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Functional Analytic Psychotherapy as an Adjunct to Cognitive-Behavioral Treatments for Posttraumatic Stress Disorder: Theory and Application in a Single Case Design

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Abstract

Evidence-based treatments for Posttraumatic Stress Disorder (PTSD) may be enhanced by Functional Analytic Psychotherapy (FAP; Kohlenberg & Tsai, 1991; Tsai et al., 2009). As PTSD can include a variety of problems with interpersonal relationships (e.g., trust of others), manualized treatments may not afford clinicians enough time and flexibility to work on reinforcing client improvements in interpersonal functioning during sessions. Avoidance, which works to alleviate anxiety in the short-term but may lead to distress and complications in the long-term, can manifest in therapy when patients do not return after the initial sessions of treatment or when they block emotional content during targeted emotional processing work. Thus, it is important for clinicians to understand how to use the therapeutic relationship to reduce avoidance symptoms of PTSD in session and reduce dropout rates. FAP can be useful in this regard as an adjunct to efficacious cognitive-behavioral treatments of PTSD. A case study utilizing FAP after a cognitive-behavioral intervention for PTSD is discussed to present an analysis of how FAP may have contributed to client improvements in avoidance symptoms and in interpersonal relationships outside of therapy. Theory behind FAP is discussed to convey how this therapy can be a useful adjunctive treatment for PTSD.

Keywords

Functional Analytic Psychotherapy (FAP), Posttraumatic Stress Disorder, single case design, interpersonal closeness, avoidance

Posttraumatic Stress Disorder (PTSD) is an anxiety disorder resulting from the experience of a traumatic event (e.g., sexual assault, military combat, natural disaster) with resulting emotions of fear, helplessness, or horror (Diagnostic and Statistical Manual of Mental Disorders 4th edition, Text-Revision; DSM-IV-TR, American Psychiatric Association, 2000). PTSD is characterized by re-experiencing symptoms (e.g., flashbacks, nightmares), avoidance (e.g., avoiding thinking or talking about the trauma, avoiding situations that remind one of the trauma), and hyperarousal (e.g., hypervigilance, irritability). Nearly 70% of Americans have experienced a traumatic event and approximately 6.8% of the population meets criteria for PTSD (Kessler et al., 2005), with higher prevalence rates among women and combat veterans (Kulka et al., 1990; Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993; Tanielian, & Jaycox, 2008).

Cognitive-behavioral interventions have been developed to help individuals who are struggling with PTSD. The most widespread and empirically supported are Prolonged Exposure (PE; Foa, Hembree, Rothbaum, 2007) and Cognitive Processing Therapy (CPT; Resick & Schnicke, 1993). PE is an empirically supported behavioral treatment for PTSD that has been demonstrated to help alleviate symptoms of PTSD through in-vivo and imaginal exposure exercises. In-vivo exposure involves the client approaching avoided situations gradually to learn skills to cope with anxiety. Increased exposure to feared situations makes it more possible to engage those over time (i.e., habituation to evocative stimulus conditons). Imaginal exposure involves the repeated processing of the traumatic memory during therapy sessions in order to experience the trauma related feelings and thoughts that have been avoided. By repeated exposure to the feared memory and other private events, clients gain new skills in tolerating anxiety and learn ways to experience these private behaviors without avoiding. CPT is a cognitively-focused intervention that also can contain an emotional processing component where clients write about the traumatic event in detail. This allows clients to experience the natural emotions that rise from the process without engaging in avoidance coping. In addition, CPT focuses on restructuring trauma-related maladaptive thoughts about the meaning of the traumatic event, the self, others, and the world that maintain symptoms (e.g., "No one can be trusted," "Because I walked down the street with him and he raped me, I cannot keep myself safe"). While these treatments have been shown to greatly benefit those who suffer from PTSD in reducing targeted symptomatology (Chard, 2005; Foa et al., 2005; Resick, Nishith, Weaver, Astin, & Feuer, 2002), retention of clients in treatment has been a concern; approximately one-fifth of clients drop out of cognitive-behavioral treatments for PTSD (Hembree et al., 2003). In a review of dropout in studies of PTSD treatments, Schottenbauer and colleagues (2008) reported dropout as high as 50% for PE, CPT and other cognitive-behavioral interventions. Although researchers suggest symptom exacerbation after beginning imaginal exposure in PE does not lead to attrition (Foa, Zoellner, Feeny, Hembree, & Alvarez-Conrad, 2002), it is unclear why so many clients dropout

of these intensive treatments. Nevertheless it is important for clinicians and researchers to examine how to reduce dropout rates through enhanced cognitive-behavioral approaches. Strategies to accomplish this may focus on building trust between the therapist and client.

THERAPEUTIC ALLIANCE

In cognitive-behavioral interventions for PTSD, clinicians ask clients to discuss feelings and thoughts they are trying to avoid. In essence, clients are asked to approach the situations they fear the most. It seems reasonable to assume that a strong therapeutic alliance must be at the core of this type of cognitive-behavioral intervention, especially since compared to those without PTSD, individuals with PTSD report more effort strategically attempting to avoid emotional expression around others (Roemer, Litz, Orsillo, & Wagner, 2001). The therapeutic alliance can be conceptualized as the working relationship between client and therapist that allows not only compliance from the client toward suggested tasks and skills building, but an ability for the client to engage in interpersonal behaviors that may occur more typically in developed and trusted relationships (Kohlenberg & Tsai, 1998; Tsai, Kohlenberg & Kanter, 2010). The therapist simply urging the client to trust him or her, however, may elicit a variety of behaviors from the client that do not approach the feeling of trust based on the client's own learning history. Consider how these types of trust issues could emerge in-session as a male therapist encourages a female sexual assault victim to feel more comfortable around men again, or a social worker at the Veteran Affairs Healthcare System encourages a combat veteran suffering from PTSD to trust an authority figure again. When the issue of trust with others emerges between the therapist and the client, the therapeutic relationship itself can function as a microcosm related to how the client interacts with similar people outside of session, in the "real world." The client may begin to withdraw, detach, and eventually leave the relationship (i.e., drop out of therapy) just as he or she would when other relationships in their life become too intense, intimate, or difficult.

The therapeutic relationship is a major contributor to behavior change (Aveline, 2005) and a central component in PTSD treatment as recommended by the American Psychiatric Association (2004). It is possible, then, that interventions focusing on enhancing the therapeutic alliance may be beneficial for clients in cognitive-behavioral treatment for traumatic stress. Research suggests therapist warmth may be particularly important in behavioral treatments such as systematic desensitization (Morris & Suckerman, 1974) and exposure therapy (Morrison, 2010). While manualized treatments promote the use of therapist warmth and highlight the importance of the therapeutic relationship, it is possible that utilizing techniques that focus on the therapist-client relationship specifically may be beneficial with this population. Moreover, due to concerning dropout rates and non-response to treatment, Schottenbauer and colleagues (2008) suggest that researchers begin examining modifications to existing empirically supported treatments for PTSD in an effort to increase retention and promote lasting symptom relief. Augmented cognitive-behavioral therapy may allow for more time to process the role of avoidance and build up the therapeutic alliance before the difficult trauma-related material is discussed (Keller, Zoellner, & Feeny, 2010). Additionally, providing an adjunctive intervention following an empirically-supported treatment for PTSD may be beneficial in reducing persistent symptom expression.

FUNCTIONAL ANALYTIC PSYCHOTHERAPY

In an effort to prevent dropout and promote symptom reduction through a strengthened therapeutic alliance, we propose that Functional Analytic Psychotherapy (FAP; Kohlenberg & Tsai, 1991; Tsai et al., 2009), a behavioral intervention focused on the therapeutic relationship as the major vehicle of change, may be of use as an adjunct to cognitive-behavioral therapies for PTSD. FAP is an ideal potential treatment for clients diagnosed with PTSD because it provides a structure for the development of a strong and supportive therapeutic relationship. This relationship can facilitate in-vivo exposure, directly address client avoidance coping strategies, and build interpersonal repertoires that have been affected by trauma. FAP may be particularly useful for victims of interpersonal trauma (e.g., rape, intimate partner violence, or childhood sexual or physical abuse) because these traumatic events can dramatically influence how survivors develop and maintain interpersonal relationships following the experience (Kohlenberg, Tsai, & Kohlenberg, 2006). Because the trauma can involve a violation of trust in a relationship with someone that the survivor knew, survivors may question their own judgment about whom to trust in future interactions, including therapists. Developing a strong therapeutic relationship may also decrease chances of therapy dropout as clients engage in difficult exposure treatments, as they may develop the skills to discriminate the therapist as a person who has their best interests and safety at heart. Below, we describe proposed FAP guidelines for the treatment of PTSD resulting from interpersonal trauma which include clinically relevant behaviors (CRBs) associated with PTSD and the five FAP rules that guide therapy.

FAP GUIDELINES FOR TREATMENT OF PTSD

Clinically Relevant Behaviors. A major premise of FAP is that clients will express behaviors in-session that are associated with their problem outside of therapy. For clients who have developed PTSD from experiencing interpersonal trauma, these behavioral patterns may include issues with shame and self-blame, trust and intimacy, and avoidance of trauma related memories and stimuli. FAP differentiates these behavioral patterns into three categories: 1) client problems that occur in session (CRB1); 2) client improvements that occur in session (CRB2); and 3) client interpretations of behavior (CRB3). It is important to note that CRBs are determined based on the client's learning history and the function of the behavior for that particular individual instead of *a priori* knowledge of the behavior or its function (Tsai et al., 2009). That is, a CRB1 for one client can be a CRB2 for another. For example, asking for a therapist's home phone number (e.g. to contact the therapist outside of regular session time in case of an urgent issue) could be a CRB1 for a client who struggles with maintaining boundaries within relationships and a CRB2 for a client who struggles with articulating her needs to others.

A recurring issue faced by clients who have experienced interpersonal trauma is having difficulty in developing or maintaining close relationships. Having been psychologically hurt or physically injured in previous interpersonal relationships, a client may try to avoid close connection to others as a self-protective strategy. Further, this client may also have a sense of mistrust of her own internal experience and judgment after being betrayed by someone she trusted in an environment that she previously considered safe. CRB1s for this client may include (but are certainly not limited to) cancelling multiple sessions after an intimate disclosure, talking little in therapy, not conveying emotional experience connected to the trauma, threatening to quit therapy, and having difficulty in communicating needs and wants to the therapist. It is important to be aware of CRB1s because they correspond directly to the client's presenting problems and will be the target of cognitive behavioral interventions. In addition, by becoming aware of each client's particular problematic in-session behaviors, the therapist can respond to these as they occur, commenting on the function of the behaviors and how they fit in the conceptualization of the client's problems and targeted improvements. Moreover, the therapist may even anticipate with the client when these problematic repertoires may occur during difficult times in therapy to both provide a context for understanding them and to encourage an alternate, more effective repertoire (CRB2) as they begin to occur.

Improvement in therapy is marked by decreases in CRB1s and increases in CRB2s. CRB2s for the client mentioned above may include showing up to sessions consistently (especially in difficult periods of treatment), discussing vulnerable information regarding the trauma, expressing affect when distressed, telling the therapist when he or she is hurt by something the therapist said, and asking the therapist to increase session time when he or she is in a crisis. CRB2s are often rare or of low strength at the beginning of the therapy. Thus, it is important for therapists to have a clear case conceptualization in order to recognize these CRB2s as they occur to most effectively shape and reinforce them in-session. As avoidance of emotions are a hallmark symptom of PTSD (i.e., avoiding trauma-related emotions such as fear, emotional numbing, detachment from others), failing to show up for appointments (or dropping out) will likely be a CRB1 for many clients diagnosed with PTSD. Becoming aware of these behaviors as symptomatic of PTSD is covered in the manuals for both PE (Foa et al., 2007) and CPT (Resick, Monsoon, & Chard, 2008). However the time-limited structure of these therapies may not allow therapists and clients enough time to process the avoidant behaviors that occur within the therapy session. These may be a potential barrier to treatment with respect to effectively decreasing targeted symptoms and preventing dropout.

Another marker of improvement in therapy is the occurrence of CRB3s, which are discussions of the function of client behaviors and how in-session behavior relates to daily life. An example of a CRB3 may include telling the therapist that having an honest and trusting relationship with the therapist helped him or her realize that not all close attachments lead to betrayal and pain, thereby allowing the client to reach out and trust others in her life. Here, the client would be able to state the conditions under which he or she was more likely to be able to engage in a specific behavior and the consequences for doing so. For victims of childhood trauma at the hands of caregivers, persistent avoidance of emotions and detachments from others may hinder subsequent relationships as they become emotionally intense. Thus, the therapeutic relationship may be the first healthy relationship clients have experienced (Kohlenberg et al., 2006; Follette, LaBash, & Sewell, 2010). CRB3s are important in therapy because they allow clients to be aware of the contingencies influencing their behavior, which may facilitate them to alter their environment to elicit more social reinforcement from others; engendering closer, more intimate relationships.

The Five Rules of FAP in Treating PTSD. FAP theorists developed five rules of FAP to observe and reinforce clinically relevant behaviors in the therapy room with the goal of generalizing these behaviors to the outside world (Kohlenberg & Tsai, 1991). These FAP rules have been applied specifically to clients with PTSD (see Kohlenberg et al., 2006) and are reviewed below.

Rule 1: Watch for CRBs. This rule is arguably the most important rule of FAP. Therapists need to be able to recognize instances of problematic behaviors in order to punish and extinguish them. They also need to be aware of adaptive behaviors in order to reinforce and shape improvements. Further, being aware of CRBs also increases the chance that therapists will reinforce and extinguish these behaviors naturally.

The therapist's personal reaction in-session to the client's behavior can act as a barometer for CRBs to the extent that these reactions resemble how people in the client's life respond to them. Moreover, it is this specific focus on in-session content that may require an additional focus on the therapist's own repertoire. It is imperative for therapists to be aware of their own learning histories and personal biases to ensure that their reactions to the clients reflect clients' CRBs and not the therapists' personal issues. This is especially important for FAP therapists working with PTSD clients. Trauma-focused therapy can be emotionally difficult for therapists of all theoretical orientations, but particularly difficult for FAP therapists due to the intense nature of the therapeutic relationship and focus on interactions within the therapeutic environment. As such, FAP therapists may be more vulnerable to vicarious traumatization, burn-out, and sometimes less effective emotional reactions to clients, especially if the therapists have themselves been victims of interpersonal violence (Jenkins & Bard, 2002). Thus, FAP therapists need to be particularly aware of their personal histories, limits, behavioral excesses, and deficits with FAP clients. This may be especially important during trauma account readings in CPT or imaginal exposures in PE, as clients may be avoiding important content about the trauma that therapists also may wish to avoid (Morrison, 2010). Therapists need to be aware of both their own T1s (therapist problem behaviors) and the client's CRB1s and to not collude with the client's avoidance which would ultimately undermine the efficacy of the intervention. Therapists should seek self-reflection, consultation, and supervision with colleagues to bring not only an awareness of their own avoidant behaviors in session but an improved response to being present to that pain and being effective with clients in the context of that history.

Rule 2: Evoke CRBs. The nature of a FAP therapeutic relation-

ship is very evocative for clients with PTSD. This is because FAP therapists encourage trust, closeness, and honest expressions of emotions which often evokes fear, anxiety, and avoidance in clients who have been hurt in previous relationships. Disclosures of emotional reactions by therapists, done strategically to be evocative and to elicit CRBs, often bring up topics or feelings that clients with PTSD may attempt to avoid. For example, a therapist who discloses that he or she cares about the client may evoke feelings of mistrust, fear, anxiety, and shame in a client who has been sexually abused as child by a caretaker. Evoking CRBs is important in that it allows the presentation of CRB1s so that these repertoires can be changed and supplanted with CRB2s, a more effective repertoire for the client both in-session and outside of therapy.

Rule 3: Reinforce CRB2s naturally. It is particularly important for therapists working with clients who have experienced interpersonal trauma to reinforce behaviors in a genuine and natural way (Fester, 1967; 1972). Having experienced abuse, betrayal, manipulation and trauma at the hands of people they trusted, clients diagnosed with PTSD may be especially sensitive to contrived reinforcers and disingenuous behaviors from the therapist (Kohlenberg et al., 2006). For example, a client may feel invalidated if a therapist responds to an emotional disclosure regarding a traumatic experience with, "It is good that you are feeling this way" or "Thank you for telling me this." Clients may feel that the therapist does not genuinely understand them, care about them, or empathize with them. A more natural and reinforcing response would be the therapist physically leaning in, listening intently, nodding, and reflecting back the emotionality and content of the client's disclosure. Thus therapist should avoid using "pre-packaged" reactions, such as "thank you for sharing," and instead, he or she should react in ways that are more natural and appropriate to the context of the situation and the client-therapist relationship. In fact, these reactions are meant to reflect more real-world situations that others outside of therapy would give the client. By providing empathic and natural responses that sound less like a therapist and more like a person the client would interact with, the FAP intervention may have a higher likelihood of both feeling good to the client and reinforcing behavior that will generalize to daily life relationships.

Rule 4: Observe the potentially reinforcing effects of therapist behavior in relation to client CRBs. Rather than assuming that their behavior meant to be reinforcing actually is reinforcing, therapists should carefully observe whether their behavior actually increases or decreases clients' targeted responses. For example, a therapist who means to be empathic and reinforcing by saying, "It's upsetting to me that your mother treated you so poorly" may notice that the client shuts down and does not disclose any further after this therapist response. Such client withdrawal suggests the therapist's statement was actually punishing. FAP guidelines also encourage therapists to explicitly inquire about how their behavior influences the clients. Questions can include, "How did what I just say feel to you?" or "How did my reaction affect you?" It is important to be aware of the timing of these questions. Asking these questions before the conclusion of an intense in-session interaction may disrupt the interaction – making it more likely the therapist and client are talking about behavior change instead of engaging in it in vivo. These process questions should be held until after the natural conclusion of those interactions to prevent unintended disruption.

Client's recalling traumatic material will no doubt elicit some emotional response from the therapist (Wilson & Lindy, 1994); however, responding to the patient with matched negative affect predicts poor treatment responses (Safran, Muran, Samstag, & Stevens, 2002. Additionally, if therapists are drawn into the patient's maladaptive interpersonal patterns (e.g., hallmarks of PTSD such as avoiding emotional content of the traumatic memory or suppressing expression of strong emotion such as fear or love), negative outcomes or dropout may occur (Rasting & Beutel, 2005). Thus, Rule 4 is particularly important for PTSD patients as the therapist may unintentionally punish emotional expression by the client or respond aversively to the point that clients are less likely to present the material openly. A therapist's response that is the least bit disdainful when a client is discussing an interpersonal trauma such as rape may evoke shame or guilt and could lead to continued avoidance of the traumatic memory. While the therapist's response may be quite natural, it is critical to temper its expression so that it is most useful in the context of the FAP intervention.

Rule 5: Provide functional analytically informed interpretations and implement generalization strategies (Interpret and Generalize). Interpreting client behaviors in terms of its function as it relates to the client's individual learning history is an important part of FAP. For example, a client who has been physically abused by her husband could report experiencing a feeling of betrayal by her therapist when the therapist has to leave for a vacation, and the client may then threaten to quit therapy. In this case, a FAP therapist may offer the interpretation that the client is feeling abandoned by the therapist because of her past experience of being abandoned by the people she cares most about (her husband). Following Rule 5, the therapist would help the client recognize that the client may feel like leaving a relationship in contexts where she was feeling betrayed or abandoned, and that leaving the relationship would have short-term advantages, but that it would be more costly in the long run, as she would no longer have a source or intimate connection (i.e., social reinforcement). The therapist would then help the client discriminate a different response under these conditions that may have a different corresponding set of outcomes. That is, the the client can engage in a behavior that is less escape-driven or reactionary and the consequences on the therapeutic relationship would be more intimacy enhancing. In sum, Rule 5 helps clients find solutions to their problems and facilitate generalization of progress in therapy to daily life.

SINGLE CASE STUDY FOR A CLIENT WITH PTSD USING FAP AS AN ADJUNCTIVE INTERVENTION

As discussed, PTSD can include a variety of problems with intra- and interpersonal experiences (Galovski & Lyons, 2004; Monson, Taft, & Fredman, 2009). While empirically-supported treatments for PTSD appear to be most effective in reducing core symptoms of PTSD including re-experiencing, hyperarousal symptoms, and avoidance (Foa, Davidson, & Frances, 1999; Foa, Keane, Friedman, & Cohen, 2009), higher avoidance levels of emotional intimacy are often present in individuals with PTSD and are rarely targeted in treatment. Those who are more severe (i.e., those who may need treatment the most) may still benefit from treatment after manualized, time-limited treatments are concluded (Schottenbauer et al., 2008). Some traumatic events such as early childhood assault may be particularly resistant to 10 to 15-session manualized treatments (Hembree, Street, Riggs, & Foa, 2004). The following case example demonstrates how a clinical focus on those interpersonal skills and deficits that contribute to client suffering can provide significant improvement above and beyond a standard protocol for symptom reduction. Data intensive single case designs provide an opportunity to examine detailed change for interpersonal problems targeted in FAP and may create hypotheses testable with larger populations affected by a specific type of problem (e.g., Callaghan, Summers, & Weidman, 2003).

CLIENT AND THERAPIST INFORMATION

The client was a 41-year-old female veteran with PTSD symptoms related to several sexual assaults while in the military and a robbery at gunpoint. The client initially sought treatment for PTSD symptoms related to the robbery. The Clinician Administered PTSD Scale (CAPS; Blake et al., 1995; Weathers, Keane, & Davidson, 2001) at intake yielded data consistent with diagnosis of PTSD. In addition, the client also met criteria for co-morbid alcohol dependence, dysthymic disorder, features of dependent personality disorder, and bulimic behaviors. Apart from the diagnosis, the client reported long-standing existential concerns related to living life in face of death and living life with integrity (e.g., a life without secrets). A full case formulation was developed for the client using Functional Idiographic Assessment Template (FIAT; Callaghan, 2006). Information about the case formulation is provided below.

The therapist in this case (third author A.P.) was an experienced clinician with considerable expertise in treating clients using both empirically supported and manualized cognitive behavioral treatments for PTSD. The therapist received weekly supervision in FAP by an experienced FAP supervisor and researcher (second author G.M.C).

TREATMENT

This was a long-term treatment for a client with a great deal of distress. The intervention occurred in two stages. Stage 1 was a standard treatment for PTSD using cognitive-behavioral therapy, while Stage 2 represented the initiation of FAP with a focus on interpersonal difficulties and in-session responding to target behaviors. The adjunctive use of FAP following a cognitive behavioral intervention is consistent with FAP-enhanced treatments for major depressive disorder and other problems (e.g., Kanter, et al., 2009; Kanter, Schildcrout, & Kohlenberg, 2005; Vandenberghe, & Ferro, 2005).

Treatment during the first three years (Stage 1) included exposure to the client's trauma history, intensive outpatient treatment for substance abuse, and cognitive-behavioral treatment for bulimia. The client was prescribed trazodone and fluoxetine during this period. Treatment during Stage 1 was successful in reducing re-experiencing and hyperarousal symptoms of PTSD (see Figure 1). In addition, the client was successful in maintaining sobriety for 3 years and purging behavior was eliminated. At the start of year 4, the client experienced a relapse of substance abuse and reported significant isolation and detachment from others. This suggested a need for an interpersonal focus in therapy and indicated the use of FAP as an adjunctive treatment. The patient consented to the initiation of FAP and the collection of additional assessment data for the intervention. The targeted areas for therapy included increasing interpersonal closeness through disclosure of her experiences to others. From a FAP perspective, these would be understood as behavioral problems related to the contextual control of a repertoire of disclosure, escape and avoidance of that behavior, and an inability to respond effectively to others' disclosures in an interpersonal context.

In FAP, the main outcome for therapy is not simply the reduction of problematic behaviors but an increase in interpersonally effective repertoires. For this client, that means she would not

Table 1. Targeted behaviors for intervention using the FIAT system.

	Problems with under-disclosing (contextual control)	Failure to Disclose (escape or avoidance)	Failure to solicit or respond to others' disclosure (repertoire problem)
Problem responses CRB1s and Outside 1s	■ Cannot identify appropriate context to disclose ■ Social isolation related to non-disclosure	■ Engages in partial disclosure and then escapes ■ Avoids opportunities to disclose	■ Changes focus of conversation when others disclose about themselves (turns focus on self or unrelated topic)
Improved responses CBR2s and Outside 2s	■ Discriminate opportunities for disclosure ■ Increased social interaction with self-disclosure	■ Discusses both positive and negative experiences with others to build intimacy	■ Asks others what they would like or how she can be supportive ■ States appreciation for disclosure

Note: CRB1s = in-session problem behaviors. Outside 1s = outside of session problem behaviors. CRB2s = in-session improved behaviors. Outside 2s = outside of session improved behaviors.

only increase disclosure and social interactions, but she would learn to discriminate when, where, and with whom to engage in that behavior. In addition, she would develop repertoires for effectively disclosing her own experience and respond to others in a way that would allow them to know she listened and understood what they had shared, creating more opportunities of social reinforcement. A very brief summary of the case conceptualization developed for targeted behaviors is presented in Table 1 using terminology from the FIAT system. The therapist provided FAP for 9 months (once per week for 1-hour sessions) as Stage 2 treatment. The focus of the intervention was on reduction of problematic interpersonal behaviors and development of more effective pro-social behaviors.

ASSESSMENTS

The PTSD Symptom Checklist (PCL; Blanchard, Jones-Alexander, Buckley, & Forneris, 1996) was administered pre-treatment and every three months thereafter for both Stage 1 and Stage 2. The PCL is a symptom based nomothetic device that is scored with respect to symptom severity (5 indicates the client is "extremely" bothered by symptoms, 4 indicates "quite a bit," 3 "moderately," 2 "a little bit," and 1 "not at all"). Scores are presented as averages for specific symptom clusters.

In order to focus on the different aspects of interpersonal functioning, the FIAT-Q was used to monitor progress for targeted interpersonal behaviors every three months during Stage 2. The FIAT-Q consists of a series of statements using a Likert scale consisting of six options ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Higher scores indicate higher levels of these problematic behaviors. Examples from the FIAT-Q module for Disclosure include "I do not want to share things about myself with others;" "I have difficulty making conversation with people;" and "After I share something personal about myself, I downplay the importance of what I've disclosed."

The FIAT Daily Assessment (FIAT-DA) was used in the last two months of Stage 2 for monitoring experiences with interpersonal closeness to examine targeted improvements and difficulties. This is a purely idiographic template that required the client to document specific interpersonal opportunities for disclosure that were either effective or problematic. Table 1 summarizes the target areas developed in the FIAT assessment system that were then tracked with the Questionnaire and the Daily Assessments.

RESULTS

Changes in PCL. Figure 1 shows changes in Avoidance and detachment behaviors measured by PCL before and after implementation of Stage 2 FAP intervention. As can be observed, Avoidance behaviors decreased over the 9 months with FAP while Re-experience and Hyperarousal symptoms remained stable.

Changes in FIAT-Q. Figure 2 shows changes in the FIAT-Q assessment of interpersonal closeness and disclosure behaviors after implementation of FAP as plotted against changes in PCL Avoidance/Detachment symptom scores. When problems with interpersonal closeness (i.e. disclosure) decreased, so did interpersonal avoidance and detachment (see Figure 2).

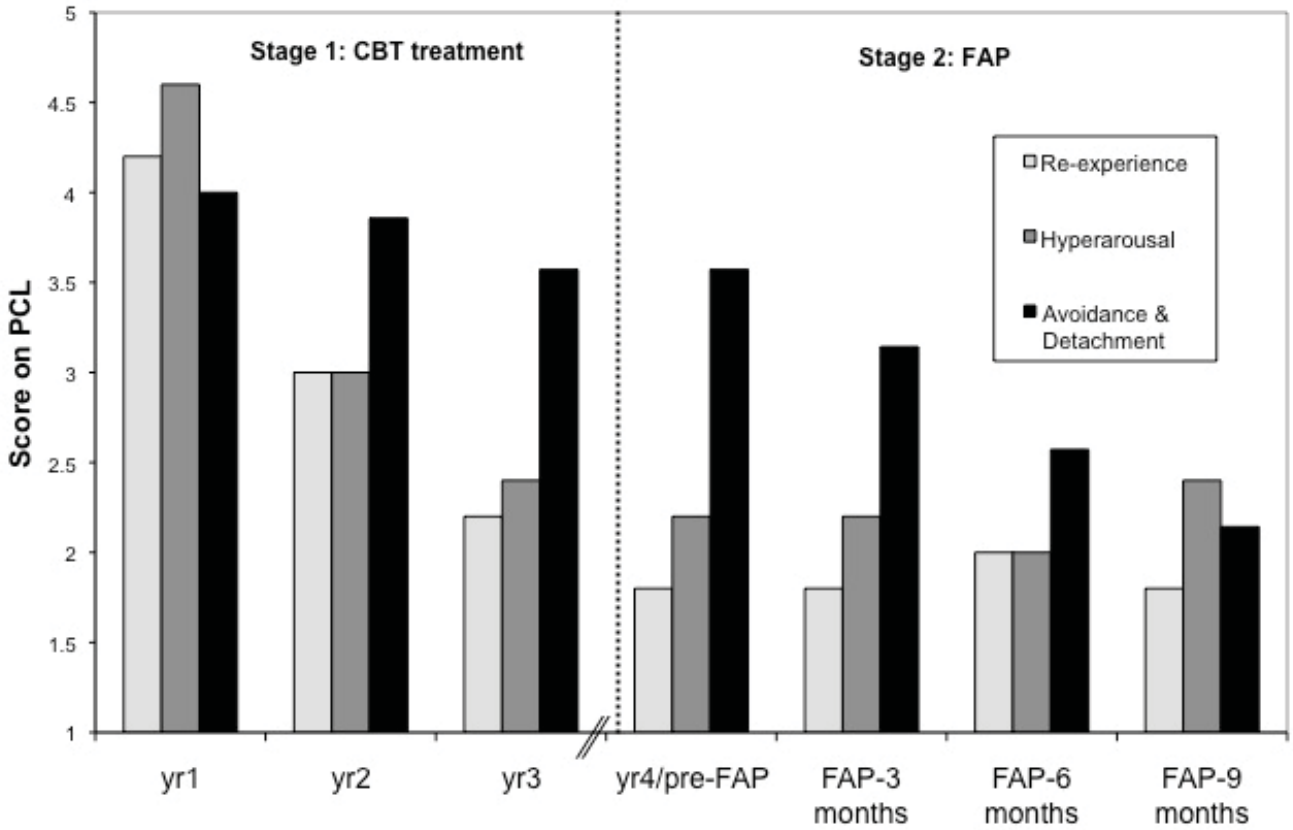

Figure 1. Changes in PCL Subscale Scores Over Time.
Note: PCL = PTSD Symptom Check List.

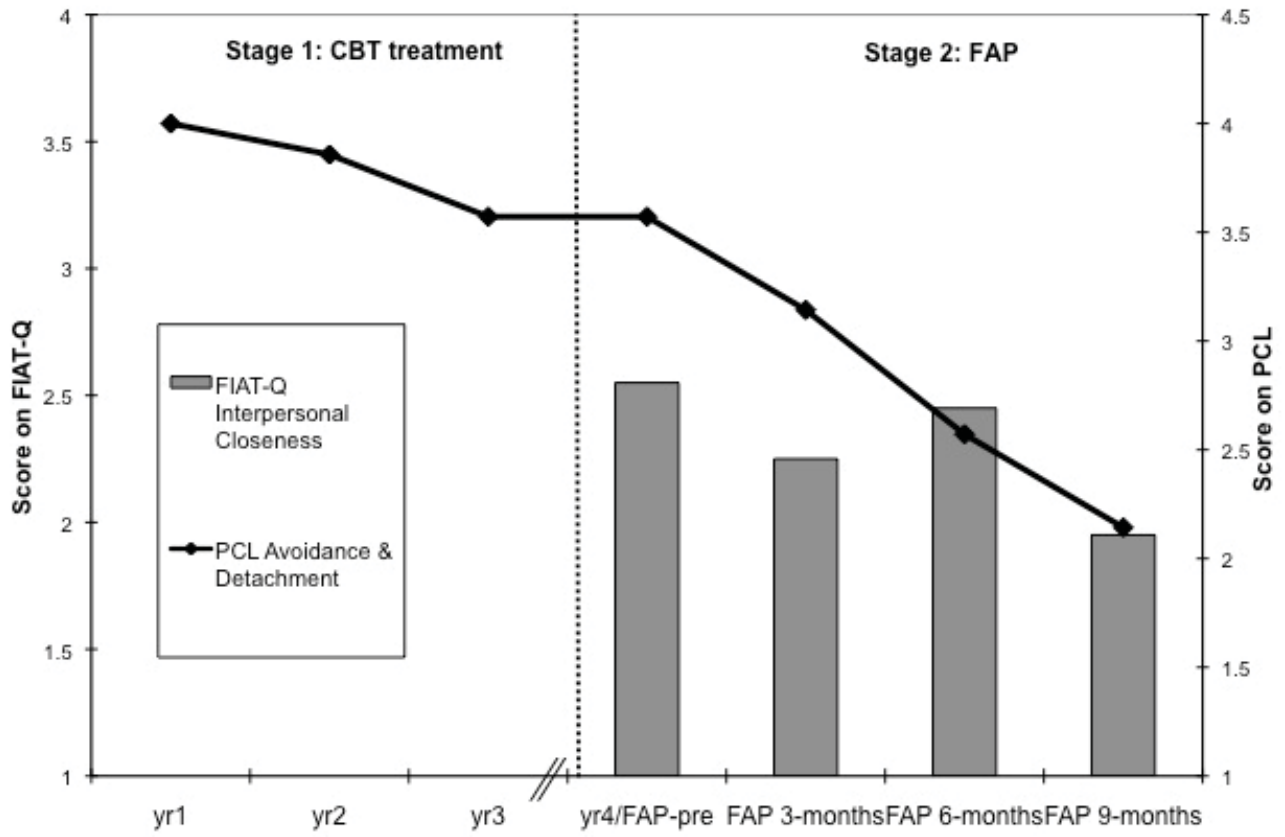

Figure 2. Changes in Targeted Areas for FAP intervention for Interpersonal Closeness and Avoidance.
Note: PCL = PTSD Symptom Checklist; FIAT-Q = Functional Idiographic Assessment Template-Questionnaire.

Target Behaviors. Figure 3 shows changes in proportions of responding for problematic and pro-social behaviors for one specific targeted domain of interpersonal behaviors of the FIAT (Disclosure). Assessment occurred daily by the client for last 2 months of treatment using FIAT-DA). The proportion of self-reported improvement and problematic target behaviors are plotted in Figure 3. These proportions are the number of reported improvements or problem behaviors for the week divided by the total behaviors reported for that week. Figure 3 shows a decrease in the proportional amount of social withdrawal and declining opportunities for self-disclosure of experience and an increase in frequency of disclosure of both positive and challenging aspects of experience. Notice that a decrease in problem behavior does not dictate that the client would necessarily improve. The client's increase in pro-social behavior of disclosing is the necessary indicator of improvement given her case formulation. Significant difficulties with disclosure can be seen in Figure 3 for Targeted Assessment 6. These were addressed directly in that session (including an aversive reaction by a person the client disclosed to), and improvements were observed in Targeted Assessment 7, where these problem behaviors for that week evidenced a floor effect for the measure.

Broad Assessment. After initiation of FAP, the client increased her overall frequency and effectiveness in social contacts. She was able to maintain complete abstinence from alcohol, she decreased utilization of health care services, she evidenced a decreased dependence on therapist, and she increased responsibility for her own choices and well-being.

DISCUSSION

This detailed single case study demonstrates the use of FAP as an adjunctive intervention to address the problematic interpersonal behaviors often found in clients who meet criteria for PTSD. The cognitive-behavioral treatment applied before FAP was effective at reducing core symptoms of PTSD (re-experience and hyperarousal), but the interpersonal problems (avoidance and detachment symptom cluster) were diminished much less so and reached plateau. Following the FAP intervention, the interpersonal aspects of the client's problems also showed a decrease on the interpersonal items of the PCL, while the other problem areas remained clinically improved. The total score on for PTSD symptom problems decreased over the course of the Stage 1 intervention, but the FAP intervention showed improvement for symptom-based problems. FAP targeted behaviors decreased over time during this intervention but show much greater variability. This can be seen with the Daily Assessments of the client's behavior. The general trend for these data is improvement, but the variability suggests a need for continued assessment of both improvement and problem behaviors. Generalizable conclusions to other clients diagnosed with PTSD cannot be drawn from a single subject design such as this. Furthermore, this was a treatment of long duration and possesses threats to internal validity that are inherent in any complex time series design. Confounding variables exist in this type of study that could have occurred during the course of the treatment, limiting our ability to make strong assertions related to causality.

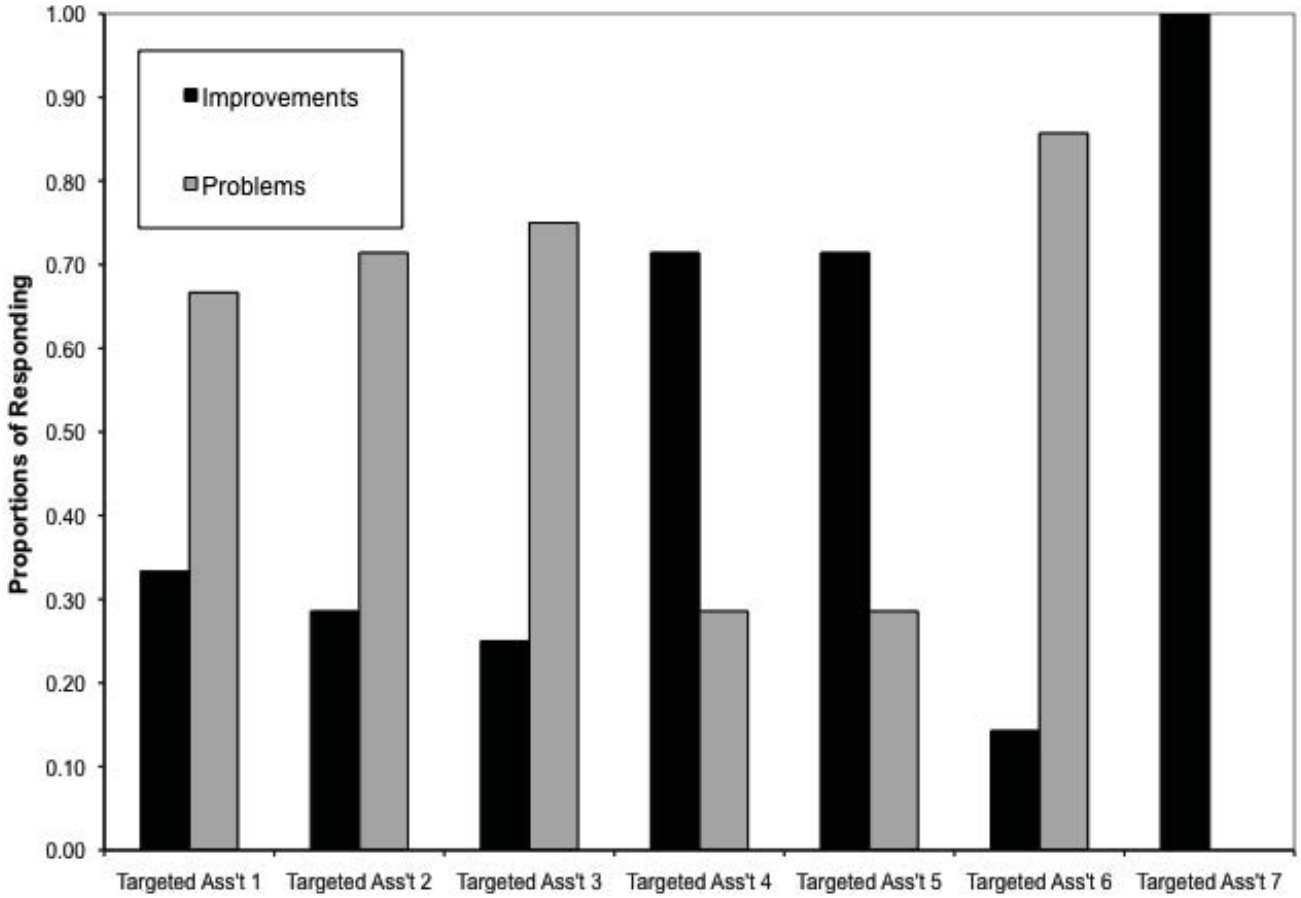

Figure 3. Changes in Proportion of Targeted Behaviors (Disclosure of experience to others) using FIAT Daily Assessments Averaged at 1 Week Intervals During Stage 2 Treatment

Note: Targeted Ass't = targeted behaviors for assessment (issues related to disclosure).

Because empirically supported treatments of PTSD may be limited in their ability to address complex interpersonal problems, this single case design supports further exploration of FAP as an adjunctive or second stage treatment much like those seen in FAP-enhanced interventions for other behavioral problems. The focus that FAP brings to interpersonal deficits helps decrease the understandable detachment and avoidance behaviors that may result from interpersonal trauma and promotes a more effective social repertoire.

CONCLUSION

Using a single case study, FAP appeared to be efficacious in reducing symptoms of PTSD related to avoidance through targeted work using the therapeutic relationship as a mechanism of change. It is theoretically possible that FAP-enhanced cognitive behavioral interventions can promote greater avoidance reduction and promote emotional closeness with the therapist that can generalize to other relationships (Kohlenberg et al., 2006). It should be noted the treatment discussed in this article was a general cognitive behavioral treatment, and although FAP has shown to be efficacious when applied to cognitive behavioral treatments for other disorders (Kanter, et al., 2009; Kanter et al., 2005; Vandenberghe, & Ferro, 2005), the therapist did not utilize a PTSD-specific cognitive behavioral therapy in this case study. It is possible effects would have been different in the first phase of treatment if either PE or CPT was used. Both have demonstrated efficacy and effectiveness in research trials but are limited by dropout rates and continued symptom expression for some clients. Thus, it will be important to examine the efficacy of FAP-enhanced PE and CPT, specifically, to determine if FAP as an adjunct to these treatments can reduce dropout rates and avoidance symptoms, promote more generalizable intimacy in relationships, and enhance trust in others. In the present case study, the client had multiple traumas (i.e., several sexual assaults, physical assault). While PE and CPT focus on one traumatic event (i.e., the DSM-IV-TR Criterion A event), FAP may be particularly useful for complex traumas with multiple events of assault, molestation, or combat (Kohlenberg et al., 2006) and for traumatic events that involve interpersonal processes.

We encourage more research with treatments that utilize FAP techniques before, during, and after cognitive-behavioral techniques such as exposure and emotional processing of traumatic content. The case study presented here incorporated FAP principles after the implementation of cognitive-behavioral techniques. It is possible that the process of therapy with the therapist (e.g., exposure to trauma-related memories in session) served to enhance the therapeutic relationship and led to symptom reduction in the later phase assessed. Thus, there is a need for research trials comparing FAP-enhanced therapies,

FAP alone, and other cognitive behavioral therapies alone. This article does not provide support for the use of FAP *prior* to an empirically-supported therapy such as PE to enhance the therapeutic relationship. It has been suggested that using the initial sessions of therapy to build trust, discuss avoidance, and solidifying the working alliance between the client and therapist may enhance empirically-supported PTSD interventions (Morrison, 2010). It is clear, however, that using FAP to focus on interpersonal repertoire problems has benefit in alleviating client distress and decreasing core PTSD symptomatology. It is hoped that the theory and single case design data provided in this paper lend credence to the treatment of PTSD with FAP, and is the beginning of an empirical line of research supporting the effectiveness of FAP for alleviating this type of human suffering.

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