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The credibility of exposure therapy: Does the theoretical rationale matter?

Joanna J. Arch [a, *], Michael P. Twohig [b], Brett J. Deacon [c], Lauren N. Landy [a], Ellen J. Bluett [b]

[a] University of Colorado Boulder, Department of Psychology and Neuroscience, 345 UCB Muenzinger, Boulder, CO 80309-0345, United States
[b] Utah State University, Department of Psychology, 2810 Old Main Hill, Logan, UT 84322-2810, United States
[c] School of Psychology, University of Wollongong, Northfields Avenue, Wollongong, NSW 2522, Australia

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ABSTRACT

Objective: Little is understood about how the public perceives exposure-based therapy (ET) for treating anxiety and trauma-related disorders or how ET rationales affect treatment credibility. Distinct approaches to framing ET are practiced, including those emphasized in traditional cognitive behavioral therapy, acceptance and commitment therapy, and the more recent inhibitory learning model. However, their relative effect on ET's credibility remains unknown.
Method: A final sample of 964 U.S. adults provided baseline views of ET. Participants rated ET treatment credibility following a simple ET definition (pre-rationale) and following randomization to rationale modules addressing ET goals, fear, and cognitive strategies from distinct theoretical perspectives (post-rationale). Baseline ET views, symptoms, and sociodemographic characteristics were examined as putative moderators and predictors.
Results: At baseline, the majority had never heard of ET. From pre- to post-rationale, ET treatment credibility significantly increased but the rationales' theoretical perspective had little impact. More negative baseline ET views, specific ethnic/racial minority group status, and lower education moderated or predicted greater increases in treatment credibility following the rationale.
Conclusions: ET remains relatively unknown as a treatment for anxiety or trauma, supporting the need for direct-to-consumer marketing. Diverse theory-driven rationales similarly increased ET credibility, particularly among those less likely to use ET.

Cognitive-behavioral interventions that emphasize exposure to feared stimuli have demonstrated strong efficacy for a variety of anxiety disorders (Hofmann & Smits, 2008), representing first line treatments (Norton & Price, 2007; Olatunji, Cisler, & Tolin, 2010). Despite their strong empirical support, however, only a minority of patients with anxiety disorders are treated with exposure-based interventions (Gunter & Whittal, 2010; Marcks, Weisberg, & Keller, 2009). Many patients thus invest time and resources in less effective treatments (Lilienfeld, Lynn, & Lohr, 2003), if they are treated at all (Wang et al., 2005).

One potential reason for exposure therapy's (ET) low utilization is that we generally market exposure-based therapies to mental health professionals and overlook the actual patient consumer (Gallo, Comer, & Barlow, 2013). One benefit of directly promoting ET through "direct-to-consumer" marketing is that as patient interest in ET grows, patients place enough demand on the field that therapists will seek out and use their training in exposure-based therapy to meet that demand (Santucci, McHugh, & Barlow, 2012). Little empirical work, however, directly addresses public knowledge of ET or how to best frame ET to patients and the public more generally. Thus, research that informs dissemination of exposure-based treatment to consumers represents an important priority. Understanding what the public thinks about exposure-based treatment and how we might best market exposure to increase its credibility, desirability, and ultimately, demand, represent key steps towards addressing this priority.

Marketing exposure therapy requires addressing the question of what type of exposure-based treatment to promote. Currently, there are somewhat distinct and competing theory-driven approaches to framing ET, including traditional cognitive behavioral

* Corresponding author.
E-mail addresses: Joanna.Arch@Colorado.edu (J.J. Arch), Michael.Twohig@usu.edu (M.P. Twohig), bdeacon@uow.edu.au (B.J. Deacon), Lauren.Landy@colorado.edu (L.N. Landy), ejbluett@aggiemail.usu.edu (E.J. Bluett).

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approaches (CBT) that emphasize fear/anxiety reduction and physiological symptom control strategies (Craske & Barlow, 2007), optimizing inhibitory learning approaches that emphasize fear toleration and no symptom control strategies (Craske et al., 2008), and acceptance and commitment therapy-based (ACT) approaches that emphasize fear acceptance and valued living with less focus on symptom reduction (Eifert & Forsyth, 2005; Hayes, Strosahl, & Wilson, 1999). Traditional CBT and optimizing inhibitory learning approaches to exposure also emphasize testing thoughts, whereas ACT emphasizes cognitive defusion or flexible distancing from the content of anxiety-related thoughts rather than modifying thought content. Thus, distinct goals of exposure (anxiety reduction vs. valued living), approaches to feelings of anxiety/fear (control and relaxation vs. fear toleration vs. acceptance), and approaches to anxiety-related thoughts (testing vs. defusing from) are emphasized to a greater or lesser extent in some approaches than others, with significant overlap among them (e.g., Mennin, Ellard, Fresco, & Gross, 2013). Importantly, proponents of each approach argue for the scientific superiority of their approach over alternative approaches. For example, Eifert and Forsyth (2005; Forsyth, Eifert, & Barrios, 2006) argue that anxiety control efforts play a causal role in the development of anxiety disorders and thus with regard to the treatment of anxiety disorders, acceptance is better than control, and cognitive defusion is better than cognitive restructuring. Similarly, Craske et al. (2008), Craske, Treanor, Conway, Zbozinek, and Vervliet (2014) argue that inhibitory learning and fear toleration approaches to ET will promote better outcomes than approaches that focus on short-term anxiety reduction/habituation. The resulting debates have inspired (some might say, ignited) events at numerous behavioral therapy conventions over the past decade. Scientifically, we believe in the importance of continually refining the theory and science of ET and thus laud these efforts.

Each of these approaches to framing exposure is backed by a distinct theoretical foundation and some degree of empirical support. Traditional CBT and ACT approaches that utilize exposure have shown similar efficacy for treating mixed anxiety disorders and social anxiety disorder (Arch, Eifert, et al., 2012; Craske, Niles, et al., 2014), particularly in the short term, with possible advantages for ACT over follow up (Arch, Eifert, et al., 2012). The optimizing inhibitory learning approach has demonstrated initial efficacy in enhancing exposure outcomes in clinical analog samples (Deacon et al., 2013; Kircanski, Lieberman, & Craske, 2012). The purpose of these newer approaches is to increase efficacy or enhance theoretical understanding of ET, and their alleged theoretical advantages appeal to many scientists and clinicians (based on robust citations, for example). However, a key related question remains unanswered. If the theoretical and possible empirical advantages of these newer approaches appeal to some scientists and clinicians, we believe it is worth investigating whether they offer an advantage in increasing the appeal of ET to potential psychotherapy consumers, that is, to the public. This question is particularly worth investigating in light of the recent calls for direct-to-consumer marketing of evidence-based psychosocial treatments such as ET (Gallo et al., 2013; Santucci et al., 2012). Yet to date, the manner in which these various approaches to exposure-based treatment are perceived by the public or affect initial treatment credibility remains unknown. Within the context of acknowledging the overlap among these models, we set out to study the impact of whether these more recent approaches offer advantages in boosting ET's treatment credibility over traditional cognitive behavioral therapy approaches.

Outside of these distinct approaches to framing exposure, a limited number of randomized studies have examined how different exposure frameworks affect patient or public perceptions of its credibility, acceptability, and effectiveness. For example, Milosevic and Radomsky (2013) demonstrated that a cognitive rationale (vs. an extinction-based rationale) led to enhanced acceptability and lowered perceived discomfort of exposure therapy across clinical and student samples.[1] A study by Feeny, Zoellner, and Kahana (2009) manipulated the rationale for prolonged exposure therapy to include or omit a description of the theorized treatment mechanism. Inclusion of the mechanism description increased the positivity of personal expectations and stated willingness to do prolonged exposure, but not the less personal elements of treatment credibility (e.g., how logical the treatment seemed).[2] Thus, manipulating ET treatment rationale has been shown to affect treatment acceptability (Milosevic & Radomsky, 2013) and personal reactions (Feeny et al., 2009), suggesting that more broadly investigating the impact of ET rationale may inform how to optimally frame ET rationale when marketing to potential patients or to the public. In addition, low treatment credibility/expectancies[3] can increase treatment attrition (Taylor, 2003) and negatively affect treatment outcomes (Devilly & Borkovec, 2000; Westra, Dozois, & Marcus, 2007), suggesting that studying how to maximize ET's treatment credibility represents an important goal in itself. Similarly, a positive relationship between treatment rationale acceptance and CBT outcomes has been demonstrated in the treatment of major depression (e.g., Addis & Jacobson, 2000), pointing towards the transdiagnostic importance of providing credible, acceptable treatment rationale. Collectively, this work emphasizes the influences of expectancies, attitudes, and perceived benefits – each of which is often explicitly or implicitly addressed in psychotherapy treatment rationale (Addis & Jacobson, 2000) – in influencing subsequent behaviors (e.g., Ajzen, 1991), including engagement in psychotherapy (Sheeran, Aubrey, & Kellett, 2007).

We thus conducted this study to examine the extent to which different theory-driven approaches affect public perceptions of ET and specifically, to assess whether newer approaches to conducting or framing ET (ACT, inhibitory learning) lead to superior treatment credibility over more traditional CBT approaches. We originally set out to compare traditional CBT and ACT rationales for exposure therapy but quickly realized there were significant areas of overlap between them (e.g., Arch & Craske, 2008; Mennin et al., 2013). We also wanted to include new developments in inhibitory learning approaches to exposure (Craske et al., 2008; Craske, Treanor, et al., 2014; Deacon et al., 2013) that overlapped yet were not fully captured by either traditional CBT or ACT perspectives. The anxiety treatment typically provided by community practitioners suggests that various aspects of exposure approaches are often combined in a manner that does not follow a single theoretical perspective (Hipol & Deacon, 2013). Incorporating these observations into our experimental design, we decided to parse exposure rationale by its theoretically-informed core principals or components rather than by individual treatment approach. By presenting each rationale component separately and then combining these separate components in numerous ways, our approach resembles a "modular" approach to presenting the treatment rationale. Based on published rationales for exposure-based traditional CBT (e.g., Craske & Barlow, 2007), inhibitory learning (e.g., Craske, Niles, et al., 2014;

[1] Radomsky and colleagues also have investigated the impact of the judicious use of safety behaviors on exposure acceptability (e.g., Levy & Radomsky, 2014; Milosevic & Radomsky, 2013) but this work addresses a different set of issues than the current study.

[2] Note that apart from systematically manipulating the rationale for exposure therapy, additional work in PTSD/trauma has demonstrated the significant impact of treatment descriptions on treatment acceptability or preference (e.g., Tarrier, Liversidge, & Gregg, 2006).

[3] The use of the term "treatment credibility" in the current study encompasses both treatment credibility and expectancies, see Methods and Appendix