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Dissemination of cognitive-behavioral treatments for anxiety disorders: Overcoming barriers and improving patient access

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ABSTRACT

Cognitive-behavioral therapies for anxiety disorders are highly efficacious (e.g., Butler, Chapman, Forman, & Beck, 2006; Deacon & Abramowitz, 2004). These treatments nevertheless remain underutilized and difficult to access for many of the patients who suffer from these conditions (e.g., Norton & Hope, 2005). We identify various barriers to the wide-scale dissemination of these treatments, including those that are applicable to empirically supported treatments more generally (e.g., lack of training opportunities, failure to address practitioner concerns) as well as those that may be relatively specific to CBT for anxiety disorders (e.g., practitioner concerns around using exposure interventions). We offer suggestions for overcoming these barriers, including specific guidance about continued accumulation of a supportive research base, making the appeals that are necessary to obtain required funding and organizational support, and the training of practitioners to deliver these treatments. Advocates of CBT for anxiety disorders will need to demonstrate that these treatments are cost effective, if wide-scale dissemination is to occur. In the United States, advocacy with third party payers will also be necessary. Although providing such steps may prove to be a difficult endeavour, the patients who stand to benefit from this work deserve nothing less.

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Anxiety disorders are the most prevalent class of mental disorder (Lepine, 2002; Kessler, Ruscio, Shear, & Wittchen, 2009). Lifetime prevalence rates across the anxiety disorders range from 8% to 29% (Kessler, Chiu, Demler, & Walters, 2005), with many studies converging on the conclusion that approximately 1 in 4 individuals will suffer from an anxiety disorder at some point during their lives. Fortunately, anxiety disorders are responsive to cognitive-behavioral treatments (Norton, 2009), with the efficacy of these treatments having been demonstrated across the major anxiety disorder diagnoses (e.g., Butler et al., 2006; Chambless & Ollendick, 2001; Norton & Price 2007). Unfortunately, these efficacious treatments are not widely available (Norton & Hope, 2005; Shafran et al., 2009). Cognitive-behavioral treatments for anxiety are poorly disseminated to practitioners, and consequently are not

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widely available to clients. Indeed, most individuals with an anxiety disorder never receive efficacious treatment. For example, Young, Klap, Sherbourne, and Wells (2001) estimated that 84% of adults with a probable anxiety disorder diagnosis saw a health care provider, only 23% of these individuals received appropriate treatment of their anxiety (see also Radomsky & Otto, 2001). Young et al. (2001) defined "appropriate treatment" as either medication treatment prescribed according to clinical practice guidelines or at least four sessions with a mental health specialist; approximately 11% of individuals received the appropriate psychological treatment. The purpose of this paper is to highlight the discrepancy between the efficacy of CBT for anxiety disorders and contrast it to the relative lack of availability of these treatments. Barriers to dissemination of these treatments will be identified (see also Shafran et al., 2009) and a proposal to disseminate CBT for anxiety disorders will be put forward.

The high prevalence and chronicity of anxiety disorders are associated with correspondingly massive costs to individuals and health care systems, in terms of both direct monetary costs and serious decrements in quality of life (e.g., Hofmann & Barlow, 1999). For example, Greenberg et al. (1999) estimated the annual cost of anxiety disorders in the United States to be approximately $42.3 billion. It is also becoming apparent that not treating anxiety disorders is considerably more expensive than providing effective treatment (Barlow, 2002; Roberge, Marchand, Reinharz, Marchand, & Cloutier, 2004). Although further cost research in the area of anxiety disorders is clearly needed (Gauthier, 2004), evidence to date suggests that effective psychological treatments may offer better value than pharmacological alternatives, at least for some anxiety disorders. Roberge et al. (2004) reviewed the literature on cost effectiveness of psychological and pharmacological treatments of panic disorder and social phobia, concluding that CBT seems to offer value above that of pharmacological treatments. For example, Otto, Pollack, and Maki (2000) examined treatments for panic disorder, finding that the mean one-year per person cost of psychopharmocology (including clinic visits = $2305 USD) exceeded that of either individual ($1357) or group CBT ($523). Given findings such as these, many practitioners would agree with the general view that efficacious psychological treatments for these common and disabling conditions should be made widely available and accessible.

Evidence to date suggests that cognitive-behavioral interventions are the most efficacious psychological treatments for anxiety disorders (e.g., Chambless & Ollendick, 2001; Deacon & Abramowitz, 2004; Butler et al., 2006). Although it is beyond the scope of the present paper to review the efficacy literature in detail for each anxiety disorder (see Antony & Stein, 2009; Butler et al., 2006, for such reviews), a brief synopsis can be provided. Although demonstrably useful alternatives to cognitive-behavioral treatments exist for other mental disorders (e.g., interpersonal psychotherapy for depression; Gillies, 2001), CBT approaches are (to date) the only empirically supported psychotherapeutic option for the treatment of anxiety, with the possible exceptions of eye movement desensitization and reprocessing for posttraumatic stress disorder (EMDR; although see Herbert et al., 2000, for the view that EMDR represents a variant of exposure therapy) and acceptance and commitment therapy (ACT; Hayes, Strosahl, & Wilson, 1999; again, deemed to be a form of CBT by at least some experts, e.g., Roemer & Orsillo, 2009). Chambless and Ollendick (2001) propose that a well-established treatment for a psychological disorder should have demonstrated efficacy in at least two well-controlled between-group experiments, with demonstrated efficacy being either 1) superiority to pill or psychotherapy placebo or 2) equivalence to another previously established treatment. According to these criteria, CBT approaches are well-established for the treatment of generalized anxiety disorder, obsessive–compulsive disorder, panic disorder, posttraumatic stress disorder, social phobia, and most forms of specific phobia (CBT approaches for blood-injury phobias are deemed to be probably efficacious, a standard of support that requires at least two studies showing superiority to a wait-list control condition).

It should be noted that studies of CBT for anxiety disorders cited by Chambless and Ollendick (2001) were well-controlled randomized trials that employed highly selected patient groups and rigorously trained therapists. Ideally, effectiveness data should be available before a treatment is broadly disseminated to practitioners who do not work in specialized research clinics (Sanders & Turner, 2005). CBT effectiveness studies conducted to date offer promising results. For example, Stuart, Treat, and Wade (2000) found that CBT for panic disorder that is applied in community mental health centres can produce short- and long-term outcomes comparable to those found in clinical trials. Similarly, Warren and Thomas (2001) found that CBT for obsessive–compulsive disorder worked well in a private practice setting where 32% of the clients had co-morbid conditions and 50% had received previous treatment for their OCD. Recently, Stewart and Chambless (2009) conducted a meta-analysis of CBT for adult anxiety disorders conducted under clinically representative conditions. They found large effect sizes for these treatments under clinically representative conditions, and used a benchmarking strategy to indicate that the results from effectiveness studies that they analyzed were in the range of those obtained in selective efficacy studies. Evidence therefore suggests that these treatments are amenable to widespread dissemination at least from the effectiveness standpoint, although more effectiveness studies of CBT for anxiety are required.

Although robust results from efficacy studies have increased demands that CBT treatments for anxiety disorders be made more widely available to practitioners and their clients, there are many barriers to the successful dissemination and widespread adoption of these treatments (Barlow, Levitt, & Bufka, 1999; Addis, Wade, & Hatgis, 1999). There are relatively few examples of the successful dissemination of psychological treatments in general (Sanders & Turner, 2005), and the gap between research findings and clinical practice is large. More specifically, many clinicians do not use effective CBT approaches to anxiety disorders (e.g., Becker, Zayfert, & Anderson, 2004). Although it appears that specialty training in administering CBT for anxiety appears to produce better clinical outcomes than more general training in delivering psychotherapy (e.g., Howard, 1999), the accessibility of these interventions to both practitioners and clients remains disappointingly poor (Barlow & Hofmann, 1997; Goisman, Warshaw, & Keller, 1998). There are limited training opportunities for practitioners, and clients therefore have difficulty accessing a clinician who provides these treatments.

Given the substantial research support for CBT approaches to anxiety disorders, the next major focus should be on proposing and evaluating mechanisms or approaches to disseminating these under-utilized treatments. Awareness of the research evidence and even specific training offered at workshops or conferences are clearly not sufficient to ensure widespread adoption of these treatments (e.g., Barlow, 1981). Psychologists interested in anxiety treatments have focused largely on the accumulation of a research evidence base. While efficacy research provides a necessary foundation for wide-scale dissemination efforts, organizational management issues, availability of funding for training endeavours and provision of services, and other systemic or logistical factors later assume great importance. A model of successful dissemination must take into account the acquisition of knowledge about a treatment's efficacy and effectiveness, "packaging" of the treatment for dissemination, assessing (and if need be, changing) the attitudes of practitioners regarding the treatment's use, delivery of appropriate training to practitioners, the acquisition of funds and organizational support required to implement the treatment, the provision of ongoing logistical and psychosocial support to the practitioners delivering the treatment, and the ongoing assessment of treatment outcomes (e.g., Addis, 2002; Sanders & Turner, 2005). Successful dissemination of CBT treatments for anxiety will ultimately be a complex, multifaceted endeavour.

Given this complexity, it is unsurprising that many barriers to the dissemination of CBT for anxiety exist. These barriers will need to be successfully resolved if dissemination is to occur on any appreciable scale.

This paper will identify and evaluate numerous barriers to the successful dissemination of cognitive-behavioral treatments for anxiety disorders. These barriers can be divided into two broad categories, both of which will be addressed here: Those that are more specific to CBT for anxiety, and those that pertain to the dissemination of evidence-based treatments more generally. Approaches to overcoming the various barriers will be described. A model for the dissemination of CBT treatments for anxiety will be outlined, using some current models of the dissemination of other treatments as a basis (e.g., Chorpita, 2003; Sanders & Turner, 2005). It is our hope that this analysis will aid the efforts of those seeking to make these helpful treatments more accessible to the many who suffer from anxiety disorders.

1. Specific barriers to dissemination: Exposing exposure

All forms of CBT for anxiety disorders include a significant exposure component. Clients in these treatments are asked to face their fears directly, often without the use of distraction or other emotion-modulation strategies that might make doing so more palatable, if perhaps less effective. Exposure is probably the key active ingredient in CBT for anxiety (e.g., Craske, Rowe, Lewin, & Noriega-Dimitri, 1997; Foa, Rothbaum, Riggs, & Murdock, 1991; Woody & Ollendick, 2006). Woody and Ollendick (2006) identified a number of effective interventions that occur across CBT protocols for anxiety disorders, including actively testing erroneous cognitions via behavioral experiments, use of repeated exposure to reduce intensity of fear responses (i.e., habituation), elimination of avoidance responses, and improvement of skills for handling feared situations. These interventions are on the one hand distinct, in that they are each intended to produce specific types of change (i.e., affective vs. cognitive vs. behavioral). On the other hand, having clients do exposure to feared situations would appear to be the primary vehicle by which all of these interventions are ultimately made manifest.

All of the barriers to dissemination discussed previously are broad concerns that pertain to the dissemination of all evidence-based psychological treatments. Cognitive-behavioral treatments for anxiety disorders are quite unique, however, in that they explicitly require a client to deliberately exacerbate his or her symptoms so that new learning may take place. The end goal is the amelioration of excessive anxiety reactions to various external or internal stimuli, via habituation (e.g., Antony & Swinson, 2000) and/or cognitive change (e.g., Shipherd, Street, & Resick, 2006). Reaching this end goal always requires that clients experience the very anxiety that is deemed to be the problem in the first place.

Although some so-called “paradoxical” psychotherapeutic approaches exist, most forms of psychotherapy do not prescribe actions that will temporarily increase symptoms. It follows that exposure-based treatments have a reputation for being demanding, challenging, and perhaps even cruel (Olatunji, Deacon, & Abramowitz, 2009; Rosqvist, 2005). On the surface, the notion of purposefully inducing anxiety in clients runs counter to the ethical mandate that therapists do their clients no harm. More fundamentally, exposure treatment seems to violate the normal hedonistic nature that is common to all people (e.g., Feeny, Hembree, & Zoellner, 2003). Many therapists fear damaging their clients with these procedures, a state of affairs that assuredly poses a major barrier to dissemination efforts (Rosqvist, 2005).

Becker et al. (2004) examined whether exposure therapies for PTSD are underutilized, by surveying both a random sample of doctoral level psychologists from the U.S. and a selected group of psychologists who formed part of a trauma special interest group within a larger national behavioral therapy organization. Becker et al. (2004) found that a large majority of doctoral level psychologists do not report using exposure to treat PTSD, even though about half report being at least somewhat familiar with the approach (Feeny et al., 2003). Psychologists with specialized training in the treatment of PTSD report fewer perceived contraindications than their less experienced colleagues, yet still appear to use exposure quite judiciously, with only 17% of these individuals reporting that they use exposure with all or almost all of their PTSD patients. Exposure therapy is neither completely accepted nor widely used even among those psychologists with specialized training in the treatment of PTSD, further evidence that specific training and familiarity with theory are not sufficient to guarantee widespread use of evidence-based treatments. In addition, only 13% of Becker et al.'s (2004) random sample reported formal training in exposure treatments for other anxiety disorders. The problem of under-utilization is not specific to the case of PTSD.

Consistent with Rosqvist's (2005) conjecture that many psychologists fear harming their patients with exposure treatments, Becker et al. (2004) found that clinical lore about contraindications to the use of exposure appears to be the major obstacle that prevents many from using this treatment. Many practitioners do not use exposure with those PTSD clients who meet various exclusion criteria for RCTs, including severe suicidality, co-morbid psychotic disorder, any other co-morbid diagnosis (including other anxiety disorders), and the presence of dissociative symptoms. Most of those surveyed believed that such clients would decompensate if exposure were tried (e.g., their PTSD symptoms would become intolerably worse, clients would begin to abuse substances or become suicidal, clients would become dissociative and/or disengaged from social relationships). Practitioners must respect client preferences and can be lauded for their attempts to do no harm. However, Becker et al. (2004) note that very few of these perceived contraindications enjoy empirical support. It is therefore likely that many clients who might benefit from an exposure treatment regime administered in a sensitive and skilled fashion never get the option.

Rosqvist (2005) notes that clients should become more anxious if exposure treatment is to be effective. He argues that clinicians should remind themselves that initial increases in anxious symptoms in fact mean that the treatment is working as it should. Olatunji et al. (2009) provide a different perspective. They note that symptom exacerbation during exposure treatment appears to be both uncommon and of little prognostic value, and that many patients actually prefer exposure-based CBT to pharmacological treatments. Clinicians who are having trouble reconciling their technological knowledge that exposure is effective with the subjective belief that making patients feel bad even over the short-term is wrong should seek appropriate supervision and consultation from peers. Trust in the intervention, comfort in administering it, and confidence in one's ability to address client reactions to exposure treatment are all vital prerequisites to the use of exposure in clinical practice. These prerequisites could be developed through a combination of didactic instruction, supervised practice administering exposure treatment, and peer consultation. Those who train clinicians in exposure methodologies should attempt to ensure that practitioners are both technically and emotionally prepared to do exposure treatment. Trainee concerns about harming clients should be explicitly addressed during supervision, and it should not be assumed that knowledge of the efficacy literature on exposure is itself sufficient to quell these concerns.

Becker et al. (2004) suggest that researchers should examine the relationships between perceived contraindications to exposure treatments and benefits derived from exposure. Many of the contraindications to exposure are based on clinical lore rather than solid empirical knowledge, and perhaps research could allay some practitioner concerns about whether exposure is safe to use outsides the confines of RCTs. In the absence of research on contraindications, it

behoves experts to provide explicit guidelines on implementing exposure treatment with a wide range of different clients, including those who are typically deemed to be "too ill" to tolerate exposure. Zayfert and Becker (2007)) report some success in implementing imaginal and in vivo exposure interventions with PTSD clients who would traditionally be deemed inappropriate for such treatment. Their manual provides a sterling demonstration of how to provide specific guidance on implementing exposure with symptomatically diverse clients. Applicability of exposure treatment across other forms of client diversity should be explored as well (e.g., socio-economic status, culture). Such steps should encourage more practitioners to learn about and strive to implement CBT for anxiety disorders, and greater levels of practitioner interest might ultimately translate into increased training opportunities and resources to aid dissemination efforts.

2. General barriers to dissemination: Training opportunities and theoretical orientation

One major barrier to providing anxious clients with CBT treatment appears to be a relative lack of training in these approaches at the doctoral/internship levels. Crits-Christoph, Frank, Chambless, Brody and Karp (1996) conducted a survey of directors of clinical psychology training programs and internships, in both the United States and Canada. They found that about one doctoral training program in five covers 25% or less of the evidence-based treatments identified to date in didactic courses, and most internship programs do not require students to become competent in administering any evidence-based treatment as a condition of program completion. More recently, Woody, Weisz, and McLean (2005) reported that the period of 1993 to 2003 has seen very few increases in the availability of CBT training, either at the graduate program or the internship level. Although didactic coverage of evidence-based treatments had improved in 2003 relative to 1993, supervised training in these treatments had not. Woody et al. (2005) found that some programs do not provide any supervised training in evidence-based treatments at all (doctoral training programs, n = 8; predoctoral internships, n = 21). Although most of the programs surveyed provided some training in CBT for anxiety disorders, such training had not become more widely available from 1993 to 2003. There have even been decreases in access to supervised training in some forms of treatment (e.g., CBT for generalized anxiety disorder).

In addition to this lack of training opportunities at what is likely the most formative time in an aspiring psychologist's career, uncertainties remain regarding what it means to train students in evidence-based practice. Didactic instruction followed by treatment of several cases under direct supervision would seem to be a reasonable minimum standard, but no clear consensus regarding what it means to be "competent" to administer CBT exists. Many practitioners may feel that self-study of a treatment manual and/or some exposure to a new methodology at a workshop or conference is sufficient, although some treatment outcome data suggest otherwise (e.g., Howard, 1999). Roth and Pilling (2007) provide a useful set of skill standards for the practice of CBT for depression and anxiety disorders. These standards include generic therapeutic competencies (e.g., ability to engage the client), basic CBT competencies (e.g., knowledge of the role of safety-seeking behaviors), knowledge of specific cognitive-behavioral techniques (e.g., exposure to anxiety-provoking stimuli), and "metacompetencies" (e.g., capacity to use and respond to humour).

Making CBT for anxiety disorders more widely available will necessitate intervening at an organization level (i.e., at the training stage whenever possible). Most clinicians tend to keep using treatment techniques learned during their early professional training, perhaps modifying these techniques through trial and error during clinical practice (Barlow, 1981). If CBT approaches are widely taught as the "gold standard" psychological intervention for anxiety disorders (which is reasonable given their research support), novice clinicians will routinely apply these methods with their anxious clients and will likely continue to do so throughout their professional careers. CBT for anxiety disorders will in general come to be viewed as familiar and appropriate. Of course, the disappointing trend toward fewer training opportunities being available for some of these approaches would need to be reversed. Doing so would require that a number of conceptual and logistical barriers be addressed, including uncertainly about how to conceptualize training in empirically supported treatments, lack of time in training curriculums, a shortage of trained supervisors, and some philosophical opposition (Woody et al., 2005).

A move toward using clinical practice guidelines to meet quality assurance criteria for training program accreditation (Barlow et al., 1999) would likely compel programs to work toward overcoming the barriers identified by Woody et al. (2005). Although the American and Canadian Psychological Associations already require that doctoral training programs and predoctoral internships provide some training in evidence-based treatments to meet accreditation criteria, the specific amount of training that should be provided is not specified. Barlow et al. (1999) propose that graduate programs should first strive towards exposing students to evidence-based treatments for all of those problems for which efficacy evidence exists. After this didactic exposure, likely in the form of course work, systematic training to competency in a minimum number of evidence-based treatments should occur on practicum. Barlow et al.'s (1999) proposal that didactic exposure to evidence-based treatments be followed by practicum training in at least a few of these treatments could itself become an accreditation requirement. Given the pervasiveness of anxiety disorders, accreditation should probably require specific training in at least one CBT protocol for one anxiety disorder. Although such a requirement would generate considerable resistance, it would nevertheless spur program directors to conceptualize how best to train students in evidence-based treatments.

Although a lack of training opportunities clearly contributes to the limited use of CBT treatments by both novice and experienced practitioners, a perceived lack of fit between CBT's theoretical orientation and the orientation of many practitioners might also preclude many from adopting these approaches. Although psychotherapists are increasingly identifying themselves as "eclectic" in their approach to practice (e.g., Beutler, Harwood, & Caldwell, 2001), those who primarily prefer a non-CBT theoretical approach would be unlikely to seek training in CBT-based anxiety treatments. The problem with this scenario is that nearly all of the psychological treatments currently known to be effective in the treatment of anxiety are forms of CBT.

Many non-CBT interventions likely incorporate some of the efficacious components of CBT (e.g., exposure to feared stimuli or situations, disputing beliefs, trying out new attitudes or behaviors), and perhaps practitioners who currently eschew CBT approaches could be persuaded to adopt these treatments via a more general appeal to empirically supported treatment principles (e.g., Harris, 2004). However, the relatively consistent finding that CBT treatments outperform non-specific therapy controls that are designed to incorporate curative factors common across many or all forms of psychotherapy (e.g., Abramowitz, 1997; Deacon & Abramowitz, 2004) suggests that there are CBT-specific factors that are particularly beneficial to anxious clients. Given that many practitioners will gravitate toward and use those treatment approaches that they learn during graduate school and internship training, increasing CBT training opportunities at these early stages is probably the best way to address barriers to dissemination that pertain to philosophical opposition or therapist theoretical preference.

3. General barriers to dissemination: "Myths" about randomized clinical trials

Barlow et al. (1999) noted the tendency of many practitioners to dismiss the relevance of randomized clinical trials (RCTs) to clinical

practice. Typically, clinical researchers conduct studies of specific treatments for identifiable disorders. A different cadre of providers hailing from different academic backgrounds is responsible for implementing treatment in the community. Providers often rely on clinical experience to guide choice of treatment, rather than the results of outcome studies. There is a lack of communication between researchers and providers, likely resulting from various "myths" about clinical research (Barlow et al., 1999).

For example, one myth concerning evidence-based treatments is that they only work for those individuals who meet various strict inclusion criteria, including having one primary diagnosis (the myth of co-morbidity). Many have also argued that evidence-based treatments are not generalizable to clinical practice, where treatment cases are complex, and demographically different from those individuals who participate in RCTs (the myth of generalizability to clinical practice). Although it is true that many RCTs feature highly selected samples, co-morbid diagnoses do not appear to affect the efficacy of CBT for panic disorder (e.g., Brown, Antony, & Barlow, 1995), GAD (e.g., Borkovec, Abel, & Newman, 1995), or obsessive–compulsive disorder (OCD; e.g., Franklin, Abramowitz, Kozak, Levitt, & Foa, 2000). Juster, Heimberg, and Engelberg (1995) found that CBT for social anxiety disorder produced robust treatment gains in a sample that had initially been excluded from an RCT; in fact, outcomes did not differ between this sample and one that met initial inclusion criteria (see Franklin et al., 2000 for comparable results in a treatment study of OCD). More broadly, Shadish et al. (1997) meta-analyzed 56 treatment studies, categorizing their samples on a continuum from least to most clinically representative. Treatment effect sizes were similar across the continuum, with effect sizes being only about 10% smaller in studies of clinically representative therapy relative to effect sizes in RCTs (Stewart & Chambless, 2009).

It should also be noted that CBT protocols tend to target specific DSM-IV-TR diagnoses (e.g., Antony & Stein, 2009). This tendency may limit the applicability of CBT protocols to general clinical practice, where many clients do not necessarily have well-defined clinical disorders. Such clients may present with subsyndromal or mixed symptom pictures, or they may wish to focus treatment on circumscribed or instrumental problems for which no focused CBT protocol exists (e.g., financial difficulties). Although CBT can be tailored to address such concerns (e.g., Beck, 2005), in many cases it is not obvious how to modify disorder-specific CBT protocols to adequately address client variability. The recent development of transdiagnostic (nondiagnosis-specific) treatment protocols for anxiety disorders (e.g., Allen, McHugh, & Barlow, 2008; Butler, Fennell, & Hackmann, 2008; Ellard, Fairholme, Boisseau, Farchione, & Barlow, in press; Norton & Hope, 2005) may help address practitioner confusion around what treatment protocol to apply to whom.

RCTs provided the initial research support for most CBT approaches to anxiety disorders. However, effectiveness studies also suggest that these treatments produce meaningful gains under circumstances that closely approximate those found in many general clinical practice settings (Stewart & Chambless, 2009). The claim that evidence-based treatments are not appropriate for most of the clients seen in everyday practice has not been substantiated, but continues to serve as a barrier to the widespread adoption of these treatments. Clinical training programs could potentially shift clinician practices by explicitly exposing trainees to research that supports the use of evidence-based treatments in everyday practice settings. Given that exposure to research findings alone does not appear sufficient to shift clinical practices (e.g., Sanders & Turner, 2005), clinicians will also require "hands-on" practical experiences with implementing these treatments with complex cases. The knowledge that evidence-based treatments can indeed be helpful outside the confines of RCTs, coupled with better access to training opportunities, may aid dissemination efforts.

4. General barriers to dissemination: Lack of attention to practitioner concerns

Addis et al. (1999) argued that a general lack of attention to practitioner concerns about using evidence-based treatments has hindered dissemination of these treatments. They organized practitioner concerns into six different themes: 1) possible negative effects of these structured treatments on the therapeutic relationship, 2) concerns that these treatments do not meet client needs, 3) concerns about practitioner's own competence to administer these treatments (and correspondingly low job satisfaction, 4) restriction of clinical innovation, 5) low treatment credibility, and 6) low feasibility and other concerns about manual-based treatments. Elsewhere, it has been suggested that standardized therapeutic protocols are cold, calculating, and void of any human connection (see Rosqvist, 2005 for a discussion of this point), and that practitioners who used manualized treatments run the risk of stifling their own creativity. It is reasonable to conclude that practitioners who have such concerns will not seek to learn and implement structured CBT approaches to anxiety unless their concerns are adequately addressed. Indeed, psychological reactance might be actively sabotaging dissemination efforts as these practitioner concerns continue to linger (e.g., Backer, Liberman, & Kuehnel, 1986).

One obvious approach to addressing practitioners' concerns about structured treatments would be to subject the concerns themselves to empirical scrutiny, although this may not be a particularly useful approach to persuading those individuals who are not empirically-minded. Nevertheless, as was the case for the "myths" Barlow et al. (1999) identified, many of these concerns are not supported by research findings. There is no evidence to support the idea that manualized treatments fail to meet idiosyncratic client needs (Addis et al., 1999). Rosqvist (2005) argues that most or all effective treatment manuals require the therapist to adopt an individualized case formulation approach to treatment delivery, and a quick perusal of available treatment manuals generally supports Rosqvist's claim. There is little evidence to suggest that manualized treatments work less well than non-manualized ones (e.g., Wilson, 1998), and some evidence to suggest that they may in fact work better than less structured approaches that are explicitly intended to better meet the unique needs of individual clients (e.g., Luborsky, McLellan, Woody, O'Brien, & Auerbach, 1985, but see Henry, Schacht, Strupp, Butler, & Binder, 1993). If treatment manuals damaged the therapeutic relationship and/or produced problematic decreases in therapist motivation and creativity, relatively poor treatment outcomes would be expected. Finally, some limited work has directly examined therapist satisfaction with manualized treatment approaches. Practitioners do not find manuals to be boring, unfulfilling, or constraining, at least when they are properly trained and supervised in their use (Addis et al., 1999; Rosqvist, 2005). Trainees or novice clinicians should be encouraged to express their concerns about using CBT treatments for anxiety (and evidence-based treatments more generally). These concerns should be explicitly addressed in training, via appeals to research findings as well as the provision of opportunities for direct supervised experience in administering the treatments.

Concerns of more experienced practitioners could also be addressed via exposure to research findings and practical supervised experience performing a treatment, although strong demands that these individuals change the nature of their practices are likely to meet with psychologically-induced resistance to change (e.g., Webster-Stratton & Taylor, 1998). Simply telling experienced therapists that they should adopt new therapeutic strategies because: 1) what they are currently doing does not work as well as CBT, and 2) their concerns about the feasibility of CBT are not empirically-grounded is not likely to be an effective approach, even these reasons to change are more or less accurate in the case of anxiety disorders. A more effective approach might be to encourage experienced therapists to

implement CBT with one of their anxious clients as a specific behavioral experiment. The therapist's expectations for treatment success, client reactions, and other variables could be elicited and then tested in actual practice. Such an approach might also be used to train novice clinicians, who may not have many opportunities to explicitly address their concerns about learning and using manualized treatments. In addition, Ruzek and Rosen (2009) emphasize the importance of ensuring that standardized treatment protocols meet the needs of specific treatment settings. Practitioners may be more receptive to adopting a new treatment approach if they are permitted input into how the approach can be tailored to meet the needs of their specific patient population.

Even if reactance or resistance to change can be successfully overcome, therapist concerns about their ability to learn new approaches (and perhaps correspondingly, their job security) must be addressed in a sensitive manner. Effective cognitive-behavioral therapists do not simply provide their clients with admonishments to use certain techniques because research suggests that they should do so in order to improve their mental health. Emphasizing the empirical basis of CBT is certainly important, but a change-oriented stance must also be balanced with empathy, validation of client concerns, and a general acceptance of client circumstances, preferences, and decisions (e.g., Linehan, 1993). Cognitive-behavioral therapists should treat their colleagues who might be interested in learning how to do CBT in the same fashion. Pointing to research findings and then expecting this knowledge to automatically translate into wide-scale changes in therapeutic practice is not realistic. Therapists switching to CBT approaches require both instrumental and emotional support.

5. General barriers to dissemination: Organizational and economic concerns

A major barrier to the dissemination of any evidence-based psychological treatment is difficulty in finding the funding necessary to train clinicians (Barlow et al., 1999). Funding must be allocated at multiple levels, including graduate programs, internships, and continuing education programs (e.g., Calhoun, Moras, Pilkonis, & Rehm, 1998). An organization may not wish to (or may be unable to) allocate appropriate funding and/or other resources to training, materials, and other costs associated with implementing a new intervention. There may be no one in an organization willing to "champion" the cause of changing organizational practices, and existing interventions may enjoy enough organizational support that attempts to set up alternatives would be met with resistance.

Psychotherapy is costly. Organizations or political bodies responsible for the allocation of funding may require data showing that CBT treatments for anxiety disorders will in fact save health care systems money in the long run. Although cost effectiveness of CBT treatments for anxiety requires further study, some data are available (e.g., Roberge et al., 2004). While short-term costs of providing widespread training in CBT treatments would be high, long-term savings in the form of improved client outcomes and more efficient delivery of treatment would likely be great. Andrews, Issakidis, Sanderson, Corry and Lapsley (2004) utilized survey data to analyze the cost effectiveness of treating ten different mental disorders in Australia, including four anxiety disorders (panic disorder/agoraphobia, social phobia, generalized anxiety disorder, and posttraumatic stress disorder). Andrews et al. (2004) found that treatment of all four anxiety disorders was cost effective, such that leaving a disorder untreated incurs substantially larger health care costs than does providing effective treatment.

Funding agencies in the United Kingdom have demonstrated a willingness to support the dissemination of evidence-based treatments when the cost effectiveness of such treatments can be demonstrated (e.g., National Centre for Clinical Excellence, 2002). Rachman and Wilson (2008) describe the process by which an initial appeal to cost effectiveness led the UK government to embark on a six-year program to increase client access to evidence-based treatments for anxiety and depression (the Improving Access to Psychological Therapies program or IAPT). CBT was the main psychological treatment targeted by the program, based on the treatment guidelines of the National Institute for Health and Clinical Excellence (NICE). Over 600 million US$ in funding had been allocated for the first three years of the program. Expenditures have increased steadily since the program's inception, with the aim of training at least 3600 cognitive-behavioral therapists (Clark et al., 2009). However, the UK government did not commit to this funding until two demonstration projects were completed. One of these projects will be described here to illustrate the process by which CBT interventions are rolled out.

Psychiatric nurses, social workers, and occupational therapists staff the Doncaster demonstration site. These practitioners were initially trained in CBT at a specialty clinic at York University, and were then tasked with providing "low-intensity" treatment to people with mild to moderate depressive symptoms and anxiety disorders. Individuals with more chronic and severe depressive and anxiety disorders receive "high-intensity" interventions delivered by clinical psychologists or other professionals who have considerable training in psychotherapy. Implementation of CBT at the Doncaster site (and at the Newham site, which is more focused on delivering high-intensity inventions) was largely successful. In the initial demonstrations, symptom reduction rates resembled those typically obtained in clinical trials (Rachman & Wilson, 2008). In addition, service providers recorded 90% of client outcomes. Such recordings could serve as the basis for a nationwide outcome monitoring system that would be invaluable for quality control purposes. Based on the success of these initial demonstrations, IAPT funds are being used to initially train and then salary around 2100 therapists (by the year 2010). Various regional sites (primarily university clinics) have been identified to provide this training. These therapists will staff primary care trusts (PCTs), similar to primary care across the UK. Around 24 high-intensity therapists and 16 low-intensity ones will staff each PCT. Clients are either self-referred or referred by a general practitioner or other health care professional. Other details can be found at http://www.iapt.nhs.uk/.

Although various difficulties remain to be resolved, including how best to accredit therapists from diverse training backgrounds and how to ensure prompt service delivery in the face of prodigious amounts of referrals from family care providers, the IAPT program would appear to represent the most successful wide-scale implementation of psychological treatments to date. Similarly, researchers in the UK have demonstrated that brief CBT interventions for schizophrenia can help to manage residual symptoms, poor insight, and medication treatment non-compliance, not just when deployed by specialist therapists (e.g., Turkington, Kingdon, & Turner, 2002) but also by mental health nurses who initially had little specific training in CBT (Navdeep, Kingdon, Pelton, Mehta, & Turkington, 2009). Once the basic efficacy of the intervention was demonstrated in several RCTs, advocates of this treatment approach rapidly proceeded to emphasize the effectiveness of the treatment in everyday practice settings, the development of efficient training protocols (often for non-specialist treatment staff), and, perhaps most importantly insofar as funding agencies are concerned, the cost effectiveness of the approach.

An approach similar to the IAPT program could be applied to improve client access to CBT for anxiety disorders in North America. Doing so will likely require that psychologists step out of the more comfortable roles of researcher and clinician, and into the realm of political advocacy. As a general rule, though, dissemination efforts will be successful only if such efforts can be successfully accommodated within the structure of the relevant health care system (Andrews & Titov, 2009). Unlike in the UK and Canada, where public health care is respectively the main or exclusive option for health care delivery, the US continues to provide care through third party payers and will likely

continue to do so barring extensive overhaul of the health care system. Although political pressure is being brought to bear, any changes will occur slowly. As such, successful dissemination of evidence-based treatments for anxiety disorders will necessitate working with third party insurance companies. Length and frequency of some treatments can result in reimbursement problems. Exposure-based treatments for anxiety disorders can involve sessions that are longer than the standard 50 min (e.g., Zayfert & Becker, 2007). Individuals with more severe forms of anxiety, but not at the acuity that requires partial hospitalization, may need to be seen more than once a week, which also may be troublesome for third party payers. Educating insurance providers on the efficacy of CBT along with the cost effectiveness of these treatments will be key. The financial argument is the one most likely to be persuasive, but such an argument must be presented on a large scale (i.e., not direct at individual adjudicators but rather at a Board of Directors level). Without third party payer acceptance of CBT and its variations in duration and frequency, dissemination of these highly effective and cost efficient treatments is likely to fail in the United States.

6. A model for disseminating cognitive-behavioral treatments of anxiety

We propose an integrative four-step model for disseminating cognitive-behavioral treatments of anxiety that attempts to outline the entire process by which a treatment could become widely adopted, as is the case for CBT for depression and anxiety in the UK (Rachman & Wilson, 2008). Our model draws upon previous work that has examined dissemination efforts at various stages of the process, from the initial accumulation of research findings regarding treatment efficacy to the logistics of training front-line practitioners in the treatment (e.g., Chorpita, 2003; Sanders & Turner, 2005). Each step in our model will be described, with an emphasis on how the step addresses the barriers identified above.

6.1. Step 1: Accumulation of an evidence base

It should of course be clear that a given psychological treatment works in everyday practice settings before widespread dissemination efforts occur. Chorpita (2003) provides a useful framework by which an appropriate research evidence base can be developed, with the goal of ensuring that the research base includes studies that answer the questions that practitioners and national practice policy makers deem to be most important (e.g., “Will this treatment help my patients, not just those in RCTs?” and “Is this treatment cost effective?”).

A useful research evidence base includes four types of study (Chorpita, 2003). Initially, Type I or efficacy studies are used to demonstrate that a treatment works in well-controlled outcome trials. Type II or transportability studies are then used to determine if the treatment works in typical practice settings, with clinically representative clients. However, it should be noted that experts in the treatment being studied train and supervise the therapists in a transportability study, as is the case in an efficacy study. Moving up a further level, Type III or dissemination studies involve the use of system employees or “front-line” clinicians who treat clinically representative clients in the absence of direct supervision by specialized experts. Finally, Type IV or system evaluation research requires that a team of independent investigators evaluate an entire treatment delivery system, examining not just treatment effectiveness from a symptom reduction standpoint but also cost effectiveness and client satisfaction variables.

As reviewed earlier, there are many efficacy (Type 1) studies of CBT for anxiety. There are some transportability (Type II) and dissemination (Type III) studies, but how many of these effectiveness studies are needed to convince North American policy makers to provide needed support for wide-scale dissemination efforts, financial and otherwise? If the UK example were to be followed, the current evidence base would be deemed sufficient to proceed with a large-scale dissemination program. Nevertheless, researchers should continue to develop CBT's research base, using Chorpita's (2003) framework as a guide and moving the focus from further efficacy trials to transportability and dissemination studies of well-established treatments. This endeavour should weaken the argument that empirically supported treatments are not useful in everyday clinical practice and may circumvent the “myths” of co-morbidity and generalizability to clinical practice (Barlow et al., 1999). It is also crucial that the evidence base include data on cost effectiveness (e.g., Andrews et al., 2004).

6.2. Step 2: Obtaining support via an appeal to clinical practice guidelines and cost effectiveness

Once a sufficient evidence base has been developed, financial and logistical support for a wide-scale dissemination effort must be obtained. This support would come from professional development organizations, government bodies, and private health insurance companies. The latter two types of support are particularly crucial, as increasing client access to CBT is an expensive endeavour that is probably doomed to failure without substantial levels of health care policymaker support. Obtaining such support would undoubtedly be the best approach to addressing organizational and economic barriers to dissemination. Health care organizations should be responsive to proposals that strike a good balance between treatment efficacy and cost effectiveness, and service provider resistance might evaporate in the face of a strong government supported mandate like the IAPT program in the UK.

The recent successes of the IAPT program offer lessons that are likely applicable to the North American situation. Health care policymakers will want to see that CBT for anxiety is both helpful to clients and cost effective. Mental health professionals could appeal to the research evidence base and resulting practice guidelines, and marshalling the support of economists is probably advisable as well. Policymakers may also wish to see a plan in place for the training of therapists and/or delivery of services. Advocates of disseminating CBT for anxiety may have to work long and hard in a political advocacy role if the required support is to be obtained. In addition, the support and participation of training programs will be required, many of which are based in universities. The IAPT program's use of separate designations (high- and low-intensity therapists) may prove to be a useful approach to addressing the issue of training enough service providers in North America.

6.3. Step 3: Training and implementation

If needed support could be obtained from health care policymakers, the next step would involve using this support to disseminate CBT for anxiety to large numbers of clinicians and their clients. The IAPT program's approach to this step is described earlier in this paper. Sanders and Turner (2005) describe another potentially useful approach to training practitioners in a new intervention. These authors developed a standardized professional training program (over the course of three years) that is currently being used to disseminate a parenting skills-training program in Australia. This type of approach might provide a viable model for the clinic-level dissemination of CBT for anxiety, and is particularly relevant in that the approach is intended to impart knowledge of a new intervention to existing staff members.

The Sanders and Turner (2005) approach features a skills-training methodology that includes a combination of didactic information input/readings, video and live demonstration of core treatment skills, small group exercises in which skills are practiced, and a competency-

based assessment. This training was designed to be relatively brief, to minimize disruption to staff work schedules and maximize cost effectiveness. Staff members learning the intervention attend an initial 2–5 day training workshop (based on the level of the intervention being learned) and a subsequent 1-day accreditation workshop 8–12 weeks after initial training, which includes a short quiz assessing theoretical knowledge/program content. Training is conducted by psychologists with experience implemented the intervention being taught, while trainees hail from a wide variety of occupational backgrounds (as is the case in the IAPT program). Treatment by trainees of a number of clients under supervision could be added to this program if time and resources permitted, although this component is absent from the original approach.

The Sanders and Turner (2005) approach is particularly useful for addressing practitioner concerns about adopting a new intervention. Their approach includes ongoing support for practitioners learning how to use a new intervention, including regular updates on program development via newsletters, conferences, and websites. The approach seeks to promote the development of peer supervision networks. The program's originators and their agency staff continue to communicate with practitioners after training, helping to troubleshoot various difficulties identified by the practitioners (e.g., avoidance of accreditation workshops due to anxiety). Importantly, Sanders and Turner (2005) describe ways in which they seek to defuse misinformation about their treatment and "myths" about the program. They seek to foster an open and non-defensive approach to presenting factual information about the treatment. Practitioners are encouraged to voice their concerns, although many of these can be allayed via a trainer-initiated discussion of common myths. In the case of CBT for anxiety, practitioner concerns around using exposure interventions would need to be validated and gently addressed by providing clear education regarding how the technique should work. It may not be enough to tell trainees that the technique should be used because it is effective.

6.4. Step 4: Ongoing research and validation

Step four of the model is essentially a feedback arrow that goes from training and implementation back to the initial development of a research evidence base. Client outcomes should be tracked (as is the case in the IAPT program) and practitioner feedback solicited (e.g., Sanders & Turner, 2005). This information should be used to improve current programs and future dissemination efforts, perhaps within the context of system evaluation (Type IV) studies (Chorpita, 2003).

7. Conclusion

Anxiety disorders are treatable. Current cognitive-behavioral approaches to treating these conditions, while not a cure, are nevertheless beneficial to most. Despite its demonstrated efficacy and effectiveness, CBT for anxiety disorders remains drastically underutilized in clinical practice. Many clients do not receive these treatments, even though various iterations of CBT are currently considered to be the psychological treatments of choice for all of the anxiety disorders (e.g., Chambless & Ollendick, 2001; Deacon & Abramowitz, 2004). To overcome the various barriers to more widespread use of these treatments, mental health care professionals and researchers must now focus on demonstrating to policy makers and the public that CBT for anxiety is safe, efficacious, and cost effective. Demonstrating the aforementioned will likely require that advocates of CBT conduct further studies. It should also be remembered that research findings clearly do not speak for themselves, insofar as the dissemination of evidence-based treatments is concerned. A carefully planned strategy for disseminating a treatment at the organizational level can be successful, if both logistical concerns around training and the individual concerns of practitioners are successfully addressed (e.g., Sanders & Turner, 2005). However, advocates of CBT for anxiety may also need to focus their efforts on larger public policy issues, especially the availability of funds for training both new and experienced practitioners.

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