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Predicting adoption of exposure therapy in a randomized controlled dissemination trial

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ABSTRACT

The present study examined organizational, client, and therapist characteristics as predictors of use of and proficiency in exposure therapy (ET) after training. Therapists naïve to ET ($N = 181$) were randomized to: (1) online training (OLT), (2) OLT plus motivational enhancement (ME), or (3) OLT + ME plus a learning community. Twelve weeks after training, self-reported use of ET in clinical practice was high (87.5%) and therapists demonstrated moderate clinical proficiency. Use of ET was predicted by therapist degree, self-efficacy, and knowledge. Clinical proficiency was predicted by therapist anxiety sensitivity, attitudes, and knowledge, as well as organizational and client barriers. Several of these effects were moderated by training condition, indicating that therapists who received more comprehensive training were less impacted by barriers and showed enhanced adoption in the presence of facilitating factors. Overall, these results suggest that the primary barriers to the adoption of ET are therapist, not organizational or client, factors.

1. Introduction

Exposure therapy (ET) has the dubious distinction of being one of the most empirically supported yet least used psychological treatments. Despite extensive research demonstrating that ET has large effects on each of the anxiety disorders (for a review see Norton & Price, 2007), both therapists and anxiety disorder clients report that it is rarely implemented in clinical practice. Indeed, as few as 7% of therapists and clients report delivering or receiving ET, respectively (Becker, Zayfert, & Anderson, 2004; Freiheit, Vye, Swan, & Cady, 2004; Goisman, Warshaw, & Keller, 1999; Marcks, Weisberg, & Keller, 2009; Rosen et al., 2004). Although the urgent need to reduce the gap between research and clinical practice is widely recognized, efforts to increase the use of evidence-based practices (EBPs) such as ET have been hampered by a lack of knowledge about the factors that promote or interfere with adoption.

A necessary first step in making ET more widely available to consumers is to increase the number of therapists trained to deliver this treatment, as only 12–28% of psychologists have received training in exposure procedures (Becker et al., 2004). Several randomized controlled trials have evaluated methods of training therapists in ET, with results indicating that computer-based or online training is an effective and cost-efficient method of increasing knowledge of ET (Gega, Norman, & Marks, 2006; Harned, Dimeff, Woodcock, & Skutch, 2011; McDonough & Marks, 2002). However, efforts to train therapists in ET are only successful if they lead to adoption; that is, the use of ET in a clinically proficient manner (Turner & Sanders, 2006). Prior research indicates that the majority of therapists trained in ET rarely if ever use the treatment in their clinical practice. For example, 46% of psychologists trained in imaginal exposure for posttraumatic stress disorder (PTSD) report that they never use the procedure and 25% report that they use the procedure with less than half of their PTSD patients (Becker et al., 2004). In addition, there is some evidence that the rate of adoption may be lower for exposure than for other evidence-based techniques. For example, among therapists who received workshop training in trauma-focused cognitive-behavioral therapy, chart review in the three months following training indicated that no therapists reported using the exposure component of this treatment, whereas all other techniques (e.g., anxiety management, cognitive restructuring, parent training) were used by at least some therapists (Jensen-Doss, Cusack, & Arellano, 2008). These findings highlight the importance of identifying barriers to the adoption of ET among trained therapists, while also suggesting that there may be barriers that are particularly difficult and/or possibly unique to ET.

The systems-contextual model of dissemination and implementation (Beidas & Kendall, 2010; Turner & Sanders, 2006) provides a framework for conceptualizing the multiple contextual variables that may impact the effect of training on subsequent therapist behavior. This model proposes that *organizational characteristics*

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are likely to influence therapist decisions to adopt a newly learned treatment. Surveys of mental health providers have found that greater perceived openness of an organization to EBPs, working in a hospital or university setting, and the availability of supervision predict increased use of and/or proficiency in EBPs (Baer et al., 2009; McFarlane, McNary, Dixon, Hornby, & Cimett, 2001; Nelson & Steele, 2007; Shapiro, Prinz, & Sanders, 2012). In addition, *client characteristics* are expected to impact adoption. This may be particularly true for ET, as therapists often believe that ET is inappropriate for many (if not most) clients, particularly those with more severe or complex clinical presentations (e.g., Becker et al., 2004; van Minnen, Hendriks, & Olff, 2010). In addition, therapists identify client resistance as a common obstacle to using ET, including problems such as unwillingness to give up safety behaviors, resistance to the directiveness of the treatment, and beliefs that their fears are realistic (APA Division 12, 2010). *Therapist characteristics* are theorized to also play a significant role in the decision to adopt a newly learned treatment. Therapists who identify as cognitive-behavioral in orientation, have fewer years of clinical experience, and have a higher level of education have been found to be more open to learning and using EBPs (Aarons, 2004; Baer et al., 2009; Nelson & Steele, 2007; Stewart, Chambless, & Baron, 2011). In addition, therapists who report greater self-efficacy and knowledge after training are more likely to subsequently use the treatment in their clinical practice (Shapiro et al., 2012). Therapist attitudes may be a particularly significant barrier to the adoption of ET given common (but not empirically supported) beliefs that ET is excessively distressing, contraindicated for many clients, and likely to result in symptom exacerbation and dropout (Olatunji, Deacon, & Abramowitz, 2009). Another common therapist concern about using ET is that it may be too anxiety-provoking for therapists (Skutch et al., 2009), suggesting that therapists with higher anxiety sensitivity may be less likely to adopt ET. Finally, this model proposes that adoption is influenced by the *quality of training*, with adoption more likely to occur when the training addresses each level of the systems-contextual model.

The present study evaluates predictors of adoption of ET using data from a randomized controlled dissemination trial. Primary outcomes from this larger trial are reported elsewhere (Harned et al., submitted for publication), and the present study involves secondary analyses to determine which organizational, client, and therapist characteristics promote or interfere with use of and clinical proficiency in ET twelve weeks after training. Consistent with the literature reviewed above, we hypothesized that therapists with more education, a cognitive-behavioral orientation, less clinical experience, lower anxiety sensitivity, greater knowledge of and self-efficacy in ET, and more positive attitudes toward ET would exhibit higher rates of clinical use and proficiency following training. In addition, we hypothesized that organizational barriers (e.g., lack of organizational support for using ET) and client barriers (e.g., client resistance to ET) would interfere with adoption. Finally, we hypothesized that type of training would moderate the effects of other contextual variables on adoption. In particular, we predicted that therapists who received the most comprehensive training that addressed multiple levels of the systems-contextual model would be less impacted by potential barriers to adoption and would show enhanced adoption in the presence of facilitating factors.

2. Methods

2.1. Procedures

2.1.1. Recruitment and screening

All procedures were approved by the Western IRB. Participant enrollment began in November 2011 and the final follow-up assessment occurred in July 2012. Participants were recruited via fliers sent to administrators at mental health agencies, posting emails to several listservs for mental health providers, advertising in our organizational newsletter, and contacting individuals who had previously expressed interest in participating in future studies. Interested individuals were directed to complete a secure online screening questionnaire to determine eligibility. Inclusion criteria were: (1) currently working as a mental health treatment provider or a student in a mental health-related field, (2) currently providing individual therapy to at least three clients with an anxiety disorder, (3) planning to continue providing individual therapy to clients with anxiety disorders for the duration of the study, (4) has access to the technology required to complete the study training methods, (5) able to commit to the time requirements necessary to complete the study, (6) has a Bachelor's degree or higher, and (7) has no more than minimal prior exposure to ET. More than minimal prior exposure to ET was defined as: (1) clinical experience using ETs (i.e., had provided eight or more sessions of an ET or received clinical supervision focused on ETs), (2) training specifically focused on ETs (i.e., a quarter- or semester-long graduate course, a 12-h or longer didactic training, or a study/consultation group focused on learning any ET), (3) previously viewed any of the OLT used in this study or two other OLTs of an exposure-based treatment developed by our group, or (4) read more than half of any treatment manual for an ET in the past three years. Overall, 861 individuals completed the online eligibility screen of whom 512 did not meet inclusion criteria (325 had more than minimal prior exposure to ETs, 94 were not providing therapy to at least three clients with an anxiety disorder, 69 did not have time for the study during the study period, 22 did not have access to the required technology, and 2 were not mental health treatment providers or students in training with at least a Bachelor's degree). An additional 73 individuals were found to be eligible but were initially placed on a waitlist and later declined to participate when offered the opportunity.

2.1.2. Randomization

Following the online screening, the remaining eligible participants ($n = 276$) were assigned to one of the three study conditions via a randomization minimization procedure (White & Freedman, 1978). Participants were matched on educational degree (1 = MD/PhD or doctoral candidate; 2 = MA/MS or current graduate student; 3 = BA/BS level), student status (1 = yes; 2 = no), clinical experience (1 = less than 3 years; 2 = 3–6 years; 3 = more than 6 years), number of individual clients on their caseload (1 = 3–11; 2 = 12–30; 3 = 31 or more), and self-reported level of technology competence (1 = low confidence (1–3); 2 = moderate confidence (4–7); 3 = high confidence (8–10)).

2.1.3. Informed consent

Randomized participants completed the informed consent process by viewing an online video describing the study procedures, taking an online survey to assess their understanding of the study procedures, reviewing questions with research staff via phone as needed, and then downloading and returning a signed copy of the consent form to research staff.

2.1.4. Experimental procedures

Upon completion of the baseline assessment, participants received an email with information about how to access their online training (OLT). Participants were asked to complete the OLT within a 6-week training phase, but were given access to the OLT for the entire 18 weeks of the study. One week after receiving access to the OLT and one week prior to the post-training assessment, participants were contacted by research staff (via phone or email) to assess progress through the course and offer technical support as needed. Participants completed outcome assessments at post-training (6