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An examination of individual provider characteristics in the dissemination and uptake of cognitive-behavioral conjoint therapy for posttraumatic stress disorder

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AN EXAMINATION OF INDIVIDUAL PROVIDER CHARACTERISTICS IN THE
DISSEMINATION AND UPTAKE OF COGNITIVE-BEHAVIORAL CONJOINT THERAPY
FOR POSTTRAUMATIC STRESS DISORDER

by

Amy Brown-Bowers, BJourn., Ryerson University, June, 2005

A thesis

presented to Ryerson University

in partial fulfillment of the
requirements for the degree of

Master of Arts

in the Program of

Psychology

Toronto, Ontario, Canada, 2011

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An Examination of Individual Provider Characteristics in the Dissemination and Uptake of
Cognitive-Behavioral Conjoint Therapy for Posttraumatic Stress Disorder

Master of Arts 2011

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Psychology

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Abstract

Support for the use of evidence-based psychological practice in Canada is growing, but there remains a large gap between psychotherapy research and real-world psychotherapy practice. There also exists a chasm between the number of clinicians who attend psychotherapy trainings and those who implement the training material into their clinical practice. The present study examined individual provider characteristics in the uptake of Cognitive-Behavioral Conjoint Therapy for Posttraumatic Stress Disorder. There was a trend for an interaction between attitudes toward manualized treatments and attitudes toward the use of couple therapy to treat individuals with PTSD. Specifically, as attitudes in each area were more positive, piecemeal uptake of the protocol decreased. Contrary to hypothesis, prior training in couple therapy or in cognitive-behavioural therapy for PTSD, years since highest degree was completed, and therapeutic orientation were not associated with uptake.

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Dedication

I would like to dedicate this thesis to my Mom and Dad. I can't adequately express how much their love, understanding, curiosity, encouragement, patience and dog-sitting have meant to me over the past two years. They have reared me, raised me and continued to support me long after I was launched from the nest. I look forward to paying these gifts both forward and backward in the years to come.

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An Examination of Individual Provider Characteristics in the Dissemination and Uptake of Cognitive-Behavioral Conjoint Therapy for Posttraumatic Stress Disorder

Support for the use of evidence-based psychological practice in Canada appears to be growing (Hunsley, 2000), but there remains a large gap between psychotherapy research and real-world psychotherapy practice (e.g., Barlow, 1981; Riemer, Rosof-Williams, & Bickman, 2005). Scientists have examined this discrepancy from a knowledge-translation perspective and have found that there also exists a large gap between the number of clinicians who attend psychotherapy trainings and those who implement the newly acquired material into their clinical practice (e.g., Goisman, Warshaw, & Keller, 1999; Stewart & Chambless, 2007). Researchers have examined dissemination and implementation by exploring training-level factors (i.e., length of training workshop and training modality; Backer, Lilberman, & Kuehnel, 1986; DeViva, 2006; Rosenberg, 2006). The present study contributed to dissemination science by examining trainee-level factors and their associations with implementation of a novel conjoint psychotherapy for posttraumatic stress disorder.

The present study examined individual provider characteristics in the uptake of Cognitive-Behavioral Conjoint Therapy for Posttraumatic Stress Disorder (CBCT for PTSD; Monson & Fredman, 2010) after dissemination of the therapy. Specifically, the study examined associations between select individual provider characteristics and individual provider uptake of the CBCT for PTSD protocol following attendance of a workshop on the protocol. The individual provider characteristics that were examined included the following: attitudes toward manualized treatments; attitudes toward the use of couple therapy to treat individual PTSD; prior training in couple therapy; prior training in cognitive-behavioural therapy (CBT) for PTSD; years since highest degree was completed; and predominant therapeutic orientation. The outcome variable, uptake of the therapy, was assessed in two ways. Self-reported “piecemeal protocol uptake” was defined as the selection and use of specific elements of the protocol and was assessed using a checklist of unique and essential elements of the protocol. Self-reported “prescribed

protocol uptake” was defined as systematic use of the protocol as outlined in the manual and was assessed using a series of questions about use of the protocol and intention to use the entire protocol. This thesis begins with an overview of relevant research on this topic, followed by a description of the study hypotheses, methods, results and discussion.

The Importance of Treatment Fidelity

The development and proliferation of psychological treatment manuals, which expanded dramatically in the 1980s and 1990s, has been credited with bringing great advancements to psychotherapy research (e.g. Addis, 1997; Carroll et al., 2000; Waltz, Addis, Koerner, & Jacobson, 1993). Manualized treatments were said to facilitate more precise, consistent and pure delivery of protocols, which allowed for more valid treatment comparisons and research conclusions (Waltz, Addis, Koerner, & Jacobson, 1993).

As expectations for precise and consistent delivery of protocols increased, so too did the expectation that researchers would account for their methods for assessing the degree of precision and consistency with which treatments were delivered. Researchers were expected to account for how true to form therapies were delivered, that is, their treatment fidelity (Waltz, Addis, Koerner, & Jacobson, 1993). Moncher and Prinz (1991) underscored the importance of being able to verify fidelity in comparative treatment research in order to be able to make valid comparisons of treatment outcomes. Specifically, lack of manual adherence or lack of therapist competence may in part explain null findings, or may lead to erroneous conclusions about the superiority or inferiority of particular protocols for treating particular disorders (Perepletchikova, & Kazdin, 2005; Resnick et al, 2005; Waltz, Addis, Koerner, & Jacobson, 1993).

An essential component of implementation research (i.e., the study of methods to promote the uptake of new or underused scientific findings by health care providers; Rubenstein & Pugh, 2006), is the assessment of treatment fidelity in the providers to whom the treatment was disseminated (Carroll et al., 2000; Kazdin, 1986; Moncher & Prinz, 1991). Further, Breitsenstein and colleagues (2010) posited that implementation fidelity matters greatly in that it can explain the often largely discrepant findings between

treatment outcomes produced in highly controlled clinical trials and outcomes produced in highly uncontrolled community settings once protocols have been widely disseminated. Thus, systematic assessments of treatment fidelity increase the validity of treatment studies and provide quality control for protocols as they are being disseminated (Breitsenstein, Gross, Garvey, Hill, Fogg, & Resnick, 2010).

Treatment fidelity is conceptualized as being multidimensional in the literature (e.g., McHugh, Murray & Barlow, 2009; Moncher & Prinz, 1991). Although there are different perspectives on what specific dimensions treatment fidelity encompasses, there is general consensus that one component is treatment integrity, which is the degree to which the therapist delivered the protocol as intended.

The Role of Treatment Fidelity in Dissemination Research

Not only is assessment of fidelity essential in treatment research, it is also integral to dissemination research (Waltz, Addis, Koerner, & Jacobson, 1993). Assessment of adherence during the dissemination phase of treatment development provides trainers with information about which elements of a protocol are easier for therapists to grasp and implement with ease versus those elements that are more difficult to learn and implement, and as such, may require additional instruction and supervision (Breitsenstein, Gross, Garvey, Hill, Fogg, & Resnick, 2010; Moncher & Prinz, 1991; Waltz et al., 1993). Waltz et al. (1993) situated assessment of adherence within a larger dissemination cycle that includes creating a protocol, writing the manual, training therapists, and assessing therapists' performance. These components create a feedback loop resulting in changes to the manual that improve treatment fidelity. Likewise, Fixen and colleagues (2005) proposed a conceptual framework for implementation in which assessment of implementation fidelity serves as a key feedback component used to inform changes in training practices, selection of trainees, and appropriate posttraining supervisory supports (Fixen et al., 2005).

Glasgow, Lichenstein, and Marcus (2003) stated that, for large-scale dissemination efforts, it is important for researchers to understand the ingredients for faithful implementation so they can facilitate consistent and faithful application of the protocol. They asserted that this is particularly important when

dissemination efforts include clinicians with different levels of training and experience. In such cases, assessment of therapist uptake can provide important information about individual provider variables that were associated with the use of the therapy.

Efforts to Operationalize and Assess Adherence

One of the great challenges faced by treatment and dissemination researchers has been the lack of an effective and widely-endorsed method of assessing and reporting uptake and adherence. Thus, researchers have developed and utilized idiosyncratic strategies, with little consistency across the field. Existing methods to assess adherence have ranged in terms of their complexity, their source of data, their scope, and their purpose. For example, sources of data may include process notes, transcripts, segments of audio- or video-recorded sessions, direct observation, and/or implementer self-report (Moncher & Prinz, 1991; Waltz, et al., 1993). The gold standard is largely considered to be the use of video-recorded treatment samples (Moncher & Prinz, 1991; Ogden et al, 2005; Waltz, et al., 1993), however, this approach is expensive, time- and labour-intensive, and impractical for large-scale dissemination studies which require simple, reliable, resource-light and efficient methods of fidelity data collection.

The checklist approach. The simplest way of assessing adherence is said to be a categorical indication of occurrence versus nonoccurrence of elements of the protocol (Waltz, Addis, Koerner, & Jacobson, 1993). Researchers typically create a checklist of protocol specifics that are “checked off” as they are observed to have occurred in treatment. Checklists may also include proscribed items, that is, techniques that are in direct violation of the treatment protocol. Checklists are versatile in that they can be used with video- or audio-recorded sessions, *in vivo*, or by self-report (Waltz, et al, 1993).

A checklist approach to measuring adherence has been used in a number of studies (e.g., Collins, Eck, Kick, Schröter, & Batra, 2009; Hogue, Henderson, Dauber, Barajas, Fried, & Liddle, 2008; Schefft & Kanfer, 1987). For example, Hogue and colleagues’ (2008) study examined the impact of treatment adherence and therapist competence on treatment outcome for adolescent behaviour problems. They

employed a *Therapist Behavior Rating Scale – Competence* (Hogue et al., 2008) in order to assess adherence and competence. The scale included a list of items covering interventions prescribed in the treatment, and therapists were given ratings by observers based on successful or unsuccessful completion of each item on the list (Hogue, et al., 2008). The scale was reported to have good to excellent interrater reliability for adherence and fair to poor reliability for competence. Results indicated that treatment adherence predicted treatment outcome and that greater adherence ratings predicted greater reductions in substance-related behaviours and problems.

Singer (2002) examined therapist self-report ratings versus independent observer ratings of adherence to a family-based prevention program using the *Therapist Behavior Rating Scale-2nd version*. Singer found moderate to strong correlations between the two, indicating good concordance rates. Singer concluded that observers and therapists shared a common perspective of adherence in the study and that self-report checklists may be a viable method of assessing adherence.

Individual Provider Predictors of Psychotherapy Uptake

Although research on predictors of psychotherapy protocol uptake is still in the early stages, there exists a small and growing body of research on the links between individual provider characteristics and actual or intended uptake of evidence-based practices (e.g., Addis & Krasnow, 2000; Gray, Elhai, & Schmidt, 2007; Salloum, Sulkowski, Sirrine, & Storch, 2009). Two areas that have been examined with regard to psychotherapy protocol uptake are provider attitudes and prior training.

Attitudes about manualized psychotherapies. Therapists have been found to hold a range of negative beliefs about manualized treatments, and these negative beliefs are hypothesized to impede uptake of them (e.g., Addis & Krasnow, 2000; Addis, Wade, & Hatgis, 1999). In their study of 891 licensed psychologists across the United States, Addis and Krasnow (2000) explored attitudes toward psychotherapy treatment manuals. Factor analysis revealed two global sets of attitudes toward manuals: Negative Process attitudes and Positive Outcome attitudes. Negative Process attitudes include, for example, the belief that

manuals have a dehumanizing effect on the therapeutic process and that manuals emphasize technique over flexibility and therapeutic alliance. Positive Outcome attitudes include, for example, the belief that manuals help facilitate and guide the therapeutic process.

Their study found considerable variability in attitudes toward, and experiences with, manuals. More specifically, 34% of participants reported positive experiences or impressions of manuals, 32% reported negative experiences or impressions, and 45% reported neutral impressions or experiences. Likewise, Salloum and colleagues (2009) identified a number of attitudinal barriers to using empirically-supported treatments for childhood anxiety disorders in social work practice. Some of these attitudes included “the therapeutic relationship could be damaged by using manualized treatments,” “protocols that are created in controlled environments are not generalizable to real-world settings,” and “manualized treatments limit creativity” (Salloum, Sulkowski, Sirrine, & Storch, 2009).

In their paper reviewing and summarizing issues in the dissemination of cognitive-behaviour therapy, Taylor and Chang (2008) stated that many developers of protocols erroneously assume that clinicians are inherently motivated to implement protocols backed by evidence and that dissemination of evidence-based treatments will naturally occur. Failure to take into account the attitudes held by individual providers is an oversight that may, in part, explain the large chasm between the existence of evidence-based protocols and the actual use and uptake of them.

Taylor and Chang (2008) pointed out that many clinicians view clinical research trials with skepticism because the patient populations are often narrowly defined and nonreflective of the population that clinicians serve in their work settings. Further, Backer, Lilberman, and Kuehnel (1986) noted that negative and even suspicious attitudes toward new treatments may impede implementation. For example, Taylor and Chang (2008) noted that clinicians find structured interventions boring and have said that they fail to address the complexity of issues addressed in real world settings.

Aarons (2005) explored the role of attitudes and organizational culture in the acceptance of innovative treatments and the uptake of evidence-based psychotherapy practices. Aarons noted that dissemination efforts may be either impeded or facilitated by providers' individual characteristics, such as beliefs about protocols and personality characteristics like openness and innovativeness (Aarons, 2004, 2005). Aarons found that a general willingness to experiment with new procedures and tasks was associated with more positive attitudes toward evidence-based practice (Aarons, 2005). To facilitate examination of attitudes toward evidence-based practice of individual providers, Aarons developed the *Evidence-Based Practice Attitude Scale* (EBPAS; Aarons, 2004) that included questions such as, "I like to use new types of therapy/interventions to help my clients," and "Clinical experience is more important than using manualized therapy/interventions."

Specific to evidence-based practices of mental health professionals specializing in trauma, Gray, Elhai, and Schmidt (2007) investigated 318 individuals who completed a web-based survey. In their assessment of barriers to both learning and practicing evidence-based practice they found that the most highly endorsed barrier was "Insufficient time to learn" (38.7% of respondents) followed by "Difficulty finding the time to attend training seminars" (37.7%), "Lack of generalizability of the literature to my client population" (36.4%), "Prohibitive expense of training seminars" (35.0%), and "Inability to apply research findings to patients with unique characteristics" (29.3%). These findings are reflective of other reported research findings, specifically, that a sizeable proportion of clinicians report that manuals restrict clinical innovation and are impediments to idiographically-responsive treatment (e.g., Salloum, Sulkowski, Sirrine, & Storch, 2009). When the researchers analyzed responses of clinicians holding negative views toward evidence-based practice, they found the following common complaints: "Lack of generalizability of the literature to my patient population," "Inability to apply research findings to individual patients with unique characteristics," "Objections to EBP movement", and "Lack of interest."

Attitudes toward the use of couple therapy to treat individuals with PTSD. There is no established body of literature on therapist attitudes toward the use of a couple therapy modality to treat individuals with PTSD. However, literature exists on the impact of PTSD on close significant others (e.g., Davidson, Hughes, Blazer & George, 1991; Whisman, Sheldon, & Goering, 2000). For example, those with PTSD have been found to be just as likely to marry as those without PTSD but are somewhere between 3 to 6 times more likely to divorce (Davidson, Hughes, Blazer, & George, 1991; Kessler et al., 1995). In a community sample study of nearly 5,000 Canadian couples that looked at associations between marital distress and mental health problems, a diagnosis of PTSD was associated with a 3.8 times greater likelihood of relationship distress (Whisman, Sheldon, & Goering, 2000). Authors have also written about couple-level phenomena that are said to occur when one partner has PTSD, such as secondary or vicarious traumatization (whereby efforts to support and empathize with the PTSD-affected partner lead the supporting partner to develop PTSD symptoms; Maloney, 1988; Solomon et al., 1992) and PTSD-related caregiver burnout (e.g., Manguno-Mire et al., 2007). Thus, it is reasonable to assume that clinicians hold a range of attitudes toward the use of couple therapy to treat individuals with PTSD, some positive and some negative, and that these attitudes are associated with uptake of a couple-based intervention to treat PTSD.

Associations between prior training and psychotherapy uptake. Literature on the effect of prior training experiences on uptake of new treatments can be divided into two larger categories, literature on the impact of predominant therapeutic orientation and literature on the impact of years of clinical experience. Each are considered below in turn.

Therapeutic orientation. Addis and Krasnow (2000) found that clinicians' predominant theoretical orientation was linked to attitudes toward manualized treatments, with cognitive-behavioural clinicians holding more favourable views about manuals than psychodynamically-oriented clinicians (Addis & Krasnow, 2000). Likewise, in their study on attitudes toward and use of evidence-based practices of trauma professionals, Gray, Elhai, and Schmidt (2007) found that practitioners endorsing a predominantly

cognitive-behavioural orientation held more favourable views toward evidence-based practices than did practitioners endorsing a psychodynamic or other orientation. Gray and colleagues also divided practitioners into two groups based on their preferred trauma treatment strategy (i.e., a strategy based on available research findings such as trauma-focused CBT or a strategy associated with little compelling research-based evidence such as bioenergetics or nutritional approaches). They found that the prior group held more favourable views toward evidence-based practice than did the latter.

These findings are in line with those of Markowitz, Manber, and Rosen (2008) from their study on the training of clinicians in Brief Supportive Psychotherapy (BSP). They assessed therapists' attitudes toward the therapy and explored whether therapists' predominant therapeutic orientation was predictive of more or less difficulty acclimating to BSP. One of their central hypotheses was that therapists with a predominantly CBT background would report greater frustration and less satisfaction with BSP than therapists from other backgrounds due to the greater theoretical and technical differences between their orientation and BSP. Indeed, they found that therapists with a CBT background reported more frustration and less satisfaction with the treatment, although the differences failed to meet statistical significance. They noted that their findings likely apply to the training of other types of interventions. Specifically, they noted that therapists learning interventions that diverge from their typical approach to treatment are likely to be more resistant to learn, and were likely to experience frustrations and apprehension at the start of training, but that these were surmountable challenges through effective training.

Years of experience and prior training. Overall, the literature indicates that there is an indirect association between the number of years of clinician experience and positive attitudes toward evidence-based practice and manualized treatments (e.g., Addis & Krasnow, 2000; Clark, 1995; Margison et al., 2000; Taylor & Chang, 2008). Addis and Krasnow's (2000) analysis of predictors of attitudes toward treatment manuals found that a significant negative association between clinicians' years in practice and positive attitudes toward manualized therapies, a construct that has been correlated with greater uptake of

treatments) got increasingly positive. A similar negative association has been found between years since highest degree completed and positive attitudes toward manualized therapies (e.g., Addis & Krasnow, 2000; Addis, Wade, & Hatgis, 1999).

Clarke (1995) noted that clinicians with more experience may be less likely to strictly adhere to a therapy protocol than less experienced clinicians. Clarke (1995) explained that experienced clinicians like to blend interventions from various protocols depending on how relevant the interventions seem to be for the client, so as to be maximally responsive to the client's needs (1995). The desire to be maximally responsive to the client may trump the desire to be maximally faithful to a protocol, thus undermining treatment integrity and uptake of an evidence-based manualized treatment. Perepletchikova and Kazdin (2005) suggested that a solid and extensive foundation of prior experience may result in a solidified approach to therapy and thus less flexibility and adherence to a new protocol. Margison and colleagues (2000) also stated that as therapists gain more experience, they tend to draw on aspects of various protocols and interventions depending on the client's presentation and needs. Thus, as years of experience increase and as clinicians' prior training gets more extensive, nonadherence to protocol may increase. In their review of issues in the dissemination of cognitive-behavioural therapies, Taylor and Chang (2008) also noted that therapists with extensive experience preferred to blend and combine various techniques in treatment rather than follow a prescribed protocol.

In their year-long study on uptake of dynamic psychotherapy, Henry and colleagues (1993) examined the mediating effect of therapists' responses to training. They found that therapists in the study with more prior supervision were more reluctant to change from their normal style of clinical intervention to that being taught in the study. The researchers concluded that therapists with more extensive previous supervision may be more rigid and less open to learning and implementing new manualized protocols (Henry, Schacht, Strupp, Butler, & Binder, 1993).

Aarons' (2004, 2005) work also demonstrates that individual provider demographics are very important variables to account for and address when studying uptake and faithful implementation. In Aarons' study of predictors of uptake of evidence-based practice, he found that Intern status as opposed to Staff status was correlated with more positive attitudes toward the adoption of evidence-based practice. Aarons (2004) suggested that internship was a particularly advantageous window of time in clinicians' professional development in which to introduce evidence-based practice to individuals, due to this increased openness and flexibility.

The Present Study

Overarching Goal

The primary research question addressed in the study was: What is the role of individual provider characteristics in the uptake of CBCT for PTSD (Monson & Fredman, 2010)? Specifically, the study examined associations between specific individual provider characteristics and the individual providers' uptake of the CBCT for PTSD protocol following attendance of a workshop. The following characteristics were examined: attitudes toward manualized treatments; attitudes toward the use of couple therapy to treat individual PTSD; prior training in couple therapy; prior training in cognitive-behavioural therapy for PTSD; years since highest degree earned; and predominant therapeutic orientation.

Specific Hypotheses

Attitudes. It was predicted that increasingly positive attitudes about manualized treatments and increasingly positive attitudes toward the use of couple therapy to treat individuals with PTSD would each independently be associated with increased uptake of the protocol. It was also predicted that there would be an interaction effect for the two attitudes such that increasingly positive attitudes toward manualized treatments in combination with increasingly positive attitudes toward the use of couple therapy to treat PTSD would predict greater uptake of the protocol.

Prior training. It was hypothesized that prior training in couple therapy, or prior training in CBT for PTSD would predict increased uptake of the protocol. It was also hypothesized that there would be an interaction effect such that having both types of prior training would be associated with increased uptake.

Predominant therapy orientation. It was hypothesized that a predominantly CBT orientation would be positively associated with increased uptake above and beyond other orientations.

Years since highest degree was earned. It was hypothesized that the fewer the years since participants' highest degree was completed, the greater the uptake would be.

Method

Participants

Participants included 298 (103 male, 166 female, 29 unidentified) mental health clinicians serving U.S. Air Force, U.S. Army, and Canadian Forces personnel who attended a CBCT for PTSD training in 2010. As shown in Table 1, the majority of clinicians were born between 1950 and 1979 and therefore between the ages of 40 and 69 years at the time they attended the training. The majority of clinicians were social workers or psychologists. Over 60% of the clinicians indicated that their predominant therapy orientation was cognitive-behavioural, and the balance identified their orientation as eclectic/integrative (16.2%), Rogerian/client-centered/supportive (6.3%), psychodynamic (4.9%), family systems (3.2%), interpersonal (1.8%), humanistic/existential (0.7%), biological (0.4%), and other (2.5%).

All 298 clinicians completed a Pretreatment Survey immediately preceding the training; 247 (82.9%) clinicians completed the Posttreatment Survey immediately following the training, and 69 (23.2%) of clinicians completed the Follow-Up Survey 4 months after the training. The demographic and practice characteristics of those participants who completed the Follow-Up Survey were statistically compared with those who did not complete the Follow-up Survey to assess the generalizability of the results to those who participated in the CBCT for PTSD workshop more generally. The percentage of clinicians who completed the follow-up survey did not differ based on sex, $\chi^2(2, N = 284) = 0.07, p = .97$, age, two-sided Fisher's Exact test ($N = 284$) = 3.42, $p = .79$, profession, two-sided Fisher's Exact test ($N = 284$) = 2.52, $p = .94$, years since highest degree was completed, $\chi^2(1, N = 281) = 0.01, p = .94$, predominant therapy orientation, $\chi^2(1, N = 276) = 0.07, p = .79$, or prior training in couple therapy, $\chi^2(1, N = 267) = 0.01, p = .94$. There was, however, a significant group difference for prior training in CBT for PTSD, $\chi^2(1, N = 267) = 4.07, p = .04$, with clinicians with prior training in CBT for PTSD being more likely to have completed the follow-up survey (24.4%) than clinicians without this prior training (11.5%). Given that there was only one group

difference among the seven demographic variables examined and the relevance of the specific sample of clinicians in the study, it was decided that this difference would not be controlled for in the analyses.

Table 1

Demographic and Practice Characteristics of Participants

Characteristic	All clinicians (<i>N</i> = 298)	Clinicians who completed the Follow-Up Survey (<i>n</i> = 69)	Clinicians who did not complete the Follow-Up Survey (<i>n</i> = 229)
Sex			
Male (%)	103 (36.3%)	23 (35.9%)	80 (36.4%)
Female (%)	166 (58.3%)	38 (59.4%)	128 (58.2%)
Decade of birth			
1930s	1 (0.4%)	0 (0%)	1 (0.5%)
1940s	26 (9.2%)	6 (9.4%)	20 (9.1%)
1950s	68 (23.9%)	11 (17.2%)	57 (25.9%)
1960s	72 (25.4%)	18 (28.1%)	54 (24.5%)
1970s	84 (29.6%)	22 (34.4%)	62 (28.2%)
1980s	32 (11.3%)	7 (10.9%)	25 (11.4%)
Profession			
Nurse	10 (3.5%)	1 (1.6%)	9 (4.1%)
Psychiatrist	9 (3.2%)	1 (1.6%)	8 (3.6%)
Psychologist	96 (33.8%)	25 (39.1%)	71 (32.3%)
Psychology or Rehabilitation	2 (0.7%)	0 (0%)	2 (0.9%)

Technician			
Social Worker	127 (44.7%)	30 (46.9%)	97 (44.1%)
Substance Abuse	5 (1.8%)	1 (1.6%)	4 (1.8%)
Counselor			
Psychology	13 (4.6%)	2 (3.1%)	11 (5.0%)
student/resident/intern			
Other	22 (7.7%)	4 (6.3%)	18 (8.2%)
Years since highest degree completed			
Less than a year ago	20 (7.1%)	5 (7.9%)	15 (6.9%)
1 to 5 years ago	68 (24.2%)	15 (23.8%)	53 (24.3%)
6 to 10 years ago	67 (23.8%)	15 (23.8%)	52 (23.9%)
11 to 20 years ago	76 (27.0%)	15 (23.8%)	61 (28.0%)
More than 20 years ago	50 (17.8%)	13 (20.6%)	37 (17.0%)
Highest degree			
Bachelor's	10 (3.5%)	2 (3.1%)	8 (3.6%)
Master's	161 (56.7%)	38 (59.4%)	123 (55.9%)
DN or DSW	2 (0.7%)	0 (0%)	2 (0.9%)
PhD or PsyD	92 (32.4%)	22 (34.4%)	70 (31.8%)
MD	7 (2.5%)	0 (0%)	7 (3.2%)
Other	11 (3.9%)	2 (3.1%)	9 (4.1%)
Predominant therapy orientation			
Rogarian/Client-	18 (6.3%)	5 (7.8%)	13 (5.9%)
centered/supportive			

Psychodynamic	14 (4.96%)	7 (10.9%)	7 (3.2%)
Cognitive-behavioural	174 (61.3%)	40 (62.5%)	134 (60.9%)
Interpersonal	5 (1.8%)	2 (3.1%)	3 (1.4%)
Humanistic/Existential	2 (0.7%)	0 (0%)	2 (0.9%)
Biological	1 (0.4%)	0 (0%)	1 (0.5%)
Family Systems	9 (3.0%)	3 (4.7%)	6 (2.7%)
Eclectic/Integrative	46 (16.2%)	4 (6.3%)	42 (19.1%)
Other	7 (2.5%)	1 (1.6%)	6 (2.7%)

Notes: DN = Doctor of Nursing; DSW = Doctor of Social Work; PhD = Doctor of Philosophy; PsyD = Doctor of Psychology, MD = Doctor of Medicine

Measures

Surveys. Data were collected through three program evaluation surveys (see Appendices A, B, and C). The Pretraining Survey (see Appendix A) was given to clinicians in paper format immediately before the training began. The Posttraining Survey (see Appendix B) was given to clinicians in paper format immediately following the training. The Follow-Up Survey was given to participants 4 months following their training (see Appendix C). This survey was completed online using Qualtrics survey software (Qualtrics, 2010).

Computation of "piecemeal protocol uptake" outcome variable. Piecemeal protocol uptake was defined as use of specific elements from the protocol rather than systematic use of the entire protocol. A continuous piecemeal protocol practice outcome variable was computed by summing the endorsement (yes/no) of 39 items on the Follow-Up Survey, derived from the CBCT for PTSD Fidelity Measure (Monson, Brown-Bowers, & Fredman, 2009). This fidelity measure identifies essential and specific interventions comprising the CBCT for PTSD protocol, and was adapted to assess the participants' endorsement of the use of the essential and specific interventions (yes/no). Scores range from 0 to 39; mean piecemeal protocol practice in the sample was 10.74 ($SD = 11.08$).

Computation of "prescribed protocol uptake" outcome variable. Prescribed protocol uptake was defined as systematic use of the protocol per the clinician's manual. A categorical prescribed protocol practice variable was created by reviewing clinicians' responses to items on the Follow-up Survey asking about use of the protocol since attending the training, such as discussing the protocol with a colleague or clients, completing phase 1 of the treatment with a couple, or completing the entire protocol with a couple. If clinicians had at least discussed the protocol with a client or couple in the 4-month follow-up period, it was assumed that they had the intention of using the protocol as per the manual. As such, discussing the therapy with a client or couple was equated with prescribed protocol uptake for the present study. This was considered a reasonable threshold for prescribed protocol uptake, given the short time-span between the

training and Follow-Up Survey. Clinicians received either a “Yes” or “No” prescribed protocol practice coding based on their reported behaviour. More than half of clinicians (56.5%, $n = 39$) indicated that they had engaged in prescribed protocol practice and 43.5% ($n = 30$) indicated that they had not engaged in prescribed protocol practice.

Computation of predictor variables. Clinicians’ responses to the question of how many years it had been since they had completed their highest degree were recoded to simplify analyses (see Table 1 for the results to this question before categories were collapsed). The following three time categories were collapsed to form a “10 years or less” category: Less than a year ago, 1 to 5 years ago, and 6 to 10 years ago. In addition, the following two time categories were collapsed to form a “more than 10 years” category: 11 to 20 years and more than 20 years. The groups were roughly equal in size, with 55.2% ($n = 155$) of clinicians having completed their highest degree 10 years ago or less and 44.8% ($n = 126$) of participants having completed their highest degree more than 10 years ago.

Clinicians’ responses to the predominant therapy orientation question were recoded as per the specific hypotheses related to therapy orientation. To facilitate these comparisons the following categories were collapsed to form a nonCBT orientation category: Rogerian/client-centered/supportive, psychodynamic, interpersonal, humanistic/existential, biological, family systems, eclectic/integrative, and other. Nearly two thirds of clinicians (63%, $n = 174$) endorsed a predominantly CBT orientation and 37% ($n = 102$) endorsed a predominant therapy orientation that was not CBT (see Table 1).

Clinicians were asked about prior training experiences in couple therapy and CBT for PTSD. About one-third of clinicians (34.1%, $n = 91$) indicated they had no prior training in couple therapy. Most clinicians (72.8%, $n = 217$) had received prior training in CBT for PTSD.

In order to operationalize attitudes toward manualized treatments and attitudes toward the use of couple therapy as a modality to treat individual PTSD, nine items on the Posttraining Survey specifically inquired about these attitudes. Two items asked about views toward manualized treatments (e.g. “Most

couples' problems are too complex to treat with time-limited, manual-based treatments”) and seven items assessed attitudes toward using a couple therapy format for the treatment of PTSD (e.g., “A PTSD-specific form of couple therapy could be a front-line treatment for PTSD,” and “Couples' problems can be treated successfully when one of the partners has PTSD.”). Results of the factor analysis on these items are reported below.

Attitudes toward manualized treatments. Attitudes toward manualized treatments scores were computed for the 298 participants who completed the Posttraining Survey by summing the two items that loaded onto the Attitudes Toward Manualized Treatments factor that was predicted to emerge from the factor analysis. The maximum possible score was 8 (indicating a maximally positive attitude toward manualized treatments) and the minimum score was 0 (indicating a minimally positive attitude toward manualized treatments). Scores ranged from 0 to 8 ($M = 1.47$, $SD = 1.74$).

Attitudes toward the use of couple therapy to treat PTSD. Attitudes toward the use of couple therapy to treat PTSD scores were computed for the 298 participants who completed the Posttraining Survey by summing the seven items that loaded on to the Attitudes Toward the use of Couple Therapy to Treat PTSD factor that was predicted to emerge from the factor analysis. The maximum possible score was 28 (indicating maximally positive attitudes toward the use of couple therapy to treat PTSD) and the minimum score was 0 (indicating minimally positive attitudes toward the use of couple therapy to treat PTSD). Scores ranged from 7 to 28 ($M = 22.02$, $SD = 3.90$).

Statistical Analyses to Test Hypotheses

Attitudes and uptake. Associations between attitudes (continuous variables) and piecemeal protocol uptake (continuous variable) were tested with two-tailed bivariate Pearson correlation coefficients. Associations between attitudes (continuous variables) and prescribed protocol uptake (dichotomous categorical variable) were tested with logistic regression analyses. The strength of these associations were characterized by conventions offered by Cohen (1988). Cases were excluded listwise.

In order to test for a possible interaction between the two continuous attitude variables and uptake, and consistent with recommendations by Aiken & West (1991), the attitude variables were first centered around their respective means. To test for an interaction between the two attitude variables and piecemeal protocol uptake, an interaction variable was created by multiplying scores for the two centered attitudes together. Next, hierarchical multiple linear regression was conducted with the following three predictors: attitudes toward manualized treatments, attitudes toward the use of couple therapy to treat PTSD, and the interaction term. Piecemeal protocol uptake was a continuous outcome variable. In order to test for an interaction between the two attitudes scales and prescribed protocol uptake, logistic regression was conducted with the following three predictors: attitudes toward manualized treatments, attitudes toward the use of couple therapy to treat PTSD, and the interaction term. Prescribed protocol uptake was a categorical (i.e., yes or no) outcome variable.

Prior training, therapy orientation, years since highest degree was completed and uptake.

Associations between prior training experiences and therapy orientation and piecemeal protocol uptake of CBCT for PTSD were tested using multiple linear regression analyses, with prior training and therapy orientation as categorical (i.e., yes or no) predictors and piecemeal protocol uptake scores as the continuous outcome variable.

Pearson's Chi-square analyses were performed in order to assess associations between prior training experiences, therapy orientation and years since highest degree was completed and prescribed protocol uptake. Crosstabulation outputs from the Chi-square for prior training in CBT for PTSD and prescribed protocol uptake indicated that there were fewer than five frequencies in at least one of the cells, making it inappropriate to proceed with a Pearson's Chi-square interpretation of results, so the Fisher's two-sided Exact Test method was used to interpret results. Crosstabulation outputs from the Chi-squares for prior training in couple therapy, for therapy orientation and for years since highest degree was earned, and

prescribed protocol uptake indicated that there were at least five frequencies in each cell so proceeding with a Pearson's Chi-square statistic was appropriate.

In order to test for an interaction between the two prior training variables and piecemeal protocol uptake, multiple linear regression was conducted with the following three predictors: prior training in couple therapy, prior training in CBT for PTSD, and their interaction. An interaction variable was created by multiplying scores for prior training in couple therapy and scores for prior training in CBT for PTSD together. In order to test for an interaction between the two prior training variables and prescribed protocol uptake, logistic regression was conducted with the following three predictors: prior training in couple therapy, prior training in CBT for PTSD, and their interaction term.

The association between years since highest degree was completed and piecemeal protocol practice was tested with a one-way analysis of variance (ANOVA), with years since highest degree was completed as a categorical (i.e., 10 years or less, or more than 10 years) predictor variable, and piecemeal protocol practice as a continuous outcome variable.

Results

Factor Analysis

A principal component extraction method and a varimax rotation were employed to identify a factor solution. Following, a reliability analysis was performed for each of the two scales and internal consistency was examined using Cronbach's alpha. The factor analytic procedures revealed that the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) was 0.72 and well above the .5 cutoff, indicating there was adequate sample size to proceed. Bartlett's Test of Sphericity was significant, $\chi^2 (36) = 647.99, p < .001$, indicating there were some relationships between the variables and that the correlation matrix was not an identity matrix. Two factors were initially extracted. The first factor had an Eigenvalue of 3.20 and explained 35.6% of the variance, and the second factor had an Eigenvalue of 1.83 and explained an additional 20.3% of the variance. Examination of the Scree Plot suggested a two-factor solution that explained 55.87% of the variance. Items loaded as predicted onto the two factors, with the exception of one item that loaded equally onto both factors. This item was deleted and the factor analysis was rerun. This resulted in a KMO of 0.71, above the .5 cutoff. Bartlett's Test of Sphericity was significant, $\chi^2 (28) = 658.07, p < .001$, indicating there were relationships between the variables and that analyses could proceed as planned. Two factors were extracted. The first factor had an Eigenvalue of 3.11 and explained 38.9% of the variance, and the second factor had an Eigenvalue of 1.80 and explained an additional 22.5% of the variance. Examination of the Scree Plot suggested a two-factor solution that explained 61.4% of the variance. Items loaded as predicted onto the two factors, resulting in the following two attitude factors: Attitudes Toward Manualized Treatments and Attitudes Toward the use of Couple Therapy to Treat PTSD (see Table 2).

Table 2

Factor Loadings and Communalities for Attitude Measure

Items	Attitudes toward	
	the use of couple therapy to treat PTSD	manualized treatments
	Communality	
Couple therapy should be offered as part of treatment plan for PTSD	.68	.44
Couples' problems can be treated successfully when one partner has PTSD	.70	.50
A PTSD-specific form of couple therapy could be front-line treatment for PTSD	.76	.59
Couple therapy is a good alternative to individual or group therapy for PTSD	.71	.50
It is appropriate to have intimate partners/adult loved ones hear some	.68	.48

details of traumatic experiences		
Couples' problems and PTSD can be	.77	.60
treated successfully at the same		
time		
Most patients' problems are too	.95	.90
complex to treat using time-limited,		
manual-based treatments		
Most couples' problems are too	.95	.90
complex to treat with time-		
limited, manual-based treatments		

Note. Factor loadings < .2 are not included in the table.

Reliability analyses revealed that the alpha coefficient for Attitudes Toward Manualized Treatments was good at .90 and the alpha coefficient for Attitudes Toward the use of Couple Therapy to Treat PTSD was good at .80. No substantial increases in Cronbach's alpha would have been obtained if any of the items on either of the two scales were deleted.

Hypothesis I.A. Contrary to hypothesis, the association between attitudes toward manualized treatments and piecemeal protocol uptake was not statistically significant, $r = .14$, p (two-tailed) = .30. Similarly, attitudes toward manualized treatments did not significantly predict prescribed protocol uptake (See Table 3).

Hypothesis I.B. Contrary to hypothesis, the association between attitudes toward the use of couple therapy to treat PTSD and piecemeal protocol uptake was not statistically significant, $r = .06$, p (two-tailed) = .67. Similarly, attitudes toward the use of couple therapy to treat PTSD did not significantly predict prescribed protocol uptake (See Table 4).

Hypothesis I.C. Results of the hierarchical multiple linear regression predicting piecemeal protocol uptake indicated that step 1 in the model containing the main effects of attitudes toward manualized treatments and attitudes toward the use of couple therapy to treat PTSD did not significantly predict piecemeal protocol uptake (See Table 5). The final model, which contained both the main effects and the interaction effect, also did not significantly predict piecemeal protocol uptake. However, examination of the coefficients in step 2 of the model showed that the interaction term approached significance ($p = .11$), as did attitudes toward manualized treatments ($p = .05$), as predictors of piecemeal protocol uptake scores. The simple main effects were plotted in order to interpret the interaction, and it was found that, as attitudes toward manualized treatments got more positive and attitudes toward the use of couple therapy to treat individuals with PTSD got more positive, piecemeal protocol uptake scores decreased (see Figure 1).

Table 3

Summary of Logistic Regression Analysis of Attitudes Toward Manualized Treatments and Prescribed Protocol Uptake of Cognitive-Behavioral Conjoint Therapy for Posttraumatic Stress Disorder

Variable	β	SE	Odds Ratio	Wald
Constant	-.38	1.63	1.07	.06
Attitudes toward manualized treatments	-.07	.23	.68	.10

Notes. $p = ns$

Table 4

Summary of Logistic Regression Analysis Predicting Prescribed Protocol Uptake of Cognitive-Behavioral Conjoint Therapy for Posttraumatic Stress Disorder (PTSD) by Attitudes Toward the Use of Couple Therapy to Treat PTSD

Variable	β	SE	Odds Ratio	Wald
Constant	-2.14	1.64	.12	1.70
Attitudes toward the use of couple therapy to treat PTSD	-.10	.07	1.11	2.02

Notes. $p = ns$

Table 5

Summary of Hierarchical Linear Regression Analysis Predicting Piecemeal Protocol Uptake of Cognitive-Behavioral Conjoint Therapy for Posttraumatic Stress Disorder (PTSD) by Attitudes Toward Manualized Treatments, Attitudes Toward the use of Couple Therapy to Treat PTSD, and Their Interaction

Step	Variable	<i>B</i>	<i>SE B</i>	β
1	Constant	8.83	1.54	
	Attitudes toward manualized treatments	-1.66	1.16	-.21
	Attitudes toward the use of couple therapy to treat PTSD	.04	.37	.01
2	Constant	8.91	1.70	
	Attitudes toward manualized treatments	-1.05	1.20	-.13
	Attitudes toward the use of couple therapy to treat PTSD	-.44	.47	-.17
	Interaction of the two attitudes	-.58	.36	-.31 [^]

Notes. $R^2 = .04$ for Step 1 ($p = ns$). R^2 change = .05 for Step 2 ($p = .11$). [^] $p = .11$.

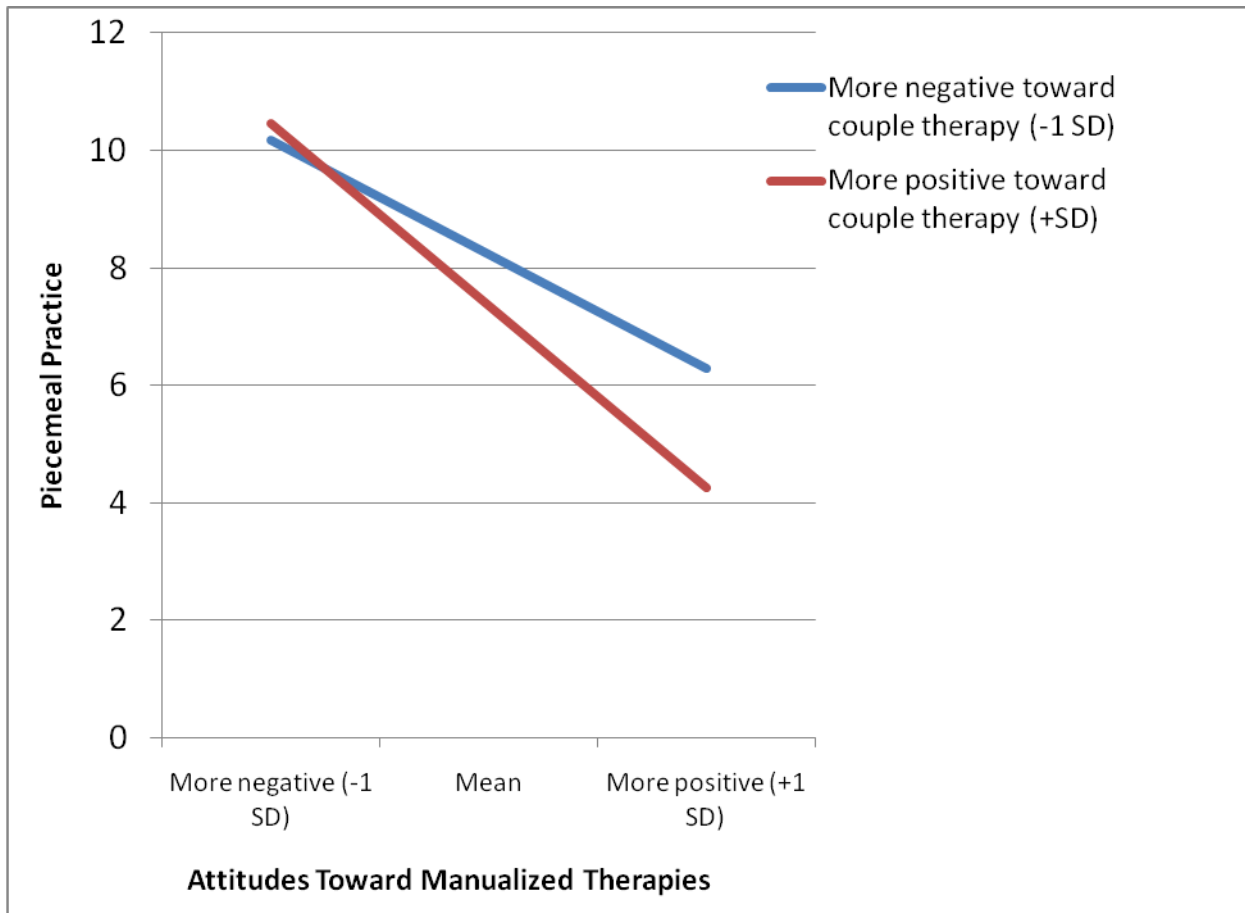


Figure 1. Simple effects of attitudes toward manualized therapies and attitudes toward the use of couple therapy to treat individuals with PTSD plotted to show the approaching significant interaction effect ($p = .11$) on piecemeal protocol uptake. As attitudes toward manualized treatments got more positive and attitudes toward the use of couple therapy to treat individuals with PTSD got more positive, piecemeal protocol uptake scores decreased.

Results from the logistic regression indicated that the interaction effect of the attitudes variables did not significantly predict prescribed protocol uptake (See Table 6).

Hypothesis II.A. Results from the multiple linear regression indicated that prior training in couple therapy did not significantly predict piecemeal protocol uptake (See Table 7). The percentage of clinicians who reported prescribed protocol uptake did not differ based on prior training in couple therapy, $\chi^2(1, N = 58) = 0.15, p = .70$.

Hypothesis II.B. Results from multiple linear regression indicated that prior training in CBT for PTSD did not significantly predict piecemeal protocol uptake scores or explain a significant proportion of variance in piecemeal protocol uptake scores (See Table 8). The percentage of clinicians who reported prescribed protocol uptake did not differ based on prior training in CBT for PTSD, $\chi^2(1, N = 59) = 1.18, p = .28$.

Hypothesis II.C. Results of the linear regression indicated that there was no significant interaction between the two types of prior training variables in predicting piecemeal protocol uptake (See Table 9). Results from logistic regression also indicated that there was no significant interaction between the two types of prior training in predicting prescribed protocol uptake (See Table 10).

Hypothesis III. Results from multiple linear regression indicated that therapy orientation did not significantly predict piecemeal protocol uptake (See Table 11). The proportion of clinicians who reported prescribed protocol uptake did not differ based on therapy orientation, $\chi^2(1, N = 62) = 0.25, p = .62$.

Table 6

Summary of Hierarchical Logistic Regression Analysis Predicting Prescribed Protocol Uptake of Cognitive-Behavioral Conjoint Therapy for Posttraumatic Stress Disorder by Attitudes Toward the use of Couple Therapy to Treat PTSD, Attitudes Toward Manualized Treatments, and their Interaction

Step	Variable	β	SE	Odds Ratio	Wald
1	Constant	.10	.30	1.10	.10
	Attitudes toward manualized treatments	-.18	.23	.84	.62
	Attitudes toward the use of couple therapy to treat PTSD	.09	.07	1.10	1.51
2	Constant	.16	.33	1.17	.24
	Attitudes toward manualized treatments	-.13	.25	.88	.25
	Attitudes toward the use of couple therapy to treat PTSD	.12	.10	1.13	1.63
	Interaction of attitudes	.04	.07	1.04	.28

Notes. Step 1 ($p = ns$). Step 2 ($p = ns$).

Table 7

Summary of Linear Regression Analysis Predicting Piecemeal Protocol Uptake of Cognitive-Behavioral Conjoint Therapy for Posttraumatic Stress Disorder by Prior Training in Couple Therapy

Variable	<i>B</i>	<i>SE B</i>	β
Constant	9.25	2.38	
Prior training in couple therapy	.46	2.94	.02

Notes. $R^2 = .000$ for model, R^2 change for model = .000 ($p = .88$).

Table 8

Summary of Multiple Linear Regression Analysis Predicting Piecemeal Protocol Uptake of Cognitive-Behavioral Conjoint Therapy for Posttraumatic Stress Disorder (PTSD) by Prior Training in Cognitive Behavioural Therapy for PTSD

Variable	<i>B</i>	<i>SE B</i>	β
Constant	9.17	4.46	
Prior training in CBT for PTSD	.85	4.71	.02

Notes. $R^2 = .001$ for model, R^2 change for model = .001 ($p = .86$).

Table 9

Summary of Hierarchical Linear Regression Analysis Predicting Piecemeal Protocol Uptake of Cognitive-Behavioral Conjoint Therapy for Posttraumatic Stress Disorder (PTSD) by Prior Training in Couple Therapy, Prior Training in Cognitive Behavioural Therapy (CBT) for PTSD, and their Interaction

Step		<i>B</i>	<i>SE B</i>	β
1	Constant	.90	4.49	
	Prior training in couple therapy	.42	3.04	.02
	Prior training in CBT for PTSD	.28	4.75	.001
2	Constant	13.25	5.31	
	Prior training in couple therapy	-12.25	9.19	-.56
	Prior training in CBT for PTSD	-5.00	5.93	-.15
	Interaction of prior training	14.19	9.73	.66

Notes. $R^2 = .001$ for Step 1 ($p = ns$). R^2 change = .038 for Step 2 ($p = .15$).

Table 10

Summary of Binary Hierarchical Logistic Regression Analysis Predicting Prescribed Protocol Uptake of Cognitive-Behavioral Conjoint Therapy for Posttraumatic Stress Disorder (PTSD) by Prior Training in Couple Therapy, Prior Training in Cognitive Behavioural Therapy (CBT) for PTSD, and their Interaction

Step	Predictor Variable	β	SE	Odds Ratio	Wald
1	Constant	.26	.33	1.29	.61
	Prior training in couple therapy	-.08	.57	.92	.02
	Prior training in CBT for PTSD	-.90	.93	.41	.92
2	Constant	-21.20	28420.75	.00	.00
	Prior training in couple therapy	21.20	28420.74	1.62	.00
	Prior training in CBT for PTSD	.00	1.12	1.00	.00
	Interaction of prior training	21.54	28420.74	2.26	.00

Notes. Step 1($p = ns$). Step 2 ($p = ns$).

Table 11

Summary of Linear Regression Analysis Predicting Piecemeal Protocol Uptake of Cognitive-Behavioral Conjoint Therapy for Posttraumatic Stress Disorder by Therapy Orientation

	<i>B</i>	<i>SE B</i>	β
		2.35	
Constant	9.77		
Therapy orientation	1.10	2.93	.05

Note: $R^2 = .002$ for model, R^2 change = .002 for model ($p = .71$).

Hypothesis IV. Years since highest degree was completed was not significantly associated with piecemeal protocol uptake, $F(1, 61) = 1.76, p = .190, \eta^2 = .028$. The proportion of clinicians who reported prescribed protocol uptake did not differ based on years since highest degree was completed, $\chi^2(1, N = 63) = 0.54, p = .46$.

Discussion

The goals of the study were to identify individual provider characteristics associated with greater uptake of CBCT for PTSD in order to inform dissemination efforts for the protocol. In general, specific attitudes did not predict uptake when considered on their own and there were no statistically significant interaction effects for the attitudes. However, an approaching significant interaction was observed between specific attitudes, such that therapists with increasingly positive attitudes toward manualized treatments and increasingly positive attitudes toward the use of couple therapy to treat individuals with PTSD had lower piecemeal protocol uptake. It was also found that a number of prior training and experience variables such as prior training in couple therapy, years since highest degree was completed, and therapeutic orientation were not associated with uptake. A strength of this study was that uptake was conceptualized not only as prescribed protocol adherence, but also as piecemeal use of specific interventions comprising the protocol.

Attitudes as Predictors of Uptake

A significant positive correlation between clinicians' positive attitudes toward manualized treatments and implementation of CBCT for PTSD in both a piecemeal and prescribed fashion was hypothesized. Research has established that clinicians hold a range of attitudes toward standardized protocols and that negative attitudes can act as barriers to dissemination and implementation (Salloum, Sulkowski, Sirrine, & Storch, 2009). Likewise, it was predicted that clinicians with increasingly positive attitudes toward the use of couple therapy to treat PTSD would be more likely to implement CBCT for PTSD in both a piecemeal and prescribed fashion. Contrary to hypothesis, none of these individual associations between attitudes and uptake were significant.

The prediction that the interaction between attitudes toward manualized treatments and attitudes toward the use of couple therapy to treat PTSD would predict uptake was not statistically supported. There was a finding approaching significant in the prediction of piecemeal uptake. It is likely that a small effect was present but that the low statistical power of the tests resulted in non-significant findings. The

approaching significant finding suggested that as clinicians' attitudes toward manualized therapies became more positive, clinicians with more positive attitudes toward the use of couple therapy to treat individual PTSD had lower piecemeal protocol practice scores. Thus, clinicians with increasingly positive attitudes toward manualized treatments and increasingly positive attitudes toward the use of a couple therapy format for treating individuals with PTSD were less likely to engage in piecemeal protocol practice. It is important to note that these interactions likely did not reach traditional levels of statistical significance because of inadequate power. As Aiken and West (1991) indicate, interactions often run the risk of being underpowered. This interaction suggests that clinicians with more positive views about the ability of a disorder-specific couple therapy modality to treat individuals with PTSD and more positive views toward manualized therapies are less likely to pick and choose different interventions from the protocol. Rather, they seem more likely to systematically use the protocol as prescribed.

Previous research on the association between attitudes toward manualized treatments and uptake has found that negative beliefs about manualized treatments impede subsequent uptake (e.g., Addis & Krasnow, 2000; Addis, Wade, & Hatgis, 1999). Clinicians in the current study were asked questions specifically eliciting attitudes toward manualized therapies, including the degree to which clinicians believed standardized treatments were able to address complex clinical issues. The lack of significant bivariate associations suggest that uptake of a specific manualized protocol (i.e., CBCT for PTSD) can occur even in the presence of more negative attitudes toward manualized therapies in general. This finding was not likely due to insufficient power given the relatively small size of the association.

It has been suggested in the literature that those disseminating psychotherapies should take into account and address the possibly negative attitudes toward manualized treatments (Taylor & Change, 2008), however, findings from the current study are encouraging in that it appears that people's attitudes toward manualized treatments in general do not necessarily predict uptake of a specific standardized psychotherapy. Perhaps it is more important to take into account attitudes toward manualized treatments in the context of

other attitudes (e.g., attitudes toward the use of a couple therapy modality to treat individual psychopathology) than attitudes toward manualized treatments in isolation.

No significant interaction was found between the two attitudes predicting prescribed protocol uptake. Thus, clinicians with increasingly positive views toward manualized treatments and increasingly positive views toward the use of couple therapy to treat individual PTSD were no more or less likely to engage in systematic implementation of CBCT for PTSD. This finding is encouraging because it suggests that clinician's attitudes about doing trauma-focused work in a couples context in conjunction with their attitudes toward manualized treatments are not barriers to dissemination and uptake of CBCT for PTSD.

If attitudes toward manualized therapies and attitudes toward the use of couple therapy to treat PTSD don't predict uptake, then what might? Aarons (2004; 2005) stressed that, along with attitudes toward standardized protocols, other individual personality characteristics such as openness and innovativeness may be important factors in the uptake of manualized therapy practice. Although Aarons found that these characteristics were associated with more positive attitudes toward manualized treatments (2005), individual characteristics such as openness and innovativeness are likely to be associated with uptake. Specifically, a willingness to learn novel psychotherapies and a willingness to incorporate new treatments into clinical practice may be a better predictor of uptake than attitudes toward specific formats or modalities of therapy. It is also possible that other, more pragmatic factors have a greater effect on uptake and implementation of CBCT for PTSD. For example, support from management, time to learn a new protocol, access to posttraining resources (e.g., case consultation, refresher courses), and peer support may matter more than individual provider attitudes (Karlin et al., 2010).

Prior Training and Years since Highest Degree was Completed as Predictors of Uptake

It was predicted that clinicians who had received prior training in either couple therapy or CBT for PTSD would be more likely to implement the CBCT for PTSD protocol following the training; however, this was not found to be the case. Neither prior training in couple therapy nor prior training in CBT for

PTSD were independently associated with increased uptake of the protocol. Likewise, no significant interaction of the two prior trainings was identified.

Although the findings from the present study on the association between prior training experiences and uptake are not consistent with the predicted hypotheses, they are nevertheless encouraging in terms of suspected necessary or facilitating factors in uptake. It was thought that clinicians without training in specific modalities would be less inclined to implement CBCT for PTSD and results opposed this assumption. This means that clinicians may benefit equally from attendance at CBCT for PTSD psychotherapy trainings, irrespective of prior training history.

It was also predicted that the more years of experience clinicians had going into the training, the less likely they would be to engage in piecemeal and prescribed implementation of the protocol, but this was not found. Although group differences in piecemeal protocol uptake were not significantly different, the mean piecemeal protocol uptake score was higher in the group of clinicians with more than 10 years since completing their highest degree than in the group with 10 or fewer years since they had completed their highest degree, with an effect size difference of $d = -0.33$. This pattern is congruent with previous research findings that the more years of experience a clinician has, the less likely they are to implement a protocol as prescribed. Clarke (1995) suggests that the more experience a clinician has, the more likely they are to integrate elements of various protocols into their psychotherapy with clients as opposed to strictly adhere to a single protocol. Taylor and Change (2008) also found that therapists with more experience tend to utilize various tools and techniques in treatment rather than strictly adhere to a single protocol.

Therapy Orientation as a Predictor of Uptake

It was predicted that clinicians with a predominantly CBT orientation would be more likely to implement the protocol than nonCBT oriented therapists. This hypothesis was not supported and contrary to previous research findings that therapists who identify as primarily CBT in orientation hold more favourable

views toward manualized treatments than therapists who identify as being either psychodynamic or "other" in orientation (Addis & Krasnow, 2000; Gray, Elhai, & Schmidt, 2007).

Limitations and Conclusion

A limitation of the study was the relatively low response rate for the Follow-Up Survey, which resulted in a problem of low power to detect significant findings. Specifically, an approaching significant interaction was found for attitudes toward manualized therapies and attitudes toward the use of a couple therapy format to treat individuals with PTSD. It is possible that with a greater follow-up response rate and thus increased power, this interaction would have been found to be significant. Additional efforts should be made in future studies to increase the response rate and remedy this problem. It is possible that both prescribed and piecemeal uptake were less among the clinicians who did not complete the Follow-Up Survey than among the clinicians who did, thus findings may be biased and should be interpreted with caution.

Participants in the current study were a fairly homogenous sample in terms of work setting. All clinicians served U.S. Air Force, U.S. Army, or were Canadian Forces personnel. Thus, results may not be generalizable beyond this specific context. Results may have been different had the sample included clinicians from a greater variety of workplace settings (e.g., private practice, hospitals, private institutions etc.).

If a clinician had 100% piecemeal protocol uptake, the measures did not allow the investigators to determine if this meant that the clinician (a) used all of the essential elements of the protocol, as prescribed by the manual, with a single dyad ("prescribed protocol practice"), (b) used all of the essential elements of the protocol, with a single dyad, but not as prescribed by the manual, or (c) used all of the essential elements of the protocol, but not all with the same dyad. Further questions should be added to the measures to allow for these distinctions to be made.

Despite these limitations, findings suggest that it may be useful to assess certain individual provider characteristics when engaging in dissemination efforts for CBCT for PTSD. Although an interaction between specific attitudes (i.e., attitudes toward manualized treatments and attitudes toward the use of couple therapy to treat individuals with PTSD) was not statistically significantly associated with uptake of the protocol 4 months following attendance at a workshop, it is likely that this was due to small sample size for the follow-up survey and that a greater number of participants may have revealed a significant interaction. Results also suggest that a number of individual provider characteristics, such as therapy orientation and prior training in couple therapy or prior training in CBT for PTSD are not associated with uptake and as such may not need to be factored into dissemination strategies.

In order to narrow the gap between psychotherapy research and psychotherapy practice, there is a need for efficacious and effective dissemination strategies. And, in order to design and execute effective dissemination efforts, there is a need for systematic and empirical investigation of post-workshop practice patterns. Research efforts, like the present study, offer pieces of the empirical puzzle to help design evidence-based dissemination strategies that can ultimately increase the chances that patients can receive the efficacious therapies that we have to offer.

Pretraining Survey

SECTION #1: Demographics

1. What is your profession?

- ☐ Nurse (LVN, LPN, RN, Nurse Practitioner)
- ☐ Occupational Therapist
- ☐ Psychiatrist
- ☐ Other Physician
- ☐ Psychologist
- ☐ Psychology or Rehabilitation Technician
- ☐ Social Worker
- ☐ Substance Abuse Counselor
- ☐ Vocational Therapist
- ☐ Other: (SPECIFY)

2. Highest degree

- ☐ BA, BS, or equivalent
- ☐ MSN, MSW, MA/MS, MHS or equivalent
- ☐ DN or DSW
- ☐ PhD or PsyD
- ☐ MD
- ☐ Other _____

3. Years since highest degree was completed (*Check the best option*)

- ☐ Less than a year ago
- ☐ 1 to 5 years ago
- ☐ 6 to 10 years ago
- ☐ 11 to 20 years ago
- ☐ More than 20 years ago

4. Decade of Birth:

- ☐ 1930s
- ☐ 1940s
- ☐ 1950s
- ☐ 1960s
- ☐ 1970s
- ☐ 1980s

5. Gender: ____Male ____ Female

6. In what type of setting(s) do you work with patients diagnosed with PTSD?
Please select all that apply, even if PTSD is not the specific focus of treatment in a given setting.

- ☐ Outpatient primary care clinic
- ☐ Outpatient psychiatric/mental health clinic
- ☐ Outpatient substance abuse clinic
- ☐ Day hospital
- ☐ Outpatient program specializing in PTSD
- ☐ Inpatient medical/surgical unit
- ☐ Inpatient psychiatric ward
- ☐ Inpatient substance abuse treatment
- ☐ Residential rehabilitation program specializing in PTSD
- ☐ Other residential program
- ☐ Other (please specify)

7. How much time have you spent using Internet-based training resources to build or increase your competency in delivering a specific psychotherapy?

- ☐ No time
- ☐ Minimal time (up to 1 hour)
- ☐ Some time (1 to 5 hours)
- ☐ Quite a bit of time (5 to 20 hours)
- ☐ Extensive time (More than 20 hours)

8a. Are you currently a member of a web-based discussion forum for clinical professionals?

_____ Yes _____ No

8b. If yes, about how frequently do you visit or contribute to the online forum?

- ☐ Never
- ☐ Rarely (a couple of times a year)
- ☐ Occasionally (about once a month)
- ☐ Frequently (weekly)
- ☐ Extensively (daily)

SECTION # 2: Practice Variables

1. Approximately how many active cases do you currently provide direct care for through...

any form of psychotherapy? _____
individual therapy? _____
couple therapy? _____
group therapy? _____

2. Approximately how many new cases do you see per month? _____

3. What percentage of your job is direct treatment? _____

4. Approximately what percentage of your current cases have been diagnosed with PTSD? _____

5a. In general, how often do you typically meet with each case?

- ☐ Less than monthly
- ☐ Monthly
- ☐ 2 weeks to 1 Month
- ☐ Every Week
- ☐ More than once a week

5b. How long do your sessions usually last?

- ☐ 5-15 Minutes
- ☐ 15-30 Minutes
- ☐ 30-45 Minutes
- ☐ 45-60 Minutes
- ☐ 60-90 Minutes

6. Please characterize your predominant therapy orientation (choose one):

- ☐ Rogerian, Client-centered, Supportive
- ☐ Psychodynamic
- ☐ Cognitive-behavioural
- ☐ Interpersonal
- ☐ Humanistic/Existential
- ☐ Biological
- ☐ Family Systems
- ☐ Other _____

7. What percentage of your cases get the following formats of therapy? (Keep in mind that cases might receive multiple formats of therapy):

_____ Individual
_____ Group
_____ Couple
_____ Family

8. What percentages of your PTSD cases get the following formats of therapy? (Keep in mind that cases might receive multiple formats of therapy):

_____ Individual
_____ Group
_____ Couple
_____ Family

9. Have you provided treatment using a manual before?

_____ Yes _____ No

If **yes**, please list the name(s) of the therapy: _____

10. Approximately how many patients with PTSD have you treated in your career? _____

11. Approximately how many patients with PTSD have you treated using cognitive-behavioural therapy in your career? _____

12. Approximately how many couples have you treated in your career? _____

13. Approximately how many couples have you treated using cognitive-behavioural therapy in your career? _____

14. Approximately how many couples in which one partner has PTSD have you treated in your career? _____

15. Approximately how many couples have you treated with cognitive-behavioural conjoint therapy in your career? _____

SECTION # 3: Fellow Staff Members

In the next questions, “fellow staff members” refers to all of the employees in your immediate work group, including direct care staff, administrative assistants, etc. who have any contact with clients in your area.

Please circle the answer that best describes your opinion of your <i>fellow staff members</i> .		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	My fellow staff members are willing to treat PTSD in general.	1	2	3	4	5
2	My fellow staff members are willing to treat couples in general.	1	2	3	4	5
3	Generally, my fellow staff members are comfortable with a treatment that directly addresses traumatic material.	1	2	3	4	5
4	Generally, my fellow staff members are comfortable with a treatment that directly addresses couple issues.	1	2	3	4	5
5	Generally, my fellow staff members are comfortable with a couple therapy that directly addresses traumatic material.	1	2	3	4	5
6	Generally, my fellow staff members are supportive of conducting treatment based on a manual.	1	2	3	4	5
7	Generally, my fellow staff members are willing to accept changes in treatment approaches and formats.	1	2	3	4	5

SECTION # 4: Management

1. How likely is your supervisor to allow you to implement a new treatment requiring you to conduct 75-minute couple sessions for 15 sessions?

- ☐ Very unlikely
☐ Unlikely
☐ 50/50
☐ Likely
☐ Very likely

Please circle the answer that best describes your opinion of the management in your group.		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	My supervisor is invested in treating PTSD.	1	2	3	4	5
2	My supervisor is supportive of me providing couple therapy.	1	2	3	4	5
3	My supervisor would be supportive of me conducting a couple therapy for PTSD.	1	2	3	4	5
4	My supervisor would be supportive in giving me time to receive case consultation while learning a new therapy.	1	2	3	4	5

SECTION # 5: General Opinions

*The following questions ask about your feelings about various types of therapy and about using new types of therapy, interventions, or treatments. "**Manualized therapy, treatment, or intervention**" refers to any intervention that has specific guidelines and/or components that are outlined in a manual and/or that are followed in a structured or predetermined way.*

Please circle the answer that best describes the extent to which you agree with each item.		Not at all	To a slight extent	To a moderate extent	To a great extent	To a very great extent
1	I like to use new types of therapy/interventions to help my clients.	0	1	2	3	4
2	Treatment research cannot be generalized to real-world clinical settings.	0	1	2	3	4
3	Clinical experience is more effective than specific manualized therapy techniques.	0	1	2	3	4
4	PTSD can be treated successfully for the majority of people in the general population.	0	1	2	3	4
5	Couples' problems can be treated successfully for the majority of couples in the general population.	0	1	2	3	4

Please circle the answer that best describes the extent to which you agree with each item.		Not at all	To a slight extent	To a moderate extent	To a great extent	To a very great extent
6	PTSD can be treated successfully in the majority of the patients I treat.	0	1	2	3	4
7	Couples' problems can be treated successfully in the majority of cases I treat.	0	1	2	3	4
8	Couple therapy should be offered as part of a treatment plan for PTSD.	0	1	2	3	4
9	Couples' problems can be treated successfully when one of the partners has PTSD.	0	1	2	3	4
10	Couple therapy is more complex to deliver than individual therapy.	0	1	2	3	4
11	General couple therapy can improve PTSD.	0	1	2	3	4
12	A PTSD-specific form of couple therapy could be a first-line treatment for PTSD.	0	1	2	3	4
13	Couple therapy is a good alternative to individual or group therapy for PTSD.	0	1	2	3	4
14	It is appropriate to have intimate partners or adult loved ones hear some details of traumatic experiences.	0	1	2	3	4
15	Couples' problems and PTSD can be treated successfully at the same time.	0	1	2	3	4
16	Most of my patients' problems are too complex to be treated using time-limited, manual-based treatments.	0	1	2	3	4
17	Most couples' problems are too complex to be treated treat using time-limited, manual-based treatments.	0	1	2	3	4
18	In general, manual-based treatments are too restrictive or not sensitive to patients' needs.	0	1	2	3	4
19	In general, manual-based treatments restrict clinical innovation.	0	1	2	3	4

SECTION # 6: Training Interests and Experiences

1. How much training have you had in individual or group cognitive-behavioural therapy for PTSD?

- ☐ None
- ☐ Some general knowledge, but have not taken any courses or other training
- ☐ Have taken one or two courses and/or other trainings
- ☐ Have taken several courses and/or undergone extensive training

**** If you answered "None" →***

Skip to question 4 below

2. Do you treat patients with PTSD using individual or group cognitive-behaviour therapy?

_____ Yes _____ No

3. If "No", why do you think you do not treat these patients using individual or group cognitive-behaviour therapy? (Choose all that apply)

- | | |
|--|--|
| ☐ I don't treat patients with PTSD | ☐ There is minimal administrative support for me to implement it. |
| ☐ I'm not comfortable using it | ☐ I need more ongoing training to apply it with my patients |
| ☐ I haven't learned enough to try with patients | ☐ I don't think it would work with the patients I treat |
| ☐ I tried it but I ran into a problem that I couldn't resolve | ☐ Other |
| ☐ I tried it but it wasn't effective | |

4. How much training have you had in couple therapy?

- ☐ None
- ☐ Some general knowledge, but have not taken any courses or other training
- ☐ Have taken one or two courses and/or other training
- ☐ Have taken several courses and/or undergone extensive training

**** If you answered "None" →***

Skip to question 7 below

5. Do you do treat patients using couple therapy? _____ Yes _____ No

6. If "No", why do you think you do not treat patients using couple therapy? (Choose all that apply)

- ☐ I don't treat couples
- ☐ I'm not comfortable using it
- ☐ I haven't learned enough to try it with patients
- ☐ I tried it but I ran into a problem that I couldn't resolve
- ☐ I tried it but it wasn't effective
- ☐ There is minimal administrative support for me to implement it.
- ☐ I need more ongoing training to apply it with my patients
- ☐ I don't think it would work with the patients I treat
- ☐ Other

7. How much training have you had in cognitive-behavioural conjoint therapy?

- ☐ None
- ☐ Some general knowledge, but have not taken any courses or other training
- ☐ Have taken one or two courses and/or other training
- ☐ Have taken several courses and/or undergone extensive training

** If you answered "none" →*

Skip to the end

8. Do you treat couples using cognitive-behavioral conjoint therapy?

_____ Yes _____ No

9. If "No" why do you think you do not treat couples using cognitive-behavioural conjoint therapy? (Choose all that apply)

- ☐ I don't treat couples
- ☐ I'm not comfortable using it
- ☐ I haven't learned enough to try it with patients
- ☐ I tried it but I ran into a problem that I couldn't resolve
- ☐ I tried it but it wasn't effective
- ☐ There is minimal administrative support for me to implement it.
- ☐ I need more ongoing training to apply it with my patients
- ☐ I don't think it would work with the patients I treat
- ☐ I need more ongoing training to apply it with my patients
- ☐ Other

Thank you for completing this survey!

Posttraining Survey

SECTION #1: Program Evaluation

1. The trainer's preparation for the training was:

- ☐ Inadequate
☐ Adequate
☐ Good
☐ Excellent
☐ Other (please specify): _____

Please rate the following components of the presentation:

Please rate the following components of the presentation:		Poor					Very Good
2	Lectures and/or presentation of case examples	0	1	2	3	4	5
3	Written materials	0	1	2	3	4	5
4	Audiovisual materials	0	1	2	3	4	5
5	Role-playing exercises	0	1	2	3	4	5
6	Response to audience questions	0	1	2	3	4	5
7	Physical Facilities	0	1	2	3	4	5

8. Please evaluate the overall quality of the training by indicating how much you agree or disagree with the following statements. Rate from 1 to 5, with 1 = strongly disagree and 5 = strongly agree.

- a. Information was current _____
 b. Topic covered in enough detail _____
 c. Material organized logically and easy to follow _____

9. The material presented was:

☐ Too theoretical

☐ Too clinical

☐ Too research-oriented

☐ Interesting & appropriate

10. To what extent is the content of the training likely to be useful in your work? Rate on a scale of 1 to 5, with 1 = not at all and 5 = completely. _____

11. What percentage of the material presented was new to you? _____

12. Did you have an adequate opportunity to participate? ____Yes ____No

13. Was pre-presentation information (program description) accurate? ____Yes ____No

14. Did this training meet your expectations? ____Yes ____No

15. What changes, if any, would you suggest in the training concerning selection of topic, presentation format, length of presentation, etc.?

16. For each trainer please specify:

	Presentation was well organized			Presentation was appropriate to audience level of expertise			Groundwork well presented			Each aspect of topic covered in sufficient detail		
Name: _____	yes	no		yes	no		yes	no		yes	no	
Name: _____	yes	no		yes	no		yes	no		yes	no	

17. Would you recommend this training to others?

___ Yes, without reservation

___ Yes, if suggested changes were affected

___ No

___ Other (Please specify): _____

18. General Comments or Suggestions: _____

SECTION # 2: General Opinions

The following questions ask about your feelings about various types of therapy and about using new types of therapy, interventions, or treatments. "Manualized therapy, treatment, or intervention" refers to any intervention that has specific guidelines and/or components that are outlined in a manual and/or that are followed in a structured or predetermined way.

Please circle the answer that best describes the extent to which you agree with each item.		Not at all	To a slight extent	To a moderate extent	To a great extent	To a very great extent
1	Couple therapy should be offered in a treatment plan for PTSD.	0	1	2	3	4
2	Couples' problems can be treated successfully when one of the partners has PTSD.	0	1	2	3	4
3	Couple therapy is more complex to deliver than individual therapy.	0	1	2	3	4
4	General couple therapy can improve PTSD.	0	1	2	3	4
5	A PTSD-specific form of couple therapy could be a first-line treatment for PTSD.	0	1	2	3	4
6	Couple therapy is a good alternative to individual or group therapy for PTSD.	0	1	2	3	4
7	It is appropriate to have intimate partners or adult loved ones hear some details of traumatic experiences.	0	1	2	3	4

Please circle the answer that best describes the extent to which you agree with each item.		Not at all	To a slight extent	To a moderate extent	To a great extent	To a very great extent
8	Couples' problems and PTSD can be treated successfully at the same time.	0	1	2	3	4
9	Most of my patients' problems are too complex to be treated using time-limited, manual-based treatments.	0	1	2	3	4
10	Most couples' problems are too complex to be treated treat using time-limited, manual-based treatments.	0	1	2	3	4

SECTION #3: Training Interests

Please circle the answer that best describes your opinion about future training		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I would like more training in couple interventions specifically for PTSD.	1	2	3	4	5
2	I would like more training in time-limited, manual-based treatments for PTSD.	1	2	3	4	5
3	I would like additional training in...					

SECTION #4: Implementation

1. Having attended this training, how likely are you to use CBCT for PTSD with your clients in the future?

- | | |
|---|--|
| ☐ I will definitely use it | ☐ I will probably not use it |
| ☐ I will probably use it | ☐ I will definitely not use it |
| ☐ I am undecided | |

2. If you answered "probably not" or "definitely not," please check the reasons that make you less likely to use this therapy (mark all that apply).

- ☐ I am uncomfortable with the model
☐ The model is counter to my theoretical orientation
☐ I do not feel prepared to work with couples
☐ The clients I work with are mostly single

- ☐ I do not anticipate having clients who are appropriate
 - ☐ I feel I need more training
 - ☐ I am concerned with mandatory reporting issues around child/intimate partner abuse
 - ☐ I don't have time at the moment to gain competency in a new therapy
 - ☐ Deployment of one of the partners during the course of the therapy
 - ☐ Insufficient follow-up support after the training
 - ☐ Partners' mental health problems
 - ☐ Partners' unwillingness to engage in the therapy
 - ☐ Partners not wanting to hear about trauma experiences
 - ☐ Lack of support from my supervisor or clinic for this type of therapy
 - ☐ I am uncomfortable treating couples
 - ☐ Another treatment seems more appropriate for my clients (please describe)
-

3. Are there clients on your current caseload that may be appropriate for CBCT for PTSD?

- ☐ Yes ☐ No

4. How likely are you to initiate CBCT for PTSD with these clients in the next month?

- | | |
|--|--|
| ☐ Very likely | ☐ Somewhat unlikely |
| ☐ Somewhat likely | ☐ Very unlikely |
| ☐ I am undecided | |

5. Please check the issues below that might interfere with your ability to implement CBCT for PTSD with clients on your current caseload:

- ☐ I won't be able to get supervision/consultation
- ☐ My clients will not be open to it (why not?) _____
- ☐ My clients have co-occurring clinical or social issues that would complicate treatment (mark all that apply)

☐ suicidality	☐ unsupportive partner
☐ substance abuse	☐ other comorbidity
☐ poor coping skills	_____
☐ poor session attendance	

SECTION #5: Influencing factors on Clinical Practice

1. To what extent do the following factors influence your clinical practice? Rate on a scale of 0 to 6, with 0 = not at all and 6 = a great deal.

- | | |
|--|---|
| ☐ Psychological formulation | ☐ Treatment manuals |
| ☐ Current supervision | ☐ Government documents |
| ☐ Post-qualification training | ☐ Evidence based practice guidelines |
| ☐ Client characteristics | ☐ Non-professional literature such as novels |
| ☐ Client feedback | ☐ Spirituality |
| ☐ Professional training | ☐ Friends and family with psychological problems |
| ☐ Intuition/judgment | ☐ Friends and family in general |
| ☐ Things picked up along the way | ☐ Major life events |
| ☐ Peer discussion | ☐ Activities and interests |
| ☐ Personal philosophy | ☐ TV/films |
| ☐ Seminars/workshops | ☐ Alternative therapies |
| ☐ Personal therapy | ☐ Providing supervision |
| ☐ Professional guidelines | ☐ Organizational constraints |
| ☐ Theory based journal articles | ☐ Environmental limitations |
| ☐ Textbooks | ☐ Conferences |
| ☐ Research based journal articles | ☐ Providing teaching/training |
| ☐ Other journal articles | ☐ Other (please specify) _____ |
| ☐ Electronic journals and databases | |
| ☐ Other information on the internet | |

Thank you for completing this survey!

Appendix C

Please go to the following web address to view the Follow-Up Survey:

http://qtrial.qualtrics.com/SE?SID=SV_bKqbgUPcOcaaaKo

References

- Aarons, G. A. (2005). Measuring provider attitudes toward evidence-based practice: Consideration of organizational context and individual differences. *Child and Adolescent Psychiatric Clinics of North America*, 14, 255-268.
doi:10.1016/j.chc.2004.04.008
- Aarons, G. A. (2004). Mental health provider attitudes toward adoption of evidence-based practice: The Evidence-Based Practice Attitude Scale (EBPAS). *Mental Health Services Research*, 6, 61-74. doi:10.1023/B:MHSR.0000024351.12294.65
- Addis, M. E. (1997). Evaluating the treatment manual as a means of disseminating empirically validated psychotherapies. *Clinical Psychology: Science and Practice*, 4, 1-11. doi:0969-5893/97/5
- Addis, M. E., & Krasnow, A. D. (2000). A national survey of practicing psychologists' attitudes toward psychotherapy treatment manuals. *Journal of Consulting and Clinical Psychology*, 68, 331-339. doi:10.1037/0022-006X.68.2.331
- Addis, M. E., Wade, W. A., & Hatgis, C. (1999). Barriers to dissemination of evidence-based practices: Addressing practitioners concerns about manual-based psychotherapies. *Clinical Psychology: Science and Practice*, 6, 430-441.
doi:10.1093/clipsy/6.4.430
- Aiken, L. S., & West, S. G. (1991). Multiple regression: Testing and interpreting interactions. Newbury Park, CA: Sage.
- Backer, T. E., Lilberman, R. P., & Kuehnel, G. (1986). Dissemination and adoption of innovative psychosocial interventions. *Journal of Consulting and Clinical Psychology*, 54, 111-118. doi:10.1037/0022-006X.54.1.111

- Barlow, D. H. (1981). On the relation of clinical research to clinical practice: Current issues, new directions. *Journal of Consulting and Clinical Psychology*, 49, 147-155.
- Breitsenstein, S. M., Gross, D., Garvey, C. A., Hill, C., Fogg, L., & Resnick, B. (2010). Implementation fidelity in community-based interventions. *Research in Nursing and Health*, 33, 164-173.
- Carroll, K. M., Nich, C., Sifry, R. L., Nuro, K. F., Frankforter, T. L., Ball, S. A., ... & Rounsaville, B. J. (2000). A general system for evaluating therapist adherence and competence in psychotherapy research in the addictions. *Drug and Alcohol Dependence*, 57, 225-238. doi:10.1016/S0376-8716(99)00049-6
- Clarke, G. N. (1995). Improving the transition from basic efficacy research to effectiveness studies: Methodological issues and procedures. *Journal of Consulting and Clinical Psychology*, 63, 718-725. doi:10.1037/0022-006X.63.5.718
- Cohen, J. (1988). *Statistical power analysis for the behavioural science* (2nd ed.). New York, NY: Academic Press.
- Collins, S. E., Eck, S., Kick, E., Schröter, M., & Batra, A. (2009). Implementation of a smoking cessation treatment integrity protocol: Treatment discriminability, potency and manual adherence. *Addictive Behaviors*, 4, 477–480. doi:10.1016/j.addbeh.2008.12.008
- Davidson, J. R., Hughes, D., Blazer, D. G., & George, L. K. (1991). Post-traumatic stress disorder in the community: An epidemiological study. *Psychological Medicine*, 21, 713-721.

- Fixen, D. L., Naoom, S. F., Base, K. A., Friedman, R. M., & Wallace, F. (2005). Implementation research: A synthesis of the literature. Tampa, FL: University of South Florida, Louis de la Parte. Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication 231).
- Glasgow, R. E., Lichtenstein, E., & Marcus, A. C. (2003). Why don't we see more translation of health promotion research to practice? Rethinking the efficacy-to-effectiveness transition. *American Journal of Public Health*, 93, 1261–1267. doi:10.2105/AJPH.93.8.1261
- Goisman, R. M., Warshaw, M. G., & Keller, M. B. (1999). Psychosocial treatment prescriptions for generalized anxiety disorder, panic disorder and social phobia, 1991–1996. *American Journal of Psychiatry*, 156, 1819–1821.
- Gray, M. J., Elhai, J. D., & Schmidt, L. W. (2007). Trauma professionals' attitudes toward and utilization of evidence-based practices. *Behavior Modification*, 31, 732-748. doi:10.1177/0145445507302877
- Gresham, F. M. (1989). Assessment of treatment integrity in school consultation and prereferral intervention. *School Psychology Review*, 18, 37-50.
- Henry, W. P., Schacht, T. E., Strupp, H. H., Butler, S. F., & Binder, J. L. (1993). Effects of training in time-limited dynamic psychotherapy: Mediators of therapists' responses to training. *Journal of Consulting and Clinical Psychology*, 61, 441-447. doi:10.1037/0022-006X.61.3.434
- Hogue, A., Henderson, C. E., Dauber, S., Barajas, P. C., Fried, A., & Liddle, H. A. (2008). Treatment adherence, competence, and outcome in individual and family

- therapy for adolescent behavior problems. *Journal of Consulting and Clinical Psychology*, 76, 544–555. doi:10.1037/0022-006X.76.4.544
- Hunsley, J. (2000). The role of empirically supported treatments in evidence-based psychological practice: A Canadian perspective. *Clinical Psychology: Science and Practice*, 7, 269-272.
- Karlin, B. E., Ruzek, J. I., Chard, K. M., Eftekhari, A., Monson, C. M., Hembree, E. A...Foa, E. B., (2010). Dissemination of evidence-based psychological treatments for posttraumatic stress disorder in the Veterans Health Administration. *Journal of Traumatic Stress*, 23, 663-673.
- Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic stress disorder in the National Comorbidity Survey. *Archives of General Psychiatry*, 52, 1048-1060.
- Maloney, L. J. (1988). Post traumatic stresses on women partners of Vietnam veterans. *Smith College Studies in Social Work*, 58, 122-143
- Manguno-Mire, G., Sautter, F., Lyons, J. A., Myers, L., Perry, D., Sherman, M., . . . Sullivan, G. (2007). Psychological distress and burden among female partners of combat veterans with PTSD. *Journal of Nervous & Mental Disease*, 195, 144-151.
- Margison, F. R., Barkham, M., Evans, C., McGrath, G., Clark, J. M., Audin, K., & Connell, J. (2000). Measurement and psychotherapy: Evidence-based practice and practice-based evidence. *British Journal of Psychiatry*, 177, 123-130.
doi:10.1192/bjp.177.2.123

- Markowitz, J. C., Manber, R., & Rosen, P. (2008). Therapists' responses to training in brief supportive psychotherapy. *American Journal of Psychotherapy*, 62, 67-81.
- McHugh, K. R., Murray, H. W., & Barlow, D. H. (2009). Balancing fidelity and adaptation in the dissemination of empirically-supported treatments: The promise of transdiagnostic interventions. *Behaviour Research and Therapy*, 47, 946–953. doi:10.1016/j.brat.2009.07.005
- Moncher, F. J., & Prinz, R. J. (1991). Treatment fidelity in outcome studies. *Clinical Psychology Review*, 11, 247-266. doi:10.1016/0272-7358(91)90103-2
- Monson, C. M., Brown-Bowers, A., & Fredman, S. J. (2009). Cognitive-Behavioral Conjoint Therapy for Posttraumatic Stress Disorder Fidelity Measure.
- Monson, C. M., & Fredman, S. J. (in press). *Cognitive-behavioral conjoint therapy for posttraumatic stress disorder: Therapist's manual*. New York, NY: Guilford Press.
- Ogden, T., Forgatch, M. S., Askeland, E., Patterson, G. R., & Bullock, B. M. (2005). Implementation of parent management training at the national level: The Case of Norway. *Journal of Social Work Practice*, 19, 317–329. doi:10.1080/02650530500291518
- Perepletchikova, F., & Kazdin, A. E. (2005). Treatment integrity and therapeutic change: Issues and research recommendations. *Clinical Psychology: Science and Practice*, 12, 365-383. doi:10.1093/clipsy/bpi045
- Qualtrics Labs Inc. (2010). Qualtrics Research Suite (Version no. 16,787) [Computer software]. Provo, UT: Qualtrics Labs, Inc.

- Resnick, B., Bellg, A. J., Borrelli, B., DeFrancesco, C., Breger, R., Hecht, J.,...& Czajkowski, S. (2005). Examples of implementation and evaluation of treatment fidelity in the BCC studies: Where we are and where we need to go. *Annals of Behavioral Medicine*, 29, 46-54. doi:10.1207/s15324796abm2902s_8
- Riemer, M., Rosof-Williams, J., Bickman, L. (2005). Theories related to changing clinician practice. *Child and Adolescent Psychiatric Clinics of North America*, 14, 241-254. doi: 10.1016/j.chc.2004.05.002
- Rosenberg, J. I. (2006). Real-time training: Transfer of knowledge through computer-mediated, real-time feedback. *Professional Psychology: Research and Practice*, 37, 539-546. doi: 10.1037/0735-7028.37.5.539
- Rubenstein, L. V., & Pugh, J. (2006). Strategies for promoting organizational and practice change by advancing implementation research. *Journal of General Internal Medicine*, 21, S58-S64. doi:10.1007/s11606-006-0276-8
- Salloum, A., Sulkowski, M. L., Sirrine, E., & Storch, E. A. (2009). Overcoming barriers to using empirically supported therapies to treat childhood anxiety disorders in social work practice. *Child and Adolescent Social Work Journal*, 26, 259-273. doi:10.1007/s10560-009-0173-1
- Schefft, B. K., & Kanfer, F. H. (1987). The utility of a process model in therapy: A comparative study of treatment effects. *Behavior Therapy*, 18, 113-134. doi:10.1016/S0005-7894(87)80036-9
- Solomon, Z., Waysman, M., Levy, G., Fried, B., Mikulincer, M., Benbenishty, R., . . . Bleich, A. (1992). From front line to home front: A study of secondary traumatization. *Family Process*, 31, 289-302.

- Stewart, R. E., & Chambless, D. L. (2007). Does psychotherapy research inform treatment decision in private practice? *Journal of Clinical Psychology*, 63, 267–281. doi: 10.1002/jclp.20347
- Taylor, C. B., & Chang, V. Y. (2008). Issues in the dissemination of cognitive-behavior therapy. *Nordic Journal of Psychiatry*, 62, 37- 44.
doi:10.1080/08039480802315673
- Waltz, J., Addis, M. E., Koerner, K., & Jacobson, N. S. (1993). Testing the integrity of a psychotherapy protocol: Assessment of adherence and competence. *Journal of Consulting and Clinical Psychology*, 61, 620-630. doi:10.1037/0022-006X.61.4.620
- Whisman, M. A., Sheldon, C. T., & Goering, P. (2000). Psychiatric disorders and dissatisfaction with social relationships: Does type of relationship matter? *Journal of Abnormal Psychology*, 109, 803-808.