)? Type in just the number without the “%” sign.

16. What is your level of training in exposure therapies for anxiety?

1) None
2)
3) Moderate
4)
5) Extensive

17. What is your level of familiarity (independent of training) with exposure therapies for anxiety?

1) None
2)
3) Moderate
4)
5) Extensive
EXRP and Experiential Avoidance (MEAQ) for NO EXT condition

Figure 1. EXRP and Experiential Avoidance (MEAQ) for NO EXT condition
Figure 2. EXRP and Experiential Avoidance (MEAQ) for WITH EXT condition
Figure 3. EXRP and Experiential Avoidance (AAQ) for NO EXT condition
Figure 4. EXRP and Experiential Avoidance (AAQ) for WITH EXT condition
Table 1
*Percentage of time allotted for EXRP broken down by extraneous information condition*

<table>
<thead>
<tr>
<th>Percentage of time allotted for EXRP</th>
<th>No extraneous information</th>
<th>With extraneous information</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>57.31% (SD=27.86)</td>
<td>52.62% (SD=27.6)</td>
</tr>
</tbody>
</table>

Table 2
*Percentage of time participants allotted to EXRP, displayed by frequencies and cumulative percentage of participants*

<table>
<thead>
<tr>
<th>Percentage of time spent on EXRP</th>
<th>No extraneous information</th>
<th>With extraneous information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>Cumulative percent</td>
<td>Frequency</td>
</tr>
<tr>
<td>100</td>
<td>11 6.40%</td>
<td>6 3.53%</td>
</tr>
<tr>
<td>95</td>
<td>1 7.00%</td>
<td>1 4.12%</td>
</tr>
<tr>
<td>90</td>
<td>15 15.70%</td>
<td>10 10.00%</td>
</tr>
<tr>
<td>85</td>
<td>3 17.44%</td>
<td>2 11.18%</td>
</tr>
<tr>
<td>80</td>
<td>21 29.65%</td>
<td>14 19.41%</td>
</tr>
<tr>
<td>75</td>
<td>10 35.47%</td>
<td>12 26.47%</td>
</tr>
<tr>
<td>70</td>
<td>16 44.77%</td>
<td>19 37.65%</td>
</tr>
<tr>
<td>65</td>
<td>1 45.35%</td>
<td>4 40.00%</td>
</tr>
<tr>
<td>60</td>
<td>19 56.40%</td>
<td>21 52.35%</td>
</tr>
<tr>
<td>55</td>
<td>1 56.98%</td>
<td>2 53.53%</td>
</tr>
<tr>
<td>50</td>
<td>20 68.60%</td>
<td>17 63.53%</td>
</tr>
<tr>
<td>45</td>
<td>4 70.93%</td>
<td>2 64.71%</td>
</tr>
<tr>
<td>40</td>
<td>8 75.58%</td>
<td>12 71.76%</td>
</tr>
<tr>
<td>35</td>
<td>7 79.65%</td>
<td>2 72.94%</td>
</tr>
<tr>
<td>30</td>
<td>6 83.14%</td>
<td>11 79.41%</td>
</tr>
<tr>
<td>25</td>
<td>3 84.88%</td>
<td>6 82.94%</td>
</tr>
<tr>
<td>20</td>
<td>8 89.53%</td>
<td>10 88.82%</td>
</tr>
<tr>
<td>15</td>
<td>2 90.70%</td>
<td>0 88.82%</td>
</tr>
<tr>
<td>10</td>
<td>6 94.19%</td>
<td>3 90.59%</td>
</tr>
<tr>
<td>0</td>
<td>10 100.00%</td>
<td>16 100.00%</td>
</tr>
</tbody>
</table>
Table 3  
*Gender and age breakdown of sample*

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participants</strong></td>
<td>47 (27%)</td>
<td>125 (73%)</td>
<td>172 (100%)</td>
</tr>
<tr>
<td><strong>Mean age (SD)</strong></td>
<td>34.6 (11.3)</td>
<td>31.3 (7.9)</td>
<td>32.22 (9.02)</td>
</tr>
</tbody>
</table>

Table 4  
*Race and Ethnicity breakdown of sample*

<table>
<thead>
<tr>
<th>Race</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>153 (89%)</td>
</tr>
<tr>
<td>Asian</td>
<td>9 (5.2%)</td>
</tr>
<tr>
<td>Native Hawaiian or other Pacific Islander</td>
<td>1 (0.6%)</td>
</tr>
<tr>
<td>More than one race</td>
<td>7 (4.1%)</td>
</tr>
<tr>
<td>Prefer not to say</td>
<td>2 (1.2%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Hispanic/Non-Latino</td>
<td>161 (93.6%)</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>10 (5.8%)</td>
</tr>
</tbody>
</table>

Table 5  
*Relationship status breakdown of sample*

<table>
<thead>
<tr>
<th>Relationship status</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married/domestic partnership</td>
<td>80 (46.5%)</td>
</tr>
<tr>
<td>Living with partner</td>
<td>24 (14%)</td>
</tr>
<tr>
<td>Single</td>
<td>64 (37.2%)</td>
</tr>
<tr>
<td>Divorced</td>
<td>3 (1.7%)</td>
</tr>
<tr>
<td>Widowed</td>
<td>1 (0.6%)</td>
</tr>
</tbody>
</table>
Table 6
Religion breakdown of sample

<table>
<thead>
<tr>
<th>Religion</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agnostic</td>
<td>38 (22.1%)</td>
</tr>
<tr>
<td>Atheist</td>
<td>18 (10.5%)</td>
</tr>
<tr>
<td>Buddhist</td>
<td>4 (2.3%)</td>
</tr>
<tr>
<td>Catholic</td>
<td>23 (13.4%)</td>
</tr>
<tr>
<td>Hindu</td>
<td>1 (0.6%)</td>
</tr>
<tr>
<td>Jewish</td>
<td>21 (12.2%)</td>
</tr>
<tr>
<td>Muslim</td>
<td>1 (0.6%)</td>
</tr>
<tr>
<td>None</td>
<td>21 (12.2%)</td>
</tr>
<tr>
<td>Protestant</td>
<td>27 (15.7%)</td>
</tr>
<tr>
<td>Other (e.g., other Christian, Unitarian, spiritual, Quaker, Interfaith)</td>
<td>18 (10.5%)</td>
</tr>
</tbody>
</table>

Mean importance of religion or non-religious belief on scale of 1-5: 2.7 (1.33)

Table 7
Theoretical orientation of sample

<table>
<thead>
<tr>
<th>Theoretical Orientation</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive-behavioral</td>
<td>113 (65.7%)</td>
</tr>
<tr>
<td>Acceptance-based behavioral/cognitive</td>
<td>34 (19.8%)</td>
</tr>
<tr>
<td>Systems/Family systems</td>
<td>8 (4.7%)</td>
</tr>
<tr>
<td>Eclectic</td>
<td>6 (3.5%)</td>
</tr>
<tr>
<td>Behavioral</td>
<td>4 (2.3%)</td>
</tr>
<tr>
<td>Humanistic/client-centered</td>
<td>2 (1.2%)</td>
</tr>
<tr>
<td>Cognitive</td>
<td>1 (0.6%)</td>
</tr>
<tr>
<td>Mindfulness/Buddhist/Eastern</td>
<td>1 (0.6%)</td>
</tr>
<tr>
<td>Existential/Phenomenological</td>
<td>1 (0.6%)</td>
</tr>
</tbody>
</table>

Table 8
Disciplines of clinicians in sample

<table>
<thead>
<tr>
<th>Type of clinician</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate student/intern</td>
<td>100 (58%)</td>
</tr>
<tr>
<td>Psychologist</td>
<td>58 (34%)</td>
</tr>
<tr>
<td>Social Worker</td>
<td>2 (1%)</td>
</tr>
<tr>
<td>Other counselor or therapist</td>
<td>8 (5%)</td>
</tr>
<tr>
<td>Other (e.g., Rabbi, Employee Assistance Professional)</td>
<td>2 (1%)</td>
</tr>
</tbody>
</table>
Table 9  
*Primary location of employment breakdown of sample*

<table>
<thead>
<tr>
<th>Type of setting</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community mental health center</td>
<td>30 (17%)</td>
</tr>
<tr>
<td>Psychiatric outpatient clinic</td>
<td>30 (17%)</td>
</tr>
<tr>
<td>General medical hospital</td>
<td>20 (12%)</td>
</tr>
<tr>
<td>College/University counseling center</td>
<td>20 (12%)</td>
</tr>
<tr>
<td>Academic/research setting</td>
<td>19 (11%)</td>
</tr>
<tr>
<td>Private practice</td>
<td>15 (9%)</td>
</tr>
<tr>
<td>General medical outpatient clinic</td>
<td>10 (6%)</td>
</tr>
<tr>
<td>Residential treatment program</td>
<td>7 (4%)</td>
</tr>
<tr>
<td>Mental health/psychiatric hospital</td>
<td>7 (4%)</td>
</tr>
<tr>
<td>School (primary or secondary)</td>
<td>3 (2%)</td>
</tr>
<tr>
<td>Prison</td>
<td>1 (0.6%)</td>
</tr>
<tr>
<td>Other (e.g., specialty mental health clinic, home-based care)</td>
<td>8 (5%)</td>
</tr>
</tbody>
</table>

Table 10  
*Mean percentage of time participants engaged in clinical work*

| Mean percentage of time engaged in clinical work (SD) | 45.86% (27.18) |

Table 11  
*Licensing and practice pattern breakdown of sample*

<table>
<thead>
<tr>
<th>Unlicensed</th>
<th>Licensed</th>
</tr>
</thead>
<tbody>
<tr>
<td>56 (66%)</td>
<td>114 (33%)</td>
</tr>
<tr>
<td>Currently practicing psychotherapy</td>
<td>Not currently practicing psychotherapy</td>
</tr>
<tr>
<td>162 (94%)</td>
<td>8 (5%)</td>
</tr>
</tbody>
</table>
Table 12
*Location of practice breakdown of sample*

<table>
<thead>
<tr>
<th>Location of practice</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States (30 states represented)</td>
<td>156 (91%)</td>
</tr>
<tr>
<td>Canada</td>
<td>3 (2%)</td>
</tr>
<tr>
<td>Other country (e.g., Cyprus, Israel, New Zealand, Colombia)</td>
<td>5 (3%)</td>
</tr>
</tbody>
</table>

**Type of geographic area**

<table>
<thead>
<tr>
<th>Type of geographic area</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large city (population &gt; 100,000)</td>
<td>103 (60%)</td>
</tr>
<tr>
<td>Small city (population &lt; 100,000)</td>
<td>41 (24%)</td>
</tr>
<tr>
<td>Suburban</td>
<td>16 (9%)</td>
</tr>
<tr>
<td>Rural</td>
<td>10 (6%)</td>
</tr>
</tbody>
</table>

Table 13
*Percentage of participants endorsing each specialty area*

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety disorders</td>
<td>121 (70%)</td>
</tr>
<tr>
<td>Depressive disorders</td>
<td>89 (52%)</td>
</tr>
<tr>
<td>Disorders of infancy, childhood, or adolescence</td>
<td>29 (17%)</td>
</tr>
<tr>
<td>Substance use disorders</td>
<td>27 (16%)</td>
</tr>
<tr>
<td>Personality disorders</td>
<td>26 (15%)</td>
</tr>
<tr>
<td>Cognitive disorders</td>
<td>22 (13%)</td>
</tr>
<tr>
<td>Sleep disorders</td>
<td>12 (7%)</td>
</tr>
<tr>
<td>Bipolar disorder</td>
<td>11 (6%)</td>
</tr>
<tr>
<td>Eating disorders</td>
<td>10 (6%)</td>
</tr>
<tr>
<td>Schizophrenia and other psychotic disorders</td>
<td>9 (5%)</td>
</tr>
<tr>
<td>Sexual disorders</td>
<td>3 (2%)</td>
</tr>
<tr>
<td>Dissociative Disorders</td>
<td>3 (2%)</td>
</tr>
<tr>
<td>Other (e.g., anger, chronic pain, suicide risk)</td>
<td>27 (16%)</td>
</tr>
</tbody>
</table>
# Table 14

*Treatment Approaches and Techniques Questionnaire results*

<table>
<thead>
<tr>
<th>Technique</th>
<th>Almost/always/would definitely use</th>
<th>Frequently/would probably use</th>
<th>Sometimes/would possibly use</th>
<th>Never/would not use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body-energy work</td>
<td>0</td>
<td>5 (2.9%)</td>
<td>11 (6.4%)</td>
<td>154 (89.5%)</td>
</tr>
<tr>
<td>Touch and breathe</td>
<td>1 (0.6%)</td>
<td>5 (2.9%)</td>
<td>21 (12.2%)</td>
<td>143 (83.1%)</td>
</tr>
<tr>
<td>Muscle-testing/applied kinesiology</td>
<td>0</td>
<td>2 (1.2%)</td>
<td>9 (5.2%)</td>
<td>159 (92.4%)</td>
</tr>
<tr>
<td>Tapping of acupressure/acupuncture points</td>
<td>0</td>
<td>1 (0.6%)</td>
<td>5 (2.9%)</td>
<td>164 (95.3%)</td>
</tr>
<tr>
<td>Stimulation of energy meridians</td>
<td>0</td>
<td>1 (0.6%)</td>
<td>4 (2.3%)</td>
<td>165 (95.9%)</td>
</tr>
<tr>
<td>Bilateral stimulation (e.g., eye movements)</td>
<td>0</td>
<td>0</td>
<td>7 (4.1%)</td>
<td>163 (94.8%)</td>
</tr>
<tr>
<td>Free association</td>
<td>0</td>
<td>2 (1.2%)</td>
<td>13 (7.6%)</td>
<td>155 (90.1%)</td>
</tr>
<tr>
<td>Maintenance of analytic framework</td>
<td>1 (0.6%)</td>
<td>2 (1.2%)</td>
<td>14 (8.1%)</td>
<td>153 (89%)</td>
</tr>
<tr>
<td>Analysis/interpretation of transference</td>
<td>0</td>
<td>5 (2.9%)</td>
<td>50 (29.1%)</td>
<td>115 (66.9%)</td>
</tr>
<tr>
<td>Analysis/interpretation of resistances</td>
<td>1 (0.6%)</td>
<td>7 (4.1%)</td>
<td>44 (25.6%)</td>
<td>118 (68.6%)</td>
</tr>
<tr>
<td>Dream analysis</td>
<td>0</td>
<td>0</td>
<td>14 (8.1%)</td>
<td>156 (90.7%)</td>
</tr>
<tr>
<td>Enactments</td>
<td>1 (0.6%)</td>
<td>14 (8.1%)</td>
<td>52 (30.2%)</td>
<td>103 (59.9%)</td>
</tr>
<tr>
<td>Genogram work</td>
<td>4 (2.3%)</td>
<td>9 (5.2%)</td>
<td>41 (23.8%)</td>
<td>116 (67.4%)</td>
</tr>
<tr>
<td>Family reconstruction</td>
<td>1 (0.6%)</td>
<td>4 (2.3%)</td>
<td>28 (16.3%)</td>
<td>137 (79.7%)</td>
</tr>
<tr>
<td>Family sculpting</td>
<td>0</td>
<td>4 (2.3%)</td>
<td>20 (11.6%)</td>
<td>146 (84.9%)</td>
</tr>
<tr>
<td>Family mapping</td>
<td>2 (1.2%)</td>
<td>7 (4.1%)</td>
<td>39 (22.7%)</td>
<td>122 (70.9%)</td>
</tr>
<tr>
<td>Mirroring</td>
<td>6 (3.5%)</td>
<td>16 (9.3%)</td>
<td>51 (29.7%)</td>
<td>97 (56.4%)</td>
</tr>
<tr>
<td>Time delay prompting</td>
<td>2 (1.2%)</td>
<td>2 (1.2%)</td>
<td>34 (19.8%)</td>
<td>132 (76.7%)</td>
</tr>
<tr>
<td>Self-modeling</td>
<td>2 (1.2%)</td>
<td>36 (20.9%)</td>
<td>65 (37.8)</td>
<td>67 (39%)</td>
</tr>
<tr>
<td>Required relaxation</td>
<td>2 (1.2%)</td>
<td>11 (6.4%)</td>
<td>33 (19.2%)</td>
<td>124 (72.1%)</td>
</tr>
<tr>
<td>Shaping</td>
<td>22 (12.8%)</td>
<td>54 (31.4%)</td>
<td>65 (37.8%)</td>
<td>29 (16.9%)</td>
</tr>
<tr>
<td>Avoidance of loss contingency</td>
<td>7 (4.1%)</td>
<td>10 (5.8%)</td>
<td>57 (33.1%)</td>
<td>96 (55.8%)</td>
</tr>
<tr>
<td>Token economy</td>
<td>10 (5.8%)</td>
<td>28 (16.3%)</td>
<td>83 (48.3%)</td>
<td>49 (28.5%)</td>
</tr>
<tr>
<td>Homework/behavioral experiments</td>
<td>122 (70.9%)</td>
<td>41 (23.8%)</td>
<td>6 (3.5%)</td>
<td>1 (0.6%)</td>
</tr>
<tr>
<td>Exposure exercises</td>
<td>88 (51.2%)</td>
<td>59 (34.3%)</td>
<td>20 (11.6%)</td>
<td>3 (1.7%)</td>
</tr>
<tr>
<td>Social skills training</td>
<td>21 (12.2%)</td>
<td>75 (43.6%)</td>
<td>71 (41.3%)</td>
<td>3 (1.7%)</td>
</tr>
<tr>
<td>Cognitive restructuring</td>
<td>81 (47.1%)</td>
<td>55 (32%)</td>
<td>30 (17.4%)</td>
<td>4 (2.3%)</td>
</tr>
<tr>
<td>Logical paradoxes</td>
<td>7 (4.1%)</td>
<td>21 (12.2%)</td>
<td>56 (32.6%)</td>
<td>86 (50%)</td>
</tr>
<tr>
<td>Mindfulness/meditation practices</td>
<td>33 (19.2%)</td>
<td>73 (42.4%)</td>
<td>51 (29.7%)</td>
<td>13 (7.6%)</td>
</tr>
<tr>
<td>Cognitive “de-fusion” techniques</td>
<td>25 (14.5%)</td>
<td>42 (24.4%)</td>
<td>51 (29.7%)</td>
<td>52 (30.2%)</td>
</tr>
<tr>
<td>Experiments in directed awareness</td>
<td>5 (2.9%)</td>
<td>27 (15.7%)</td>
<td>66 (38.4%)</td>
<td>72 (41.9%)</td>
</tr>
</tbody>
</table>
Table 14 (continued)

<table>
<thead>
<tr>
<th>Values/goals clarification work</th>
<th>No EXT (33.1%)</th>
<th>With EXT (34.9%)</th>
<th>No EXT (26.2%)</th>
<th>With EXT (4.7%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of metaphors/stories</td>
<td>35 (20.3%)</td>
<td>53 (30.8%)</td>
<td>55 (32%)</td>
<td>27 (15.7%)</td>
</tr>
<tr>
<td>Experiential exercises</td>
<td>35 (20.3%)</td>
<td>52 (30.2%)</td>
<td>52 (30.2%)</td>
<td>31 (18%)</td>
</tr>
<tr>
<td>Breathing retraining</td>
<td>15 (8.7%)</td>
<td>54 (31.4%)</td>
<td>79 (45.9%)</td>
<td>22 (12.8%)</td>
</tr>
<tr>
<td>Relaxation methods</td>
<td>32 (18.6%)</td>
<td>70 (40.7%)</td>
<td>61 (35.5%)</td>
<td>7 (4.1%)</td>
</tr>
<tr>
<td>Ego strengthening</td>
<td>4 (2.3%)</td>
<td>9 (5.2%)</td>
<td>31 (18%)</td>
<td>126 (73.3%)</td>
</tr>
<tr>
<td>Re-authoring</td>
<td>2 (1.2%)</td>
<td>8 (4.7%)</td>
<td>28 (16.3%)</td>
<td>132 (76.7%)</td>
</tr>
<tr>
<td>Unconditional positive regard</td>
<td>55 (32%)</td>
<td>42 (24.4%)</td>
<td>47 (27.3%)</td>
<td>26 (15.1%)</td>
</tr>
<tr>
<td>Promotion of self-actualization</td>
<td>5 (2.9%)</td>
<td>22 (12.8%)</td>
<td>68 (39.5%)</td>
<td>75 (43.6%)</td>
</tr>
<tr>
<td>Logotherapy</td>
<td>0</td>
<td>6 (3.5%)</td>
<td>25 (14.5%)</td>
<td>139 (80.8%)</td>
</tr>
<tr>
<td>Non-directive support</td>
<td>22 (12.8%)</td>
<td>37 (21.5%)</td>
<td>84 (48.8%)</td>
<td>27 (15.7%)</td>
</tr>
</tbody>
</table>

Table 15

Comparison of free response treatment plans

<table>
<thead>
<tr>
<th>Response category</th>
<th>No EXT</th>
<th>With EXT</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXRP emphasized</td>
<td>125 (72.7%)</td>
<td>120 (69.8%)</td>
</tr>
<tr>
<td>EXRP mentioned, not emphasized</td>
<td>28 (16.3%)</td>
<td>26 (15.1%)</td>
</tr>
<tr>
<td>EXRP not mentioned</td>
<td>17 (9.9%)</td>
<td>20 (11.6%)</td>
</tr>
<tr>
<td>No response</td>
<td>2 (1.2%)</td>
<td>6 (3.5%)</td>
</tr>
<tr>
<td>Exposure paired with relaxation</td>
<td>19 (11.1%)</td>
<td>22 (13.1%)</td>
</tr>
</tbody>
</table>

EXT = extraneous information
### Table 16
Comparison of themes emerging from free response data in No EXT vs. With EXT conditions

<table>
<thead>
<tr>
<th>Themes</th>
<th>No EXT</th>
<th>With EXT</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXRP is evidence-based, gold standard treatment for OCD</td>
<td>24.6%</td>
<td>20.7%</td>
</tr>
<tr>
<td>Using supplemental CBT interventions along with EXRP to increase motivation to complete exposures</td>
<td>22.5%</td>
<td>21.3%</td>
</tr>
<tr>
<td>Another CBT intervention <em>must</em> be included for EXRP to be effective</td>
<td>15.5%</td>
<td>15.6%</td>
</tr>
<tr>
<td>Deep breathing, progressive muscle relaxation, or another anxiety reduction technique is needed in order for EXRP to be effective</td>
<td>10.3%</td>
<td>11.1%</td>
</tr>
<tr>
<td>OCD is the primary diagnosis, so OCD treatment should be conducted</td>
<td>6.4%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Problem solving therapy, supportive therapy, or family therapy is needed to address the patient’s psychosocial stressors</td>
<td>6.1%</td>
<td>15.9%</td>
</tr>
<tr>
<td>Cognitive restructuring should be the primary intervention</td>
<td>4.3%</td>
<td>2.7%</td>
</tr>
<tr>
<td>I chose this treatment plan because of my clinical experience, training, or theoretical orientation</td>
<td>4.0%</td>
<td>2.4%</td>
</tr>
<tr>
<td>This patient needs an insight-oriented treatment</td>
<td>2.7%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Relaxation or other anxiety reduction treatments should <em>not</em> be done, as they are incompatible with EXRP</td>
<td>1.2%</td>
<td>0%</td>
</tr>
<tr>
<td>More information is needed before I can develop a treatment plan</td>
<td>1.2%</td>
<td>1.2%</td>
</tr>
<tr>
<td>This patient does not have OCD</td>
<td>0.3%</td>
<td>0%</td>
</tr>
<tr>
<td>The patient is most likely depressed/has low self-esteem, and needs a separate treatment for this</td>
<td>0%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Unable to categorize response</td>
<td>0.9%</td>
<td>0.9%</td>
</tr>
</tbody>
</table>

EXT = extraneous information
### Table 17

**Pearson correlations among variables**

<table>
<thead>
<tr>
<th></th>
<th>% EXRP</th>
<th>EBPAS overall</th>
<th>EBPAS Div.</th>
<th>EBPAS Openness</th>
<th>EBPAS Appeal</th>
<th>EBPAS Req.</th>
<th>MEAQ</th>
<th>AAQ</th>
<th>REI</th>
<th>% clinical</th>
<th>Age</th>
<th>Time since highest degree</th>
<th>Imp. of religion</th>
</tr>
</thead>
<tbody>
<tr>
<td>% EXRP</td>
<td></td>
<td>0.32* (p&lt;.001)</td>
<td>0.45* (p&lt;.001)</td>
<td>0.40* (p&lt;.001)</td>
<td>NS</td>
<td>NS</td>
<td>-0.30* (p&lt;.001)</td>
<td>0.16* (p&lt;.001)</td>
<td>-0.37* (p&lt;.001)</td>
<td>NS</td>
<td>-0.21* (p&lt;.001)</td>
<td>-0.25* (p&lt;.001)</td>
<td>-0.13 (p&lt;.001)</td>
</tr>
<tr>
<td>EBPAS overall</td>
<td></td>
<td>0.36* (p&lt;.001)</td>
<td>0.69* (p&lt;.001)</td>
<td>0.37* (p&lt;.001)</td>
<td>0.67* (p&lt;.001)</td>
<td>0.80* (p&lt;.001)</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>-0.33* (p&lt;.001)</td>
<td>-0.36* (p&lt;.001)</td>
<td>NS</td>
</tr>
<tr>
<td>EBPAS Div.</td>
<td></td>
<td>0.23* (p&lt;.001)</td>
<td>NS</td>
<td>0.16* (p&lt;.001)</td>
<td>0.27* (p&lt;.001)</td>
<td>0.25* (p&lt;.001)</td>
<td>0.44* (p&lt;.001)</td>
<td>0.15* (p&lt;.001)</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>EBPAS Openness</td>
<td></td>
<td>0.30* (p&lt;.001)</td>
<td>0.30* (p&lt;.001)</td>
<td>-0.24* (p&lt;.001)</td>
<td>0.18* (p&lt;.001)</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>-0.22* (p&lt;.001)</td>
<td>-0.24* (p&lt;.001)</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>EBPAS Appeal</td>
<td></td>
<td>0.37* (p&lt;.001)</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>0.39* (p&lt;.001)</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>-0.32* (p&lt;.001)</td>
<td>-0.30* (p&lt;.001)</td>
<td>NS</td>
</tr>
<tr>
<td>EBPAS Req.</td>
<td></td>
<td></td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>MEAQ</td>
<td></td>
<td></td>
<td>NS</td>
<td>NS</td>
<td>0.17* (p&lt;.001)</td>
<td>-0.13 (p&lt;.001)</td>
<td>-0.21* (p&lt;.001)</td>
<td>-0.15 (p&lt;.001)</td>
<td>NS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AAQ</td>
<td></td>
<td></td>
<td>NS</td>
<td>-0.14 (p=.092)</td>
<td>0.17* (p=.025)</td>
<td>0.18* (p=.022)</td>
<td>0.15 (p=.057)</td>
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<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>REI</td>
<td></td>
<td></td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>0.16* (p=.01)</td>
<td>-0.22* (p=.003)</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>% clinical</td>
<td></td>
<td></td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
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<td>NS</td>
<td>NS</td>
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</tr>
<tr>
<td>Age</td>
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<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>Time since highest degree</td>
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<td>NS</td>
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<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>Imp. of religion</td>
<td></td>
<td></td>
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<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
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</tbody>
</table>

NS = not statistically significant
Table 18
Secondary Analyses, comparisons by gender (means shown with standard deviations in parentheses)

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Significant (or borderline) differences:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EBPAS Overall</td>
<td>3.40 (0.53)</td>
<td>3.67 (0.46)</td>
</tr>
<tr>
<td>EBPAS Requirement</td>
<td>3.28 (1.13)</td>
<td>3.79 (0.90)</td>
</tr>
<tr>
<td>EBPAS Appeal</td>
<td>3.32 (0.80)</td>
<td>3.60 (0.76)</td>
</tr>
<tr>
<td>EBPAS Openness</td>
<td>3.46 (0.75)</td>
<td>3.69 (0.68)</td>
</tr>
<tr>
<td>REI</td>
<td>59.66 (12.42)</td>
<td>63.63 (12.33)</td>
</tr>
<tr>
<td><strong>Non-significant differences:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EBPAS Divergence</td>
<td>3.55 (0.57)</td>
<td>3.60 (0.43)</td>
</tr>
<tr>
<td>MEAQ</td>
<td>132.41 (29.08)</td>
<td>138.07 (32.92)</td>
</tr>
<tr>
<td>AAQ</td>
<td>56.17 (7.01)</td>
<td>56.28 (6.54)</td>
</tr>
<tr>
<td>% EXRP</td>
<td>107.34 (55.14)</td>
<td>111.12 (49.92)</td>
</tr>
<tr>
<td>% time clinical work</td>
<td>43.36 (26.04)</td>
<td>46.82 (27.64)</td>
</tr>
</tbody>
</table>
Vita

EDUCATION AND TRAINING

Drexel University, Philadelphia, PA, 2008-2013
  Doctor of Philosophy, Clinical Psychology
  Master of Science, Clinical Psychology
Cornell University, Ithaca, NY, 2002-2006, Bachelor of Science

APA ACCREDITED INTERNSHIP

Minneapolis Veterans Affairs Health Care System, Minneapolis, MN, 2012-2013

RESEARCH EXPERIENCE

Research Associate, Comorbidity and Post-Deployment Outcomes in National Guard Soldiers, Rapid Response Protocol, Minneapolis VAMC
Research Coordinator, Acceptance-Based Behavior Therapy Program, Drexel University
Research Associate, Social Anxiety Treatment Program, Drexel University
Research Associate, Mood and Anxiety Treatment Program, NIMH

PUBLICATIONS