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Why Worry About It? Clinicians' Acceptance, Preference, and Use of Imaginal Exposure and
Other Techniques to Treat Generalized Anxiety

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Abstract

Generalized anxiety disorder (GAD) is challenging to treat; only approximately 50% of patients have been identified as having meaningful anxiety symptom reduction, with high relapse rates (e.g., Borkovec et al., 2002; Rappay, Bystritsky, Dafter, & Spearman, 2011). Imaginal exposure (IE) has been shown to decrease behavioral avoidance of emotions as well as anxiety symptoms (Fracalanza, Koerner, & Antony, 2014; Hoyer & Beesdo-Baum, 2012), yet clinicians often do not use exposure treatments due to their attitudes about evidence-based practice, treatment preferences, and beliefs about client discomfort (e.g., Harned, Dimeff, Woodcock, & Contreras, 2013; Meyer, Farrell, Kemp, Blakey, & Deacon, 2014; Whiteside, Deacon, Benito, & Stewart, 2016). This study sought to determine if there were differences in the types of CBT approaches that psychologists (N = 244) accept, prefer, and use to treat GAD in practice as well as to assess clinicians' beliefs about IE. Participants read two case vignettes, one using IE and one using cognitive restructuring and relaxation training (CRRT), to treat a potential client with GAD. Results showed that participants found both treatments moderately acceptable, but were significantly more likely to prefer and use CRRT techniques. Psychologists who endorsed obtaining more exposure-specific training and receiving CBT-oriented post-doctoral training were significantly more likely to accept, prefer, and use IE than other psychologists. Those who reported attending a more CBT-oriented graduate program were more likely to use IE than those who attended a less CBT-oriented graduate program. More negative beliefs about IE were significantly positively correlated with preference and use of CRRT, although psychologists who obtained more exposure-specific training and attended CBT-oriented post-doctoral training endorsed fewer negative beliefs about IE. This study's findings point to a need to educate clinicians about the benefits of IE for GAD.

TABLE OF CONTENTS

SECTION	PAGE NUMBER
TITLE PAGE.....	1
ABSTRACT.....	2
TABLE OF CONTENTS.....	3
LIST OF TABLES AND FIGURES.....	5
INTRODUCTION.....	
<i>Why Worry About It? Clinicians' Acceptance, Preference, and Use of Imaginal Exposure and Other Techniques to Treat Generalized Anxiety.....</i>	6
The Roles of Worry and Emotion Regulation in Generalized Anxiety Disorder.....	7
Effective Treatments for Generalized Anxiety Disorder.....	8
Exposure Therapy for Generalized Anxiety Disorder.....	10
Exposure Acceptance in Clinical Practice.....	19
Exposure Preference in Clinical Practice.....	21
Exposure Use in Clinical Practice and Related Barriers.....	22
Statement of the Problem.....	26
Purpose and Rationale of the Present Study.....	28
METHOD.....	31
Participants.....	31
Design.....	35
Measures.....	34
Procedure.....	37
Data Analysis.....	38

RESULTS.....	39
Descriptive Statistics	39
Statistical Analyses.....	41
DISCUSSION	51
Overview and Summary of the Current Study.....	51
Clinical Implications.....	55
Study Limitations.....	57
Future Directions.....	61
Conclusion	63
REFERENCES	65
APPENDIX A.....	80
APPENDIX B.....	83
APPENDIX C.....	85
APPENDIX D.....	86
APPENDIX E.....	88
APPENDIX F.....	89
APPENDIX G.....	92

LIST OF TABLES AND FIGURES

Table 1. Sample Characteristics.....	31
Table 2. Descriptives of Key Study Variables.....	39
Table 3. Correlation Coefficients Between Acceptability, Preference, and Use.....	41
Table 4. Correlation Coefficients Between Demographics/TBES and Acceptance, Preference, and Use	42
Table 5. Chi-Square Analyses of Associations Between Demographics and Preference and Use	42
Table 6. Correlations Coefficients Between Clinical Training Variables, and Acceptability, Preference, Use, and TBES Scores.....	43
Table 7. Chi-Square Analyses of Associations Between Clinical Training Variables and Preference and Use.....	44
Table 8. Response Percentages and Means from the Treatment Likes and Dislikes Questionnaire.....	44
Figure 1.....	46
Figure 2.....	47
Figure 3.....	48
Figure 4.....	48
Figure 5.....	49
Figure 6.....	50
Figure 7.....	50
Figure 8.....	51
Figure 9.....	51

Why Worry About It? Clinicians' Acceptance, Preference, and Use of Imaginal Exposure and Other Techniques to Treat Generalized Anxiety

Generalized anxiety disorder (GAD) is a type of anxiety disorder defined by chronic and pervasive worry. (Barlow, Blanchard, Vermilyea, Vermilyea, & Di Nardo, 1986). According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) (American Psychiatric Association, 2013), GAD is characterized by excessive, uncontrollable worry about a variety of topics that occurs more days than not for a period of at least six months. The worry causes distress and/or functional impairment and is associated with at least three of the following features: restlessness or feeling keyed up or on edge, being easily fatigued, difficulty concentrating or having one's mind go blank, irritability, muscle tension, and sleep disturbance (American Psychiatric Association, 2013). Typically, GAD has a chronic course with significant impairment for affected individuals (Wells & Carter, 2001). Individuals with GAD often worry excessively and uncontrollably about routine or everyday life circumstances, such as work and school performance, the health of family members, personal health, and finances, as well as more minor topics, such as details of interpersonal interactions or completing household chores. These individuals often shift the topics that they most worry about, making it difficult to pinpoint and treat a person's most serious concern across time.

GAD is one of the most commonly diagnosed anxiety disorders (Huppert & Ryan, 2004), with lifetime prevalence estimates in the general population ranging from approximately 4–6% (e.g., Beesdo, Pine, Lieb, & Wittchen, 2010; Gwynn et al., 2008; Kessler et al., 2002). GAD can have numerous negative effects on individuals' quality of life and functioning at work (Hoffman, Dukes, & Wittchen, 2008), social relationships (Henning, Turk, Mennin, Fresco, & Heimberg, 2007), and sleeping (Alfano, Ginsburg, & Kingery, 2007;

Tsypes, Aldao, & Mennin, 2013), and has a high comorbidity with other psychological and medical disorders (Alegría et al., 2010; Newman, Przeworski, Fisher, & Borkovec, 2010; Starr & Davila, 2012; Stein, 2001). Characteristics of clients with GAD include less tolerance for uncertainty than non-anxious individuals, particularly in relation to anxiety about the future (e.g., Buhr & Dugas, 2012; Lee, Orsillo, Roemer, & Allen, 2010). The authors noted that people experiencing GAD tend to perceive worry as uncontrollable, which leads to increased anxiety and attempts to control worry. Further perceptions of uncontrollable worry perpetuate a vicious cycle of anxiety and worrisome thoughts.

The Roles of Worry and Emotion Regulation in Generalized Anxiety Disorder

Worry and emotion regulation are considered core components of GAD. In generalized anxiety, most of the sufferer's feared events are located in the mind; it is, in essence, worrying about future worries and a fear of feeling painful emotions (Buhr & Dugas, 2012). For example, some individuals with GAD may worry extensively about their performance on a school exam or a job task before finding out the results. They find the uncertainty of not yet knowing the outcome difficult or intolerable. These worries tend to be superficial, appearing to function as an avoidance of emotions (e.g., Cooper, Miranda, & Mennin, 2013; Llera & Newman, 2014). Most cognitive-behavioral theoretical models of GAD consider worry and emotional avoidance as central features of the disorder (Behar, DiMarco, Hekler, Mohlman, & Staples, 2009). Borkovec and colleagues' (Borkovec, 1994; Borkovec, Alcaine, & Behar, 2004) cognitive avoidance theory of worry posits that individuals with GAD engage in worrying in order to evade aversive images as well as to reduce physiological (i.e., muscle tension) and emotional responses, which makes worrying negatively reinforcing.

Emotion regulation deficits in individuals with GAD have been linked to chronic worry

(e.g., Mennin, Heimberg, Turk, & Fresco, 2005; Salters-Pedneault, Roemer, Tull, Rucker, & Mennin, 2006). Specifically, the inability to tolerate uncertainty and worry in GAD has been connected with avoidance of emotionally laden experiences and overall distress about emotions (e.g., Borkovec & Roemer, 1995; Lee, Orsillo, Roemer, & Allen, 2010; Roemer, Salters, Raffa, & Orsillo, 2005). Consequently, individuals with generalized anxiety have often been shown to demonstrate difficulty regulating negative emotions. In one study, participants with GAD who watched a sad film clip demonstrated significantly poorer understanding, acceptance, and management of their emotions than did control participants (McLaughlin, Mennin, & Farach, 2007). In fact, some individuals with GAD have been found to engage in cognitive avoidance, safety behaviors, and reassurance seeking to cope with emotionally arousing situations and thoughts (Beesdo-Baum et al., 2012). Perceived control over one's emotional reactions has been shown to be a unique predictor of GAD diagnostic status as well as both clinical and non-clinical levels of worry (Stapinski, Abbott, & Rapee, 2010).

Effective Treatments for Generalized Anxiety Disorder

Cognitive behavioral therapy (CBT) for GAD has been shown to reduce worry symptoms and improve emotion regulation in several randomized controlled trials (RCTs) (e.g., Borkovec, Alcaine, & Behar, 2004; Covin, Ouimet, Seeds, & Dozois, 2008; Hoyer et al., 2012). CBT treatment components used in these studies included identification of anxiety symptoms, relaxation strategies, self-control desensitization (i.e., a type of extinction in which anxiety-provoking stimuli are paired with relaxation), emotion regulation strategies, acceptance and mindfulness techniques, in vivo exposure, imaginal exposure (IE), and cognitive restructuring of cognitive distortions. A meta-analysis of 10 studies (M age = 50.75 years old) examining the effects of CBT for pathological worry, a core component of GAD, found a large

overall effect size (Glass's $\Delta = -1.15$) when compared to control groups (Covin et al., 2008). One RCT went beyond the assessment of symptoms and examined the effects of CBT on occupational functioning, sickness absence, and medication utilization ($N = 72$; age range = 18-65). Findings demonstrated that 25 sessions of CBT significantly reduced inappropriate or unnecessary psychotropic medication usage, the number of sickness absence days from work, and resulted in less overall impairment in occupational role functioning within groups compared to baseline (Linden, Zubrägel, & Bär, 2011).

Another strategy for reducing symptoms of anxiety and worry incorporates acceptance and mindfulness-based practices into treatment. An RCT assigned individuals ($N = 81$; M age = 32.93 years old) with GAD to either 16 sessions of acceptance-based behavior therapy (ABBT) or 16 sessions of Applied Relaxation (AR) (Hayes-Skelton, Roemer, & Orsillo, 2013). AR is an effective treatment that focuses on developing relaxation skills through deep breathing and progressive muscle relaxation (Bernstein, Borkovec, & Hazlett-Stevens, 2000; Öst, 2007). The authors note that they developed the acceptance-based approach specifically because people with GAD focus excessive attention on internal discomfort or worry; thus, acceptance-based techniques guide individuals with GAD to accept internal experiences and to engage in outside pleasurable activities. Results for both groups indicated similar levels of improvement, suggesting that an acceptance-based modality is also beneficial for GAD. Another RCT compared the benefits of the manualized Mindfulness-Based Stress Reduction (MBSR) program with an active control group that participated in a stress management education workshop (Hoge et al., 2013). Results of this study demonstrated that participants who completed the MBSR protocol exhibited a significantly larger average response compared

to those in a control group of anxious individuals who received a stress management education intervention, indicating the benefits of mindfulness for treating GAD.

Some research has shown that CBT significantly reduces anxiety symptoms, both post-treatment as well as in follow-up phases, significantly more than other interventions. One study examined the long-term stability of treatment effects of CBT and short-term psychodynamic psychotherapy in adults. Both treatments yielded significant improvements at the 12-month follow-up, but CBT uniquely reduced trait anxiety and levels of worry (Salzer et al., 2011). This finding demonstrates the long-term benefits of CBT interventions in reducing anxiety and worry symptoms. Additionally, a recent RCT (N = 65) compared CBT (which included psychoeducation, worry awareness training, re-evaluation of the usefulness of worry, and IE, in which participants developed a scenario describing their worst fear using the downward arrow technique, recorded the scenario on tape, and listened to the tape for 20-60 minutes per day until it no longer triggered anxiety) with applied relaxation (AR) and a group of waitlist control subjects (Dugas et al., 2010). Findings demonstrated that CBT was superior to both AR and the waitlist group for reducing GAD symptoms at post-treatment, as measured by standardized clinician ratings as well as self-report questionnaires. During follow-ups at 6, 12, and 24 months, however, only CBT led to significantly decreased levels of worry at 24 months. The researchers posited that the benefits gained from CBT may be due to the fact that the CBT condition was based on the intolerance of uncertainty model of GAD, while the AR condition was based on a physiological model of anxiety. Overall, these studies demonstrate how that many CBT interventions have been found to be helpful in treating GAD.

Exposure Therapy for Generalized Anxiety Disorder

Although the CBT techniques described above comprise many helpful and effective treatments for GAD, many of these treatments include little or no exposure work (e.g., Becker et al., 2004; Deacon et al., 2013; Szkodny et al., 2014; van Minnen et al., 2010; Young, Klap, Shoai, & Wells, 2008). This is unfortunate, as research has demonstrated that exposure is the active ingredient in treating anxiety disorders (e.g., Barlow, 2002; Carey, 2011; Kazdin & Weisz, 1998; Kendall et al., 2005). In fact, a number of studies have demonstrated that exposure alone appears to be more effective than a combination of other anxiety management strategies (e.g., Adams, Brady, Lohr, & Jacobs, 2015; Ale et al., 2015; Deacon & Abramowitz, 2004; Whiteside et al., 2015). A recent meta-analysis of CBT components for anxiety disorders examined 16 RCTs. The authors found that contrary to popular belief, combining cognitive and behavioral interventions did not significantly improve anxiety symptoms across the studies. Rather, exposure-based interventions alone were deemed efficacious (Adams et al., 2015). Another meta-analysis examining elements of CBT interventions in childhood anxiety disorders found that adding relaxation and delaying exposure interventions until after introducing other anxiety management strategies did not increase the efficacy of exposure-based treatment. This meta-analysis assessed 44 RCTs and noted that while many clinicians tended to include relaxation and other anxiety management strategies prior to implementing exposure interventions with children, the studies that used more exposure and less relaxation were more effective (Ale et al., 2015). Additionally, authors of one study noted that introducing exposure early on in treatment was significantly associated with greater improvement over fewer sessions than introducing exposure in later sessions (Whiteside et al., 2015). Deacon and Abramowitz (2004) conducted a review of meta-analytic studies (N = 19)

for various anxiety disorders and noted that pure exposure-based interventions appear to work just as well as combined treatments (e.g., cognitive and behavioral).

A review of the theoretical underpinnings of exposure therapy may help shed light on its underuse in GAD trials. Exposure therapy is derived from Mowrer's (1947) two-factor theory, as the goal is to reduce the connection between a conditioned stimulus (CS) and a conditioned response (CR), such as intense fear. The cycle of worry common to GAD can be explained by Mowrer's theory. Mowrer's theory explains that worry develops when a person encounters an unconditioned stimulus (UCS), which is the event or situation that is initially frightening. Examples of unconditioned stimuli include experiencing a distressing interpersonal interaction, having a panic attack, or being in an accident. The original fearful response to the UCS is the unconditioned response (UCR), which could be feelings of anxiety, such as restlessness, fatigue, fast heartbeat, and other physiological indicators. The individual then learns to associate a CS, which in GAD is theorized as an internal fear cue or negative imagery of the worst that could happen in the feared situation (Borkovec et al., 2004), with the UCS, which elicits the CR. The CS alone then becomes enough to evoke the CR. The emotional and physiological responses to feared stimuli (CR) are then so aversive that sufferers will often do whatever is necessary to avoid it. Worrying can reduce a person's attention to aversive images and full processing of emotional and physical responses. Because avoidance reduces fear elicited by the CS in the short term, worrying is negatively reinforced, and avoidance is maintained. Exposure therapy addresses this avoidance by bringing the person into contact with the feared images and emotions.

The way exposure work is conducted depends on the nature of a person's fear; generally, however, patients begin by confronting moderately distressing stimuli (often through

in vivo or interoceptive methods) and gradually work up to more challenging situations (Abramowitz et al., 2011). Each exposure experience lasts until inhibitory learning has occurred and change has taken place. Inhibitory learning, which is learning that impedes previous learning, is vital for extinction of fear. For instance, an individual might have (incorrectly) theorized that if he or she has a panic attack, he or she will die. Following exposure treatment, the individual will learn something new: that he or she can have a panic attack and *not* die. This new learning competes with the previous learning and thus inhibits it. Of note, habituation does not have to occur during the exposure session in order for lasting improvement (Craske, Treanor, Conway, Zbozinek, & Vervliet, 2014; van Minnen & Foa, 2006). One reason that exposure for GAD could be so effective may be that worry, a central feature of GAD (Buhr & Dugas, 2012; Wells, 2002), appears to function as an avoidance of emotions (Cooper et al., 2013; Llera & Newman, 2014), yet is not addressed in several of the interventions discussed above. Exposure therapy for generalized anxiety addresses both worry and emotion dysregulation by reducing the connection between internalized fear cues/negative imagery of a worst-case scenario and subsequent intense fear (Borkovec et al., 2004).

Exposure therapy has substantial research support for treating PTSD, obsessive-compulsive disorder (OCD), specific phobias, and other anxiety disorders (e.g., McKay et al., 2015; Parsons & Rizzo, 2008; Powers, Halpern, Ferenschak, Gillihan, & Foa, 2010); however, this intervention is less frequently implemented by clinicians when treating GAD (Abramowitz et al., 2011). This may be because in vivo exposure techniques are not sufficient for addressing many of the worry symptoms found within generalized anxiety. For example, people with GAD may not have encountered the scenarios they fear and cannot plan to confront these fears due to the calamitous nature of many highly-feared stimuli, such as losing a loved one or being

fired from a job (Abramowitz et al., 2011). Consequently, it is challenging for clinicians to conduct IE for GAD. Fracalanza, Koerner, and Antony (2014) note that research to date has not yielded substantial information on the best methods to conduct IE with individuals experiencing GAD. Furthermore, although IE procedures have been described in manuals, little research has examined guidelines for using these strategies, how they actually reduce generalized anxiety, and any impact they may have on vulnerability factors that create and maintain psychopathology (Koerner & Fracalanza, 2012).

Several variations of IE for GAD have been described. For example, Craske (1999) developed an IE procedure based on Borkovec and colleagues' (Borkovec, 1994; Borkovec, Alcaine, & Behar, 2004) cognitive avoidance theory of worry. In Craske's method, the client and clinician first practice imaging a neutral scenario (such as rain drops rolling down a window) so that this training will optimize the IE experience. Next, the client and clinician select an exposure target for the feared scenario. Using the downward arrow technique, the therapist works with the client to reach the worst possible outcome. For instance, the client's feared hypothetical scenario may be, "If I do not perform to a certain standard at work, I will lose my job." By investigating each step of the downward arrow, the clinician works with the client to identify the worst possible outcome, such as, "I will end up homeless and my spouse and children will leave me." During exposure, the client is asked to sit with his or her eyes closed for at least 25 minutes while narrating the scenario out loud and to avoid engaging in distraction and other anxiety controlling strategies (i.e., adding positive or reassuring elements to the scenario). After 25 minutes, clients stop the exposure and are guided through cognitive re-evaluation. For instance, the clinician may ask the client to think of and write down alternative options to the feared scenario or ways that he or she would cope if the feared

scenario did in fact happen. Then, the client is asked to evaluate the likelihood of the feared scenario.

Dugas and Robichaud (2007)'s approach to IE for GAD derives from Foa and Kozak's (1986) emotional processing theory. Emotional processing theory emphasizes processing traumatic experiences in order to reduce anxious symptoms. According to this theory, fear is comprised of a large number of stimulus elements that are erroneously associated with danger. The person feels incompetent to cope with these fears. These sets of negative cognitions lead to a cycle of reinforcing erroneous cognitions, in which an individual feels fearful when confronted with a number of stimuli and then feels that he or she cannot manage this fear. This is likely to result in continuing to feel anxious. In Dugas and Robichaud's procedure, the therapist first explains the rationale for exposure work, using a fear of dogs as an example for how avoiding a feared object or situation may be beneficial in the short-term but is counterproductive over time. The clinician emphasizes how traumatic experiences can be processed, rather than avoided, by engaging in exposure work. Once the client understands avoidance, the clinician uses diagrams to demonstrate how repeated, systematic exposure to feared situations will extinguish the anxiety response. The clinician also explains how exposure reduces chronic avoidance of worrisome events or situations.

The next step involves the client and therapist selecting an exposure scenario and using the downward arrow technique (Dugas & Robichaud, 2007). The client then writes out an exposure script in which he or she creates a narrative of his or her worst fear coming true. In line with Foa and Kozak's (1986) work, the clinician encourages the client to include as many sensory and emotional references into the narrative as possible, to write in the present tense, and to use first person in order to make a mental image strong enough to activate the client's

underlying fear structure. After the client writes the narrative and reviews it with the therapist, exposure begins; in this procedure, the client reads the narrative out loud, slowly, and with as much expression as possible, while audiotaping it. The therapist assesses the client's anxiety every minute and then reviews anxiety ratings after the exposure in order to demonstrate that although anxiety increases at first, it decreases as time goes on. The client then takes the audiotape home and is encouraged to listen to it daily until thinking about the feared scenario no longer evokes more than minimal anxiety.

Persons' (2014) approach to IE involves the client imagining the feared scenario until habituation occurs. She notes that IE can be particularly useful when in vivo exposure is not practical or possible (i.e., a client who fears she will harm her child) or when the client is so anxious or avoidant that he or she cannot do in vivo exposure. In her technique, the client and clinician develop a hierarchy of fear-evoking scenes ranging from least to most anxiety inducing. Then, the client and clinician construct each of the scenes as vividly as possible, using descriptions of sensory elements as well as the setting itself and the client's actions. Imaginal scenes in this technique are meant to be vivid, "movie-like" images. Persons advises that clients engage in imagery training if they are poor imagers in order to benefit fully from IE. The client is asked to sit comfortably and close his or her eyes. The therapist then describes the elements of the scene while asking the client to describe his or her sensory experience, feelings, and thoughts. Every five to 10 minutes, the clinician asks the client to report his or her anxiety on a scale of 0-10 and then return immediately to the scene. The scene is recorded on audiotape for the client to listen to as homework. The clinician prevents the client from engaging in safety behaviors, cognitive avoidance (e.g., thinking about a neutral image instead of the exposure scenario), and seeking reassurance during the exposure.

Little research has focused on examining the effects of IE for GAD. To the author's knowledge, only one study has examined the effects of written IE for treating GAD (Fracalanza et al., 2014). Specifically, individuals ($N = 57$) with GAD wrote about their feared scenarios under three different conditions: repeatedly writing about their "worst case" scenario (consistent exposure), writing about varied outcomes of their most-feared scenario (varied exposure), or a neutral topic (control condition). Results demonstrated that individuals in the consistent exposure condition exhibited significant decreases in worry, cognitive avoidance, and intolerance of uncertainty at a 1-week follow-up as measured by self-report questionnaires but that those in the varied exposure and control conditions did not. Scores on one measure, the Worry and Anxiety Questionnaire-Associated Symptoms Subscale, showed a significant decrease in GAD symptoms from baseline to follow-up. The authors suggest that writing repeatedly about a worst-case scenario appears to benefit individuals with GAD, particularly when participants included more references to negative emotions and wrote in the present tense.

Similar to IE, worry exposure, an approach that involves getting the person to worry more rather than less, has also been shown to significantly reduce symptoms of GAD. Worry exposure trains anxious individuals to rationally process and evaluate their fears, with the goal of leading to more effective problem solving (van der Heiden & Broeke, 2009). A useful technique in worry exposure work is assigning a scheduled "worry time" each day during which individuals with GAD are instructed to think about or write about all of their worries, including what they fear will happen and drawing upon as many of their five senses as possible. This method parallels what is done in most IE protocols. One study demonstrated that worry exposure using a manualized protocol by Becker and Margraf (2002) without

incorporating any other cognitive-behavioral interventions was as beneficial as applied relaxation in treating symptoms of GAD (Hoyer et al., 2009). The treatment (N = 73) consisted of 15 sessions of either worry exposure or applied relaxation with outpatients meeting diagnostic criteria for GAD. It included six month and one-year follow-ups with treatment effects found to be stable as measured by the Hamilton Anxiety Rating Scale, the State-Trait Anxiety Inventory, and self-report scales of anxiety, worrying and depression, including negative cognitions about worrying and thought suppression. To the author's knowledge, Fracalanza et al.'s (2014) and Hoyer et al.'s (2009) studies appear to be the only published trials that have examined the impact of imaginal or worry exposure alone on symptoms associated with GAD.

IE has also demonstrated effectiveness in treating other disorders, such as PTSD, specific phobias, and social anxiety (e.g., Davis et al., 2013; Tarrier & Humphreys, 2000; Vrielynck & Philippot, 2009). One study demonstrated that when participants (N = 62) with PTSD were assigned to either an IE condition or to a cognitive therapy condition, there were no differences found in improvement as measured by a self-rating scale, the Subjective Symptom Checklist (SSC), developed to assess perceptions of symptoms in between sessions (Tarrier & Humphreys, 2000). When patients who failed to respond to treatment were removed from study analyses, however, participants who received IE displayed a significantly greater reduction in subjective ratings of their symptoms than did those who received cognitive therapy. A study examining the effects of using IE when stimuli are prohibitive or unavailable to treat individuals (N = 49) with specific phobias found that using IE was as beneficial as in vivo exposure (Davis et al., 2013). Additionally, Vrielynck and Philippot (2009) demonstrated that individuals with social anxiety (N = 49) benefitted significantly more from IE when they

were asked to focus on specific elements of a personally experienced stressful social situation than participants who were told to focus on generic components (i.e., what they would likely experience in similar social situations). These studies support the effective use of IE with various anxiety disorders.

Overall, research has demonstrated the efficacy of IE for the treatment of generalized anxiety and related disorders such as PTSD, specific phobias, and social anxiety (e.g., Abramowitz, 2013; Abramowitz et al., 2011; Craske et al., 2014; Davis et al., 2013; Dugas et al., 2010; Fracalanza et al., 2014; Hoyer et al., 2009; Kazdin & Weisz, 1998; McKay et al., 2015; Parsons & Rizzo, 2008; Peterman et al., 2015; Powers et al. 2010; TARRIER & Humphreys, 2000; van Minnen & Foa, 2006; Vrielynck & Philippot, 2009). Several researchers have also offered guidance regarding how to conduct IE with clients with GAD (Borkovec et al., 1994; Craske, 1999; Dugas and Robichaud, 2007; Fracalanza et al., 2014; Persons, 2014; van der Heiden and Broeke, 2009). Therefore, it is surprising that the majority of treatment research for this disorder had focused on other cognitive-behavioral techniques, such as cognitive restructuring and relaxation (Barlow, Rapee, & Brown, 1992; Siev & Chambless, 2007), particularly when remission rates are low and relapse rates are high (Borkovec et al., 2002; Rapgay et al., 2011). In fact, research has demonstrated that many adults with anxiety are not offered CBT interventions at all, let alone exposure therapy (e.g., Stein et al., 2011; Wolitzky-Taylor, Zimmermann, Arch, De Guzman, & Lagomasino, 2015).

Exposure Acceptance in Clinical Practice

Acceptability to clinicians comprises a crucial component when deciding which treatments to use with clients. Kazdin (1981) originally defined treatment acceptance as “judgments by lay persons, clients, and others of whether treatment procedures are appropriate,

fair, and reasonable for the problem or client” (p. 493). It is important to examine if clinicians find IE for GAD acceptable, as perceptions of treatment will likely have implications for this treatment’s dissemination and clinical use. For instance, implementing evidence-based treatments in clinical and training settings is often difficult and involves the expenditure of many resources (e.g., time, finances). If clinicians hold the attitude that a treatment is unacceptable for whatever reason, they will be unlikely to consider using it, even if relevant literature supports its efficacy.

Research has found that clinicians often avoid exposure therapy in their practices due to their attitudes about evidence-based practice, inclinations towards certain treatments, and beliefs about discomfort clients would experience (e.g., Becker, Zayfert, and Anderson, 2004; Harned et al., 2013; Scherr, Herbert, & Forman, 2015). For example, Scherr et al. (2015) examined the relationship between 172 therapists’ self-reported levels of discomfort and avoidance of the temporary increase in distress that patients with various anxiety disorders often experience during exposure therapy, as well as their self-reported use of exposure with a prospective client. Participating clinicians watched simulated therapy sessions and were asked to indicate the percentage of time they would give to various therapeutic techniques, including exposure. The authors found that clinicians with greater discomfort and higher levels of avoidance allotted significantly less time for exposure, whereas therapists who supported evidence-based practice gave more time for in-session exposure work. Additionally, positive attitudes towards evidence-based treatments significantly predicted higher self-reported use of exposure. The researchers hypothesized that clinicians’ hesitancy to use exposure therapy may stem from therapist avoidance and discomfort of the temporary increase in distress that patients commonly experience as part of exposure therapy, as well as secondary distress that this

technique may trigger within clinicians.

To the author's knowledge, no studies to date have examined clinicians' acceptance of any types of CBT techniques to treat GAD, let alone research comparing acceptance of different interventions. Before deciding which treatment(s) to disseminate, it is important to first assess clinicians' appraisals of the acceptability of these treatments. In addition, finding that IE is not as acceptable as other CBT interventions could suggest the need to improve clinicians' understanding of the treatment and its rationale.

Exposure Preference in Clinical Practice

Comparing the acceptability of two or more treatment procedures provides a measure of treatment preference (Kazdin, 1981). It is important to assess clinicians' treatment preferences when more than one treatment approach is available, especially when more than one approach has been shown to be effective; this is the case when considering cognitive-behavioral treatment approaches for generalized anxiety. Determining which GAD treatments clinicians prefer and factors related to these preferences can serve as the first step toward identifying and then addressing clinicians' discomfort and reluctance to use less preferred treatments.

To the author's knowledge, little research has examined clinicians' preferences for using IE compared to other treatments. One study by van Minnen, Hendriks, and Olf (2010) examined when trauma experts (N = 255) preferred to use IE therapy to treat individuals with PTSD and found that both patient and therapist factors impacted clinicians' decisions. Treatment preference was measured by asking clinicians to evaluate to what extent they offered each of the treatment options (IE, eye movement desensitization and reprocessing, medication, and supportive counseling) on a 10-point Likert scale ranging from one (never) to

ten (always). When comorbid depression was present in patients, clinicians were significantly more likely to choose to refer the patient for medication than to use IE. IE, however, was significantly more likely to be offered when patients expressed a wish for trauma-focused treatment. Additionally, clinicians who believed that IE had high credibility (as based upon the Credibility Scale [CS; Addis & Carpenter 1999] which consists of five statements such as “this treatment seems logical to me” and “this treatment would be effective for most people”) showed significantly greater preference for using the technique. The researchers found, however, that clinicians treating patients who had suffered multiple traumas in childhood were significantly less likely to select IE for the chosen intervention than the other three treatments described, citing barriers such as a fear of symptom exacerbation and treatment dropout. In addition, the majority of trauma experts were undertrained in using IE, indicating that there is a great need for clinicians treating trauma to receive training in IE.

To the author’s knowledge, no studies to date have assessed clinicians’ preferences for various GAD treatments. Similar to the lack of treatment researchers who have decided to study IE treatment for GAD, clinicians may not prefer to provide this treatment approach. Factors such as the amount of training received in IE or in behavior therapy in general may play a role in clinicians’ preferred treatment strategies.

Exposure Use in Clinical Practice and Related Barriers

Perhaps more important than the treatment clinicians say they accept and prefer for clients with a specific disorder are the treatments that clinicians reportedly use with their clients. For example, results from the Harvard/Brown Anxiety Research Project, a large multicenter study (N = 231), indicated that only 23% of treated patients with any type of anxiety disorder reported receiving even occasional IE, while only 19% had received even

occasional in vivo exposure (Goisman et al., 1993). Unfortunately, these data were collected from the clients' perspectives and did not include clinicians' perceptions of barriers to conducting exposure therapy.

Another study assessed clinicians' use of exposure therapy to treat PTSD as well as related barriers (Becker, Zayfert, & Anderson, 2004). They surveyed 852 psychologists from three states. They also surveyed 50 members of a trauma special interest group of a national behavior therapy organization. Results indicated that the majority of psychologists treating PTSD did not use exposure techniques; surprisingly, only 17% of respondents in the main sample reported using exposure, while 66% of psychologists from the trauma special interest group indicated using exposure. Use was examined by asking participants whether or not they currently use IE to treat PTSD. Among the main sample, 47% endorsed that they were "not at all" or only "slightly" familiar with IE for PTSD. The majority of participants reported not feeling comfortable with using IE. In the group of psychologists from the trauma special interest group, 86% reported being very familiar and 72% were very comfortable using IE. Participants in the study perceived numerous barriers to implementing exposure techniques in their practices in client domains such as having comorbid diagnoses, severe anger, past adherence problems, past treatment non-response, and low social support. They also endorsed barriers regarding their own beliefs that exposure would lead to an increase in symptoms (such as suicidality or substance use) and/or induce patients to drop out of therapy.

Unfortunately, little research has been conducted assessing the amount of exposure therapy that clinicians use in practice with clients with GAD, or barriers related to its use. One study involved a survey of 260 psychotherapists who completed an online survey asking them about the assessment and therapeutic interventions they used to treat GAD (Szkodny, Newman,

& Goldfried, 2014). In this sample, 80.4% of clinicians defined their clinical orientation as cognitive and/or behavioral. The majority of respondents in the study reported 20 years or less experience using empirically supported treatments (ESTs) for GAD. Interventions commonly used included addressing maladaptive cognitions (used by 88.8% of clinicians), identifying anxiety and worry triggers (used by 95.4%), and reducing muscle tension (used by 70.4%) typically found in clients with GAD. Sixty-five percent of clinicians used worry imagery exposure at some point in their practices. Approximately one half of respondents indicated incorporating integrative techniques into treatment, such as interventions designed to address interpersonal and emotional dysfunction, acceptance and mindfulness, emotion dysregulation, and avoidance of emotional contrasts, meaning sudden negative shifts in emotional state. When clinicians considered using worry exposure, 23.1% of patients reported a fear of engaging in this treatment.

Another study of therapists (N = 331) from a variety of backgrounds (i.e., social workers, doctoral psychologists, masters level counselors, and marriage and family therapists) examined factors relating to exposure use when treating anxiety disorders in children (Whiteside, Deacon, Benito, & Stewart, 2016). This investigation found that although 81% of therapists endorsed having a CBT orientation, exposure was the 15th most used out of 33 techniques on a list of specific interventions targeting child anxiety and fell below techniques that do not have empirical support for anxiety disorders (e.g., client-centered and family systems therapy). The majority of the sample endorsed frequent use of CBT techniques to treat anxiety, yet 40% of therapists did not provide exposure therapy at all. While this study sampled therapists treating children, the authors note that negative beliefs about exposure therapy are also associated with underutilization among community therapists predominantly working with

adult clients (Freihart, Vye, Swan, & Cady, 2004; Hipol & Deacon, 2013, Wolitzky et al., 2015).

Additionally, an investigation of 182 therapists (i.e., 118 clinicians with a Ph.D. in clinical or counseling psychology and 39 with a master's degree in social work, marriage and family counseling, or pastoral counseling) found that exposure is underutilized by clinicians due to both client and therapist characteristics (Meyer, Farrell, Kemp, Blakey, & Deacon, 2014). The authors note that clinicians who reported higher anxiety sensitivity (e.g., related to physical anxiety symptoms and endorsed more negative beliefs (e.g., stronger concerns about the safety, tolerability, and ethicality of exposure therapy) about exposure were significantly less likely to offer exposure therapy. The authors assert that many clinicians avoid implementing exposure therapy because they believe that their clients are too frail or delicate and will deteriorate if confronted with intense emotional distress. What this assumption fails to take into account is that clients with anxiety disorders by definition already experience clinically significant distress. If these clients have not already decompensated during the course of experiencing debilitating anxiety disorders, there is no evidence that engaging in exposure therapy will be the tipping point for them to do so.

Specific to GAD, Abramowitz and colleagues (2011) anticipate clinicians' hesitancy to use exposure techniques, noting, "the diffuse nature of external triggers for anxiety found in generalized anxiety disorder (GAD) makes the applicability of exposure less intuitive" (p. 28). The authors stated that techniques more frequently used for GAD include progressive muscle relaxation, applied relaxation, cognitive restructuring, and combinations of these treatments. They reviewed four meta-analytic studies conducted between 1996 and 2005, observing that all of the treatment outcome results found strong support for CBT for GAD. None of the meta-

analyses, however, looked specifically at the efficacy or use of exposure therapy, making it challenging to know how frequently it has been used as a CBT intervention in these studies.

One clinician-related challenge to using exposure interventions appears to be that many clinicians have not have received training in this technique (e.g., Kendall et al., 2005; van Minnen et al., 2010) and may perceive obstacles about doing so. One study (N = 49) found that many clinicians deliver exposure interventions for anxiety disorders in an overly cautious manner, which limits its effectiveness (Farrell, Kemp, Blakey, Meyer, & Deacon, 2016). Clinicians who received an “enhanced training” (this training included strategies on attitude change) as compared to standard training displayed significantly greater reductions in concerns about exposure from pre- to post-training as well as superior self-reported delivery of the treatment. Another investigation (N = 53) included participants who received training in basic exposure implementation and were given additional information intended to elicit either positive or negative beliefs about the treatment's safety, tolerability, and ethicality prior to conducting an exposure session with a confederate client. Results indicated that participants with experimentally induced negative beliefs about exposure delivered the treatment more cautiously compared to participants with positive beliefs who pursued more ambitious delivery of exposure (Farrell et al., 2013). Clinicians therefore may not feel comfortable with using techniques about which they have not received adequate information (Kendall et al., 2005; van Minnen et al., 2010).

Statement of the Problem

Despite a variety of effective CBT techniques to treat GAD, such as psychoeducation, cognitive restructuring, applied relaxation, acceptance/mindfulness techniques, worry exposure and IE (Dugas et al., 2010; Salzer et al., 2011), approximately 50% of GAD sufferers continue

to have poor outcomes post-treatment as well as high relapse rates (Borkovec et al., 2002; Rapgay et al., 2011). Consequently, there is a need to better understand which therapeutic interventions are most beneficial or can serve as additional treatment options for individuals with GAD. As discussed above, research has determined that exposure alone appears to be more effective than when combined with other anxiety management strategies for many anxiety disorders (e.g., Adams et al., 2015; Ale et al., 2015; Deacon & Abramowitz, 2004; Whiteside et al., 2015). Yet, this intervention is rarely studied for GAD specifically.

One reason for the poor outcomes associated with GAD may be that worry, a central feature of this disorder (Buhr & Dugas, 2012; Wells, 2002), appears to function as an avoidance of emotions (Cooper et al., 2013; Llera & Newman, 2014), yet is not addressed in some of the interventions used to treat this disorder. In particular, worry and the inability to tolerate uncertainty among people who suffer from GAD have been connected with avoidance of emotionally laden experiences and overall distress about emotions (e.g., Borkovec & Roemer, 1995; Lee, Orsillo, Roemer, & Allen, 2010; Roemer, Salters, Raffa, & Orsillo, 2005). IE for GAD can target worry by helping individuals confront fear-evoking scenarios, lessening the connection between a conditioned stimulus (e.g., an internal fear cue, negative imagery of the worst that could happen) and their conditioned response (Mowrer, 1947). Through IE, clients learn to tolerate unpleasant and unmanageable emotions; this improves their ability to regulate difficult emotional states (Borkovec et al., 2004).

The limited research on IE for treating GAD has been found to be effective, specifically in reducing levels of worry (Fracalanza et al., 2014; Hoyer & Beesdo-Baum, 2012). Trials examining the impact of IE for other anxiety-related disorders have also demonstrated its efficacy (Davis et al., 2013; Tarrier & Humphreys, 2000; Vrielynck & Philippot, 2009). Given

the effectiveness of IE therapy for a variety of anxiety-related disorders, this technique appears to be underused by clinicians (Farrell et al., 2013; Goisman et al., 1993; Kendall et al., 2015).

Understanding clinicians' acceptability and preference for IE therapy may serve as a proxy for their actual use of this intervention with their clients. Clinicians have been found to avoid exposure therapy in their practices due to their attitudes about evidence-based practice, inclinations toward certain treatments, and personality factors (Becker, et al., 2004; Farrell et al., 2013; Harned et al., 2013; Scherr et al., 2015; Whiteside et al., 2016) as well as barriers and misperceptions to conducting IE (e.g., that patients will feel worse and/or drop out of therapy) (Becker et al., 2004; Harned et al., 2013; van Minnen et al., 2010). It is also possible that clinicians do not know how to conduct IE with GAD, as people with GAD have typically not encountered the scenarios they fear (such as a family member becoming ill or failing out of school) and cannot plan to confront these fears due to the calamitous nature of many highly-feared stimuli (Fracalanza et al., 2014). Abramowitz et al. (2013) proposed that clinicians' level of competency, including receiving adequate training and supervision on a regular basis, increases the likelihood that providers will offer exposure treatments to clients.

Unfortunately, to the author's knowledge, no studies to date have evaluated clinicians' acceptance, preference, and use of IE for treating GAD. Assessing these factors could help clarify if there is a need to better train clinicians in rationale for and use of IE therapy for GAD. Addressing these potential training needs could increase the number of effective intervention strategies clinicians could use with their clients with GAD.

Purpose and Rationale of the Present Study

The purpose of the present study was to investigate psychologists' acceptance, preferences, and use of imaginal exposure (IE) in comparison to cognitive restructuring and

relaxation training (CRRT) techniques used to treat GAD. Additionally, this study sought to assess psychologists' beliefs about IE, which comprises the safety, tolerability, and ethicality of exposure therapy (Deacon et al., 2013). Specifically, licensed, doctoral level psychologists were asked to participate in an online survey presenting them with a case vignette of a client with GAD followed by two treatment vignettes. One treatment vignette included IE as the treatment, while the other treatment vignette described non-exposure CBT techniques (i.e., CRRT).

Based on the above literature review demonstrating that IE is underutilized in treating GAD, (e.g., Becker et al., 2004; Harned et al., 2013; Meyer et al., 2014; Scherr et al., 2015; Whiteside et al., 2016) this study included several hypotheses. First, it was hypothesized that psychologists would find the CRRT vignette significantly more acceptable than the vignette depicting IE. Second, it was posited that psychologists would significantly prefer and use the treatment portrayed in the CRRT vignette for treating GAD as compared to the IE vignette. Knowing which type of treatment psychologists accept, prefer, and use to treat GAD would help to determine if clinicians are choosing CRRT techniques over IE. This finding would point to the need to better educate psychologists about using IE to treat GAD.

Third, it was hypothesized that psychologists who held more negative beliefs about exposure therapy would report significantly less acceptance, preference, and use of IE with their clients compared with psychologists who held fewer negative beliefs. Research has demonstrated that negative beliefs about exposure are negatively correlated with clinicians' exposure use (e.g., Becker et al., 2004; Farrell et al., 2013; Farrell et al., 2016; Kendall et al., 2005; Meyer et al., 2014; Szkodny et al., 2014; van Minnen et al., 2010; Whiteside et al., 2016). To the author's knowledge, there is no research on clinicians' beliefs about IE. It is

possible that clinicians who perceive that IE is more unsafe, intolerable, and unethical may be less likely to accept, prefer, or use this intervention with clients who suffer from GAD.

Knowing clinicians' views on the safety, tolerability, and ethicality of implementing IE could inform the field about where further training is needed to alleviate concerns and clarify misbeliefs about this technique. For example, training could focus on problem-solving barriers experienced by clinicians aiming to use IE.

Fourth, it was hypothesized that psychologists who reported attending a more CBT-oriented graduate program or who reported receiving more training in conducting exposure therapy would report significantly higher acceptance, preference, and use of IE, as well as to endorse fewer negative beliefs about it, compared with psychologists who did not attend a more CBT-oriented program or had less exposure training, respectively. Based on prior research indicating that clinicians who have more training in exposure will feel more comfortable using exposure therapy and like this technique (e.g., Brown et al., 2013; Podell et al., 2013; Szkodny et al., 2014), the current study sought to verify which clinical training factors would significantly relate to exposure use. Results from this study could determine whether clinicians would benefit from receiving more education about IE for GAD.

Finally, respondents were asked to identify treatment likes and dislikes for specific elements of the two treatment approaches (i.e. specific components of IE and CRRT) as an exploratory hypothesis. Findings on which aspects clinicians like and dislike about each of the treatment approaches could inform treatment researchers regarding reasons that therapists prefer and use specific interventions for GAD.

Method

Participants

The initial sample consisted of 252 individuals, of whom seven reported having a master's degree and one individual had missing data for degree type. Only individuals who reported having a doctoral degree in clinical, counseling, and/or school psychology were retained in the analyses, leading to a final sample size of 244 psychologists. An a priori power analysis had been conducted to determine the necessary sample size for this study using procedures detailed in Murphy, Myors, and Wolach (2009). Given that to this author's knowledge, no previous studies have examined CBT clinicians' acceptance, preference, and use of techniques to treat generalized anxiety, there did not appear to be previous literature to best estimate the effect size. For this power analysis, the probability of the alternative hypothesis was set at 0.3. A correlation point biserial model analysis was run, and the total number of subjects needed was 134.

The participants were roughly divided between two genders (52.9% female; see Table 1 for sample characteristics). The sample age ranged from 28 to 78 years old, with the mean age at 42.1 years old ($SD = 7.03$). The majority of the sample identified as White (69.7%).

Table 1
Sample Characteristics

	n (%)
Gender	
Female	129 (52.9%)
Male	115 (47.1%)
Ethnicity	
Hispanic or Latino	33 (13.1%)
Non-Hispanic or Latino	215 (85.2%)
Missing	4 (1.6%)
Race	
American Indian or Alaskan Native	11 (4.5%)
Asian	23 (9.4%)
Black or African American	14 (5.7%)
Native Hawaiian or Pacific Islander	25 (10.2%)
White	170 (69.7%)
More than one race	1 (.4%)
Preferred clinical orientation	

Behavioral	11 (4.5%)	
Cognitive	15 (6.1%)	
Cognitive-behavioral	139 (57.0%)	
Psychodynamic	47 (19.3%)	
Integrative	29 (11.9%)	
Eclectic	1 (.4%)	
Other	2 (.8%)	
Type of graduate training program ^a		
Behavioral	86 (35.2%)	
Cognitive	94 (38.5%)	
Cognitive-behavioral	122 (50%)	
Psychodynamic	79 (32.4%)	
Integrative	44 (18.0%)	
Eclectic	6 (2.5%)	
Dual orientation	12 (4.9%)	
Other	13 (5.3%)	
Post-doctoral work with clinical training		
No	9 (3.7%)	
Yes	235 (96.3%)	
Theoretical orientation of post-doctoral clinical training ^a		
Behavioral	78 (32.0%)	
Cognitive	83 (34.0%)	
Cognitive-behavioral	149 (61.1%)	
Psychodynamic	81 (33.2%)	
Integrative	36 (14.8%)	
Eclectic	3 (1.2%)	
Other	6 (2.5%)	
Received specialized/specific training in treating anxiety after doctoral degree		
No	38 (15.6%)	
Yes	203 (83.2%)	
Other	2 (0.8%)	
Missing	1 (0.4%)	
Amount of exposure specific training (up to 5 opportunities)	3.45 (1.48)	
Practice CBT?		
No	10 (4.1%)	
Yes	234 (95.9%)	
Percentage of current clients with anxiety disorders (N = 92)	62.23 (17.3)	
	Mean (SD)	Range
Age	42.14 (7.03)	28-78
How CBT oriented was graduate training program? (N = 243)	5.23 (1.26)	1-7
Years spent doing clinical work (N = 193)	12.38 (7.20)	2-53
Number of years of specialized/specific training in anxiety (for those with specialized training; N = 144)	2.79 (1.60)	1-10

Familiarity with treating GAD (N = 244)	5.78 (1.06)	3-7
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Note. Missing data indicated by a row for missing data or by listed subsample size.

^a For these items, participants were able to select as many responses as were applicable.

The majority of participants (67.6%) endorsed a preferred clinical orientation of “behavioral,” “cognitive,” or “cognitive behavioral,” and almost all respondents endorsed practicing CBT (95.9%). The mean rating for how cognitive-behaviorally oriented participants rated their graduate programs was 5.23 ($SD = 1.26$), where 0 meant 'not at all CBT' and 7 meant 'very CBT,' indicating that psychologists' graduate training tended to be quite CBT-focused. Responses regarding classification of theoretical orientation of graduate and post-doctoral training programs were recoded to determine the percentage which were solely cognitive-behavioral. Participants indicated that 43.4% and 46.7% of their graduate and post-doctoral training programs, were solely "behavioral," "cognitive," and/or "cognitive-behavioral," respectively. The majority of psychologists pursued post-doctoral clinical training (96.3%), and on average, respondents had been doing clinical work for over 10 years ($M = 12.38$, $SD = 7.20$). The majority of the participants (83.2%) also reported receiving specialized or specific training in treating anxiety after their doctoral degree. On average, clinicians reported that 62.2% ($SD = 17.3\%$) of their current practice comprised anxiety disorders and rated their familiarity with treating GAD as $M = 5.78$, where 1 meant “not at all familiar” and 7 meant “very familiar.”

Design

Participants read two treatment vignettes for a hypothetical client with GAD. In one vignette, the client was treated with IE, which was described as the main treatment. In the other vignette, the client was treated with CRRT. The design for this quantitative study included a counterbalanced design (A/B B/A) of the treatment vignettes. This ensured that each respondent received both conditions, yet the order in which they viewed them was randomized

in an effort to prevent order effects. The independent variables in this study were the type of treatment vignette, beliefs about conducting IE, the extent graduate training was CBT oriented, and the amount of exposure training received. The dependent variables were scores obtained regarding treatment acceptability, preference, and use.

Measures

Demographic and Clinical Training Questionnaire. Psychologists completed a self-report demographics and clinical training questionnaire. First, they indicated whether or not they practiced CBT. They were then asked to report their age, gender, ethnicity, race, and highest degree obtained. Participants then rated how CBT-oriented graduate programs were on a 7-point Likert scale, in which 1 meant “not at all CBT” and 7 meant “very CBT.” Participants then reported their preferred clinical orientation from a list of choices. They were then asked to rate the orientation of their graduate training (they were able to select as many response choices as they wished) as well as whether or not they pursued post-doctoral training (yes/no), and if so, the orientation of that training (they could select as many response choices as they wished). They then indicated whether or not they received any formal or specialized training in treating anxiety (yes/no). Participants then reported whether or not they had had up to five opportunities for exposure-specific training (i.e., graduate school coursework, training in a post-doctoral fellowship or job, in supervision during graduate or post-doctoral training, attending workshops, lectures, conferences, or via other educational opportunities, and teaching oneself using manuals or videos). Participants also estimated the percentage of clients presenting with anxiety disorders in their current practice. Additionally, participants reported the number of years of clinical experience they had in total, including all graduate training. Lastly, clinicians then rated their familiarity with treating GAD on a 7-point Likert scale in

which 1 meant “not at all familiar,” 4 meant “somewhat familiar,” and 7 meant “very familiar” (see Appendix A).

Treatment Evaluation Inventory (TEI). One of the most commonly used measures of acceptability has been the Treatment Evaluation Inventory (TEI) (Kazdin et al., 1981; Kazdin, 1984). The TEI is a self-report questionnaire used to assess perceptions of acceptability for behavioral treatments, with all items on a five-point Likert response scale. For this study, the 9-item Short Form (SF) was used. On the TEI-SF, a total acceptability score may range from a minimum of 9 to a maximum of 45. Higher scores indicate greater acceptability of the treatment. One question is reverse-scored given that it is written in the negative direction regarding acceptability of the treatment. A mean score of 27 indicates “moderate” acceptability, as this score would result from a midpoint score of 3 on each item. Minor changes to the wording of the items were made for the purposes of this study, as the measure was originally created for use with treatment for externalizing problems in children rather than clinicians’ treatment of generalized anxiety in individuals of any age (e.g., “child” was changed to “client” and “problem behavior” was changed to “anxiety”) (see Appendix B).

Treatment Preference and Use Questionnaires. These are two 1-item questionnaires created by the researcher that asked participants to rank-order the two treatment approaches in order of preference and use in current practice (i.e. ratings are 1 and 2; see Appendix C). The preference questionnaire asked clinicians to rank-order the two treatments in terms of the treatment they would *prefer* that a client with GAD receive. The use questionnaire asked participants to rank the treatment components in terms of which treatment description is more similar to what they *use in their current practice* for clients with GAD.

Treatment Likes and Dislikes Questionnaire. This questionnaire was developed for

this study by the author in order to better understand clinicians' perspectives on each aspect of the two treatment vignettes in the study. Participants were asked to rate how useful or not useful they found specific features of the treatment approaches. Treatment approaches shown to be effective for GAD were broken down into their main components for the purpose of this questionnaire. Items were measured on a 7-point Likert scale ranging from (1) "Not Useful" to (7) "Very Useful." Specific items include, "client receives psychoeducation about the treatment components," "client learns relaxation techniques (e.g., progressive muscle relaxation, deep breathing) and is asked to practice them daily between sessions," and "client engages in imaginal exposure at the middle of his or her fear hierarchy (moderate/medium level of anxiety), working up to more anxiety-evoking scenarios" (see Appendix D).

Exposure Training Scale. This scale was developed by the researcher in order to gauge how much training participants have received with using exposure therapy and where they had these experiences. Participants were asked to state whether they were trained in any type of exposure therapy in graduate school, post-doctoral training, supervision, and/or other training experiences (i.e., workshops, conferences, or lectures). Scores on this measure range from zero to five (see Appendix E).

Therapist Beliefs About Exposure Scale (TBES). The Therapist Beliefs about Exposure Scale (TBES) examines clinicians' reservations about using exposure therapy (Deacon et al., 2013). The TBES consists of 21 items that are scored ranging from 0 ("disagree strongly") to 4 ("agree strongly"). Scores can range from 0 to 84. Higher scores on this measure denote more negative beliefs about exposure therapy. This author slightly modified the measure to state "imaginal exposure" for each item, rather than simply "exposure." Deacon and colleagues demonstrated high reliability and validity with this measure in three samples of

practicing clinicians. Regarding psychometric properties of this measure, the TBES demonstrated a clear single-factor structure, strong internal consistency ($\alpha=.90-.96$), and high six-month test-retest reliability ($r=.89$). Items include statements such as, “Most clients have difficulty tolerating the distress exposure therapy evokes,” “It is unethical for therapists to purposely evoke distress in their clients,” and “Asking the client to discuss traumatic memories in exposure therapy may vicariously traumatize the therapist” (see Appendix F).

Case Vignette and Treatments. The case vignette used in this study was developed by The Anxiety Disorders Association of British Columbia (AnxietyBC™) to assist CBT clinicians in creating effective treatment plans for clients with GAD. Specifically, AnxietyBC™ offers tools and worksheets on their website for therapists to introduce interventions such as psychoeducation about anxiety, creating a fear thermometer, ways to recognize and reduce safety behaviors, relaxation strategies, creating an exposure hierarchy, cognitive restructuring, and engaging in exposure therapy. This author developed the two treatment interventions related to the case vignette (CRRT and IE) (see Appendix G). Two graduate students in this author’s doctoral program read the treatment vignette and interventions. The dissertation chair, proficient in CBT treatments, reviewed the treatment vignette and interventions to ensure their face validity.

Procedures

Licensed, doctoral level psychologists were invited to participate in the study via Internet websites, such as the Association for Behavioral and Cognitive Therapies (ABCT) list serve for CBT practitioners and the New York State Psychological Association (NYSPA). Interested participants completed online informed consent to designate their willingness to take part in the study. Participants were asked demographics questions. They were then asked to

read a case vignette, followed by the two treatment vignettes (randomly ordered). The case description and treatment vignettes are included in Appendix G. Participants were asked to complete the TEI after reading each vignette. Next, they were asked to complete the treatment preference and use questionnaires followed by the Exposure Training Scale. Lastly, they responded to the TBES. All participants were offered a \$10 Amazon.com gift card as compensation for their time.

Data Analyses

The results of this study were assessed using the following data analyses. Descriptive analyses were conducted to determine the means and standard deviations of continuous variables (i.e., continuous demographic variables, treatment acceptability, beliefs about IE, treatment likes and dislikes) and the frequencies and percentages of categorical demographic variables, treatment preference, and treatment use. A dependent means t-test was conducted to examine if on average, the sample viewed one treatment as more acceptable than the other. Chi square tests were conducted to examine if, overall, participants preferred and/or used one treatment over the other.

Bivariate correlations were used to assess relations between acceptance, preference, use, and beliefs about IE. These four variables were then correlated with demographic (i.e., age, gender, ethnicity), and clinical training variables, including the two a priori hypotheses (i.e., extent graduate training was CBT oriented, amount of exposure-specific training received) as well as additional, exploratory variables (i.e., preferred clinical orientation, post-doctoral training orientation [solely CBT vs. other], whether or not specialized training in anxiety was obtained [yes/no], clinical experience [years], familiarity treating GAD [on a Likert scale of 1 to 7 with 7 indicating that they were Very Familiar], and percentage of current

practice clients with anxiety disorders). Specifically, Pearson product-moment correlation were used when both variables involved were continuous variables; point-biserial correlations were used when one variable was continuous and the other was dichotomous. When both variables involved were nominal, chi-square analyses were used to examine if significant bivariate associations existed, and phi-coefficients (ϕ) were computed to estimate the magnitude for each association.

Results

Descriptives regarding treatment acceptance, preference, and use of IE and CRRT, and TBES scores can be found in Table 2. Acceptability of both the CRRT and IE treatment vignettes appeared to fall into the moderately acceptable range. For the TBES, the mean score of 37.20 indicates that overall, the sample endorsed fairly negative beliefs about IE.

Table 2
Descriptives of Key Study Variables

	Mean	SD	% CRRT	% IE
TEI-CRRT	29.12	8.70	-	-
TEI- IE	27.87	8.71	-	-
Preference	-	-	60.2%	39.8%
Use	-	-	65.9%	34.1%
TBES	37.20	12.68	-	-

Note. TEI-CRRT = Treatment Evaluation Inventory – Cognitive Restructuring and Relaxation Training vignette; TEI-IE = Treatment Evaluation Inventory – Imaginal Exposure vignette; TBES = Therapists’ Beliefs About Exposure Scale.

Acceptance, Preference, and Use of IE and CRRT and TBES

A dependent means *t*-test was used to examine if participant ratings of the acceptability of CRRT and IE were significantly different from one another. The *t*-test showed that although the mean acceptability was higher for CCRT ($M = 29.14$; $SD = 8.70$) than IE ($M = 27.81$; $SD = 8.70$), this difference was not statistically significant ($t = 1.50(243)$, $p = .14$). As the *t*-test assumes normal distributions and equal variances, and in the present data, the acceptability ratings did not appear to fit a normal distribution, a non-parametric, Wilcoxon signed-rank test was also used to test the difference between the acceptability ratings of the two treatments.

However, the Wilcoxon signed-rank test also suggested that the difference was not statistically significant ($Z = -1.51, p = .13$). Therefore, the first hypothesis was not supported.

Next, hypotheses regarding preference and use of CRRT vs. IE were examined. Comparing preference ratings showed that 61.0% ($N = 147$) of the sample endorsed a preference for the treatment portrayed in the CRRT vignette; 39.0% ($N = 94$) preferred the treatment in the IE vignette. A chi-square goodness of fit test was conducted to examine whether the observed frequencies differed significantly from the expected frequencies (i.e., a 50/50 split) with regard to treatment preference. As hypothesized, this test demonstrated that this higher preference for CRRT was significant ($\chi^2(1) = 11.66, p < .01$). Similarly, as predicted, a higher number of participants reported higher use of CRRT in their practice (66.8%; $N = 161$), as compared to IE (33.3%; $N = 80$). Another chi-square goodness of fit test showed this higher frequency of CRRT use was significant ($\chi^2(1) = 27.22, p < .001$). Thus, overall, respondents reported significantly preferring and using the CRRT treatment over the IE treatment. In both chi-square tests conducted, the pertinent statistical assumptions of independence of data, and the expected frequency in each group being at least five, were met.

Correlations and chi-square analyses were used to examine associations between TBES scores, acceptance of each treatment vignette, preference, and use (see Table 3). Contrary to what was hypothesized, the number of negative beliefs about exposure on the TBES was negatively associated with acceptability ratings of both the IE and CRRT vignettes, as evidenced by Pearson correlations ($r = -.40, p < .01$; $r = -.43, p < .01$; respectively). Further, the magnitude of these correlations appeared to be virtually the same. As hypothesized, point-biserial correlations showed that those with more negative beliefs about exposure significantly preferred and used CRRT compared to IE ($r = .18, p < .01$; $r = .14, p < .05$, respectively).

There was a significant negative Pearson correlation between acceptability ratings of the CRRT vignette and the IE vignette ($r = -.24, p < .001$), indicating that participants who reported greater acceptability for one treatment approach tended to endorse slightly less acceptability for the other approach.

Table 3

Correlation Coefficients Between TBES, Acceptability, Preference, and Use

	1	2	3	4	5
(1) TBES	-	-	-	-.18**	.14*
(2) TEI-CRRT	-	-.24**	-.40**	.14*	.14*
(3) TEI-IE	-	-	-.43**	-.20**	-.16*
(4) Preference	-	-	-	-	.67**
(5) Use	-	-	-	-	-

Note. TEI-CRRT = Treatment Evaluation Inventory – Cognitive Restructuring and Relaxation Training vignette; TEI-IE = Treatment Evaluation Inventory – Imaginal Exposure vignette; TBES = Therapists’ Beliefs About Exposure Scale. Listed coefficients are Pearson correlations for continuous variables, point-biserial correlations for continuous and dichotomous variables, and phi-coefficients for dichotomous variables.

* $p < .05$

** $p < .01$

Acceptability of the CRRT and IE vignettes were significantly positively correlated with preference (point-biserial $r = .14, p < .05$; $r = -.20, p < .01$; respectively) and with use (point-biserial $r = .14, p < .05$; $r = -.16, p < .05$; respectively). However, the weak magnitude of the correlations indicated that participants’ preference and use of the treatments were somewhat independent of their evaluations of the acceptability of a treatment approach. Participants’ reports of their preference and use of the two treatment types showed a significant strong and positive association ($\chi^2(1) = 108.15, p < .001$; $\phi = .67, p < .01$), suggesting that clinicians' preference for a treatment approach is closely related to what treatment they report using.

Associations Between Demographics Acceptance, Preference, Use, and TBES

Correlations and chi-square analyses were also used to examine relations among age, gender, and ethnicity with acceptance, preference, use, and TBES (see Tables 4 and 5). Age and gender showed did not show significant associations with any of the former variables.

Table 4

Correlation Coefficients Between Demographics and Acceptance, Preference, Use, and TBES

	TEI-CRRT	TEI-IE	Preference	Use	TBES
Age	.02	-.07	.06	-.01	.06
Gender	-.01	-.02	.06	-.07	.09

Note. TEI-CRRT = Treatment Evaluation Inventory – Cognitive Restructuring and Relaxation Training vignette; TEI-IE = Treatment Evaluation Inventory – Imaginal Exposure vignette; TBES = Therapists’ Beliefs About Exposure Scale. Listed coefficients are Pearson correlations for continuous variables, point-biserial correlations for continuous and dichotomous variables, and phi-coefficients for dichotomous variables.

** $p < .01$

* $p < .05$

Table 5

Chi-Square Analyses of Associations Between Demographics and Preference and Use

	$\chi^2 (df), p$	
	Preference	Use
Gender	.84(1), $p = .43$	1.30(1), $p = .28$
Ethnicity	.57(1), $p = .55$.001(1), $p = .99$

Associations Between Clinical Training and Acceptance, Preference, and Use

Correlations and chi-square analyses were used to examine bivariate associations between clinical training variables and acceptance, preference, use, and TBES scores (see Tables 6 and 7). It was predicted that participants who rated their graduate training programs as more CBT-oriented on a 7-point Likert scale would report significantly greater acceptance, preference, and use of IE; only increased use of IE was supported. Specifically, clinicians who endorsed attending a more CBT-oriented graduate program reported significantly increased use of IE (over CRRT) than clinicians who attended less CBT-oriented programs (point biserial $r = .15, p < .05$). In addition, as hypothesized, more exposure-specific training was associated with significant preference for and use of IE (point-biserial $r = -.27, p < .01$; $r = -.33, p < .01$, respectively) and significantly higher acceptability ratings for IE (Pearson correlation $r = .24, p < .01$). In contrast, exploratory analyses indicated that the level of familiarity treating GAD was significantly positively associated with acceptability of CRRT (Pearson correlation $r = .14, p < .01$). Furthermore, having a preferred orientation of CBT was significantly positively associated with participants’ use of CRRT over IE ($\chi^2[1] = 8.73, p < .05$; $\phi = .19, p < .01$).

Acceptance, preference, and use were not associated with receiving specialized training in anxiety or years of clinical experience.

In terms of beliefs about IE, as hypothesized, receiving more exposure-specific training was significantly negatively associated with TBES scores (Pearson correlation $r = -.30$, $p < .001$, respectively). However, in contrast to what was hypothesized, reportedly attending a more CBT oriented graduate program was not associated with beliefs about IE. Among exploratory analyses of the associations between clinical training variables and beliefs, receiving post-doctoral training in a CBT-oriented training program was found to be significantly negatively associated with TBES scores (point-biserial correlation of $-.19$, $p < .01$). These findings indicate that receiving more exposure-specific training and attending CBT-oriented post-doctoral training are significantly associated with fewer negative beliefs about IE. Beliefs about IE were not found to be related to treating GAD, having a preferred orientation of CBT, obtaining post-doctoral training, receiving specialized training in anxiety, or years of clinical experience.

Table 6
Correlations Coefficients Between Clinical Training Variables, and Acceptability, Preference, Use, and TBES Scores

	TEI-CRRT	TEI-IE	Preference	Use	TBES Scores
Graduate program CBT oriented ^a	-.01	.01	.03	.15*	.07
Exposure-specific training ^b	.03	.24**	-.27**	-.33**	-.30**
Post-doc program CBT oriented ^c	.05	.12	-.01	.10	-.19**
Familiarity treating GAD ^d	.14*	-.02	.07	.09	-.10
Preferred orientation of CBT ^e	-.02	.05	-.01	.19**	.01
Had post-doc training (yes or no)	.05	.01	-.07	-.07	-.07
Received specialized training in anxiety (yes or no)	-.07	.03	-.07	-.09	.03
% of current practice patients with anxiety disorders	-.13	-.10	.04	-.03	.01
Clinical experience (years)	.09	-.04	.05	-.02	-.07

Note. Listed coefficients are Pearson correlations for continuous variables, point-biserial correlations for continuous and dichotomous variables, and phi-coefficients for dichotomous variables.

** $p < 0.01$

* $p < 0.05$

^a For this item, participants rated how CBT their graduate program was on a Likert scale, with 7 indicating Very CBT.

^b For this item, respondents selected how many exposure-specific training opportunities they received, ranging from 1 to 5.

^c For this item, participants were able to select as many responses as were applicable.

^d Measured on a 1-7 Likert scale, with 7 indicating Very Familiar with treating GAD.

^e For this item, participants selected one preferred orientation of cognitive, behavioral, or cognitive-behavioral from a list of orientations.

Table 7

Chi-Square Analyses of Associations Between Clinical Training Variables and Preference and Use

	χ^2 (df), <i>p</i>	
	Preference	Use
Preferred orientation of CBT ^a	.01(1), <i>p</i> = .99	8.73(1), <i>p</i> = .01*
Graduate program CBT oriented ^b	.27(1), <i>p</i> = .69	5.54(1), <i>p</i> = .02*
Received specialized training in anxiety (yes or no)	1.29(1), <i>p</i> = .27	1.98(1), <i>p</i> = .18
Had post-doc training (yes or no)	1.08(1), <i>p</i> = .32	1.05(1), <i>p</i> = .45
Post-doc program CBT oriented ^c	.01(1), <i>p</i> = .99	2.28(1), <i>p</i> = .14

**p* < 0.05

^a For this item, participants selected one preferred orientation of cognitive, behavioral, or cognitive-behavioral from a list of orientations.

^b For this item, participants rated how CBT their graduate program was on a Likert scale, with 7 indicating Very CBT.

^c For this item, participants were able to select as many responses as were applicable.

Treatment Likes and Dislikes Questionnaire

Response percentages and means were calculated for each item on the Treatment Likes and Dislikes Questionnaire (see Table 8). Across the nine CRRT and IE treatment components, participants' mean scores fell in the slightly useful range (*M across 9 items* = 5.06, *SD* = 0.39). The component rated most useful was the client learning relaxation techniques and being asked to practice them daily between sessions (Item 2, *M* = 5.60, *SD* = 1.25).

Table 8

Response Percentages and Means from the Treatment Likes and Dislikes Questionnaire

	Not Useful 1	2	3	Undecided 4	5	6	Very Useful 7	<i>M</i> (<i>SD</i>)
Client receives psychoeducation about the treatment components.	1.6%	2%	3.3%	6.1%	31.1%	30.7%	25%	5.55 (1.28)
Client learns relaxation techniques (e.g., progressive muscle relaxation, deep breathing) and is asked to practice them daily between sessions.	0.4%	0.4%	4.1%	16.4%	21.7%	25.8%	31.1%	5.60 (1.25)
Client learns how to do imagery work on neutral scenarios in session and at home to improve imaging	2.5%	2.9%	7.8%	19.3%	32.9%	25.5%	9.1%	4.90 (1.33)

abilities that use all five senses before engaging in imaginal exposure work.									
Client learns about cognitive distortions and practices identifying when he or she may be using them.	2.0%	3.7%	10.7%	19.3%	25.4%	23.8%	15.2%	4.94 (1.46)	
Client creates an imaginal exposure hierarchy in session with scenarios ranging from mildly to extremely anxiety-evoking.	4.1%	3.7%	14.8%	19.7%	34.4%	15.2%	8.2%	4.54 (1.44)	
Client completes thought records for homework on anxiety-provoking situations and practices generating alternative thoughts in response to negative automatic thoughts.	3.3%	3.3%	17.2%	16.4%	27.5%	22.1%	10.2%	4.69 (1.49)	
Clinician provides rationale for how imaginal exposure reduces feelings of anxiety, as well as discussing any discomfort that the client may have about engaging in exposure.	2.9%	4.1%	7.8%	18.5%	32.1%	21.8%	12.8%	4.89 (1.43)	
Client engages in relapse prevention in which treatment gains are reviewed and components practiced again if needed to create a mastery experience.	4.1%	3.7%	4.1%	7.4%	20.5%	29.1%	31.1%	5.48 (1.59)	
Client engages in imaginal exposure at the middle of his or her fear hierarchy (moderate/medium level of anxiety), working up to more anxiety-evoking scenarios.	4.5%	3.3%	4.9%	15.6%	36.9%	23.8%	11.1%	4.92 (1.43)	

Note. All items on the Treatment Likes and Dislikes Questionnaire were on a 7-point scale (range: 1-7, indicating a spectrum from *Not useful* to *Undecided* to *Very useful*). N = 244.

Given that the means of items on the Treatment Likes and Dislikes Questionnaire were mostly within the slightly useful range of the scale, the responses were recoded to help determine whether the mean item scores adequately represented responses from individual participants. Figures are presented for each item, with responses recoded to *Not useful* (Likert

scale responses of 1 -3), *Undecided* (Likert response of 4), and *Very Useful* (Likert responses of 5-7). Recoding the items in this manner demonstrated that participants often chose a Likert scale rating of 5, 6, or 7 for all of the treatment components assessed, indicating that they found these techniques slightly, somewhat, or very useful. For example, clinicians were asked to rate how useful it is to provide psychoeducation to clients, in general (See Figure 1). Most participants (86.9%) deemed it useful on some level to provide psychoeducation about the treatment components.

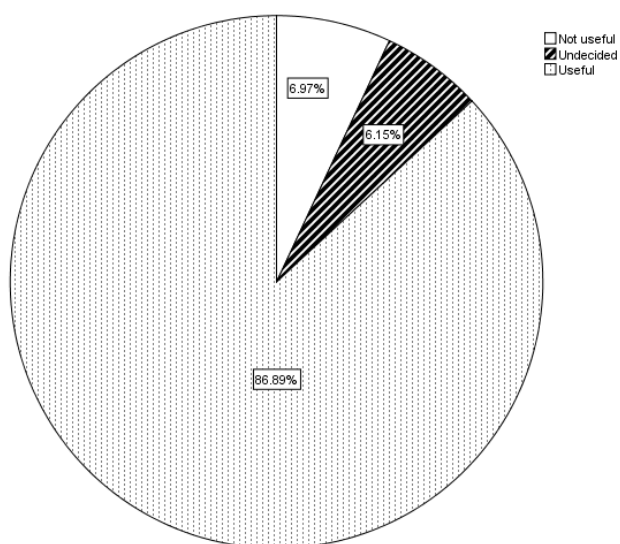


Figure 1. Client receives psychoeducation about the treatment components.

The Treatment Likes and Dislikes Questionnaire included four CRRT-specific items that had been present in the CRRT vignette. These items included learning relaxation techniques, identifying cognitive distortions, completing thought records for homework on anxiety-provoking situations and generating alternative thoughts in response to negative automatic thoughts, and engaging in relapse prevention to maintain treatment gains. Clinicians tended to find these treatment components useful; for example, 78.7% of participants endorsed finding it useful for the client to learn relaxation techniques, 64.3% of clinicians expressed that it would be useful for the client to learn about cognitive distortions and practice identifying

when he or she may be using them, and 80.7% of respondents stated that they found it useful for clients to engage in relapse prevention. Of note, clinicians had a wider distribution of answers for providing thought records for homework, with 59.8% finding it useful, 16.4% expressing that they were undecided, and 23.8% finding it not useful (Figure 4).

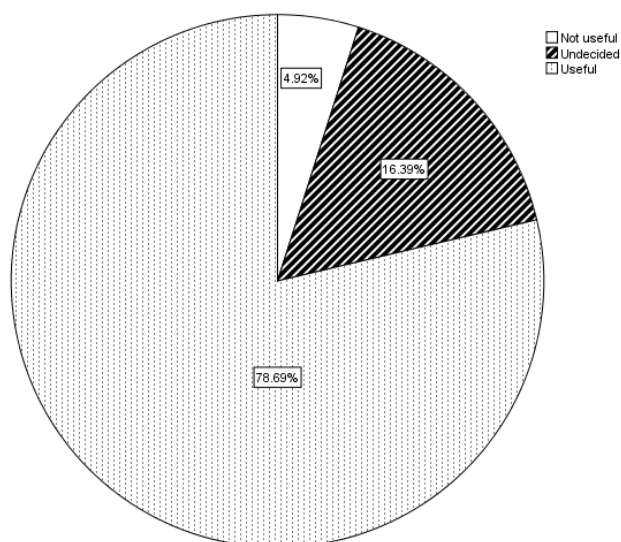


Figure 2. Client learns relaxation techniques (e.g., progressive muscle relaxation, deep breathing) and is asked to practice them daily between sessions.

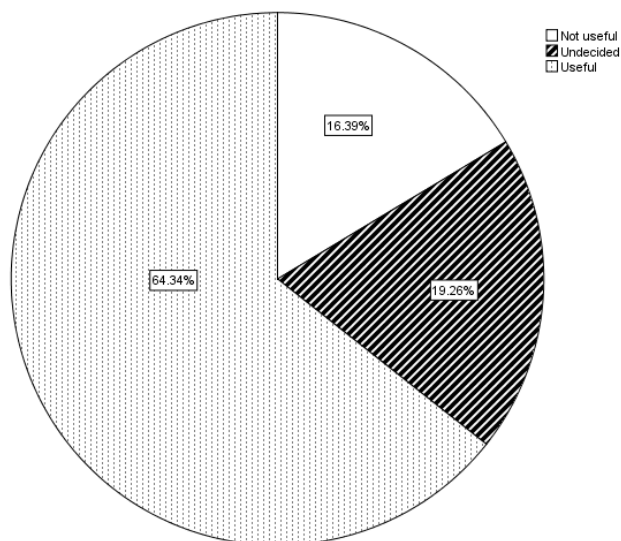


Figure 3. Client learns about cognitive distortions and practices identifying when he or she may be using them.

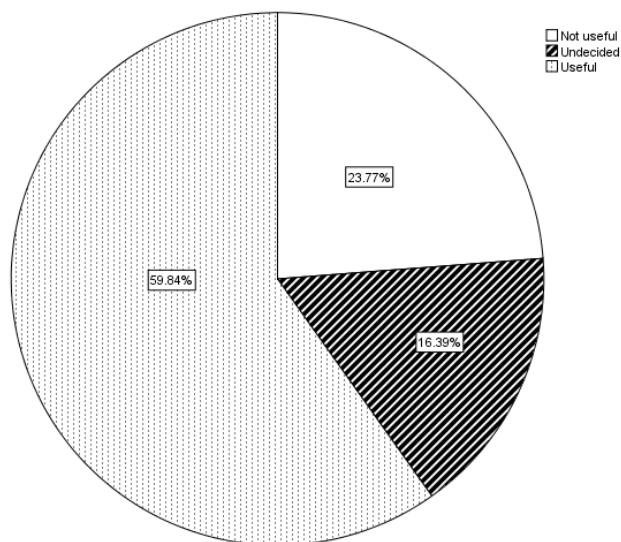


Figure 4. Client completes thought records for homework on anxiety-provoking situations and practices generating alternative thoughts in response to negative automatic thoughts.

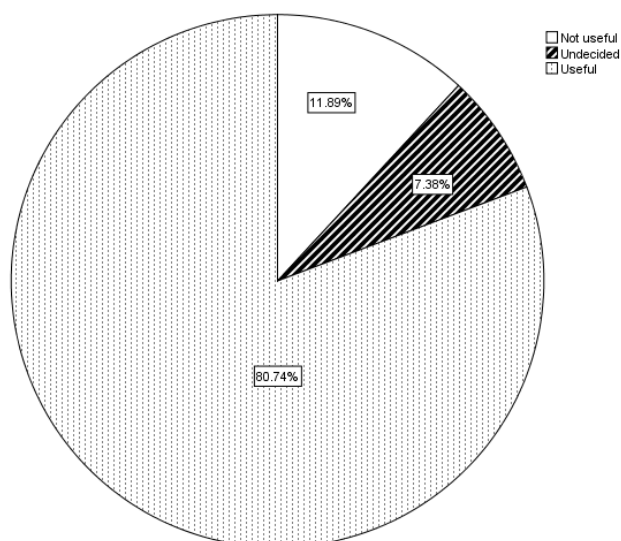


Figure 5. Client engages in relapse prevention in which treatment gains are reviewed and components practiced again if needed to create a mastery experience.

The Treatment Likes and Dislikes Questionnaire also asked respondents about four IE-specific items that had been present in the IE vignette. These treatment components included teaching the client how to do imagery work on neutral scenarios prior to engaging in IE, the clinician providing rationale for how imaginal exposure reduces feelings of anxiety (as well as discussing any discomfort that the client may have about engaging in exposure), creating a

hierarchy in session with scenarios ranging from mildly to extremely anxiety-evoking, and engaging in IE at the middle of the client's fear hierarchy. As shown in Figure 6, 67% of clinicians reported finding it useful to teach clients how to do imagery work on neutral scenarios in session and at home to improve imaging abilities that use all five sense prior to engaging in IE work. Additionally, 57.8% of clinicians found it useful for clients to create an IE hierarchy in session with scenarios ranging from mildly to extremely anxiety-evoking (see Figure 7). For Figures 8 and 9, clinicians often chose a Likert scale rating of 5, 6, or 7, indicating that they found explaining the rationale for IE to clients and engaging in IE at the middle of the client's fear hierarchy useful (e.g., 66.8% and 71.7%, see Figures 8 and 9, respectively). Given that all four of these items relate to implementing IE interventions, this indicates that a large percentage of clinicians do find these interventions useful.

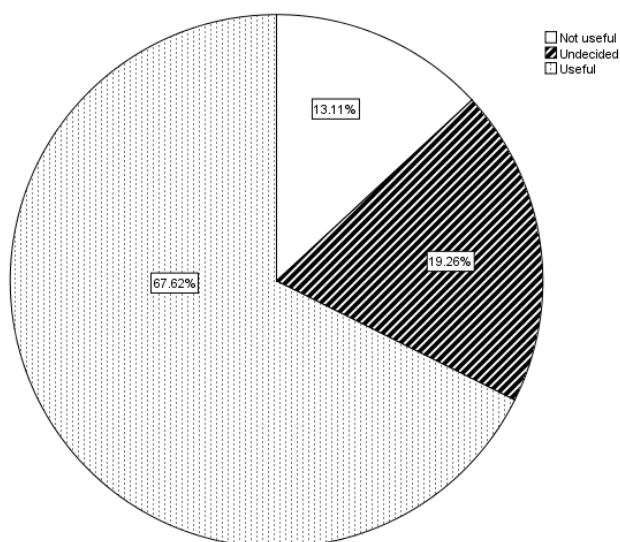


Figure 6. Client learns how to do imagery work on neutral scenarios in session and at home to improve imaging abilities that use all five senses before engaging in imaginal exposure work.

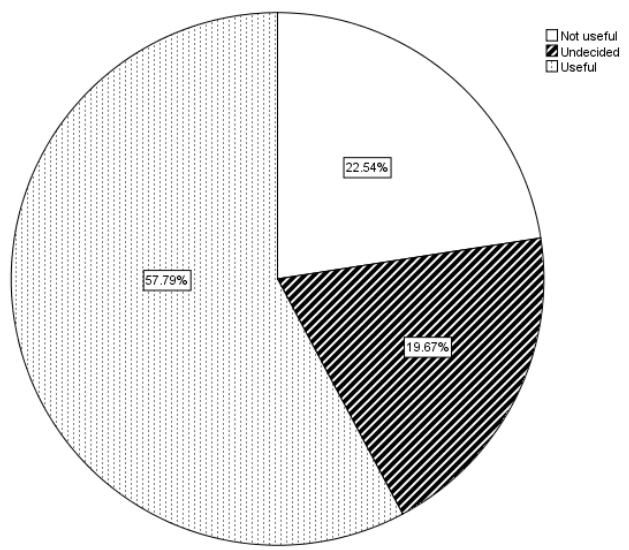


Figure 7. Client creates an imaginal exposure hierarchy in session with scenarios ranging from mildly to extremely anxiety-evoking.

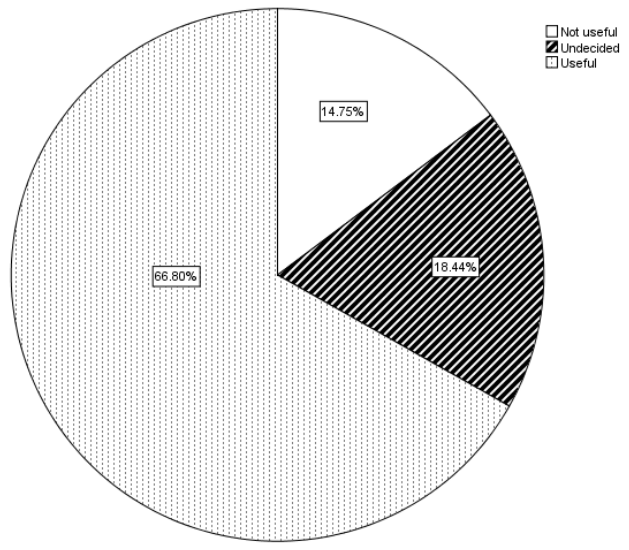


Figure 8. Clinician provides rationale for how imaginal exposure reduces feelings of anxiety, as well as discussing any discomfort that the client may have about engaging in exposure.

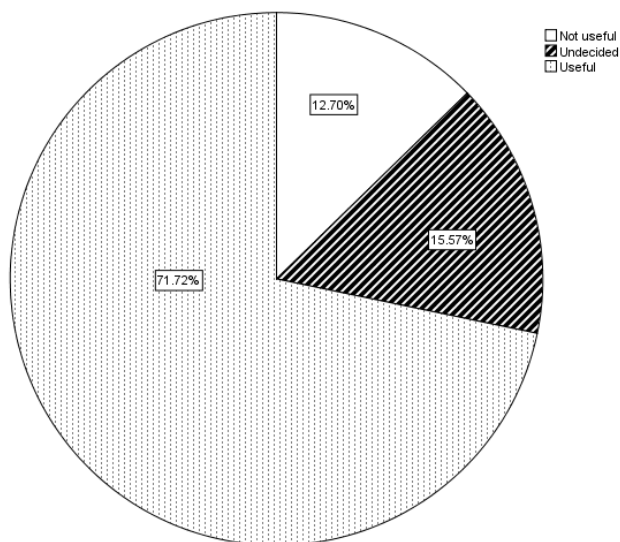


Figure 9. Client engages in imaginal exposure at the middle of his or her fear hierarchy (moderate/medium level of anxiety), working up to more anxiety-evoking scenarios.

Discussion

The current study was conducted to compare psychologists' acceptance, preference, and use of CRRT and IE to treat GAD, as well as to assess beliefs about IE for GAD. Associations between therapists' clinical training (e.g., exposure-specific training, graduate school orientation) and the aforementioned variables were also examined. In addition, treatment likes and dislikes related to components of CRRT and IE were explored. To the author's knowledge, this was the first study to examine psychologists' acceptance, preference, and use of these CBT techniques for treating GAD, assessed through the use of two treatment vignettes for a hypothetical case. Furthermore, this study was the first to examine negative beliefs that clinicians may have about conducting IE.

As hypothesized, one major finding of the present study was that psychologists significantly preferred and endorsed use of CRRT in their clinical practice as compared to IE. This is similar to prior research on the use of CBT anxiety interventions, which has shown that clinicians often include little or no exposure work (e.g., Becker et al., 2004; Deacon et al.,

2013; Szkodny et al., 2014; van Minnen et al., 2010; Young, Klap, Shoai, & Wells, 2008). This is unfortunate, as research has demonstrated that exposure is the active ingredient in treating anxiety disorders (e.g., Barlow, 2002; Carey, 2011; Kazdin & Weisz, 1998; Kendall et al., 2005). Similarly, IE has been found to improve GAD symptoms (e.g., Borkovec et al., 1994; Craske, 1999; Dugas and Robichaud, 2007; Fracalanza et al., 2014; Persons, 2014; van der Heiden and Broeke, 2009). Additionally, participants' preference and use of CRRT was positively associated with having a preferred orientation of CBT. It is important to understand why many psychologists are not endorsing IE as a preferred and used treatment for GAD. It is possible that clinicians who prefer and use CRRT more than IE may be more familiar with CRRT techniques.

Clinical training did appear to impact psychologists' acceptance, preference, and use of IE and CRRT. Specifically, those who endorsed more exposure-specific training and attending CBT-oriented post-doctoral programs reported significantly greater acceptance, preference, and use of the IE treatment vignette compared to the CRRT vignette. In addition, participants who reported attending a more CBT-oriented graduate program reported significantly greater use of IE. On the other hand, respondents who endorsed greater familiarity with treating GAD significantly preferred and used CRRT over IE. One explanation for these findings may be due to the types of CBT training psychologists received. For example, it makes sense that clinicians who seek exposure-specific training would believe in the benefits of this intervention more so than clinicians. Similarly, clinicians who seek out CBT-oriented training in post-doctoral fellowships likely receive CBT training at an advanced level and may feel more confident implementing IE. These clinicians likely already are more committed to using exposure therapy, since they have chosen to continue to study behavioral techniques across many years

of training. However, CBT training for those who learned to treat GAD may have emphasized using relaxation and cognitive restructuring techniques. These findings may elucidate a lack of training in conducting IE for many clinicians, as has been found in past research (e.g., Kendall et al., 2005; van Minnen et al., 2010). Overall, many clinicians learning CBT interventions may receive more training in CRRT techniques than in conducting exposure therapy, specifically IE for treating GAD.

In the present study, as hypothesized, more negative beliefs about IE were significantly correlated with preference and use of CRRT over IE. If psychologists hold more negative beliefs about IE, then it makes sense that they would not prefer or use this technique. This is similar to what other research has shown, as some CBT clinicians have been found to avoid exposure therapy in their practices due to their attitudes about evidence-based practice, inclinations towards other treatments, and beliefs about discomfort clients would experience (e.g., Becker et al., 2004; Harned et al., 2013; Scherr, Herbert, & Forman, 2015). However, psychologists in the present study who obtained more exposure-specific training and CBT-oriented post-doctoral training had significantly fewer negative beliefs about IE. It is likely that psychologists who pursue exposure specific training or post-doctoral CBT training already have more favorable attitudes toward exposure therapy than psychologists who do not seek such training.

Contrary to what was hypothesized, more negative beliefs about IE were significantly associated with lower acceptability ratings of both the IE and CRRT vignettes. This finding is surprising given that the CRRT treatment vignette by definition had no exposure components. Virtually all of the psychologists in this sample (95.9%) reported practicing CBT. Given these results, it is unclear what interventions CBT psychologists with more negative beliefs about

exposure therapy would find more acceptable for treating GAD. Whiteside et al. (2016) found that negative beliefs about exposure therapy were associated with its underutilization among CBT community therapists. It appears that many CBT clinicians' beliefs about exposure therapy influence their use of this intervention despite research showing its efficacy in treating anxiety disorders (e.g., Becker et al., 2004; Szkodny et al., 2014). The relationship found in the present study between more negative beliefs about IE and lower acceptability of CRRT techniques raises questions about which interventions the largely-CBT practicing psychologists in this study would find more acceptable.

Of note, participants rated both CRRT and IE treatments as equally and moderately acceptable. Thus, the hypothesis that psychologists would find the CRRT vignette significantly more acceptable than the IE vignette was not supported. This was surprising given that more psychologists preferred and reportedly used CRRT. One explanation for these findings is that there may be a disparity between what clinicians rate as acceptable in theory and what they actually prefer and use in clinical practice. In fact, there was only a weak correlation between acceptance and preference or use. This concept represents a sea change for clinical research in that therapists may not always do what they say they agree with in theory. It is crucial for researchers examining treatment acceptability to recognize that just because clinicians rate a treatment as acceptable or even multiple treatments as equally acceptable, this does not necessarily translate to what they will implement with their clients. In addition, participants on average rated nine items asking about components of CRRT and IE in the slightly useful range. If respondents find these techniques only slightly useful on average, questions remain about which interventions would be deemed moderately or very useful.

Clinical Implications

Despite the potential benefits of IE for GAD (Fracalanza et al, 2014; Hoyer et al. 2009), this study found it is not the more acceptable, preferred, or used treatment for this disorder, when compared to CRRT. Results indicated that among the clinical training variables assessed, only receiving exposure-specific training and CBT-oriented post-doctoral training significantly related to greater acceptance, preference, and use for IE, as well as fewer negative beliefs about IE. This points to the potential benefits of receiving exposure-specific or advanced CBT training.

Given that in the present study, many psychologists held negative beliefs about IE, and such beliefs were significantly associated with preference and use of CRRT, trainings targeting psychologists' negative beliefs about IE could potentially increase the use of this intervention. Prior research has demonstrated that workshops can influence beliefs about conducting exposure therapy. For instance, Farrell et al. (2013) provided participants with exposure therapy training to treat fear of contamination. Half of the participants' beliefs about exposure therapy were influenced to have a high degree of concern about exposure therapy use, while the other half received information intended to reduce concerns about consequences of exposure therapy use. Results indicated that participants in the Negative Beliefs condition scored significantly higher on the TBES ($M = 42.1, SD = 6.2$) than participants in the Positive Beliefs condition ($M = 18.2, SD = 8.9$). Similarly, Deacon et al. (2013) demonstrated that therapists who received an exposure therapy training workshop had significantly decreased TBES scores from prior to the workshop to after the workshop. Providing trainings which reduce therapists' negative beliefs about IE will likely influence which interventions they will use with clients suffering from GAD.

Trainings addressing beliefs about IE may also need to teach clinicians how to use the technique specifically for clients with GAD. Research has shown that CBT clinicians often readily use exposure therapy for PTSD, OCD, specific phobias, and other anxiety disorders (e.g., McKay et al., 2015; Parsons & Rizzo, 2008; Powers, Halpern, Ferenschak, Gillihan, & Foa, 2010); however, this intervention is infrequently implemented by clinicians when treating GAD (Meyer et al., 2014; Whiteside et al., 2016). It is possible that some psychologists surveyed in this sample have attempted to use IE with GAD clients but have encountered more barriers to doing so as compared to those treating individuals with PTSD, OCD, and/or other anxiety disorders. For example, when treating PTSD, clinicians use exposure therapy to help clients better cope with past traumatic experiences that have already occurred. GAD, however, often consists of diffuse, transient fears about things that have not yet happened. Clinicians may be less sure about how to use exposure for fears that could possibly occur in the future than events that reportedly occurred in the past. Implementing in vivo exposure as opposed to IE may also be a factor. In addition, it is possible that some therapists prefer to use CRRT techniques for GAD while using IE and/or in vivo techniques for PTSD and other anxiety disorders; this study was unable to assess whether some psychologists who preferred and use CRRT for GAD might in fact prefer and use IE for other disorders. Future training about IE for GAD may need to emphasize how this intervention differs from IE used when treating past traumas, as in PTSD. Specifically, clinicians may benefit from learning how to construct narratives about future, transient events with their GAD clients as part of IE for GAD.

Limitations

Due to several limitations, the present study findings should be interpreted with caution. First, participants rated the treatment vignettes without actually implementing them.

Thus, these hypothetical treatment descriptions may not have accurately reflected what they accept, prefer, and use in their own clinical practices. It is possible that these psychologists would have different reactions to the treatments if they actually administered the treatments to clients and then rated their acceptability, preferences, and use following the treatment course. It is also possible that a different way of presenting the treatments to participants, such as with an audio or video clip of an individual seeking treatment for GAD, would have helped clinicians better envision implementing these treatments and thereby have more accurate perceptions about them. However, the analog design used in the present study has been employed in other acceptability studies (e.g., Borrego, Ibanex, Spendlove, & Pemberton, 2007; Miltenberger, 1990; Pemberton & Borrego, 2007; Tarnowski, Simonian, Park, & Bekeny, 1992). One advantage of using this design is that it allows researchers to obtain an understanding of treatment acceptability and preference, as all potential participants are assessed regardless of whether they are willing to or use either treatment. Other benefits include the potential for obtaining large sample sizes and gathering data on multiple treatments simultaneously. Although this study provides only information about clinicians' initial reactions to the treatments prior to actual use, these reactions are important because initial acceptability and preference could provide some information about what therapists may be willing to use in treatment with clients.

A second limitation is that almost all clinicians who participated (95.9%) expressed using CBT in their clinical work. They were invited to take part regardless of whether or not they work with clients with GAD or obtained any exposure-specific training. Thus, this study did not focus on therapists who necessarily implement the presented treatments (e.g., those who treat clients presenting with anxiety or work in settings where exposure therapy is

conducted). Nor did this study examine most non-CBT therapists' acceptance, preference, and use of these treatments as well as beliefs about exposure therapy. Nevertheless, this study does provide valuable information on a wide variety of CBT clinicians and sets the groundwork for future research examining these variables with other types of clinicians.

Third, all participants were reportedly doctoral level psychologists with a degree in clinical, counseling, and/or school psychology, which meant that the sample was somewhat uniform in terms of training and does not likely represent many clients' experiences receiving psychotherapy at outpatient clinics, hospitals, or private practices. Mental health professionals in other fields (e.g., social workers, psychiatrists, and mental health counselors) were not recruited and any individuals who reported not having a doctoral degree in psychology were excluded from the sample. The choice to allow only doctoral-level psychologists to complete the study was made in order to increase the likelihood that these clinicians would have received more training in conducting exposure therapy. Greater efforts should be made to disseminate future surveys to a broader range of professional networks to ensure a more comprehensive representation of mental health service providers.

Fourth, the treatment vignettes posed some limitations to this study. For example, they were not systematically assessed for content validity. Content validity refers to the degree to which individual items represent the construct being measured and cover the full range of the construct. Although two graduate students in this author's doctoral program as well as this author's dissertation chair read the treatment vignette and interventions, it would have been ideal for several clinicians who are experts in treating GAD to rate the content validity of these items and for interrater reliability among these experts to be assessed. There is also the possibility that construct validity was impacted due to narrow stimulus sampling. Had a

different treatment vignette been presented to participants, it is possible that responses regarding acceptance, preference, and use of the CRRT and IE interventions would have been different than what was obtained in this study. Additionally, the reading level of the treatment vignette as well as the CRRT and IE interventions was not measured.

A fifth limitation was the method of presentation of the treatment vignettes and theoretical orientation variables. Although the treatment descriptions were presented in a counterbalanced (A/B B/A) format, the software used for data collection (SurveyMonkey) is not designed to record which participant received which treatment order. It was not possible, therefore, to examine potential order effects. The findings obtained in this study may have been due to the order of presentation of treatment descriptions. Despite this limitation, randomization of the vignettes would be expected to prevent the possibility of order effects, particularly since a large amount of valuable data was collected, as evidenced by 244 psychologists completing the study. Similarly, respondents were able to select as many answer choices as they wished for graduate school training and post-doctoral training theoretical orientations. Participants often chose more than one response for these items; as a result it was challenging to examine relationships between graduate school and post-doctoral training orientations and the outcome variables. For example, an individual who indicated that his or her doctoral training was cognitive-behavioral, psychodynamic, and integrative might be less likely to use CBT interventions than someone who received solely cognitive, behavioral, and/or cognitive-behavioral training. Given this limitation, only the information provided in the Likert scale question about how CBT oriented respondents found their graduate programs was retained for analyses. However, allowing participants to choose all orientations that apply may

better reflect their training experiences, and this method has been used in prior research (Whiteside et al., 2016).

Sixth, information about participants' graduate program orientations, post-doctoral training orientations, familiarity with treating GAD, and the number of exposure opportunities obtained were all gathered via self-report. As a result, it is challenging to know the actual amount or quality of training that each participant received. It would be beneficial for this information to be measured more objectively to more fully understand therapists' training experiences. Nevertheless, using self-report in this study allowed participants to describe their graduate and post-doctoral training orientations and other experiences in ways that they believed best described their clinical training.

Another set of limitations is related to the measures used within the study. For example, it is unclear to what extent shared method variance impacted the data. Shared method variance assumes that using the same method of obtaining data for all variables of the study may result in artificial inflation of correlation between those variables. As with any self-report measure, it is possible that some of the variance within this study's correlations was accounted for by the fact that all data were collected through clinicians' reports (e.g., demand characteristics may have impacted self-report). Finally, although the Exposure Training Scale appeared to provide useful information, it was developed by the author and has not been tested for reliability or validity. It would have also been beneficial for the internal consistency of the Exposure Training Scale to be assessed.

Future Directions

There are a number of suggested theoretical and methodological directions for future research. For example, this study found that exposure-specific training was significantly related

to several variables (e.g., preference for IE over CRRT, greater reported use of IE in clinical practice, and a lower level of negative beliefs about IE). It would be useful for future researchers to examine how exposure-specific training predicts acceptance, preference, and use of IE, as well as beliefs about IE, above and beyond receiving general CBT training in graduate school and/or on post-doctoral fellowships.

Additionally, it would be beneficial for future research to focus on the combinations of interventions clinicians may accept, prefer, or use for GAD, as well as any barriers related to their use. For instance, it would be valuable to ascertain the amount that clinicians use specific CBT techniques when treating GAD (e.g., relaxation, IE), as well the phase(s) of treatment in which these techniques are typically conducted. It would also be useful to examine any differences in the types of barriers clinicians face when using IE for GAD compared to other anxiety disorders, and/or when using IE compared to in vivo exposure therapy. Future research should examine why clinicians may not prefer and use treatments that they nonetheless rate as acceptable in order to identify barriers that may emerge in clinical practice. Future research studies could also focus on training clinicians in IE for GAD and then assessing their use of this intervention and related barriers encountered in their practice. Furthermore, researchers should assess why clinicians may not prefer and use treatments that they nonetheless rate as acceptable in order to identify barriers that may emerge in clinical practice. It would be expected that clinicians prefer and use what they find acceptable (Abramowitz et al., 2011); yet, this correlation was weak in this study.

Given psychologists in this sample, who were reportedly 95.9% CBT-oriented, found CRRT and IE both only moderately acceptable and slightly useful to treat GAD on average, further research could assess which intervention(s) would be considered more acceptable and

useful for their clients with GAD. For example, prior research has demonstrated the efficacy of mindfulness/acceptance-based interventions for reducing GAD symptoms (e.g., Hayes-Skelton et al., 2013; Hoge et al., 2013). The current study only allowed clinicians to choose between CRRT and IE treatments; therefore, it was not possible to ascertain when and how often clinicians implement other interventions. Since respondents in this study rated the items on the Treatment Likes and Dislikes questionnaire as overall slightly useful, more information is needed on how clinicians perceive other treatment techniques. For instance, clinicians may only use some CRRT and IE techniques to treat GAD, which may explain why they find these techniques on average slightly useful. They may then supplement these interventions with mindfulness and acceptance-based strategies. Conversely, the psychologists in this sample may be dissatisfied with treatment interventions for GAD generally, leading them to report finding all of the offered techniques only slightly useful on average.

Beyond psychologists' perspectives, this study did not examine the perspectives of clients with GAD seeking treatment. By asking clients about their own treatments, valuable information could be obtained regarding what is actually used in the therapy room based on what is reported by both clinicians and clients. Additionally, it would be beneficial to assess GAD clients' own acceptance, preference, and use of IE in order to ascertain how this may affect which treatments their therapists ultimately implement.

In terms of methodological directions for future research, there are a few proposed ideas. First, since all data in this study was collected via self-report measures, shared method variance may have influenced the results. If this is the case, the results of this study may, in part, be due to such artificial inflations of correlations. Use of data obtained using various methods could have reduced this potential bias. For example, it may be helpful to collect an

informant report of which interventions clinicians use in sessions from their clients. Second, presenting audio and/or video clip vignettes to clinicians may help them better imagine implementing these techniques. Third, participants reported both the CRRT and IE treatments as moderately acceptable. More research is needed to illuminate other possible measures of treatment acceptability, as the TEI may not accurately reflect respondents' acceptance of the two treatments.

Conclusion

To the author's knowledge, this is the first investigation to examine CBT psychologists' acceptance, preference, and use of, as well as beliefs about, IE to treat GAD. While participants found both the CRRT and IE treatment vignettes moderately acceptable, they reported significantly higher preference and use of CRRT in their own clinical practice. Psychologists who endorsed obtaining more exposure-specific training and receiving CBT-oriented post-doctoral training reported significantly higher acceptance, preference, and use of IE. In addition, attending a more CBT-oriented graduate program was significantly positively associated with IE use. In contrast, participants who reported greater familiarity with treating GAD or a preferred orientation of CBT significantly preferred and used CRRT techniques. Additionally, more negative beliefs about IE were significantly correlated with preference and use of CRRT over IE. However, psychologists who obtained more exposure-specific training and attended CBT-oriented post-doctoral training endorsed fewer negative beliefs about IE. They also reported significantly higher levels of acceptance, preference, and use of IE. More negative beliefs about IE were significantly related to lower acceptance of both CRRT and IE. This study's findings point to a need to educate clinicians about the benefits of IE for GAD. Further research is needed to determine the training that would facilitate psychologists' use of

IE for GAD. In sum, this study's findings provide valuable information on which therapeutic interventions primarily CBT-oriented psychologists accept, prefer, and use when treating individuals with GAD, as well as the relation between their clinical training and beliefs about IE.

References

- Abramowitz, J. S. (2013). The practice of exposure therapy: Relevance of cognitive-behavioral theory and extinction theory. *Behavior Therapy, 44*(4), 548-558.
doi:10.1016/j.beth.2013.03.003
- Abramowitz, J. S., Deacon, B. J., & Whiteside, S. P. H. (2011). *Exposure therapy for anxiety: Principles and Practice*. New York, NY, US: Guilford Press.
- Adams, T. G., Brady, R. E., Lohr, J. M., & Jacobs, W. J. (2015). A meta-analysis of CBT components for anxiety disorder. *The Behavior Therapist, 38*, 87–97.
- Addis, M. E., & Carpenter, K. M. (1999). Why, why, why? Reason giving and rumination as predictors of response to activation- and insight-oriented treatment rationales. *Journal of Clinical Psychology, 55*, 881-894. doi:10.1002/(SICI)1097-4679(199907)55:7<881::AID-JCLP9>3.0.CO;2-E
- Ale, C. M., McCarthy, D. M., Rothschild, L., & Whiteside S. (2015). Components of cognitive behavioral therapy related to outcome in childhood anxiety disorders. *Clinical Child and Family Psychology Review, 18*, 240–251. doi: 10.1007/s10567-015-0184-8
- Alegría, A. A., Hasin, D. S., Nunes, E. V., Liu, S., Davies, C., Grant, B. F., & Blanco, C. (2010). Comorbidity of generalized anxiety disorder and substance use disorders: Results from the national epidemiologic survey on alcohol and related conditions. *Journal of Clinical Psychiatry, 71*(9), 1187-1195. doi:10.4088/JCP.09m05328gry
- Alfano, C. A., Ginsburg, G. S., & Kingery, J. N. (2007). Sleep-related problems among children and adolescents with anxiety disorders. *Journal of the American Academy of Child and Adolescent Psychiatry, 46*(2), 224-232.
doi:10.1097/01.chi.0000242233.06011.8e

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- Barlow D. H. (2002). *Anxiety and its disorders: The nature and treatment of anxiety and panic* (2nd ed.) New York, NY, U.S: Guilford Press. p. 704.
- Barlow, D. H., Rapee, R. M., & Brown, T. A. (1992). Behavioral treatment of generalized anxiety disorder. *Behavior Therapy*, 23(4), 551-570. doi:10.1016/S0005-7894(05)80221-7
- Becker E. S. & Margraf, J. (2002). *Generalisierte angststörung. Ein therapieprogramm.* Weinheim: Beltz.
- Becker, C. B., Darius, E., & Schaumberg, K. (2007). An analog study of patient preferences for exposure versus alternative treatments for posttraumatic stress disorder. *Behaviour Research and Therapy*, 45(12), 2861-2873. doi:10.1016/j.brat.2007.05.006
- Becker, C. B., Zayfert, C., & Anderson, E. (2004). A survey of psychologists' attitudes towards and utilization of exposure therapy for PTSD. *Behaviour Research and Therapy*, 42(3), 277-292. doi:10.1016/S0005-7967(03)00138-4
- Beesdo, K., Pine, D. S., Lieb, R., & Wittchen, H. (2010). Incidence and risk patterns of anxiety and depressive disorders and categorization of generalized anxiety disorder. *Archives of General Psychiatry*, 67(1), 47-57. doi:10.1001/archgenpsychiatry.2009.177
- Beesdo-Baum, K., Jenjahn, E., Höfler, M., Lueken, U., Becker, E. S., & Hoyer, J. (2012). Avoidance, safety behavior, and reassurance seeking in generalized anxiety disorder. *Depression and Anxiety*, 29(11), 948-957. doi:10.1002/da.21955
- Behar, E., DiMarco, I. D., Hekler, E. B., Mohlman, J., & Staples, A. M. (2009). Current theoretical models of generalized anxiety disorder (GAD): Conceptual review and

treatment implications. *Journal of Anxiety Disorders*, 23(8), 1011-1023.

doi:10.1016/j.janxdis.2009.07.006

Bernstein, D. A., Borkovec, T. D., & Hazlett-Stevens, H. (2000). *New directions in progressive relaxation training: A guidebook for helping professionals*. Westport, CT: Praeger.

Borkovec T. D. (1994). The nature, functions, and origins of worry. In: Davey GCL, Tallis F, (Eds.), *Worrying: Perspectives on theory, assessment and treatment* (pp. 5-33). Oxford, England: Wiley.

Borkovec, T. D. (2002). Life in the future versus life in the present. *Clinical Psychology: Science and Practice*, 9(1), 76-80. doi:10.1093/clipsy/9.1.76

Borkovec, T. D., Alcaine, O. M., & Behar, E. (2004). Avoidance theory of worry and generalized anxiety disorder. In R. G. Heimberg, C. L. Turk, D. S. Mennin, R. G. Heimberg, C. L. Turk, D. S. Mennin (Eds.), *Generalized anxiety disorder: Advances in research and practice* (pp. 77-108). New York, NY, US: Guilford Press.

Borkovec, T. D., & Costello, E. (1993). Efficacy of applied relaxation and cognitive-behavioral therapy in the treatment of generalized anxiety disorder. *Journal of Consulting and Clinical Psychology*, 61, 611–619. <http://dx.doi.org/10.1037/0022-006X.61.4.611>

Borkovec, T. D., Newman, M. G., Pincus, A. L., & Lytle, R. (2002). A component analysis of cognitive-behavioral therapy for generalized anxiety disorder and the role of interpersonal problems. *Journal of Consulting and Clinical Psychology*, 70, 288–298. <http://dx.doi.org/10.1037/0022-006X.70.2.288>

Borkovec, T. D., & Roemer, L. (1995). Perceived functions of worry among generalized anxiety disorder subjects: Distraction from more emotionally distressing topics?.

Journal of Behavior Therapy and Experimental Psychiatry, 26(1), 25-30.

doi:10.1016/0005-7916(94)00064-S

Brown, L. A., Craske, M. G., Glenn, D. E., Stein, M. B., Sullivan, G., Sherbourne, C., & ...

Rose, R. D. (2013). CBT competence in novice therapists improves anxiety outcomes.

Depression And Anxiety, 30(2), 97-115. doi:10.1002/da.22027

Buhr, K., & Dugas, M. J. (2012). Fear of emotions, experiential avoidance, and intolerance of

uncertainty in worry and generalized anxiety disorder. *International Journal of*

Cognitive Therapy, 5(1), 1-17. doi:10.1521/ijct.2012.5.1.1

Carey T. A. (2011). Exposure and reorganization: The what and how of effective

psychotherapy. *Clinical Psychology Review*, 31, 236–248.

Cooper, S. E., Miranda, R., & Mennin, D. S. (2013). Behavioral indicators of emotional

avoidance and subsequent worry in generalized anxiety disorder and depression.

Journal of Experimental Psychopathology, 4(5), 566-583.

Covin, R., Ouimet, A. J., Seeds, P. M., & Dozois, D. A. (2008). A meta-analysis of CBT for

pathological worry among clients with GAD. *Journal of Anxiety Disorders*, 22(1), 108-

116. doi:10.1016/j.janxdis.2007.01.002

Craske, M. G., Kircanski, K., Zelikowsky, M., Mystkowski, J., Chowdhury, N., & Baker, A.

(2008). Optimizing inhibitory learning during exposure therapy. *Behaviour Research*

and Therapy, 46(1), 5-27. doi:10.1016/j.brat.2007.10.003

Craske, M. G., Treanor, M., Conway, C. C., Zbozinek, T., & Vervliet, B. (2014). Maximizing

exposure therapy: An inhibitory learning approach. *Behaviour Research and Therapy*,

5810-23. doi:10.1016/j.brat.2014.04.006

- Davis, T. I., Reuther, E. T., May, A. C., Rudy, B. M., Munson, M. S., Jenkins, W. S., & Whiting, S. E. (2013). The Behavioral Avoidance Task Using Imaginal Exposure (BATIE): A paper-and-pencil version of traditional in vivo behavioral avoidance tasks. *Psychological Assessment, 25*(4), 1111-1119. doi:10.1037/a0033157
- Deacon B. J. & Abramowitz J. S. (2004). Cognitive and behavioral treatments for anxiety disorders: a review of meta-analytic findings. *Journal of Clinical Psychology, 60*, 429–441.
- Deacon, B. J., Farrell, N. R., Kemp, J. J., Dixon, L. J., Sy, J. T., Zhang, A. R., & McGrath, P. B. (2013). Assessing therapist reservations about exposure therapy for anxiety disorders: The Therapist Beliefs about Exposure Scale. *Journal of Anxiety Disorders, 27*(8), 772-780. doi:10.1016/j.janxdis.2013.04.006
- Dugas, M. J., Anderson, K. G., Deschenes, S. S., & Donegan, E. (2010). Generalized anxiety disorder publications: Where do we stand a decade later?. *Journal of Anxiety Disorders, 24*(7), 780-784. doi:10.1016/j.janxdis.2010.05.012
- Dugas, M. J., Brillon, P., Savard, P., Turcotte, J., Gaudet, A., Ladouceur, R., & ... Gervais, N. J. (2010). A randomized clinical trial of cognitive-behavioral therapy and applied relaxation for adults with generalized anxiety disorder. *Behavior Therapy, 41*(1), 46-58. doi:10.1016/j.beth.2008.12.004
- Dugas, M. J., & Robichaud, M. (2007). Cognitive-behavioral treatment for generalized anxiety disorder: From science to practice. New York, NY, US: Routledge/Taylor & Francis Group.

- Dugas, M. J., Letarte, H., Rheaume, J., Freeston, M. H., & Ladouceur, R. (1995). Worry and problem solving: Evidence of a specific relationship. *Cognitive Therapy and Research*, *19*, 109–120.
- Farrell, N. R., Deacon, B. J., Dixon, L. J., & Lickel, J. J. (2013). Theory-based training strategies for modifying practitioner concerns about exposure therapy. *Journal of Anxiety Disorders*, *27*(8), 781-787. doi:10.1016/j.janxdis.2013.09.003
- Farrell, N. R., Kemp, J. J., Blakey, S. M., Meyer, J. M., & Deacon, B. J. (2016). Targeting clinician concerns about exposure therapy: A pilot study comparing standard vs. enhanced training. *Behaviour Research and Therapy*, *85*, 53-59. doi:10.1016/j.brat.2016.08.011
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*, 175-191.
- Foa, E. B., & Kozak, M. J. (1986). Emotional processing of fear: Exposure to corrective information. *Psychological Bulletin*, *99*(1), 20-35. doi:10.1037/0033-2909.99.1.20
- Fracalanza, K., Koerner, N., & Antony, M. M. (2014). Testing a procedural variant of written imaginal exposure for generalized anxiety disorder. *Journal of Anxiety Disorders*, *28*(6), 559-569. doi:10.1016/j.janxdis.2014.05.011
- Goisman, R. M., Rogers, M. P., Steketee, G. S., Warshaw, M. G., Cuneo, P., & Keller, M. B. (1993). Utilization of behavioral methods in a multicenter anxiety disorders study. *Journal of Clinical Psychiatry*, *54*(6), 213-218.
- Gwynn, R. C., McQuiston, H. L., McVeigh, K. H., Garg, R. K., Frieden, T. R., & Thorpe, L. E. (2008). Prevalence, diagnosis, and treatment of depression and generalized anxiety

- disorder in a diverse urban community. *Psychiatric Services*, 59(6), 641-647.
doi:10.1176/appi.ps.59.6.641
- Harned, M. S., Dimeff, L. A., Woodcock, E. A., & Contreras, I. (2013). Predicting adoption of exposure therapy in a randomized controlled dissemination trial. *Journal of Anxiety Disorders*, 27(8), 754-762. doi:10.1016/j.janxdis.2013.02.006
- Hayes-Skelton, S. A., Roemer, L., & Orsillo, S. M. (2013). A randomized clinical trial comparing an acceptance-based behavior therapy to applied relaxation for generalized anxiety disorder. *Journal of Consulting and Clinical Psychology*, 81(5), 761-773.
doi:10.1037/a0032871
- Henning, E. R., Turk, C. L., Mennin, D. S., Fresco, D. M., & Heimberg, R. G. (2007). Impairment and quality of life in individuals with generalized anxiety disorder. *Depression and Anxiety*, 24(5), 342-349. doi:10.1002/da.20249
- Hipol, L. J. & Deacon, B. J. (2013). Dissemination of evidence-based practices for anxiety disorders in Wyoming: a survey of practicing psychotherapists. *Behavior Modification* 37(2), 170-188. doi: 10.1177/014544551
- Hoffman, D. L., Dukes, E. M., & Wittchen, H. (2008). Human and economic burden of generalized anxiety disorder. *Depression and Anxiety*, 25(1), 72-90.
doi:10.1002/da.20257
- Hoge, E. A., Bui, E., Marques, L., Metcalf, C. A., Morris, L. K., Robinaugh, D. J., & ... Simon, N. M. (2013). Randomized controlled trial of mindfulness meditation for generalized anxiety disorder: Effects on anxiety and stress reactivity. *Journal of Clinical Psychiatry*, 74(8), 786-792.

- Hoyer, J., & Beesdo-Baum, K. (2012). Prolonged imaginal exposure based on worry scenarios. In P. Neudeck, H. Wittchen (Eds.), *Exposure therapy: Rethinking the model — refining the method* (pp. 245-260). New York: Springer Science + Business Media.
doi:10.1007/978-1-4614-3342-2_14
- Hoyer, J., Beesdo, K., Gloster, A. T., Runge, J., Höfler, M., & Becker, E. S. (2009). Worry exposure versus applied relaxation in the treatment of generalized anxiety disorder. *Psychotherapy and Psychosomatics*, 78(2), 106-115. doi:10.1159/000201936
- Huppert, J.D., & Ryan, M. (2004). Generalized anxiety disorder. In D.J. Stein (Ed.), *Clinical manual of anxiety disorders* (pp. 147–171). Washington, DC: American Psychiatric Press.
- Kazdin, A. E. (1984) Acceptability of aversive procedures and medication as treatment alternatives for child deviant behavior. *Journal of Abnormal Psychology*, 12, 289-301.
doi:10.1007/BF00910669
- Kazdin, A. E., French, N. H. & Sherick, R. B. (1981) Acceptability of alternative treatments for children: Evaluation by inpatient children, parents, and staff. *Journal of Consulting and Clinical Psychology*, 49, 900-907. doi:10.1037/0022-006X.49.6.900
- Kazdin, A. E. (1981). Acceptability of child treatment techniques: The influence of treatment efficacy and adverse side effects. *Behavior Therapy*, 12, 493-506. doi:10.1016/S0005-7894(81)80087-1
- Kazdin, A. E. (1980a). Acceptability of alternative treatments for deviant child behavior. *Journal of Applied Behavior Analysis*, 13(2), 259-273. doi:10.1901/jaba.1980.13-259
- Kazdin, A. & Weisz, J. (1998). Identifying and developing empirically supported child and adolescent treatments. *Journal of Consulting and Clinical Psychology*, 66, 100-110.

- Kendall, P. C., Robin, J. A., Hedtke, K. A., Suveg, C., Flannery-Schroeder, E., & Gosch, E. (2005). Considering CBT with anxious youth? Think exposures. *Cognitive and Behavioral Practice, 12*(1), 136-150. doi:10.1016/S1077-7229(05)80048-3
- Kessler, R. C., Berglund, P. A., Dewit, D. J., Üstün, T. B., Wang, P. S., & Wittchen, H. (2002). Distinguishing generalized anxiety disorder from major depression: Prevalence and impairment from current pure and comorbid disorders in the US and Ontario. *International Journal of Methods in Psychiatric Research, 11*(3), 99-111. doi:10.1002/mpr.128
- Koerner, N., & Fracalanza, K. (2012). The role of anxiety control strategies in imaginal exposure. In P. Neudeck, H. Wittchen, P. Neudeck, H. Wittchen (Eds.), *Exposure therapy: Rethinking the model — refining the method* (pp. 197-216). New York, NY, US: Springer Science + Business Media. doi:10.1007/978-1-4614-3342-2_12
- Lee, J. K., Orsillo, S. M., Roemer, L., & Allen, L. B. (2010). Distress and avoidance in generalized anxiety disorder: Exploring the relationships with intolerance of uncertainty and worry. *Cognitive Behaviour Therapy, 39*(2), 126-136. doi:10.1080/16506070902966918
- Linden, M., Zubrägel, D., & Bär, T. (2011). Occupational functioning, sickness absence and medication utilization before and after cognitive-behaviour therapy for generalized anxiety disorders. *Clinical Psychology and Psychotherapy, 18*(3), 218-224. doi:10.1002/cpp.712
- Llera, S. J., & Newman, M. G. (2014). Rethinking the role of worry in generalized anxiety disorder: Evidence supporting a model of emotional contrast avoidance. *Behavior Therapy, 45*(3), 283-299. doi:10.1016/j.beth.2013.12.011

- McKay, D., Sookman, D., Neziroglu, F., Wilhelm, S., Stein, D. J., Kyrios, M., & ... Veale, D. (2015). Efficacy of cognitive-behavioral therapy for obsessive–compulsive disorder. *Psychiatry Research*, 225(3), 236-246. doi:10.1016/j.psychres.2014.11.058
- McLaughlin, K. A., Mennin, D. S., & Farach, F. J. (2007). The contributory role of worry in emotion generation and dysregulation in generalized anxiety disorder. *Behaviour Research and Therapy*, 45(8), 1735-1752. doi:10.1016/j.brat.2006.12.004
- Mennin, D. S., Heimberg, R. G., Turk, C. L., & Fresco, D. M. (2005). Preliminary evidence for an emotion dysregulation model of generalized anxiety disorder. *Behaviour Research and Therapy*, 43(10), 1281-1310. doi:10.1016/j.brat.2004.08.008
- Meyer, J., Farrell, N., Kemp, J., Blakey, S., & Deacon, B. (2014). Why do clinicians exclude anxious clients from exposure therapy?. *Behaviour Research and Therapy*, 54, 49-53.
- Mowrer, O. H. (1947). On the dual nature of learning: A re-interpretation of “conditioning” and “problem solving.” *Harvard Educational Review*, 17, 102–148.
- Murphy, K. R., Myers, B., & Wolach, A. H. (2009). *Statistical power analysis: A simple and general model for traditional and modern hypothesis tests*. New York: Routledge.
- Newman, M. G., Castonguay, L. G., Borkovec, T. D., Fisher, A. J., Boswell, J. F., Szkodny, L. E., & Nordberg, S. S. (2011). A randomized controlled trial of cognitive-behavioral therapy for generalized anxiety disorder with integrated techniques from emotion-focused and interpersonal therapies. *Journal of Consulting and Clinical Psychology*, 79(2), 171–181. <http://dx.doi.org/10.1037/a0022489>
- Newman, M. G., Przeworski, A., Fisher, A. J., & Borkovec, T. D. (2010). Diagnostic comorbidity in adults with generalized anxiety disorder: Impact of comorbidity on psychotherapy outcome and impact of psychotherapy on comorbid diagnoses. *Behavior*

- Therapy*, 41(1), 59-72. doi:10.1016/j.beth.2008.12.005
- Öst, L.-G. (2007). *Applied relaxation: Manual for a behavioral coping technique*. Unpublished manuscript.
- Parsons, T. D. & Rizzo, A. A. (2008). Affective outcomes of virtual reality exposure therapy for anxiety and specific phobias: A meta-analysis. *Journal of Behavior Therapy and Experimental Psychiatry*, 39(3), 250-261. doi:10.1016/j.jbtep.2007.07.007
- Persons, J. B. (2014). *Nuts and bolts of imaginal exposure*. Retrieved from San Francisco Bay Area for Cognitive Therapy, <http://sfbacct.com/exposure-therapy/59-nuts-and-bolts-of-imaginal-exposure>.
- Peterman, J. S., Read, K. L., Wei, C., & Kendall, P. C. (2015). The art of exposure: Putting science into practice. *Cognitive and Behavioral Practice*, 22(3), 379-392. doi:10.1016/j.cbpra.2014.02.003
- Podell, J. L., Kendall, P. C., Gosch, E. A., Compton, S. N., March, J. S., Albano, A., & ... Piacentini, J. C. (2013). Therapist factors and outcomes in CBT for anxiety in youth. *Professional Psychology: Research And Practice*, 44(2), 89-98. doi:10.1037/a0031700
- Powers, M. B., Halpern, J. M., Ferenschak, M. P., Gillihan, S. J., & Foa, E. B. (2010). A meta-analytic review of prolonged exposure for posttraumatic stress disorder. *Clinical Psychology Review*, 30(6), 635-641. doi:10.1016/j.cpr.2010.04.007
- Rapgay, L., Bystritsky, A., Dafter, R. E., & Spearman, M. (2011). New strategies for combining mindfulness with integrative cognitive behavioral therapy for the treatment of generalized anxiety disorder. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, 29(2), 92-119. doi:10.1007/s10942-009-0095-z
- Roemer, L., & Orsillo, S. M. (2002). Expanding our conceptualization of and treatment for

generalized anxiety disorder: integrating mindfulness/acceptance-based approaches with existing cognitive behavioral models. *Clinical Psychology: Science and Practice*, 9, 54–68.

Roemer, L., & Orsillo, S. M. (2005). An acceptance-based behavior therapy for generalized anxiety disorder. In: S. M. Orsillo & L. Roemer (Eds.), *Acceptance and mindfulness-based approaches to anxiety: conceptualization and treatment* (pp. 213–240). New York: Springer.

Roemer, L., Salters, K., Raffa, S. D., & Orsillo, S. M. (2005). Fear and avoidance of internal experiences in GAD: Preliminary tests of a conceptual model. *Cognitive Therapy and Research*, 29(1), 71-88. doi:10.1007/s10608-005-1650-2

Salters-Pedneault, K., Roemer, L., Tull, M. T., Rucker, L., & Mennin, D. S. (2006). Evidence of broad deficits in emotion regulation associated with chronic worry and generalized anxiety disorder. *Cognitive Therapy and Research*, 30(4), 469-480. doi:10.1007/s10608-006-9055-4

Salzer, S., Winkelbach, C., Leweke, F., Leibing, E., & Leichsenring, F. (2011). Long-term effects of short-term psychodynamic psychotherapy and cognitive-behavioral therapy in generalized anxiety disorder: 12-month follow-up. *The Canadian Journal of Psychiatry / La Revue Canadienne De Psychiatrie*, 56(8), 503-508.

Scherr, S. R., Herbert, J. D., & Forman, E. M. (2015). The role of therapist experiential avoidance in predicting therapist preference for exposure treatment for OCD. *Journal of Contextual Behavioral Science*, 4(1), 21-29.

Siev, J., & Chambless, D. L. (2007). Specificity of treatment effects: Cognitive therapy and relaxation for generalized anxiety and panic disorders. *Journal Of Consulting And*

Clinical Psychology, 75(4), 513-522. doi:10.1037/0022-006X.75.4.513

- Stapinski, L. A., Abbott, M. J., & Rapee, R. M. (2010). Fear and perceived uncontrollability of emotion: Evaluating the unique contribution of emotion appraisal variables to prediction of worry and generalised anxiety disorder. *Behaviour Research and Therapy*, 48(11), 1097-1104. doi:10.1016/j.brat.2010.07.012
- Starr, L. R., & Davila, J. (2012). Cognitive and interpersonal moderators of daily co-occurrence of anxious and depressed moods in generalized anxiety disorder. *Cognitive Therapy and Research*, 36(6), 655-669. doi:10.1007/s10608-011-9434-3
- Stein, D. J. (2001). Comorbidity in generalized anxiety disorder: Impact and implications. *Journal of Clinical Psychiatry*, 62(Suppl11), 29-34.
- Stein, M. B., Roy-Byrne, P. P., Craske, M. G., Campbell-Sills, L., Lang, A. J., Golinelli, D., & Sherbourne, C. D. (2011). Quality of and patient satisfaction with primary health care for anxiety disorders. *Journal of Clinical Psychiatry*, 72, 970-976.
- Szkodny, L. E., Newman, M. G., & Goldfried, M. R. (2014). Clinical experiences in conducting empirically supported treatments for generalized anxiety disorder. *Behavior Therapy*, 45(1), 7-20. doi:10.1016/j.beth.2013.09.009
- Tarrier, N., & Humphreys, L. (2000). Subjective improvement in PTSD patients with treatment by imaginal exposure or cognitive therapy: Session by session changes. *British Journal of Clinical Psychology*, 39(1), 27-34. doi:10.1348/014466500163086
- Tsypes, A., Aldao, A., & Mennin, D. S. (2013). Emotion dysregulation and sleep difficulties in generalized anxiety disorder. *Journal of Anxiety Disorders*, 27(2), 197-203. doi:10.1016/j.janxdis.2013.01.008
- Van der Heiden, C., & Broeke, E. T. (2009). The when, why, and how of worry exposure.

- Cognitive and Behavioral Practice*, 16(4), 386-393. doi:10.1016/j.cbpra.2008.11.003
- van Minnen, A., Hendriks, L., & Olf, M. (2010). When do trauma experts choose exposure therapy for PTSD patients? A controlled study of therapist and patient factors. *Behaviour Research And Therapy*, 48(4), 312-320. doi:10.1016/j.brat.2009.12.003
- van Minnen, A., & Foa, E. B. (2006). The effect of imaginal exposure length on outcome of treatment for PTSD. *Journal of Traumatic Stress*, 19(4), 427-438. doi:10.1002/jts.20146
- Vrielynck, N., & Philippot, P. (2009). Regulating emotion during imaginal exposure to social anxiety: Impact of the specificity of information processing. *Journal of Behavior Therapy And Experimental Psychiatry*, 40(2), 274-282. doi:10.1016/j.jbtep.2008.12.006
- Wells, A. (1995). Meta-cognition and worry: A cognitive model of generalized anxiety disorder. *Behavioural and Cognitive Psychotherapy*, 23(3), 301-320. doi:10.1017/S1352465800015897
- Wells, A. (2002). Worry, metacognition, and GAD: Nature, consequences, and treatment. *Journal of Cognitive Psychotherapy*, 16(2), 179-192. doi:10.1891/jcop.16.2.179.63994
- Wells, A., & Carter, K. (2001). Further tests of a cognitive model of generalized anxiety disorder: Metacognitions and worry in GAD, panic disorder, social phobia, depression, and nonpatients. *Behavior Therapy*, 32(1), 85-102. doi:10.1016/S0005-7894(01)80045-9
- Whiteside, S. P. H., Deacon, B. J., Benito, K., & Stewart, E. (2016). Factors associated with practitioners' use of exposure therapy for childhood anxiety disorders. *Journal of Anxiety Disorders*, 40, 29–36. <http://doi.org/10.1016/j.janxdis.2016.04.001>

Whiteside, S. P., Ale, C. M., Young, B., Dammann, J. E., Tiede, M. S., & Biggs, B. K. (2015).

The feasibility of improving CBT for childhood anxiety disorders through a

dismantling study. *Behaviour Research and Therapy*, 73, 83-89. doi:

10.1016/j.brat.2015.07.011

Wolitzky-Taylor, K., Zimmermann, M., Arch, J. J., De Guzman, E., & Lagomasino, I. (2015).

Has evidence-based psychosocial treatment for anxiety disorders permeated usual care

in community mental health settings? *Behaviour Research and Therapy*, 72, 9-17.

Young, A. S., Klap, R., Shoai, R., & Wells, K. B. (2008). Persistent depression and anxiety in

the United States. *Psychiatric Services*, 59, 1391-1398.

Appendix A: Demographics Questionnaire

Please fill in the blank or click on the response that you feel best answers the question.

1. Do you practice cognitive-behavioral therapy (CBT)?

Yes

No

2. What is your age?

3. What is your gender?

Female

Male

Transgender

I'd rather not say

4. What is your ethnicity?

Hispanic or Latino

Not Hispanic or Latino

5. What is your race?

American Indian or Alaskan Native

Asian

Black or African American

Native Hawaiian or Pacific Islander

White

More Than One Race

Other (please specify)

6. What is your highest degree?

Masters

Doctoral

7. What is your preferred clinical orientation?

I don't know

Behavioral

Cognitive

Cognitive-Behavioral

Psychodynamic

Integrative

Eclectic
Other (please specify)

8. What type of graduate training program did you attend?

Behavioral
Cognitive
Cognitive-Behavioral
Psychodynamic
Integrative
Eclectic
Dual orientation
Other (please specify)

9. Aside from who you worked with during your training, how cognitive-behaviorally oriented was your graduate training program on a scale from 1-7?

1 (Not at all CBT)
2
3
4
5
6
7 (Very CBT)

10. Did you pursue post-doctoral work that included some clinical training after receiving your degree?

Yes
No

11. ONLY ANSWER IF THE ANSWER TO THE PREVIOUS QUESTION WAS YES: What was the theoretical orientation of the post-doctoral training that you received?

Behavioral
Cognitive
Cognitive-Behavioral
Psychodynamic
Integrative
Eclectic
Other (please specify)

12. How many years have you spent doing clinical work, including graduate training and post-doctoral training? Please write the number that best matches your experience.

13. Approximately what percentage of clients with anxiety disorders comprises your current clinical practice?

14. Since you received your doctoral degree, have you received any specialized or specific training in treating anxiety?

Yes

No

Other (please specify)

15. If the answer to the previous question was YES, how many years of anxiety training have you received?

16. How familiar are you with treating generalized anxiety disorder (GAD)?

1 (Not at All Familiar)

2

3

4 (Somewhat familiar)

5

6

7 (Very Familiar)

Appendix B: Treatment Evaluation Inventory (TEI) – Short Form – Modified Version

Please complete the items listed below. The items should be completed by clicking in the box under the answer to each question that best indicates how you feel about the treatment. Please read the items very carefully because clicking on one box rather than another may not represent the meaning that you intended.

1. I find this treatment to be an acceptable way of dealing with the client's anxiety.

Strongly disagree
Disagree
Neither agree nor disagree
Agree
Strongly agree

2. I would be willing to use this procedure to help change the client's anxiety.

Strongly disagree
Disagree
Neither agree nor disagree
Agree
Strongly agree

3. I believe that it would be acceptable to tell clients that this is an effective anxiety treatment.

Strongly disagree
Disagree
Neither agree nor disagree
Agree
Strongly agree

4. I like the procedures used in this treatment.

Strongly disagree
Disagree
Neither agree nor disagree
Agree
Strongly agree

5. I believe this treatment is likely to be effective.

Strongly disagree
Disagree

Neither agree nor disagree
Agree
Strongly agree

6. I believe the client will experience discomfort during the treatment.

Strongly disagree
Disagree
Neither agree nor disagree
Agree
Strongly agree
Strongly disagree

7. I believe this treatment is likely to result in permanent improvement.

Strongly disagree
Disagree
Neither agree nor disagree
Agree
Strongly agree

8. I believe it would be acceptable to encourage individuals with anxiety to consider this treatment for themselves.

Strongly disagree
Disagree
Neither agree nor disagree
Agree
Strongly agree

9. Overall, I have a positive reaction to this treatment.

Strongly disagree
Disagree
Neither agree nor disagree
Agree
Strongly agree

Appendix C: Preferences and Use of Imaginal Exposure in Practice

Treatment Preference Questionnaire

Please rank-order the treatments you just read about in terms of the treatment you would prefer that a client with GAD receive, using only the numbers 1 and 2, and using each number only once. You may refer back to the treatment descriptions for reference.

Treatment X _____

Treatment Y _____

Treatment Use Questionnaire

Please rank the treatment components you just read about in terms of which treatment description is more similar to what you use in your current practice for clients with GAD using only the numbers 1 and 2, and using each number only once. You may refer back to the treatment descriptions for reference.

Treatment X _____

Treatment Y _____

Appendix D: Treatment Likes and Dislikes Questionnaire

Please rank how useful/not useful you find each of these interventions.

1. Client receives psychoeducation about the treatment components.

1	2	3	4	5	6	7
Not useful			Undecided			Very Useful

2. Client learns relaxation techniques (e.g., progressive muscle relaxation, deep breathing) and is asked to practice them daily between sessions.

1	2	3	4	5	6	7
Not useful			Undecided			Very Useful

3. Client learns how to do imagery work on neutral scenarios in session and at home to improve imaging abilities that use all five senses before engaging in imaginal exposure work.

1	2	3	4	5	6	7
Not useful			Undecided			Very Useful

4. Client learns about cognitive distortions and practices identifying when he or she may be using them.

1	2	3	4	5	6	7
Not useful			Undecided			Very Useful

5. Client creates an imaginal exposure hierarchy in session with scenarios ranging from mildly to extremely anxiety-evoking.

1	2	3	4	5	6	7
Not useful			Undecided			Very Useful

6. Client completes thought records for homework on anxiety-provoking situations and practices generating alternative thoughts in response to negative automatic thoughts.

1	2	3	4	5	6	7
Not useful			Undecided			Very Useful

7. Clinician provides rationale for how imaginal exposure reduces feelings of anxiety, as well as discussing any discomfort that the client may have about engaging in exposure.

1	2	3	4	5	6	7
Not useful			Undecided			Very Useful

Appendix E: Exposure Training Scale

The following list of items asks whether you have been trained in exposure therapy (imaginal and/or in vivo) in a variety of settings.

1. I completed a behavior therapy course in my doctoral program in which exposure was a substantial part of the material covered.

Yes

No

2. I received training in exposure therapy in a post-doctoral fellowship or job.

Yes

No

Not Applicable

3. I received training in exposure therapy in supervision (during any point in my clinical training and/or practice).

Yes

No

4. I received training in exposure therapy during or after graduate school by attending workshops, lectures, conferences, or via other educational opportunities.

Yes

No

5. Did you teach yourself to conduct exposure techniques through reading books, manuals, and/or watching treatment videos or webinars?

Yes

No

Appendix F: Therapist Beliefs About Exposure Scale (TBES)

Below are statements about imaginal exposure therapy for the treatment of anxiety disorders. Please indicate how strongly you agree or disagree with each statement.

1. Most clients have difficulty tolerating the distress imaginal exposure therapy evokes.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

2. Imaginal exposure therapy addresses the superficial symptoms of an anxiety disorder but does not target their root cause.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

3. Imaginal exposure therapy works poorly for complex cases, such as when the client has multiple diagnoses.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

4. Compared to other psychotherapies, imaginal exposure therapy leads to higher dropout rates.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

5. Conducting imaginal exposure therapy sessions outside the office increases the risk of an unethical dual relationship with the client.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

6. Imaginal exposure therapy is difficult to tailor to the needs of individual clients.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

7. Compared to other psychotherapies, imaginal exposure therapy is associated with a less strong therapeutic relationship.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

8. Asking the client to discuss traumatic memories in imaginal exposure therapy may retraumatize the client.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

9. It is unethical for therapists to purposely evoke distress in their clients.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

10. Clients are at risk of decompensating (i.e., losing mental and/or behavioral control) during highly anxiety- provoking imaginal exposure therapy sessions.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

11. Conducting imaginal exposure therapy sessions outside the office endangers the client's confidentiality.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

12. Arousal reduction strategies, such as relaxation or controlled breathing, are often necessary for clients to tolerate the distress imaginal exposure therapy evokes.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

13. Compared to other psychotherapies, imaginal exposure therapy places clients at a greater risk of harm.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

14. Most clients perceive imaginal exposure therapy to be unacceptably aversive.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

15. Imaginal exposure therapy often causes clients' anxiety symptoms to worsen.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

16. Asking the client to discuss traumatic memories in exposure therapy may vicariously traumatize the therapist.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

17. Clients may experience physical harm caused by their own anxiety (e.g., loss of consciousness) during highly anxiety-provoking imaginal exposure therapy sessions.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

18. Having clients conduct exposures in their imagination is sufficient; facing feared stimuli in the real world is rarely necessary.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

19. Exposure therapy is inhumane.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

20. Most clients refuse to participate in exposure therapy.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

21. Compared to other psychotherapies, exposure therapy increases the risk that the therapist will be sued for malpractice.

0 (Disagree Strongly) 1 (Disagree) 2 (Unsure) 3 (Agree) 4 (Agree Strongly)

Appendix G: Case Vignette and Treatments

Trina is a 28-year-old accountant diagnosed with generalized anxiety disorder. She recently started her first job after graduating with good marks and high performance evaluations. She lives with her 2 cats and her best friend. Trina has always been an anxious person. She describes herself as a "worry bug" and her friends and family often tell her she worries too much. During high school she found it very difficult to control her worry about being on time for class or appointments, her grades, losing her friends, getting her parents angry, her appearance, whether her teachers liked her, and which university she would attend. Since then she has also worried excessively about whether her current boyfriend will leave her, her cats, her work performance, her weight, and having enough time in the day to get everything done. Trina has great difficulty controlling these worries and they often intrude when she is trying to relax alone at the end of each day, during down time at work, and when out with friends. She feels exhausted all the time with constant muscle tension and body aches. She notices that she is frequently irritable (e.g., snaps at her roommate and boyfriend inappropriately).

Trina can't remember when she last felt relaxed as she always feels jumpy, tense, and on guard for something bad to happen. For the past 6 months she hasn't been sleeping very well. She often lies in bed worrying for several hours, wakes frequently during the night, or wakes up too early and can't fall back asleep. On days when her worrying is really problematic she has difficulty concentrating at work and several friends have commented that she often seems distracted. Trina also checks her work excessively even though it means she often has to work late. She also asks her friends or family what they think about her appearance or other

worries until they get frustrated with her. Trina knows her worry is a problem but she is concerned that without her worrying everything would fall apart or get worse.

Treatment X: Treatment for Trina consists of the following interventions:

- Psychoeducation about generalized anxiety and identifying anxiety and worry triggers
- Learning to recognize muscle tension in her body and practicing progressive muscle relaxation in session and at home every night as homework throughout the week
- Doing deep breathing exercises in the morning, at night, and whenever feeling anxious for homework in between sessions
- Learning different types of cognitive distortions and practice identifying them in real-life situations; recognizing that more than one cognitive distortion may be present
- Engage in creating thought records for anxiety-provoking scenarios that detail what the situation was, feelings, negative automatic thoughts, evidence that supports those thoughts, evidence that does not support those thoughts, alternative thoughts, and emotions upon completing the records in session; doing several records for homework each week
- Reviewing thought records in session to generate additional alternative thoughts and evidence that does not support the initial thoughts in order to increase these skills
- Continue relapse prevention in which treatment gains are reviewed and any area that she does not feel confident in is practiced further to create a mastery experience

Treatment Y: Treatment for Trina consists of the following interventions:

- Psychoeducation about generalized anxiety and identifying anxiety and worry triggers

- Psychoeducation about IE and how this reduces feelings of anxiety; discussing any discomfort that she may have about engaging in exposure and providing rationale for why exposure has been shown to be a beneficial strategy
- Practice doing imagery work on neutral scenarios in session and at home to improve imaging abilities that use all five senses
- Creating an IE hierarchy in session with scenarios ranging from mildly to extremely anxiety-evoking, including descriptors that involve all five senses and detailed accounts of each scenario, including feelings and actions taken
- Engaging in IE work during session and audiotaping the exposure so she can listen to the exposure at home in between sessions
- During IE work, assess her fear or anxiety level every five to ten minutes
- Continuing IE work in session until learning and change have occurred, encourage her to listen to the exposure audiotape for homework as much as possible, including after treatment is complete if symptoms begin to return.