



Shorter communication

Why do clinicians exclude anxious clients from exposure therapy?



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ARTICLE INFO

Article history:

Received 10 October 2013

Received in revised form

8 January 2014

Accepted 22 January 2014

Keywords:

Exposure therapy

Cognitive-behavioral therapy

Dissemination

Anxiety disorders

ABSTRACT

Despite research demonstrating the effectiveness of exposure therapy for pathological anxiety, this treatment is underutilized by clinicians. Anecdotal evidence and clinical experience suggest that therapists who possess reservations about exposure therapy tend to exclude clients from this treatment based on client characteristics believed to predict worse response. When exceptions are made based on characteristics that do not reliably predict poor outcomes, clients face the opportunity cost associated with investment in less effective treatments. The present investigation assessed therapists' likelihood of excluding clients from exposure due to different client and therapist characteristics. Exposure therapists ($N = 182$) completed an online survey that included the Therapist Beliefs about Exposure Scale, Anxiety Sensitivity Index-3, and the Broken Leg Exception Scale (BLES), a novel measure assessing the likelihood of excluding clients from exposure based on 25 different client characteristics. The BLES demonstrated good psychometric properties. Client characteristics most likely to result in exclusion from exposure therapy were comorbid psychosis, emotional fragility, and reluctance to participate in exposure. Greater likelihood of excluding clients from exposure was associated with higher therapist anxiety sensitivity and endorsement of negative beliefs about exposure therapy. Clinical and training implications of these findings are discussed.

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Exposure-based cognitive-behavioral therapy (i.e., “exposure therapy”) is an effective treatment for pathological anxiety associated with posttraumatic-stress disorder (e.g., Foa, Rothbaum, Riggs, & Murdock, 1991), obsessive-compulsive disorder (Foa et al., 2005), panic disorder (e.g., Barlow, Gorman, Shear, & Woods, 2000), generalized anxiety disorder (e.g., Hoyer et al., 2009), social phobia (e.g., Rapee, Gaston, & Abbott, 2009) and specific phobias (e.g., Ollendick et al., 2009). In each disorder, pathological anxiety is targeted with exposure to anxiety-provoking stimuli, an empirically supported principle of change (Abramowitz, Deacon, & Whiteside, 2011; Lohr, Lilienfeld, & Rosen, 2012). Exposure therapy has been identified as a first-line anxiety treatment in clinical practice guidelines by the American Psychiatric Association (APA, 2013) and the National Institute for Clinical Excellence (NICE, 2012).

Despite exposure therapy's evidence base, as well as its acceptability and preferability to clients (Olatunji, Deacon, & Abramowitz, 2009), this treatment is rarely used by clinicians (Becker, Zayfert, & Anderson, 2004; Van Minnen, Hendriks, & Olff, 2010). Negative beliefs about the ethicality, safety, and tolerability of exposure therapy are common among practitioners (Deacon, Farrell, et al., 2013) and are associated with the underutilization

of this treatment (Becker et al., 2004; Van Minnen et al., 2010). One possible reason for this association is that therapists concerned with the dangers of exposure may systematically exclude clients from this treatment because of characteristics assumed to predict adverse reactions. Anecdotal evidence and clinical experience suggest that therapists who possess negative beliefs about exposure therapy often exclude clients from consideration based on client characteristics (e.g., emotional fragility, pregnancy) believed to predict symptom exacerbation or physical harm (Deacon & Farrell, 2013). To illustrate, one of us (BJD) worked in a medical center in which military veterans with PTSD were prohibited from discussing their traumatic experiences in group therapy in order to prevent other group members from experiencing vicarious traumatization and decompensation. In some cases, there are legitimate reasons to exclude clients from exposure therapy, such as when considering interoceptive exposure (e.g., hyperventilation) for a client with a severe respiratory disease. However, when clients are excluded from the most evidence-based treatment for pathological anxiety based on characteristics that do not reliably predict negative outcomes, they are subject to the opportunity cost associated with the investment of time, money, and effort in less effective treatments (Lilienfeld, Lynn, & Lohr, 2003).

The tendency to exclude clients from effective treatments for empirically unsubstantiated reasons is a long-recognized barrier to

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science-based psychotherapy. Psychologist Paul Meehl labeled such exclusions *broken leg cases* (Meehl, 1954). The term stems from Meehl's theoretical situation in which a professor is observed to regularly go to the movies on Tuesday nights. The actuarial data supports the inference that if it is a Tuesday night, then the professor will go to the movies. However, on one Tuesday morning, the professor breaks his leg. Most would predict that on this particular Tuesday evening, the professor will not go to the movies. According to Meehl, such legitimate broken leg exceptions (BLEs) are rare in psychology, and few clinical predictions are likely to trump statistical predictions. However, clinicians often mistake their clients' unique characteristics as justifying bona fide BLEs when they do not. The tendency to make BLEs likely results in costs to clients in the aggregate that outweigh the occasional benefits to individual clients (Meehl, 1973). Clinicians who deviate from the best available evidence may engage in faulty probabilistic reasoning, in which group-level predictions are not applied to clients based on the belief that "We aren't dealing with groups, we are dealing with this individual case" (Meehl, 1973, p. 234). Pervasive therapist concerns about the safety, ethicality, and tolerability of exposure therapy may provide an additional incentive for therapists to exclude clients from this treatment.

To our knowledge, this is the first study to examine therapists' likelihood of excluding clients from exposure therapy based on client characteristics presumably associated with negative outcomes. To examine this phenomenon, the Broken Leg Exception Scale (BLES) was created. The present investigation was conducted to assess: (a) the psychometric properties and construct validity of the BLES, (b) client characteristics that prompt clinicians to exclude them from participation in exposure therapy, and (c) therapist characteristics that predict the likelihood of excluding clients from exposure. We hypothesized that the likelihood of excluding clients from exposure therapy would be associated with endorsement of negative beliefs about exposure, as well as therapists' own anxiety sensitivity. Given the exploratory nature of this study, no hypotheses were offered about the type and frequency of client characteristics that prompt therapists to exclude clients from exposure therapy.

Method

Participants

Participants included 182 practitioners from numerous mental health professions and with various clinical specialties who provide exposure therapy to anxious clients in the United States. In order to obtain a diverse and nationally representative sample, recruitment occurred via email invitations sent to members of the following therapist directories: Association of Behavioral and Cognitive Therapies Find a Therapist directory, American Association of Pastoral Counselors referral directory, and the Anxiety and Depression Association of America Find a Therapist directory. Emails were also posted on electronic mailing lists for the Counselor Education and Supervision Network, and American Psychological Association Divisions 53 (Society of Clinical Child and Adolescent Psychology), and 54 (Society of Pediatric Psychology). An exact response rate cannot be calculated due to the indeterminate amount of practitioners who received a recruitment email. In order to complete the BLES, participants must have endorsed using exposure therapy to treat anxious clients. Out of the 290 individuals who initiated the survey, 182 endorsed treating anxious clients with exposure therapy and were included in the analyses.

Participants were mostly women ($n = 105$; 57.7%) and Caucasian ($n = 176$; 96.7%), with a mean age of 47.1 years ($SD = 13.3$). More participants reported earning a Ph.D. ($n = 118$; 64.8%) than a

master's degree ($n = 39$; 21.4%). Membership in mental health professions was as follows: clinical psychology = 122 (67.0%), counseling psychology = 16 (8.8%), social work = 13 (7.1%), counseling 10 (5.5%), marriage and family therapy = 8 (4.4%), and pastoral counseling = 8 (4.4%); 10 participants (5.5%) reported multiple professional affiliations. The majority of therapists worked in private practice ($n = 102$; 56.0%), hospital settings ($n = 57$; 31.3%), or outpatient clinics ($n = 44$; 24.2%). Participants reported that about half ($M = 51.3\%$, $SD = 27.5\%$) of their caseload included clients with anxiety disorders. The following theoretical orientations were endorsed by participants as guiding their work (some participants selected multiple orientations): behavioral ($n = 166$; 91.2%), cognitive ($n = 160$; 87.9%), family/systems ($n = 51$; 28.0%), psychodynamic ($n = 27$; 14.8%), experiential/humanistic ($n = 25$; 13.7%), and "other" ($n = 39$; 21.4%).

Measures

Broken Leg Exception Scale (BLES)

Based on an informal literature review, clinical experience, and discussions with other researchers and clinicians who specialize in exposure therapy, we developed an initial pool of 31 items assessing various reasons why therapists might exclude clients from exposure therapy. After removal of redundant and/or problematic items, the final 25-item scale (see Table 1) was administered to study participants. Respondents received the following directions:

Exposure-based cognitive-behavioral therapy is an empirically supported treatment for anxiety disorders. In this therapy, clients gradually confront feared situations (e.g., places, objects,

Table 1
Means and standard deviations of Broken Leg Exception Scale (BLES) items.

Item	<i>M</i>	<i>SD</i>
10. The client has a comorbid psychotic disorder.	2.16	0.90
12. The client is emotionally fragile.	1.28	0.94
14. The client is reluctant to participate in exposure-based cognitive-behavioral therapy.	1.20	0.91
9. The client has a comorbid substance use disorder.	1.17	0.97
1. The client is younger than age 7.	1.15	1.15
23. The client prefers non-directive psychotherapy.	1.15	0.97
13. The client has previously participated in exposure-based cognitive-behavioral therapy and did not find it helpful.	1.13	0.94
25. The client is afraid of harming oneself and/or others.	1.07	1.11
7. The client has a comorbid personality disorder.	1.05	0.93
11. The client is currently experiencing significant stressful life events (e.g. divorce, loss of job, etc.).	0.99	0.90
16. The client is pregnant.	0.95	0.98
21. The client has poor insight into the irrational nature of his or her fear (s).	0.85	0.91
15. The client has angry outbursts.	0.85	0.83
20. The client has below average intelligence.	0.82	0.84
17. The client has a non-terminal medical disease related to his or her anxiety symptoms.	0.81	0.84
2. The client is between the ages of 7 and 11.	0.77	1.01
8. The client has comorbid depression.	0.74	0.85
19. The client's feared situation (s) are difficult to recreate in real life.	0.73	0.81
22. Conducting exposures to the client's feared stimuli would require leaving the office.	0.65	0.93
4. The client is older than age 65.	0.57	0.81
18. The client has a non-terminal medical disease unrelated to his or her anxiety symptoms.	0.49	0.70
3. The client is between the ages of 12 and 17.	0.43	0.77
24. The client's fears have religious themes.	0.37	0.70
5. The client holds strong religious beliefs.	0.25	0.56
6. The client is an ethnic minority.	0.21	0.58

thoughts, memories) during therapy sessions with the treatment provider and on their own between sessions as homework.

Although exposure therapy is an evidence-based treatment, not all clients benefit from this approach. Further, not all clients are considered appropriate for exposure therapy, and therapists sometimes elect not to provide this treatment to individual clients for various reasons.

Below is a list of client characteristics that therapists sometimes deem important in considering the appropriateness of exposure therapy. Please read each characteristic and rate the likelihood that you would elect NOT to provide exposure therapy to a client because of that characteristic. Please answer using the following scale:

0 = Very unlikely to exclude from exposure therapy based on this characteristic.

1 = Somewhat unlikely to exclude from exposure therapy based on this characteristic.

2 = Somewhat likely to exclude from exposure therapy based on this characteristic.

3 = Very likely to exclude from exposure therapy based on this characteristic.

BLES total scores (range = 0–75) were calculated by summing each item.

Therapist Beliefs about Exposure Scale (TBES)

The TBES (Deacon, Farrell, et al., 2013) was administered to assess therapists' negative beliefs about the ethicality, tolerability, and safety of exposure therapy. Respondents rate to what extent they agree with 21 statements about exposure therapy (e.g., "Most clients have difficulty tolerating the distress exposure therapy evokes"). Items are rated on a 5-point scale ranging from 0 (*disagree strongly*) to 4 (*agree strongly*). Total scores range from 0 to 84, with higher scores indicating more negative beliefs about exposure therapy. The TBES has demonstrated a clear single-factor structure, a normal distribution in a large and diverse sample of therapists, and excellent internal consistency ($\alpha = 0.95$), six-month test-retest reliability ($r = 0.89$), and criterion validity. In this study, the TBES demonstrated high internal consistency ($\alpha = 0.91$).

Anxiety Sensitivity Index-3 (ASI-3)

The ASI-3 (Taylor et al., 2007) was administered to assess therapists' own fear of anxiety reactions based on beliefs about their harmful consequences. The ASI-3 is an 18-item measure with three 6-item subscales assessing physical concerns (e.g., "When I notice my heart skipping a beat, I worry that there is something seriously wrong with me"), social concerns (e.g., "When I begin to sweat in a social situation, I fear people will think negatively of me"), and cognitive concerns (e.g., "When my mind goes blank, I worry there is something terribly wrong with me"). Respondents indicate their agreement with each item on a 5-point scale ranging from 0 (*very little*) to 4 (*very much*). Subscale scores range from 0 to 24 and total scores range from 0 to 72, with higher scores indicating higher anxiety sensitivity. In addition to good internal consistency ($\alpha = 0.87$), Taylor et al. (2007) found the total and subscale scores of the ASI-3 to have good criterion, convergent, and discriminant validity. In the present study, the ASI-3 had adequate internal consistency (total score $\alpha = 0.88$; physical concerns $\alpha = 0.81$; social concerns $\alpha = 0.91$; cognitive concerns $\alpha = 0.79$).

Procedure

Email invitations to participate were sent to therapist directories and electronic mailing lists. Approximately two weeks after the initial invitation, a follow-up email solicitation was posted on each directory and mailing list. This study was approved by the University of Wyoming institutional review board.

Results

The Broken Leg Exception Scale: psychometric properties and descriptive statistics

Item-level psychometric analyses demonstrated that all BLES items had corrected item-total correlations and inter-item correlations above 0.30 ($M = 0.57$; range = 0.42–0.66) as recommended by Nunnally and Bernstein (1994). A factor analysis was not conducted because the sample size did not meet the recommended ratio of 10 participants per item (Nunnally, 1978). Internal consistency of the BLES was excellent ($\alpha = 0.93$). A Kolmogorov–Smirnov test indicated that the distribution of BLES scores was not significantly different from a normal distribution, $z(182) = 1.27$, $p = 0.08$. Table 1 presents descriptive statistics for each BLES item. On average, respondents reported being "somewhat unlikely" to exclude clients from exposure therapy across the 25 client characteristics assessed by the BLES. The most commonly endorsed reasons for excluding clients from exposure were a client's comorbid psychotic disorder, emotional fragility, and reluctance to participate in exposure therapy. The least endorsed reasons were client fears with religious themes, strong religious beliefs, and ethnic minority status.

Therapist characteristics and exclusion of clients from exposure therapy

Older age was significantly correlated with higher BLES total scores ($r = 0.24$, $p = 0.001$). Mean BLES total scores were similar for men ($M = 22.9$, $SD = 13.4$) and women ($M = 21.0$, $SD = 13.7$), $t(180) = 0.93$, $p = 0.35$, $d = 0.14$. Therapists with a Ph.D. ($M = 19.7$, $SD = 12.0$) obtained significantly lower BLES total scores than therapists earning a master's degree ($M = 24.6$, $SD = 16.8$), $t(155) = 1.97$, $p = 0.05$, $d = 0.37$; an insufficient number of participants with other types of degrees (e.g., Psy. D.) were available for analysis. BLES total scores were significantly lower among clinical psychologists ($M = 18.4$, $SD = 12.1$) than therapists in other mental health professions ($M = 27.4$, $SD = 14.6$), $t(163) = -4.06$, $p < 0.001$, $d = 0.69$.

Finally, we analyzed the relationship between BLES total scores, therapists' negative beliefs about exposure therapy, and therapists' anxiety sensitivity. Descriptive statistics and zero-order correlations between the BLES, TBES, and ASI-3 scales are presented in Table 2. As hypothesized, the TBES total score and ASI-3 total and

Table 2
Descriptive statistics and zero-order correlations between study variables.

Measure	M	SD	1	2	3	4	5	6
1. BLES	21.84	13.54	–					
2. TBES	20.57	11.99	0.53**	–				
3. ASI-3 total	8.52	7.38	0.32**	0.28**	–			
4. ASI-3 physical	2.03	2.89	0.35**	0.31**	0.84**	–		
5. ASI-3 social	5.66	3.87	0.21*	0.21*	0.85**	0.50**	–	
6. ASI-3 cognitive	0.82	2.18	0.25**	0.19*	0.76**	0.62**	0.42**	–

Note. * $p < 0.01$; ** $p < 0.001$. BLES = Broken Leg Exception Scale; TBES = Therapist Beliefs about Exposure Scale; ASI-3 = Anxiety Sensitivity Index-3; Physical = Physical Concerns Subscale; Social = Social Concerns Subscale; Cognitive = Cognitive Concerns Subscale.

subscale scores were significantly, positively associated with BLES total scores. To determine the extent to which TBES and ASI-3 scores uniquely predicted BLES total scores, a hierarchical regression analysis was conducted in which the three ASI-3 subscales were entered in the first step, followed by entry of the TBES in the second step. In step 1, the ASI-3 subscales explained 12.6% of the variance in BLES scores, $F(3, 178) = 8.58, p < 0.001$. Only the ASI-3 physical concerns subscale explained significant, unique variance in BLES scores, $\beta = 0.30, p = 0.002$. In step 2, the TBES explained an additional 19.5% of the variance in BLES scores, $F(1, 177) = 50.97, p < 0.001$. Both the ASI-3 physical concerns subscale ($\beta = 0.17, p = 0.05$) and the TBES ($\beta = 0.47, p < 0.001$) emerged as significant, unique predictors of BLES scores in the second step.

Discussion

The purpose of this study was to examine the psychometric properties and construct validity of the BLES, identify client characteristics that prompt their exclusion by clinicians from participation in exposure therapy, and assess therapist characteristics associated with the likelihood of excluding clients from exposure. A large and diverse sample of exposure therapists who treat anxious clients completed an online survey that included the BLES, TBES, and ASI-3. The BLES demonstrated adequate item-level psychometric characteristics and excellent internal consistency. The most commonly endorsed reasons for excluding clients from exposure were a client's comorbid psychotic disorder, emotional fragility, and reluctance to participate in exposure therapy. Results supported both hypotheses, as greater endorsement of negative beliefs about exposure therapy and higher therapist anxiety sensitivity were both significantly related to the increased likelihood of excluding clients from this treatment. These findings support the utility of the BLES and highlight the importance of therapists' negative beliefs about exposure and anxiety sensitivity as barriers to the successful dissemination of exposure therapy.

Although comorbid psychosis was the client characteristic most likely to prompt clinicians to forego use of exposure therapy, research shows that exposure can be an effective treatment for pathological anxiety in the presence of psychosis. To illustrate, both Halperin, Nathan, Drummond, and Castle (2000) and Kingsep, Nathan, and Castle (2003) found cognitive-behavioral therapy with an exposure-based component to be effective in the treatment of comorbid social anxiety in clients diagnosed with schizophrenia. In addition, Frueh et al. (2009) found exposure-based cognitive-behavioral therapy to significantly decrease trauma-related symptoms in a sample of PTSD clients with comorbid schizophrenia or schizoaffective disorder. Significant symptom improvements were maintained at a 3-month follow-up. A secondary analysis of these data showed that an exposure-based intervention can be implemented in this population without negatively impacting integrity of sessions or therapeutic alliance (Long et al., 2010). It is important to note that comorbid psychosis could represent a bona fide BLE in some instances, as when the client suffers cognitive deficits that preclude safety learning in exposure therapy. Nevertheless, these studies suggest that exposure therapy can be an effective anxiety treatment for individuals with psychosis; therefore, these clients should not necessarily be excluded from exposure therapy.

Reviews of predictors of poor treatment outcome in exposure therapy (e.g., Nilsen, Eisemann, & Kvernmo, 2013; Olatunji, Davis, Powers, & Smits, 2013) provide no empirical support for emotional fragility as an exclusion criterion. Therapists who treat their clients as if they are frail or delicate may adhere to a doctrine Meehl (1973) coined the "spun-glass theory of the mind" (p. 252). Within this doctrine, clients are viewed as fragile entities who will break like spun glass (e.g., decompensate) if confronted with

intense emotional distress. In contrast, it is useful to consider that clients with anxiety disorders are, by definition, already experiencing persistent and clinically significant distress. Rather than assuming anxious clients to be fragile and at risk of decompensation upon exposure to feared stimuli, therapists might acknowledge their resilience to adversity and trust that if clients haven't broken like spun glass in real life during the course of their anxiety disorder, they are unlikely to break during exposure therapy.

The third most endorsed item on the BLES was client reluctance to participate in exposure therapy. Exposure often elicits more immediate distress than less intense therapies, leading some therapists to worry that clients will perceive it as intolerable and unacceptable. However, exposure does not lead to higher dropout rates than other forms of psychotherapy (Imel, Laska, Jakupcak, & Simpson, 2013; Ougrin, 2011; Swift & Greenberg, 2012). As noted by Deacon, Kemp, et al. (2013), clients may view exposure as acceptable despite perceiving it as more aversive and unpleasant than less intensive approaches. Although client refusal is a legitimate reason to exclude an individual from exposure, reluctance does not necessarily equal refusal. Some reluctance or ambivalence towards exposure is common despite positive client perceptions of the credibility and effectiveness of this treatment (Olatunji et al., 2009). The belief that exposure therapy is uniquely intolerable may impair clinicians' ability to effectively "sell" exposure therapy to their clients. Muller and Schultz (2012) contend that it is up to the therapist to convince clients that exposure therapy is worth the investment. These authors suggest that clinicians must become "true believers" in exposure therapy by understanding its origins and theoretical underpinnings. In the context of exposure therapy, client resistance may be a reaction to the manner in which therapists convey their reservations about the safety, ethicality, and tolerability of exposure. Therapists may assuage or magnify client reluctance with sales pitches that are confident or weak, respectively. This perspective is consistent with the motivational interviewing notion that "client resistance is a therapist problem" (Miller & Rollnick, 1991, p. 100).

Therapists who evidenced higher anxiety sensitivity specific to physical anxiety symptoms, as well as stronger concerns about the ethicality, tolerability, and safety of exposure, were especially likely to exclude clients from exposure therapy. The present findings suggest that clients are often excluded from exposure not simply due to empirically supported predictors of suboptimal response, but rather as a result of therapists' beliefs about the dangerousness and intolerability of exposure therapy and anxiety itself. Therapists who frequently exclude clients from exposure therapy in order to prevent negative outcomes (e.g., poor treatment response) may ironically create such outcomes by depriving their clients of the benefits of the most evidence-based psychological treatment for pathological anxiety. Efforts to modify therapist misconceptions about exposure therapy and the anxiety it evokes may result in fewer clients excluded from treatment due to extraneous characteristics, in turn reducing the opportunity cost experienced by anxious clients who invest their time, money, and effort in less effective approaches.

This study has several limitations. First, due to its cross-sectional nature, causal relationships cannot be established between therapist characteristics and their likelihood of excluding clients from this treatment. Second, therapists' treatment decisions in the context of a web-based questionnaire may not correspond with actual behaviors with anxious clients. Third, although we were unable to calculate a precise response rate, it is likely that most individuals contacted to participate in this study declined. As a result, despite our large sample, the extent to which our findings are representative of the attitudes and behaviors of therapists in general is unclear.

In summary, this study contributes two novel findings to the literature: (a) the BLES is a psychometrically sound measure of client characteristics that prompt their exclusion from exposure therapy by clinicians, and (b) therapists with higher anxiety sensitivity specific to physical concerns, with stronger negative beliefs about exposure therapy, of older age, and who have earned a master's degree (as opposed to a Ph.D.) are more likely to exclude clients from exposure therapy, often for empirically unsubstantiated reasons. The present findings, taken together with those of Farrell, Deacon, Kemp, Dixon, and Sy (2013) and Deacon, Farrell, et al. (2013), underscore the importance of therapist reservations about exposure to the dissemination of this treatment. Accordingly, efforts to increase the utilization of exposure therapy for anxiety disorders should directly address common therapist misconceptions about this treatment, including those related to anxiety itself. For example, clinical supervisors might inform trainees that despite its intense nature, exposure therapy is perceived favorably by clients (Olatunji et al., 2009) and rarely produces the kind of catastrophic outcomes feared by wary therapists (e.g., Deacon, Lickel, Farrell, Kemp, & Hipol, 2013). Additional strategies for assuaging therapist concerns about the safety and tolerability of anxiety itself, such as interoceptive exposure and attitude inoculation exercises, may be used to augment training in the theory and practice of exposure therapy (Farrell, Deacon, Dixon, & Lickel, 2013). The present findings suggest that such strategies may be especially valuable for trainees who are older, have a master's degree, and endorse concerns about the safety and tolerability of exposure therapy and anxiety itself. Future research should examine which client factors constitute bona fide predictors of poor outcomes in exposure therapy so decisions to forego use of this treatment are based on empirical research rather than therapist biases.

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