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# The Effect of PTSD Symptom Severity in EFTT on In-Session Therapy Processes

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The Effect of PTSD Symptom Severity in EFTT on In-Session Therapy Processes

By

Katherine Jongsma

A Thesis  
Submitted to the Faculty of Graduate Studies  
through the Department of Psychology  
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the Degree of Masters of Arts  
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Windsor, Ontario, Canada

2014

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The Effect of PTSD Symptom Severity in EFTT on In-Session Therapy Processes

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September 12, 2014

## DECLARATION OF ORIGINALITY

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## ABSTRACT

The present study tested the hypothesis that heightened post-traumatic stress disorder (PTSD) symptom severity at pre-treatment would negatively affect therapy processes in emotion-focused therapy for complex trauma (EFTT). Archival data were utilized from an outcome study (Paivio, Jarry, Chagigioris, Hall, & Ralston, 2010). Clients (women  $n = 26$ , men  $n = 21$ ) were adult childhood abuse survivors. The PTSD Symptom Severity Interview (Foa, Riggs, Dancu, & Rothbaum, 1993) measured pre-treatment PTSD symptom severity. Therapy process variables - measured in early, middle, and late sessions containing re-experiencing procedures - included experiencing, emotional arousal, engagement with trauma material, and distress which were respectively measured by the Patient Experiencing Scale (Klein, Mathieu-Coughlan, & Kiesler, 1989), Emotional Arousal Scale-Revised (Machado, Beutler, & Greenberg, 1999), client Post-Session Questionnaire (Paivio et al., 2010), and Subjective Units of Distress (Wolpe, 1969). Heightened pre-treatment PTSD symptom severity was associated with increased peak distress (supported hypothesis) and increased emotional arousal (contrary to expectations).

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## TABLE OF CONTENTS

DECLARATION OF ORIGINALITY .....	iii
ABSTRACT .....	iv
ACKNOWLEDGEMENTS .....	v
LIST OF TABLES .....	viii
LIST OF FIGURES .....	ix
STUDY OBJECTIVE.....	1
IMPORTANCE.....	1
LITERATURE REVIEW .....	3
Nature of Complex Trauma.....	3
Treatments for Complex Child Abuse Trauma .....	8
Emotion-Focused Therapy for Complex Trauma (EFTT) .....	10
The Present Study.....	20
METHOD .....	22
Recruitment .....	23
Exclusion and Inclusion Criteria .....	23
Screening and Selection .....	23
Client Characteristics .....	24
Measures.....	24
Treatment .....	27
Therapists .....	29
Procedure for the Present Study .....	29
Data Analyses.....	34

RESULTS .....	35
Client Pre-treatment Characteristics.....	35
Data Screening and Statistical Assumption Checks.....	38
Preliminary Analyses .....	42
Primary Analyses .....	54
Summary of All Findings.....	58
DISCUSSION .....	63
Key Findings .....	63
Preliminary Analyses .....	64
Primary Analyses .....	71
Strengths of the Present Study .....	74
Limitations of Present Study.....	75
Conclusions.....	76
REFERENCES .....	77
APPENDIX.....	89
VITA AUCTORIS .....	103

## LIST OF TABLES

Table 1: Client Demographic Characteristics	36-37
Table 2: Client Characteristics	39
Table 3: Means and Standard Deviations of Process Measures Early, Middle, and Late EFTT Therapy	43
Table 4: Pearson Correlation Matrix Between Pre-Treatment PTSD Symptom Severity and Consolidated Process Variables	55
Table 5: MRA ANOVA Source Table for Pre-Treatment PTSD Symptom Severity as Predicted by Client Engagement at Early, Middle, and Late Sessions	57
Table 6: MRA ANOVA Source Table for Regressions (With Re-Experiencing Procedure Entered as a Moderator) of Pre-Treatment PTSD Symptom Severity as Predicted by Averaged Process Variables	59
Table 7: Summary of Preliminary Analyses, Hypotheses, Analyses Performed, and Findings	60-62

## LIST OF FIGURES

Figure 1: Modal Experiencing Over Early, Middle, and Late Therapy for IC and EE Groups	45
Figure 2: Modal Experiencing Over Early, Middle, and Late Therapy for IC and EE Groups	46
Figure 3: Modal Emotional Arousal Over Early, Middle, and Late Therapy for IC and EE Groups	48
Figure 4: Peak Emotional Arousal Over Early, Middle, and Late Therapy for IC and EE Groups	49
Figure 5: Client Engagement Over Early, Middle, and Late Therapy for IC and EE Groups	51
Figure 6: Average Distress Over Early, Middle, and Late Therapy for IC and EE Groups	52
Figure 7: Peak Distress Over Early, Middle, and Late Therapy for IC and EE Groups	53

## STUDY OBJECTIVE

The objective of the present study was to determine the influence of client post-traumatic stress disorder (PTSD) symptom severity at pre-treatment on in-session therapy processes (client emotional engagement with trauma material, level of arousal, depth of experiencing, and distress) in two versions of emotion-focused therapy for complex trauma (EFTT) each employing a different re-experiencing procedure.

## IMPORTANCE

Prevalence studies indicated that 38% of children in Ontario report being victims of some form of childhood abuse (MacMillan, Tanaka, Duku, Vaillancourt, & Boyle, 2013). Childhood abuse that involves repeated exposure to traumatic events is considered a type of complex trauma that is associated with a constellation of long term effects (Courtois, 2008). These effects could be more severe and multifaceted than the consequences of single incident trauma. Childhood abuse and neglect were associated with increased risk for lifetime and current PTSD (Widom, 1999). Children are at a vulnerable developmental stage, and experiences with attachment figures form the basis for how children view themselves and what they expect from others as well (Bacon & Richardson, 2001; Waldinger, Schulz, Barsky, & Ahern, 2006).

Long-term effects of complex child abuse trauma could include symptoms of PTSD, as well as anxiety, depression, interpersonal difficulties, anger, low-self esteem, and self-destructive tendencies (Fergusson, Boden, & Horwood, 2008; Springer, Sheridan, Kuo, & Carnes, 2007). PTSD symptoms, the focus of the present study, include

avoidance of trauma feelings and memories and emotion dysregulation in response to trauma memories according to the fourth, text revised edition of the *Diagnostic and Statistical Manual of Mental Disorders* (4<sup>th</sup> ed., text rev.; *DSM-IV-TR*; American Psychiatric Association, 2000) and the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (5<sup>th</sup> ed., *DSM-5*; American Psychiatric Association, 2013). There is agreement among experts that recovery from trauma requires re-experiencing and emotional processing of trauma feelings and memories; thus most effective treatments involve exposure-based procedures to facilitate emotional processing (Foa, Keane, & Friedman, 2000). However, both the avoidance and emotional dysregulation symptoms of PTSD could influence these processes in therapy, and in turn, interfere with emotional processing and recovery.

Emotion-focused therapy for complex trauma (EFTT) is an effective therapy for women and men dealing with various types of childhood maltreatment (Paivio, Jarry, Chagigiorgis, Hall, & Ralston, 2010; Paivio & Nieuwenhuis, 2001). EFTT uses two primary re-experiencing procedures – imaginal confrontation and empathic exploration – to access and process trauma feelings and memories related to abusive and neglectful others. Although EFTT was validated as an effective approach, there were limited and mixed findings concerning the influence of PTSD symptoms on therapy processes. One study of EFTT with imaginal confrontation found no effect for pre-treatment trauma symptoms on alliance quality and level of engagement during the imaginal confrontation (IC) procedure (Paivio & Nieuwenhuis, 2001). A more recent study with a subset of 30 EFTT completers (Ralston, 2006) used in the current sample compared therapy processes and therapy outcome for EFTT with two different re-experiencing procedures – imaginal

confrontation (IC) and empathic exploration (EE;  $n = 15$  each condition). Ralston's study (2006) found that EFTT with IC and EFTT with EE did not differ significantly in terms of outcome. However, they did differ in terms of processes - the IC procedure had higher levels of emotional arousal and greater depth of experiencing compared to EE and the EE procedure had higher levels of emotional engagement with trauma material compared to IC (Ralston, 2006). The present study replicated and extended the Ralston (2006) study using the entire sample of therapy completers ( $n = 21$  in EFTT with IC,  $n = 26$  in EFTT with EE) to get a clearer picture of the influence of trauma symptom severity (avoidance, hyper-arousal) on key therapy processes (i.e., client emotional engagement with trauma material, level of emotional arousal, depth of experiencing, and emotional distress) during the two different re-experiencing procedures used in EFTT. Understanding the influence of PTSD symptom severity on therapy processes could have implications for clinical practice and training in trauma-focused therapies and generate future research on how therapists successfully handle client difficulties in reprocessing trauma material.

## LITERATURE REVIEW

### **Nature of Complex Trauma**

According to the Canadian Royal Mounted Police, child abuse is defined as “any form of physical, psychological, social, emotional, or sexual maltreatment of a child whereby the survival, safety, growth, and development of the child are endangered” (“Stopping Child Abuse”, 2008). Traumatic events occur when a person witnesses or experiences an event where there is threat to life or real or perceived threat of bodily harm (Green, 1990). Experts distinguish between two types of trauma: Type I which is a

single incident, such as a natural disaster or robbery, and Type II or complex trauma which can result from prolonged or repeated trauma such as child abuse, domestic violence, or war trauma (Cohen & Hien, 2006; Van der Kolk et al., 2005). EFTT was designed for clients that experienced complex child abuse trauma.

**Prevalence of childhood maltreatment.** Prevalence studies of childhood maltreatment often use retrospective self-reports with reports of abuse/neglect often not being confirmed by other sources as accurate. However, results of retrospective studies and self-reports are generally supported by research comparing reports to corroborating evidence by police and family members (Brewin, Andrews, & Gotlib, 1993). Moreover, many experts agree that current prevalence rates in community samples underestimate child abuse because child abuse often is not reported (Putnam, 2003).

Most studies indicated that childhood maltreatment is quite prevalent in the community and is a significant issue given that it can result in long term negative effects. The prevalence of childhood physical abuse ranged from 28% in Australia to 19% in England and the United States (Australian Institute of Health and Welfare, 2004; U.K. Department for Education and Skills, 2004; Seedat, Nymai, Vythilingum, & Stein, 2004; U.S. Department of Health and Human Services, 2003). The prevalence of childhood sexual abuse was 24-30% in Ireland, 3-17% in New Zealand, 22-21% in the UK, 18% in South Africa, and 14% in Kenya (Cawson, Wattam, Brooker, & Kelly, 2000; Fergusson, Horwood, & Lynskey, 1996; McGee, Garavan, de Barra, Byrne, & Conroy, 2003; Seedat, Nymai, Vythilingum, & Stein, 2004). The prevalence of childhood emotion neglect was reported as 14.7% and the prevalence of childhood physical neglect as 9.9% in California, United States (Dong et al., 2004). The prevalence of worldwide childhood

emotional abuse was estimated at 36.2% with no effect of gender (Stoltenborgh, Bracermans-Kranenburg, Alink, & Ijzendoorn, 2012). In an Ontario community sample of children, the prevalence of physical abuse for boys was 33.7% and for girls was 28.2% (MacMillan, Tanaka, Duku, & Vaillancourt, 2013). In the same study, 8.3% of male children and 22.1% of female children endorsed experiencing sexual abuse (MacMillan et al., 2013).

Prevalence rates for childhood abuse in clinical samples were as high as 90% (Pilkington & Kremer, 1995). A review by Read, van Os, Morrison, and Ross (2005) found that in clinical samples with psychosis the prevalence for sexual abuse was 48% for girls and 28% for boys and the prevalence for physical abuse was 48% for girls and 50% for boys. In a prevalence study with patients with severe mental disorders, which included schizophrenia, bipolar disorder, and schizoaffective disorder, 48% of patients reported experiencing some kind of childhood abuse (Alvarez et al., 2011). Similarly, there were strong associations between a history of childhood abuse and a number of psychological disturbances among therapy seekers (Mullen, Martin, Anderson, Romans, & Herbison, 1996). In a study that case matched adult subjects that experienced childhood abuse or neglect with adult subjects that were not abused or neglected in childhood on the basis of age, race, gender, and socio-economic status, adults that were maltreated in childhood were 1.75 times more likely to develop PTSD than the matched comparison subjects (Widom, 1999).

**Long term consequences of childhood maltreatment.** Repeated exposure to trauma in the context of attachment relationships, could lead to a constellation of disturbances. Although not all survivors of child abuse experience PTSD, there is

evidence that childhood abuse increases the prevalence of PTSD. For instance, Widom (1999) reported that 30.6 to 37.5% of child abuse survivors met criteria for lifetime PTSD. In a meta-analysis on the effects of childhood abuse, Paolucci, Genuis, and Violato (2001) reported that the positive association between child abuse and higher rates of PTSD has an unweighted effect size of 0.40. Some researchers believed that PTSD was the optimal description of the symptoms that occur in victims of prolonged childhood abuse (Rowan & Foy, 1993). According to the fourth text revised version of the *Diagnostic and Statistical Manual of Mental Disorders*, there are three clusters of PTSD symptoms: hyper-arousal, intrusion, and avoidance (American Psychiatric Association, 2000). Despite the prevalence of PTSD symptoms among victims of childhood abuse, some researchers argued that the PTSD diagnosis did not adequately describe the complex disturbances that result from childhood abuse and neglect. Herman (1992), for instance, referred to the complex clinical presentation of this population as complex PTSD or Disorder of Extreme Stress Not Otherwise Specified (DESNOS; American Psychiatric Association, 2000; Courtois & Ford, 2009). This constellation of disturbances could include PTSD, anxiety, depression, interpersonal difficulties, self-related difficulties (esteem, confidence, and identity), alexithymia (poor emotional awareness), poor emotional regulation, personality disorders, and self-destructive tendencies (Briere, 1992; Briere & Runtz, 1988; Herman, 1992; Malinosky-Rummel & Hansen, 1993; Neumann, Houskamp, Pollock, & Briere, 1996; Paivio & McCullough, 2003; Zlotnick, Mattia, & Zimmerman, 2001). A history of childhood sexual abuse was found to contribute to the later development of deliberate self-harm (Gladstone et al., 2004).

The present study used symptoms of posttraumatic stress disorder to measure trauma symptom severity. Posttraumatic stress disorder (PTSD) was defined by *DSM-5* as the development of characteristic symptoms after experiencing a traumatic event or repeated traumatic events (American Psychiatric Association, 2013). A trauma was defined as an event that involves actual or threatened injury or death that evoked feelings of helplessness and terror (American Psychiatric Association, 2013). As noted previously, there were three PTSD symptom clusters in the *DSM-IV-TR*: intrusive recollections, avoidance symptoms, and hyper-arousal symptoms (American Psychiatric Association, 2000). Intrusive recollection symptoms included flashbacks of the traumatic event/events, frequent nightmares, and distress and reactivity when environmental cues were reminiscent of the trauma. Avoidance symptoms included feeling distant from others, experiencing memory gaps associated with the traumatic events, and avoidance of stimuli associated with trauma. Hyper-arousal symptoms included increased arousal (alertness), outbursts of anger, difficulty sleeping, and hyper-vigilance (American Psychiatric Association, 2000). Additional associated features of PTSD could include guilt and cognitive distortions, such as victims feeling as though they must be deserving of abuse because they are bad people (Lee, Scragg, & Turner, 2001). These additional associated symptoms are represented in the updated *DSM-V*, as there are four PTSD symptom clusters, which include re-experiencing, avoidance, negative cognitions and mood, and arousal (American Psychiatric Association, 2013).

Treating PTSD is thought to have challenges, including high comorbidity with other psychological disturbances (substance abuse, depression, etc.), low participation in exposure techniques, risk of re-traumatization through exposure to overwhelming

feelings and memories, high therapy dropout rates, and vicarious traumatization of therapists (Jenkins & Baird, 2002; McFarlane & Yehuda, 2000). Thus, there is recognition that PTSD symptoms can negatively influence the process of therapy and subsequently the therapy outcome. For this reason, the present study focused on the influence of PTSD symptoms on EFTT processes. This understanding could aid future therapists in tailoring therapy for optimal client outcome depending on the client's trauma symptom severity.

### **Treatments for Complex Child Abuse Trauma**

There are diverse approaches to treating the effects of complex childhood abuse, only some of which have been empirically evaluated.

Cognitive-behavioural therapy (CBT) approaches focus on maladaptive emotions, behaviors, and cognitive processes with clear and goal oriented procedures (Seidler & Wagner, 2006). The key elements of CBT for trauma include imaginal exposure, psycho-education, skills training (e.g., anxiety or anger management), and cognitive restructuring. There are specific types of CBT that are specialized for complex trauma. For instance, cognitive processing therapy for sexual abuse (CPT-SA) focuses on restructuring maladaptive beliefs (e.g., belief that victimized self is to blame for abuse) and mental structures (schemas) using group and individual modalities (Chard, Weaver, & Resick, 1997). A study by Chard (2005) found that in a randomly assigned community sample, CPT-SA ( $n = 28$ ) was more effective than minimal attention ( $n = 27$ ) in reducing trauma symptoms. Another CBT approach involves skills training in affect and interpersonal regulation (STAIR) followed by traditional CBT exposure (Cloitre et al., 2010). Results of one randomized controlled study (RCT) of 104 women from the

community found that that the STAIR method (16 weekly sessions) was more effective than basic CBT exposure therapy in terms of PTSD symptom reduction and remission (Cloitre et al., 2010). Another CBT approach, “Seeking Safety” (Najavits, Weiss, Shaw, & Muenz, 1998), is specialized for treating people with PTSD and substance abuse and focuses on emotion regulation strategies using basic language, education, praise, and accountability. Results of one study indicated significant improvement in PTSD and substance abuse symptoms for the seeking safety treatment group ( $n = 17$ ) compared to a no treatment control ( $n = 10$ ) (Najavits, Weiss, Shaw, & Muenz, 1998).

Psychodynamic approaches generally address unconscious processes to reduce psychological tension (Schottenbauer, Glass, Arnkoff, & Gray, 2008). This theoretical model posits that child abuse can result in fragmentation of consciousness and repression of the ‘pieces’ of consciousness that contain the child abuse. To reduce PTSD symptoms interpersonal psychodynamic therapy explores the trauma experience, identifies problematic unconscious relational themes, and helps the client to understand the meaning of the trauma in their lives (Krupnick, 2002). For instance, Group Interpersonal Psychodynamic Psychotherapy (IPT) is for women with PTSD with a history of childhood sexual abuse (Krupnick, Green, Miranda, & Stockton, 2008). One study found that IPT reduced PTSD and depression symptom severity more effectively than a wait list control (Krupnick et al., 2008). Similarly, attachment based therapies for child abuse trauma focus on the interpersonal difficulties that result from insecure attachment relationships (Waldinger, Schulz, Barsky, & Ahern, 2006). Approaches such as Relational Treatment for Complex Trauma, focus on reducing PTSD symptoms in conjunction with developmental and relational issues (Pearlman & Courtois, 2005).

In contrast to the above approaches, emotion-focused therapy for complex trauma (EFTT; Paivio & Pascual-Leone, 2010) is an evidence-based experiential approach for men and women with histories of different types of childhood abuse. Processes in EFTT were the focus of the present study and the treatment model is described below.

### **Emotion-Focused Therapy for Complex Trauma (EFTT)**

EFTT was based on current experiential therapy theory and research (Greenberg & Paivio, 1997; Greenberg, Rice, & Elliot, 1993; Paivio & Greenberg, 1997) which in turn drew on current emotion theory and affective neuroscience (Badenoch, 2008; Frijda, 1986), and additionally integrated trauma and attachment theories (Bowlby, 1988; Briere & Scott, 2012; Courtois & Ford, 2009; Herman, 1992).

Experiential therapy theory (Greenberg & Paivio, 1997; Greenberg, Rice, & Elliot, 1993) emphasizes the process of focusing on and exploring internal subjective experience (feelings and meanings) and forming new meaning from this processing (Paivio & Pascual-Leone, 2010). The Experiencing Scale, which was used in the present study, operationalizes the construct of in-session client experiencing (EXP Scale; Klein, Mathieu, Gendlin, & Kiesler, 1969; Klein et al., 1986). Accordingly, low levels of experiencing include impersonal or superficial references to self. Moderate levels of experiencing contain more elaborate descriptions of feelings and experiences. High levels of experiencing include exploration of personal meaning and feelings, leading to greater self-understanding and problem solving. Research on client experiencing has shown that across approaches, including EFT, high levels of experiencing were associated with positive client change (Castonguay, Goldfried, Wiser, Rause, & Hayes, 1996; Kiesler, 1971; Pos & Greenberg, 2007; Wiser & Goldfried, 1993; Robichaud, 2004). Moderate

emotional arousal was required for deeper experiencing to occur, as emotions must be involved in the experiencing process but must not be so intense that they overwhelm the person (Greenberg & Foerster, 1996).

Current experiential therapy theory also draws on emotion theory and research which views emotions as an adaptive orienting system and a source of information that guides adaptive functioning (Damasio, 1999; Frijda, 1986; Lang, 1995; LeDoux 1996; Plutchik, 1986). Emotions provide information about internal states, thought patterns, and coping mechanisms. This information is embedded in emotion structures or schemes, and activated emotions access this structure and embedded information (thoughts, action tendencies, needs, memories, and perceptions). Once an emotion is activated the associated network of information or meaning can be explored and modified (Greenberg & Paivio, 1997; Greenberg & Safran, 1987). From a behavioral perspective, this is similar to the construct of “emotional processing” central to recovery from trauma (Foa, Huppert, & Cahill, 2006).

The general model of EFT specifies different types of emotions and emotional processing difficulties (Greenberg & Paivio, 1997). First, primary adaptive emotions are the immediate response to environmental stimuli that guide adaptive functions, for example, responding to a dangerous situation with fear or sadness at loss. The difficulty in therapy typically is avoidance so adaptive information is not available. Second, EFT defines maladaptive emotions which can be primary, secondary, or instrumental (Greenberg & Paivio, 2003). Primary maladaptive emotions are conditioned over-generalized responses to a stimulus, such as conditioned fear of stimuli reminiscent of the trauma event in PTSD. Maladaptive secondary emotions are secondary to maladaptive

cognitions (e.g., guilt about being mentally ill observed in PTSD, depression, and anxiety) or defensive emotions covering primary adaptive emotions (e.g., fear of anger or anger following fear; Greenberg & Paivio, 1997). Instrumental emotions serve a specific purpose or need. An example of a maladaptive instrumental emotion is feeling sad and depressed to garner sympathy and attention from others.

Another distinguishing feature of EFT is a marker-driven approach to intervention, that is, specific interventions are designed to address specific emotional processing difficulties as they emerge in session (Greenberg & Paivio, 1997). For example, maladaptive secondary emotions like guilt about feeling angry at a parent are acknowledged by the therapist and explored, and then the focus is put on accessing the underlying adaptive primary emotions (i.e., anger) and associated information or meaning.

Finally, EFT breaks down the construct of emotional processing into four different types of emotional change processes that are not necessarily sequential - awareness, regulation, reflection, and transformation (Greenberg & Pascual-Leone, 2006). The first emotional processing step in therapy is the promotion of emotional awareness. The therapist also must facilitate the client in developing the ability to regulate their emotion, so that the client can process the trauma without becoming emotionally overwhelmed (Greenberg & Pascual-Leone, 2006). By helping the client to verbally symbolize their emotional experience the therapist can encourage clients to reflect on their feelings and associated meanings. The final emotional change process involves the transformation of one emotion to another. For example, maladaptive fear can

be transformed by accessing primary adaptive anger at violation resulting in self-empowerment (Paivio & Pascual-Leone, 2010).

**EFT applied to complex trauma (EFTT).** EFTT (Paivio & Pascual-Leone, 2010) includes the above principles applied to clients with complex trauma and additionally includes common factors across treatments for complex PTSD (Briere & Scott, 2012; Courtois & Ford, 2009; Herman, 1992). These common elements are promoting safety (within and outside of sessions), emotional processing and exposure, and reducing self and relational difficulties. Safety within the therapeutic setting is required by the client to disclose and explore trauma material. Emotional processing and exposure is required to access trauma memories and feelings in order to reduce trauma symptoms and develop new meaning. Finally, all approaches address current self and relational difficulties that stem from negative attachment relationships.

EFTT also has a number of distinctive features. First, it was developed for both men and women dealing with childhood sexual, physical, and emotional abuse as well as emotional neglect in contrast to most other approaches that focus on female sexual abuse (Paivio & Pascual-Leone, 2010). Second, therapy focuses on resolving past issues with perpetrators of abuse and/or neglect (usually attachment figures) in contrast to most other approaches that focus on current symptoms and problems in functioning. Third, EFTT is based on an empirically-verified model of the course of resolving these issues utilizing a Gestalt-derived empty-chair method (Greenberg & Foerster, 1996). The stages in the process that differentiated clients that resolved past issues from those that did not are emotional expression, entitlement to unmet needs, and changed perceptions of self and other. This could involve the perception of the abuser changing from powerful and

controlling to sick and weak or the perception of self changing from helpless and worthless to empowered and worthwhile (Paivio & Pascual-Leone, 2010). This model was modified to include more explicit trauma work and more work on reducing self-related difficulties (fear, avoidance, shame) that are typical of complex trauma (Paivio & Pascual-Leone, 2010).

The posited mechanisms of change in EFTT are the therapeutic relationship and emotional processing (Paivio & Pascual-Leone, 2010). The alliance with the therapist provides safety and a corrective interpersonal experience (Paivio & Pascual-Leone, 2010). In this way the client can feel safe to disclose their trauma narrative. The therapist can provide healthy empathic responses to the client's experiences, which can serve as a corrective example for healthy interpersonal support that was absent in early attachment relationships. Emotional processing involves accessing the trauma memories and associated emotions. Adaptive information from previously inhibited adaptive emotions (e.g., sadness about deprivation and loss, anger at their violation) can be used to help change maladaptive emotion (e.g., fear, shame) and associated meaning. This is the process of emotional transformation as described above (Greenberg & Pascual-Leone, 2006).

***EFTT interventions.*** The primary interventions in EFTT are empathic responding and promoting client in-session experiencing. Advanced empathic responding to client feelings and needs fosters interpersonal trust and disclosure, increases awareness and acceptance of feelings, enhances self esteem and interpersonal functioning, and improves emotional regulation (Paivio & Laurent, 2001). Promoting experiencing involves helping the client to attend to and explore traumatic experiences and construct a new view of self,

others, and traumatic events in this process. Empathic responding and promoting experiencing are the basis of all therapeutic tasks and procedures including the two primary exposure-based procedures used in EFTT. These are “imaginal confrontation” of perpetrators in an empty-chair and “empathic exploration” of trauma material solely in interaction with the therapist (Paivio & Pascual-Leone, 2010).

Imaginal confrontation (IC) used in the standard version of EFTT encourages the client to imagine the trauma perpetrator sitting in an empty chair adjacent to them and to express previously restricted feelings, needs, and thoughts directly to this imagined other (Paivio et al., 2010; Paivio & Pascual-Leone, 2010). This method is quite evocative and can quickly access trauma related processes, including avoidance and dysregulation, so that they are available for subsequent exploration (Paivio et al., 2010).

Paivio and Nieuwenhuis (2001) found that 20% of clients declined to participate in IC, so empathic exploration (EE) was developed as a potentially less evocative and stressful re-experiencing procedure. EE is based on the same intervention principles and model of resolution as IC, but in EE the client does not imagine the perpetrator in an empty chair. Instead, the client is encouraged to imagine the perpetrator in their “mind’s eye” and express their evoked feelings and thoughts to the therapist, rather than to the imagined other (Paivio & Pascual-Leone, 2010). In an EFTT outcome study comparing therapy outcome for subjects randomly assigned to IC or EE, no differences were found between IC and EE in the degree positive client change (therapy outcome), and EE had lower drop-out rates than IC (7% compared to 20% for IC; Paivio et al., 2010). In Ralston’s study (2006) with a subset of therapy completers ( $n = 15$  in each condition),

there were lower levels of emotional arousal in EE compared to IC, which further support EE as a less stressful procedure.

Both IC and EE interventions are typically introduced in session four after establishment of a safe therapeutic relationship. Both of these methods encourage the client to re-experience trauma memories, experience emotions associated with the trauma, and emotionally explore and resolve relationships with perpetrators. Thus both re-experiencing procedures integrate interpersonal and exposure principles (Paivio & Pascual-Leone, 2010).

**Research on EFTT.** EFTT is an evidence-based, manualized, semi-structured treatment (Paivio & Nieuwenhuis, 2001; Paivio & Pascual-Leone, 2010). EFTT was validated for the treatment of male and female victims of physical, emotional, or sexual abuse or neglect (Paivio et al., 2010; Paivio & Nieuwenhuis, 2001). There are two key outcome studies that supported EFTT as an effective therapy for childhood maltreatment. First, a study by Paivio and Nieuwenhuis (2001) compared therapy outcome and process between adult survivors of childhood maltreatment in an immediate or delayed EFTT treatment group. The first 22 admissions were in the immediate therapy group and the next 24 formed the delayed therapy group. The clients in the delayed therapy condition showed minimal improvements during the wait period, whereas the clients in the immediate therapy condition showed significantly greater improvements in multiple domains (symptomatology, self-esteem, interpersonal difficulties, resolution of issues with perpetrators) after therapy (Paivio & Nieuwenhuis, 2001). The delayed treatment groups subsequently demonstrated comparable improvements to the immediate treatment group. In a more recent randomized controlled trial, Paivio and colleagues (2010)

compared the therapy outcome for the two re-experiencing procedures of EFTT: evocative empathy ( $n = 25$ ) and imaginal confrontation ( $n = 20$ ). Over the duration of therapy, both EFTT conditions resulted in significant improvements in eight outcome domains, and there were no significant differences between therapy conditions (Paivio et al., 2010).

Process studies also support the posited mechanisms of change (alliance, arousal, experiencing, and emotional engagement with trauma material) in EFTT (Holowaty, 2004; Ralston, 2006). The alliance in EFTT is defined in terms of a secure attachment bond and agreement on treatment goals and tasks (how the goals will be accomplished). Clients in EFTT who rated their relationship with their therapist higher on the Working Alliance Inventory (Horvath & Greenberg, 1989) had better outcome (Paivio & Patterson, 1999).

Arousal refers to the degree of alertness or emotional intensity. Theoretically, moderate levels of arousal are optimal for experiencing and good therapeutic outcome (Paivio & Pascual-Leone, 2010). If a client has low arousal, emotion memories are not activated or available for exploration and change. If a client has very high arousal, she/he is too overwhelmed to process emotions and form new meaning. In EFT in general, studies found a positive relationship between emotional arousal/expression and positive outcome (Greenberg & Foerster, 1996; Greenberg & Malcolm, 2002). In EFTT in particular, clients identified therapeutic events that had higher levels of emotional arousal as more helpful compared to researcher defined control events (Holowaty & Paivio, 2012). Ralston (2006) also found that higher arousal predicted better outcome in EFTT

with EE and associations between arousal and outcome approached significance in EFTT with IC.

Experiencing is the process of focusing on and exploring internal subjective experience (feelings and meanings) and forming new meaning from this processing (Klein et al., 1986; Paivio & Pascual-Leone, 2010). Higher levels of experiencing in early EFTT sessions contributed to good client outcome in terms of improved resolution and reduced trauma symptoms and interpersonal difficulties (Robichaud, 2004). Ralston (2006) also found significant associations between higher levels of experiencing and better outcome in both versions of EFTT.

Another process dimension relevant to trauma exploration and the present study is the construct of emotional engagement with trauma material. Client emotional engagement with trauma material during IC/EE involves the process of imagining, elaborating, and emotionally responding to imagined others in IC/EE (Ralston, 2006). There are three dimensions of client engagement: psychological contact with the imagined perpetrator, participation in the intervention process (spontaneous elaboration), and emotional expression and arousal (Paivio & Nieuwenhuis, 2001). Both observer-rated client engagement from objective coders and self-reported client engagement during IC and EE were associated with some dimensions of change (Chagigiorgis, 2009). Additionally, Paivio and colleagues (2010) reported lower levels of client engagement for EFTT dropouts. It is likely that severe PTSD symptoms of avoidance or hyper-arousal may reduce client engagement and increase distress from confronting trauma material during IC/EE and this could contribute to drop-out.

In addition to utilizing observer-rated arousal and experiencing as an indication of key processes in therapy, subjective client distress, rated after each therapy session, is an efficient measure of the intensity of disturbance or distress in therapy. Client distress measured on the SUDS has frequently been used in CBT research on trauma (i.e., Jaycox, Foa, & Morral, 1998). Jaycox and colleagues (1998) found that clients with patterns characterized by initially high subjective distress and high habituation (reduced distress) had better therapy outcome compared to clients characterized by initially high distress with no habituation or characterized by initially low distress with no habituation. Based on this finding it seems that the gradual reduction of distress over therapy duration is an important element in good therapy outcome. Ralston (2006) examined distress (SUDS) over the course of therapy in for a subset of the sample in the present study, and she found no differences in distress between IC and EE.

***PTSD and EFTT.*** Previous EFTT studies found a decrease in PTSD diagnoses following EFTT. In Paivio and colleagues' (2010) study, 62.2% of clients met diagnostic criteria for PTSD before therapy. After EFTT, 15.6% of clients met PTSD diagnostic criteria. A PTSD diagnosis could be seen as an arbitrary cut off. Dichotomizing PTSD into clinical and non-clinical levels does not adequately describe the symptoms present and the symptom severity. There were mixed results on the effects of PTSD symptom severity on EFTT process and outcome. For instance, results of one study of EFTT with imaginal confrontation ( $N = 37$ ; Paivio & Nieuwenhuis, 2001) indicated that higher pre-treatment PTSD symptom severity was associated with less resolution of abuse issues and less improvement in self esteem at post-test. However, regarding the effect of PTSD symptoms on therapy processes in EFTT, Paivio and Nieuwenhuis (2001) reported no

effect of pre-treatment trauma symptoms ( $N = 37$ ) on alliance quality and observer-rated level of engagement with trauma material during the IC procedure. On the other hand, results of a more recent study comparing the two versions of EFTT ( $N = 45$ ; Paivio et al., 2010) found that in the less stressful evocative empathy (EE) condition more severe pre-treatment PTSD symptoms were associated with better outcome, that is, higher post-treatment self-esteem improvements. There was no significant effect found for pre-treatment PTSD symptom severity on outcome in the imaginal confrontation (IC) condition. Given that outcome results for the sample of 45 therapy completers (Paivio et al., 2010) indicated no negative effects of PTSD diagnosis before treatment on outcome, therapists likely addressed these difficulties with in-session processes over the course of therapy. However, to date, no studies have examined the effects of PTSD symptom severity on key therapy processes in the full sample of 45 clients who completed EFTT with IC and EFTT with EE. The present study analyzed the effect of pre-treatment PTSD symptom severity on therapy processes during both re-experiencing procedures to explore the nuances of how PTSD symptomology affects therapy processes over the course of therapy.

### **The Present Study**

Due to the high prevalence of child abuse history in community and clinical samples, there is a need to understand the factors that contribute to successful therapy (MacMillan, Tanaka, Duku, Vaillancourt, & Boyle, 2013; Pilkington & Kremer, 1995). Experts agreed that emotional engagement with trauma memories (re-experiencing, exposure) is essential for emotional processing and recovery (Littrell, 1998). However, confronting trauma material is stressful and severe PTSD symptoms of avoidance and

hyper-arousal (common long-term effects of complex trauma) can interfere with engagement in exposure-based procedures, contribute to drop-out, and limit recovery (Paivio & Pascual-Leone, 2010). There has been limited research on the influence of PTSD symptoms on processes during these procedures. The present study aimed to evaluate the influence of PTSD symptom severity on key EFTT processes particularly during client exploration of trauma material during re-experiencing procedures (IC and EE). Given that clients with severe affect dysregulation problems were excluded from the Paivio and colleagues' (2010) outcome study (see Methods section below) and thus the present sample, it is reasonable to assume that severe PTSD in the present sample would be associated primarily with avoidance. Moreover, since theory and research suggest that emotional arousal is necessary for emotional processing and change (Holowaty & Paivio 2012; Jaycox et al., 1998; Paivio & Pascual-Leone, 2010; Ralston, 2006), it was thought that more severe of PTSD symptom severity in this sample would be associated with lower levels of emotional arousal during trauma exploration, thus indicating a negative influence on therapy processes.

The EFTT procedures used to explore trauma feelings and memories were imaginal confrontation (IC) and empathic exploration (EE). Based on EFTT theory, EE was developed as a less evocative but otherwise identical alternative to IC, so it was thought that IC would have higher emotional arousal than EE over the course of therapy, which is consistent with Ralston's findings (2006) with a portion of the sample.

The present study used archival data from the comparative outcome study by Paivio and colleagues (2010) to investigate how pre-treatment PTSD symptom severity influenced therapy process. The present study replicated and extended Ralston's (2006)

study by using Ralston's process ratings on the experiencing (EXP) and emotional arousal (EAS-R) process measures for 30 of the therapy completers and added an additional 17 clients who completed therapy after 2006. Thus the present study investigated the effect of PTSD symptom severity on therapy processes using the entire sample of EFTT completers. The therapy process variables (experiencing, arousal, client engagement, and distress) were measured from early, middle, and late therapy sessions for both IC and EE procedures.

**Hypotheses.** Hypothesis (H) 1: based on the literature reviewed above, more severe pre-treatment PTSD symptom severity was expected to negatively influence therapy processes during both IC and EE procedures (i.e., increased distress and decreased engagement with trauma material, depth of experiencing, and emotional arousal). H2: this negative influence was expected to reduce over time. The study also compared processes in the two re-experiencing procedures. H3: based on Ralston's (2006) findings, IC was expected to have higher overall arousal than EE. Finally, although there was insufficient evidence to make specific predictions, the study also investigated the differential influence of pre-treatment PTSD symptom severity on processes during the different re-experiencing procedures (IC or EE).

## METHOD

This study was a replication and extension of Ralston (2006) and used archival data (client self-reports and videotaped therapy sessions) collected for a larger process-outcome study (Paivio et al., 2010) between years 2002 to 2006. The original outcome study (Paivio et al., 2010) was approved by the Research Ethics Board of the University

of Windsor. All clients signed consent forms that indicated their understanding of their risks, rights, and benefits of participation in EFTT. Before therapy, clients consented to the audio and video taping of their therapy sessions. After therapy completion, clients consented to the retention of their tapes for research purposes. The following information on client recruitment, screening and selection criteria and procedures, and client characteristics were reported in Paivio and colleagues (2010).

### **Recruitment**

Participants were recruited from newspaper and radio ads, referrals, and posters offering free psychotherapy for adult victims of child abuse in exchange for research participation.

### **Exclusion and Inclusion Criteria**

People were excluded if they were younger than 18 years, in crisis (i.e., suicidal), or in other therapy. Additional exclusion criteria included the lack of conscious memories of childhood maltreatment, change in dosage of psychotropic medication in the last two months, and problems with self harm, anger control, substance abuse, psychotic disorders, and involvement in domestic violence. Inclusion criteria included the ability to establish therapeutic rapport, agreement with treatment focus of confronting child abuse feelings and memories, motivation, and suitability for short term therapy.

### **Screening and Selection**

Telephone screening and selection interviews were conducted by trained graduate students to assess EFTT suitability (Paivio et al., 2010). A total of 163 individuals were screened; 75 individuals were admitted into the study and 19 declined the offer, which left a total of 56 clients who were randomly assigned to either the EFTT with IC or EFTT

with EE conditions. Eight dropped out before the end of treatment which left a total of 45 clients who completed therapy; 25 were in the EE version of EFTT and 20 clients were in EFTT with IC (Paivio et al., 2010). According to Paivio and colleagues (2010), there were no differences between the clients who dropped out and completed therapy in terms of pre-treatment demographics and symptom severity..

### **Client Characteristics**

The mean client age was 45 years ( $SD = 13.0$ ). Most clients were married/common law (48.89%), had one or more children (average of 2.07 children), were Caucasian (88.9%), had post-secondary education (75.6%), were employed (71.1%), had a family income of more than \$40,000 a year (57.8%), and reported multiple forms of childhood maltreatment (68.9%). Scores on the Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998) subscales, which assessed the extent of different types of abuse and neglect, were above the thresholds for severe abuse (score of 13 or more). The primary perpetrators were fathers/father figures (44.5%), mothers (31.3%), brothers (4.4%), relatives (6.7%), and others (13.3%). All clients identified unresolved problems with parents/caregivers as a therapy focus. Most clients (62.2%) met criteria for PTSD, specifically for moderate symptom severity assessed on the PTSD Symptom Severity Interview (PSSI; Foa et al., 1993). Personality pathology, assessed through clinical judgment, reached the clinical range for 33% of the clients.

### **Measures**

**Client variables.** The *PTSD Symptom Severity Interview* (PSSI; Foa, Riggs, Dancu, & Rothbaum, 1993) is a 17-item semi-structured interview, with each item corresponding to one of the *DSM-IV-TR* criterion for PTSD (American Psychiatric

Association, 2000). Symptom severity is rated by an interviewer on a 4-point scale. The PSSI gives an overall severity score and symptom cluster scores for avoidance, re-experiencing, and arousal. Foa and colleagues (1993) reported alpha coefficients of 0.69-0.85, test-retest reliability after one month interval of 0.66-0.77, and significant correlations with other distress measures. The kappa coefficient for diagnosis of PTSD was 0.91, and the mean kappa coefficient for the 17 items was 0.78 and ranged from 0.61-1.00. Paivio and colleagues (2010) reported that in a sample of 45 EFTT clients PSSI scores converged with self reports on Impact of Events Scale (Horowitz, 1979),  $r = 0.69, p > 0.001$ . The PSSI was administered at pre- and post-treatment in Paivio et al. (2010) outcome study, but the present study only used pre-treatment PSSI scores..

**Process measures.** The *Client's Emotional Arousal Scale - Revised* (EAS-R; Machado, Beutler, & Greenberg, 1999) is a 7-point observer rating scale, which identifies the strength or intensity of client's emotional arousal. It includes anger, fear, joy, surprise, sadness, grief, disgust, contentment, and hurt. A kappa of 0.71 for modal ratings has been reported in a study by Rosner (1996). Machado and colleagues (1999) compared the EAS-R between gestalt and cognitive therapies, and reported that the EAR-S demonstrated predictive and discriminant validity. The scale was modified to a 5-point scale for use in EFTT by collapsing the lowest two ratings and the highest two ratings (Holowaty, 2004; Ralston, 2006). For modal EAS-R kappa was 0.77 and proportion of agreement was 0.80, and for the peak EAS-R kappa was 0.62 and proportion of agreement was 0.75 (Holowaty, 2004). At the low end of scale (1-2) there is no overt emotional arousal in language, body, or voice. At moderate to moderately intense emotional arousal levels (3-4) there is emotional expression progression, with emotion

arousal evident in body, voice, or language and potentially moderate restriction. At high levels (5), the body, voice, and language are intensely emotionally involved with little restriction.

The *Patient Experiencing Scale* (EXP; Klein et al., 1969; Klein et al., 1986) measures the client's process of focusing on and exploring internal subjective experience (feelings and meanings) and forming new meaning from this processing. It is a 7-point observer rating scale. Low levels (1-2) indicate impersonal or superficial references to self, moderate levels (3-4) demonstrate more elaborate descriptions of feelings and experiences, and high levels (5-7) indicate exploration of personal meaning and feelings, leading to greater self-understanding and problem solving. EXP ratings are made at every client speech turn. One modal (most frequent) and one peak (highest) rating is assigned to the entire segment being rated (Klein et al., 1969). Inter-rater reliability (alpha coefficients) of modal EXP ratings from either audiotapes or transcripts have ranged from .65 to .93 and peak ratings ranged from 0.61 to 0.93 (Klein et al., 1986). In an EFTT study, modal EXP kappa was 0.70 and proportion of agreement was 0.85, and peak EXP kappa was 0.77 and proportion of agreement was 0.85 (Holowaty, 2004). Klein and colleagues (1986) reported concurrent validity for the EXP as it is positively related to measures of good client outcome (i.e., symptom reduction and resolution) and measures of self-disclosure and problem expression.

The *Post Session Questionnaire* (PSQ; Paivio, et al., 2010) was administered after every therapy session beginning in session four. There was a client and therapist version of the PSQ, and this study used the client version as a therapy process measure. The PSQ is a self-report measure of client emotional engagement with trauma material along the

dimensions of involvement in imagining abusive and neglectful others, elaborating, and emotional arousal during IC/EE. It is a 7-point scale (1 = *not at all*, 7 = *very much*) which rates the degree that childhood abuse issues were focus of the preceding therapy session. On three additional items, clients rate their level of engagement concerning the ease of verbal exploration and expression, the vividness of memories and visualizations, and their emotional arousal and expression. A client PSQ score is a function of quantity and quality of engagement (item 1 x mean of items 2 through 5). Item 1 of the therapist PSQ was used to select sessions for process measure rating which contain large durations of trauma material content. Paivio and colleagues (2010) reported 0.70-0.91 alpha reliability for the client PSQ in EFTT. In recent studies, the PSQ was significantly correlated with observer ratings of client engagement with trauma material (Chagigiorgis, 2009) and higher PSQ scores at session four predicted better outcome (Mlotek, 2013).

The *Subjective Units of Distress* (SUDS) consists of a 1-item self-report rating of client subjective distress experienced in the previous therapy session (Wolpe, 1969). It is a scale from 0 to 100 with 0 being peaceful, 50 being moderately upset, and 100 being feeling unbearably bad and out of control. The SUDS was reported by Kim, Bae, and Chon Park (2008) to have demonstrated convergent, discriminant, predictive, and concurrent validity when compared to other process measures and treatment outcome.

## **Treatment**

EFTT consisted of 16 to 20 weekly, one hour sessions. The EFTT treatment manual (Paivio & Pascual-Leone, 2010) specifies intervention principles and procedures. Primary therapy tasks included establishing rapport and safety, reducing self related problems (fear, shame), and resolving issues with perpetrators. For clients with difficulty

managing emotions while exploring trauma, anxiety management strategies were used (relaxation, attention to breathing, and present-centered focus). There were two versions of EFTT, one with imaginal confrontation of perpetrators and one with empathic exploration of trauma material, and they are described below.

**Imaginal confrontation (IC).** In one version of EFTT, imaginal confrontation (IC) was the primary vehicle used to explore trauma material. In this procedure, the client was asked to imagine an abusive or neglectful other in an empty chair and express their thoughts, feelings, and needs directly to these imagined others (Paivio & Pascual-Leone, 2010). This quickly evoked core material for subsequent exploration. The procedure was based on an empirically-verified model of steps in the process of resolving issues with imagined others (Greenberg & Foerster, 1996). Intervention principles included promoting ownership of experience, evoking memories, and balancing attending to and expressing of internal experience (Paivio & Pascual-Leone, 2010). Usually, IC was introduced in session four, and it was used as often as appropriate throughout therapy according to the therapist's clinical judgment (Paivio et al., 2010).

**Empathic exploration (EE).** In the alternative version of EFTT, empathic exploration (EE) was the primary intervention used to explore trauma material. EE was based on the same model of resolution (Greenberg & Foerster, 1996) and intervention principles as IC except that trauma material was explored with the therapist rather than with imagined others in empty chair. Clients were asked to imagine traumatic events and abusive and neglectful others in their "mind's eye" and to explore evoked thoughts and feelings in interaction with the therapist. EE also was usually introduced in session four,

and it was used as often as appropriate throughout therapy according to the therapist's clinical judgment (Paivio et al., 2010).

### **Therapists**

There were eleven therapists (four men, seven women) with ages ranging from 27 to 57 years old. Four were post-doctoral clinical psychologists, six were doctoral level students studying clinical psychology, and one was a master's level student in clinical psychology. All had previous experience conducting therapy with clients with trauma history. Student therapists went through intensive EFTT training from Dr. Paivio (approximately 54 hours). Clients were assigned to therapists based on compatible schedules and gender preference when possible. Therapists saw between two and eight clients each ( $M = 3.27$ ). Sessions were conducted at the Psychology Research Centre or the Psychological Service Centre of the University of Windsor. All sessions were video tape recorded. Throughout the study supervision consisted of weekly team meetings and small group review of their therapy videos by Dr. Paivio (Paivio et al., 2010).

### **Procedure for the Present Study**

**Source of data.** The present study used archival data from the Paivio and colleagues (2010) study which was approved by the Research Ethics Board of the University of Windsor. Prior to therapy, clients consented to the audio and video taping of their therapy sessions. After therapy completion, clients consented to the retention of the tapes for research purposes. Clients were randomly assigned to one version of EFTT (IC or EE) after session three and before the introduction of IC/EE during session four. Outcome measures and predictor measures (which included PTSD symptom severity) were administered pre-therapy (before session one), mid-therapy, post-therapy, and at

one year follow-up. Starting at session four, the PSQ scale was completed by clients after each therapy session. Client PSQ scores were kept confidential from their therapist to ensure accurate reporting, and clients were assured of this (Paivio et al., 2010).

**Present study.** The present study analyzed processes (arousal and experiencing) for 17 clients - six clients in the EFTT with IC group and 11 clients in the EFTT with EE group – who completed therapy after completion of the Ralston (2006) study. These data then were combined with the experiencing and arousal process ratings ( $n = 30$ ) from the Ralston study for final analyses with the entire sample of therapy completers ( $N = 47$ ). Measures and rating procedures used in the present study therefore were identical to those used in the Ralston study, in which two graduate students (including Ralston) trained by Dr. Paivio and blind to treatment conditions obtained inter-rater reliability on observer rated process measures. For the present study, the author trained and re-rated episodes selected by Ralston on the experiencing (EXP) and arousal (EAS-R) scales for 15 clients to obtain inter-rater reliability. This overlap in process ratings represented one third of the overall sample, which is considered sufficient overlap when using measures with established psychometric properties (Greenberg & Malcolm, 2002; Holowaty, 2004).

#### **Process ratings.**

**Selection of episodes.** Consistent with previous EFTT process research (Chagigiorgis, 2009; Paivio & Nieuwenhuis, 2001; Paivio et al., 2004) and with Ralston's (2006) procedure, therapy sessions containing substantial client participation in IC and EE were selected for rating. This included the first IC/EE session (typically session four) and a session selected from the middle (sessions 7-11) and late (sessions 12-16) thirds of

therapy. Middle and late sessions were selected by randomly selecting sessions in the appropriate session range that had a therapist PSQ score greater than three. This score indicated that at least half the session was spent exploring trauma material during IC or EE and therefore contained sufficient material for rating. Potential sessions were then reviewed by the author to ensure therapist accuracy. Criteria for identifying the beginning and end of IC and EE segments for rating followed those established by Ralston (2006).

Accordingly, criteria for the beginning of an IC segment included the therapist bringing out an empty chair and instructing the client to imagine and engage in a dialogue with an imagined other sitting in the empty chair. The episode continued through to the end of the dialogue, included any subsequent discussion, exploration, and meaning making related to the IC exercise, and ended when of the IC process was no longer the focus of discussion or the therapy session ended. Other studies have used similar criteria to identify content or thematic episodes (Holowaty, 2004).

Criteria for defining an EE episode paralleled those for IC, described above. Accordingly, the criterion for the beginning of an EE segment was the therapist explicitly directing the client to focus on episodic memories of childhood maltreatment, to vividly imagine abusive or neglectful others involved, and to express evoked thoughts and feels to the therapist. The episode continued through to the end of the client trauma exploration, and included any discussion, emotional exploration and integration, meaning making related to the EE exercise. The EE episode ended when the process of exploring and integrating trauma feelings and memories was no longer the focus of discussion or the therapy session ended.

**Rater training.** For the present study, the author trained according to the methods specified in the EAS-R and EXP manuals and procedures described by Ralston (2006). First, process measures were learned by coding videotapes of EFTT sessions not included in the Paivio and colleagues (2010) study. Additionally, the author worked toward establishing reliability with Ralston's ratings by coding the experiencing and emotional arousal processes of 15 randomly selected clients from Ralston's sample.

The rating procedure for episodes was consistent with that specified by Ralston (2006) and Chagigiorgis (2009). Rater training was as follows. The episode was divided into 5 minutes segments and each client speech turn (two or more words) within the five minute segment was assigned one EXP and one EAS-R value. Then the modal (most frequent) and peak value was calculated for each five minute segment, then for the entire episode. For the EAS-R scale, the rater additionally identified the predominant emotion present throughout the five minute segment and the episode. In cases where segments were evenly divided between two levels, the peak rating was the higher level and the modal level was the lower level, which is consistent with previous research (Holowaty, 2004) and rating rules (Klein et al., 1986). In instances of disagreement, the author deferred to Ralston's ratings and assigned her single modal and peak rating for each episode, and rating discrepancies were discussed with Dr. Paivio. In the process of training, the author developed a manual of rating rules for each measure to facilitate rater agreement in later independent ratings of data. Training continued until sufficient and consistent inter-rater agreement ( $kappa > 0.75$ ) between the author and Ralston was achieved for modal and peak episode ratings on each measure (modal and peak experiencing and emotional arousal).

**Episode rating.** For the present study, IC/EE episodes for each participant were selected (see procedure above) by the author from early, middle, and late sessions prior to the formal process rating of the data. The sample for rating included a total of 32 clients (92 sessions), with 15 clients who were randomly selected from Ralston's (2006) data to obtain inter-rater reliability and the 17 new clients who were not included in Ralston's (2006) study. Identifying information on videotapes was concealed (client number, re-experiencing procedure) and session tapes were randomly assigned numbers (from 1 to 92). These were rated in numerical order. The start and end times for the particular episode on the tape were identified by the author and the rating procedure was identical to that used in the rater training, which was described previously. After rating episodes included in Ralston's study (2006), the author then compared her rating to Ralston's to control for rater drift. Ralston's process ratings were used in subsequent data analysis for this overlapped portion of process ratings (15 clients, 45 sessions).

In sum, the author rated two-thirds of episodes in the entire sample of therapy completers in the Paivio and colleagues (2010) study, with one-third overlapping with Ralston (2006) for calculation of inter-rater reliability. Inter-rater reliability for the peak and modal experiencing (EXP) and emotional arousal (EAS-R) ratings were calculated with Cohen's (1960) kappa ( $k$ ), which corrects for agreements by chance. The inter-rater reliability for peak and modal ratings for experiencing and emotional arousal were in acceptable ranges, with kappa over 0.75. Inter-rater reliability was  $k(45) = 0.77$  for modal experiencing,  $k(45) = 0.79$  for peak experiencing,  $k(45) = 0.90$  for modal emotional arousal, and  $k(45) = 0.90$  for peak emotional arousal.

## Data Analyses

In this study, an alpha value of 0.05 was used for all preplanned analysis. Family wise alpha values were used for any post hoc comparisons to reduce Type I error. For each analysis, outliers were removed and statistical assumptions were checked. The software program used for data analysis was the Statistical Package for the Social Sciences (SPSS).

Preliminary data analysis first consisted of a MANOVA comparing processes in the two samples (Ralston or Jongsmā) in order to justify combining the samples in subsequent analyses. Second, repeated measures ANOVAs were used for each process variable to determine if there was an effect for time for the process variables, that is, changes over the course of early, middle and late phases of therapy. If there was no change over the course of therapy, the data for early, middle, and late sessions were averaged together for subsequent analyses. This would help to avoid redundancy and Type I error inflation. In these ANOVAs, re-experiencing procedure (IC or EE) was entered as a between-subjects factor variable to determine if therapy processes differed by re-experiencing procedure and to test hypothesis three that IC would have higher levels of emotional arousal compared to EE.

To test hypothesis one, that increased PTSD symptom severity would negatively affect therapy processes, correlations were used to analyze the process variables with no effect for time (i.e., averaged across early, middle, and late sessions). To test hypothesis one for process variables with an effect for time, multiple regressions (MRAs) were used to predict pre-therapy PTSD symptom severity by process variables at early, middle, and late therapy. Hypothesis two, that the influence of PTSD would diminish over therapy,

was tested within the MRA only for the process variables with an effect for time. To assess if the influence of PTSD on therapy processes differed between re-experiencing procedures (IC, EE) treatment procedure was entered into the MRA regression equation as a moderator only if preliminary repeated measures ANOVAs yielded a significant between subjects effect for re-experiencing procedure.

## RESULTS

### **Client Pre-treatment Characteristics**

**Demographic characteristics.** Table 1 displays the client demographic characteristics for the total sample of therapy completers included in the study ( $N = 47$ ). The average age was 45.83 ( $SD = 12.91$ ) with an average of 2.1 children. Slightly more than half of the sample (55.32%) was female. The majority of clients had post-secondary education, were of European decent, married or lived common law, employed, and had a family income of greater than \$20,000. Eighty-seven percent of clients had previous therapy experience.

Table 1

*Client Demographic Characteristics*

Variable	Total Sample (N=47)	
	<u>M</u>	<u>SD</u>
Age	45.83	12.91
Children	2.09	1.92
	<u>N</u>	<u>%</u>
Sex		
Male	21	44.68
Female	26	55.32
Marital Status		
Single	11	23.40
Common Law	3	6.38
Married	19	40.43
Separated/Divorced	13	27.67
Widowed	1	2.13
Education		
High School	11	23.40
College/Undergraduate	29	61.70
Graduate	7	14.89
Employment Status		
Full-Time	25	53.19
Part-Time	9	19.15

Table 1 Continued

*Client Demographic Characteristics*

Variable	Total Sample (N=47)	
	<u>N</u>	<u>%</u>
Employment Continued...		
Unemployed/Retired	13	27.66
Family Income		
<\$20,000	6	12.77
\$20,000-\$39,999	15	31.91
\$40,000-\$59,999	10	21.28
>\$60,000	16	34.04
Ethnicity		
European Origin	42	89.36
First Nations	2	4.26
Other	3	6.38
Previous Therapy		
No	6	12.77
Yes	41	87.23

**Client characteristics.** Table 2 displays the client characteristics at admission and before EFTT therapy. Sixty-two percent of clients met PTSD diagnostic criteria before therapy on the PSSI. The average PSSI severity score was 23.41 ( $SD = 11.40$ ) indicating moderate posttraumatic stress symptomatology. Every client reported more than one type of child abuse, and selected one type as the primary therapy focus. Fifty-five percent of the clients focused on childhood sexual abuse, 12.77% focused on physical abuse, 21.28% focused on emotional abuse, and 10.64% focused on neglect. Clients were randomly assigned to treatment condition with 21 clients assigned to EFTT with IC (44.68%) and 26 clients to EFTT with EE (55.32%).

### **Data Screening and Statistical Assumption Checks**

Data was screened based on the type of statistical analysis for adequate sample size, outliers, homogeneity of variance-covariance matrices, multivariate normality, a linear relationship between variables, and sphericity. Process variable outliers were removed if the standardized residuals exceeded the absolute value of 2.5.

For the repeated measures MANOVA total of two process variable outliers were removed. The assumption of homogeneity of variance-covariance matrices was violated as there were violations on the Levene's variance test for modal experiencing in early, middle, and late therapy and peak experiencing in late therapy. The assumption of multivariate normality was violated as there were both univariate and bivariate normality violations. The assumption of sphericity was violated because Bartlett's test of sphericity was statistically significant.

Table 2

*Client Characteristics*

Variable	Total Sample (N=47)	
	<u>M</u>	<u>SD</u>
PSSI	23.41	11.40
	<u>N</u>	<u>%</u>
Pre-Therapy PTSD Diagnosis		
No	18	38.30
Yes	29	61.70
Abuse Type		
Sexual	26	55.32
Physical	6	12.77
Emotional	10	21.28
Neglect	5	10.64

*Note.* PSSI = PTSD Symptom Severity Interview, PTSD = Post-Traumatic Stress Disorder.

For the repeated measures ANOVAs the following process variable outliers were removed: one modal experiencing outlier, three modal emotional arousal outliers, and one peak distress outlier. The assumption of homogeneity of variance was violated for peak experiencing at early therapy and client engagement at late therapy, as there were violations on the Levene's variance test. The assumption of normality was violated, as the Shapiro-Wilk test of normality was violated, for modal experiencing, peak experiencing, modal emotional arousal, peak emotional arousal, client rated engagement with trauma material at late therapy, average distress at early therapy in the IC group, and peak distress at early and mid-therapy. The assumption of sphericity was violated, given that Bartlett's test of sphericity was statistically significant, for modal experiencing, modal emotional arousal, peak emotional arousal, client engagement, average distress, and peak distress.

For the correlations between pre-therapy PTSD symptom severity and composite therapy processes (averaged over early, middle, and late sessions), three clients were excluded from analyses because of missing data for composite modal and peak experiencing and composite modal and peak emotional arousal, which left 44 clients included in analyses. Four clients were excluded from analyses for composite average and peak distress, which left 43 clients included in analyses. Some Y-outliers were removed, with three cases removed for composite modal experiencing and one case for composite modal emotional arousal, composite average distress, and composite peak distress.

For the client engagement MRA, three clients were excluded from analyses because of missing data for client engagement, which left 44 clients included in analyses.

The assumption of adequate sample size was violated based on the traditional MRA standard of 15 cases per predictor (Field, 2005). Since the data was archival, it was not possible to add to the sample size. There were process variable outliers for two clients in the client engagement MRA, which were removed before the MRA analysis. The assumption of independence of errors was moderately violated for client engagement (Durbin-Watson = 1.47), which exceeded the conservative cut-off range of 1.50-2.50. However given that the Durbin-Watson statistics were not less than one, the assumption was not majorly violated for either process variable, so data analysis could proceed (Field, 2005). This assumption violation indicated that for client engagement the observation residuals were positively correlated and that the regression may not have included all the key variables, which is noted as a limitation in the study.

For the MRAs with re-experiencing procedure as a moderator with averaged process variables with an effect for re-experiencing procedure predicting pre-treatment PTSD symptom severity, three clients were excluded from analyses because of missing data for consolidated modal and peak experiencing and consolidated modal and peak emotional arousal, which left 44 clients included in analyses. Four clients were excluded from analyses for consolidated average and peak distress, which left 43 clients included in analyses. The assumption of adequate sample size was violated based on the traditional MRA standard of 15 cases per predictor (Field, 2005). The assumption of independence of errors was moderately violated for consolidated modal experiencing (Durbin-Watson = 1.47) and consolidated peak distress (Durbin-Watson = 1.48), which exceeded the conservative cut-off range of 1.50-2.50. However given that the Durbin-Watson statistics were not less than one, the assumption was not majorly violated for either process

variable, so data analysis could proceed (Field, 2005). This assumption violation indicated that for these process variables the observation residuals were positively correlated and that the regression may not have included all the key variables, which is noted as a limitation in the study.

### **Preliminary Analyses**

**Comparison of samples.** To justify the combination of the sample collected by Ralston ( $n = 30$ ) and the new sample ( $n = 17$ ) in subsequent analyses, the process variables collected by different raters between the samples (modal and peak experiencing and emotional arousal) were compared between the samples. A repeated measures multivariate analysis of variance (MANOVA) was run to test for statistically significant differences between samples for the observer rated process variables in early, middle, and late therapy. Process ratings at each time point for the Ralston ( $n = 30$ ) and the present sample ( $n = 17$ ) samples were compared. Results revealed no statistically significant differences between samples for any process variables, Wilk's Lambda  $F(4, 39) = 2.32, p = 0.21, \eta_p^2 = 0.19$ , thus justifying combining the samples in subsequent analyses.

### **Effect for therapy progression and treatment condition for process variables.**

Repeated measures ANOVAs were run for each process variable to determine if there were differences over the course of therapy for each of the seven process variables. Re-experiencing procedure (IC/EE) was included as a between subject factor in order to analyze if there was an effect of re-experiencing procedure on each process variable and if there was an interaction between re-experiencing procedure and time. See Table 3 for the means and standard deviations for each process variable at early, middle, and late therapy.

Table 3

*Means and Standard Deviations of Process Measures Early, Middle, and Late EFTT Therapy*

Process Measures	Early Therapy			Middle Therapy			Late Therapy		
	<i>M</i>	<i>SD</i>	<i>Range</i>	<i>M</i>	<i>SD</i>	<i>Range</i>	<i>M</i>	<i>SD</i>	<i>Range</i>
EXP mode	3.87	0.45	3-5	3.87	0.45	3-5	3.89	0.38	3-5
EXP peak	4.78	0.81	4-6	4.76	0.85	4-6	5.00	0.88	4-7
EAS-R mode	2.50	0.62	1-4	2.54	0.62	1-4	2.58	0.62	2-4
EAS-R peak	3.63	0.90	2-5	3.52	0.96	2-5	3.27	1.00	2-5
Client PSQ	31.71	8.59	8.25- 49.00	29.54	11.86	1.00- 49.00	35.25	10.19	13.00- 49.00
SUDS average	47.69	26.04	1-100	45.44	24.61	1-80	47.23	23.08	1-90
SUDS peak	68.96	26.43	1-100	61.71	28.82	1-100	67.90	26.74	1-100

*Note.* EXP = Patient Experiencing Scale, EAS-R = Emotional Arousal Scale – Revised, Client PSQ = Client Post-Session Questionnaire, SUDS = Subjective Units of Distress.

**Modal experiencing (EXP).** The repeated measures ANOVA revealed no statistically significant differences between modal experiencing (EXP) scores at early, middle, and late therapy, Wilk's Lambda  $F(2, 40) = 0.002, p = 1.00, \eta_p^2 < 0.01$ . The between subjects effect of re-experiencing procedure (IC/EE) was not statistically significant,  $F(1,41) = 0.01, p = 0.91, \eta_p^2 < 0.01$ , neither was the interaction,  $F(2, 40) = 0.45, p = 0.64, \eta_p^2 = 0.02$ . See Figure 1 for a graph of modal experiencing over early, middle, and late therapy for IC and EE groups.

**Peak experiencing (EXP).** The repeated measures ANOVA revealed no statistically significant differences between peak experiencing (EXP) scores at early, middle, and late therapy, Wilk's Lambda  $F(2, 41) = 1.58, p = 0.22, \eta_p^2 = 0.07$ . However, the between subjects effect of re-experiencing procedure (IC/EE) was statistically significant,  $F(1,42) = 4.88, p = 0.04, \eta_p^2 = 0.10$ , with higher peak experiencing in IC ( $M = 5.07, SD = 0.69$ ) than EE ( $M = 4.68, SD = 0.49$ ) when averaged across early, middle, and late therapy. There was no significant interaction,  $F(2, 41) = 0.56, p = 0.58, \eta_p^2 = 0.03$ . See Figure 2 for a graph of peak experiencing over early, middle, and late therapy for IC and EE groups.

Figure 1. Modal experiencing (EXP) over early, middle, and late therapy for IC and EE groups (N=43).

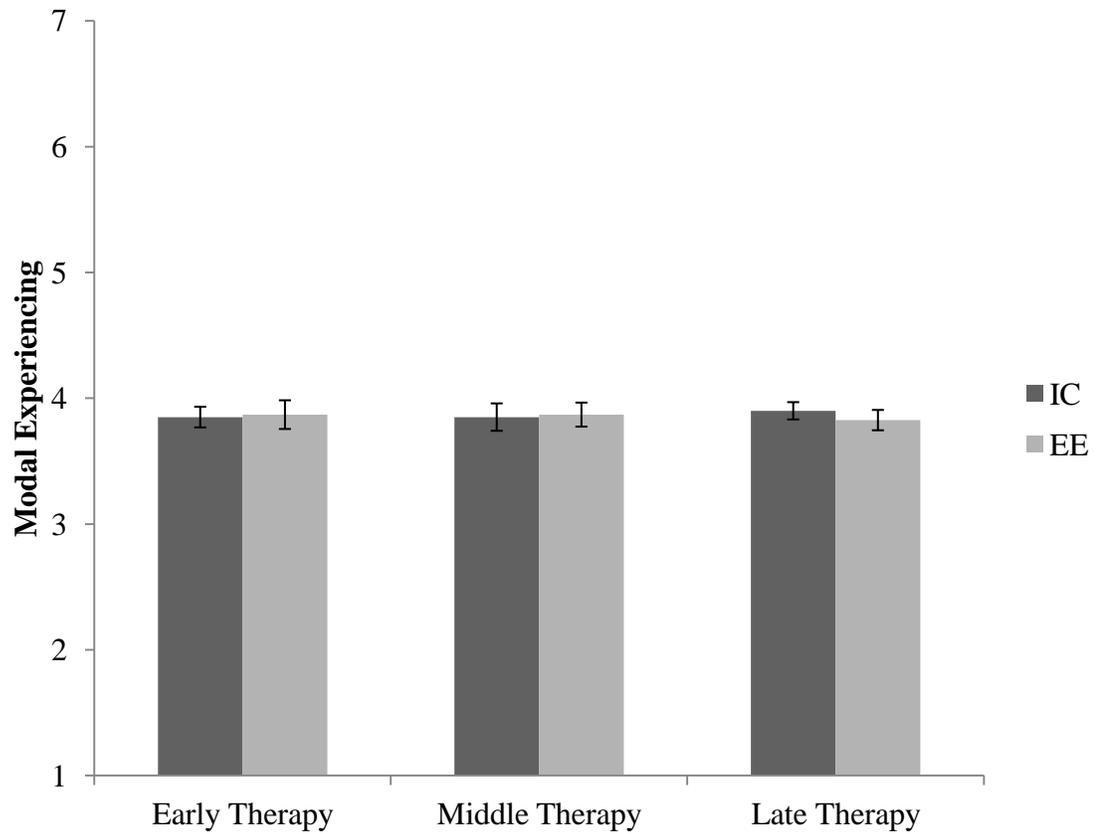
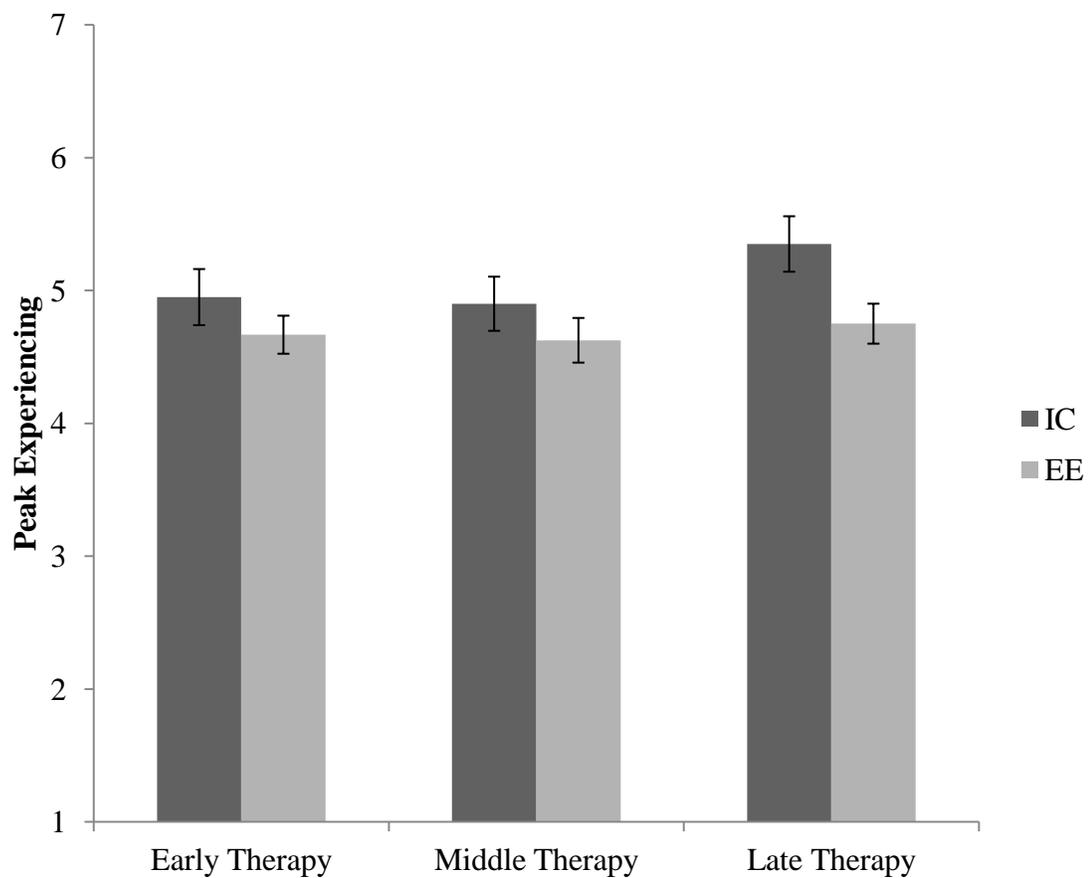


Figure 2. Peak experiencing (EXP) over early, middle, and late therapy for IC and EE groups (N=44).



**Modal emotional arousal (EAS-R).** The repeated measures ANOVA revealed no statistically significant differences between modal emotional arousal (EAS-R) scores at early, middle, and late therapy, Wilk's Lambda  $F(2, 38) = 0.09, p = 0.92, \eta_p^2 < 0.01$ . However, the between subjects effect of re-experiencing procedure (IC/EE) was statistically significant,  $F(1,39) = 12.78, p = 0.001, \eta_p^2 = 0.25$ , with higher modal emotional arousal in IC ( $M = 2.79, SD = 0.46$ ) than EE ( $M = 2.30, SD=0.41$ ) when averaged across early, middle, and late therapy. This supported H3, which expected that IC would be more emotionally evocative than EE. There was no significant interaction,  $F(2, 38) = 2.66, p = 0.08, \eta_p^2 = 0.12$ . See Figure 3 for a graph of modal emotional arousal over early, middle, and late therapy for IC and EE groups.

**Peak emotional arousal (EAS-R).** The repeated measures ANOVA revealed no statistically significant differences between peak emotional arousal scores at early, middle, and late therapy, Wilk's Lambda  $F(2, 41) = 2.78, p = 0.07, \eta_p^2 = 0.12$ . However, the between subjects effect of re-experiencing procedure (IC/EE) was statistically significant,  $F(1,42) = 6.07, p = 0.02, \eta_p^2 = 0.13$ , with higher peak emotional arousal in IC ( $M = 3.78, SD = 0.80$ ) than EE ( $M = 3.22, SD = 0.71$ ) when averaged across early, middle, and late therapy. This supported H3, which expected that IC would be more emotionally evocative than EE. There was no significant interaction,  $F(2, 41) = 1.56, p = 0.22, \eta_p^2 = 0.07$ . See Figure 4 for a graph of peak emotional arousal over early, middle, and late therapy for IC and EE groups.

Figure 3. Modal emotional arousal (EAS-R) over early, middle, and late therapy for IC and EE groups (N=41).

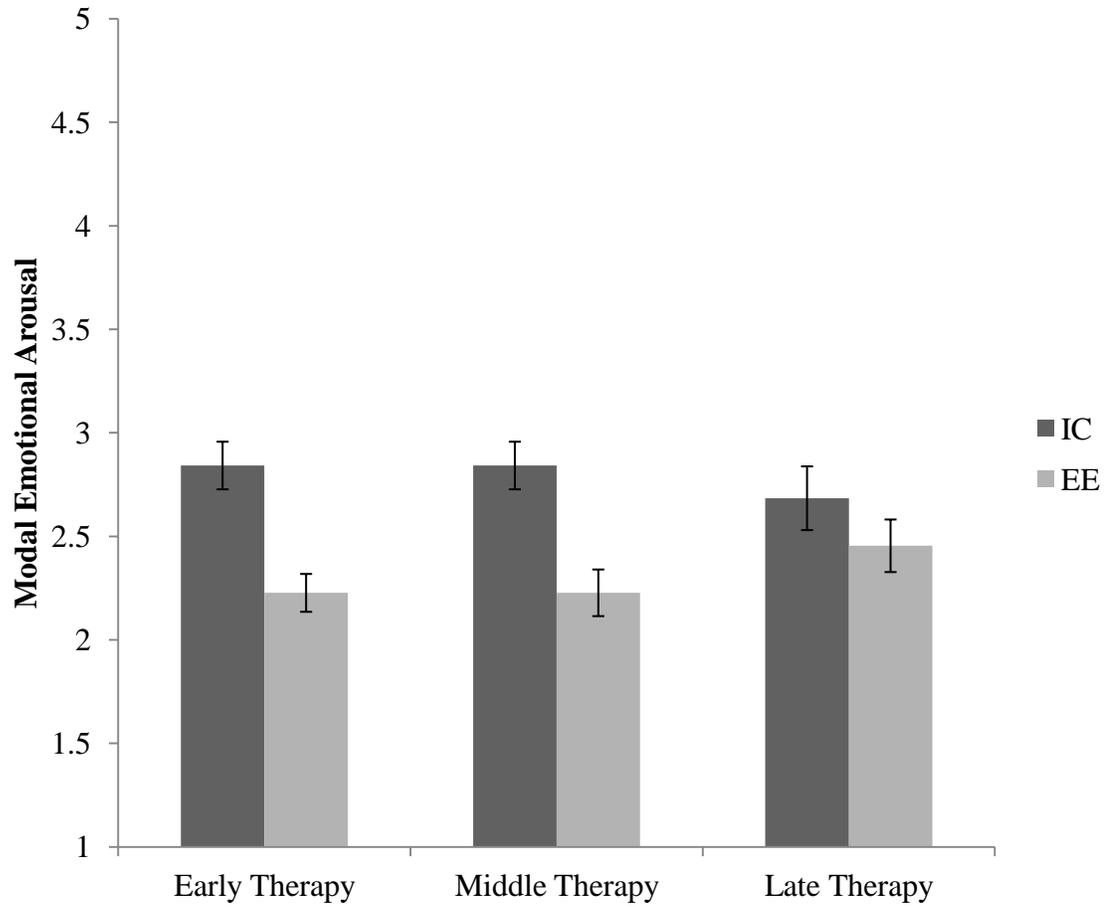
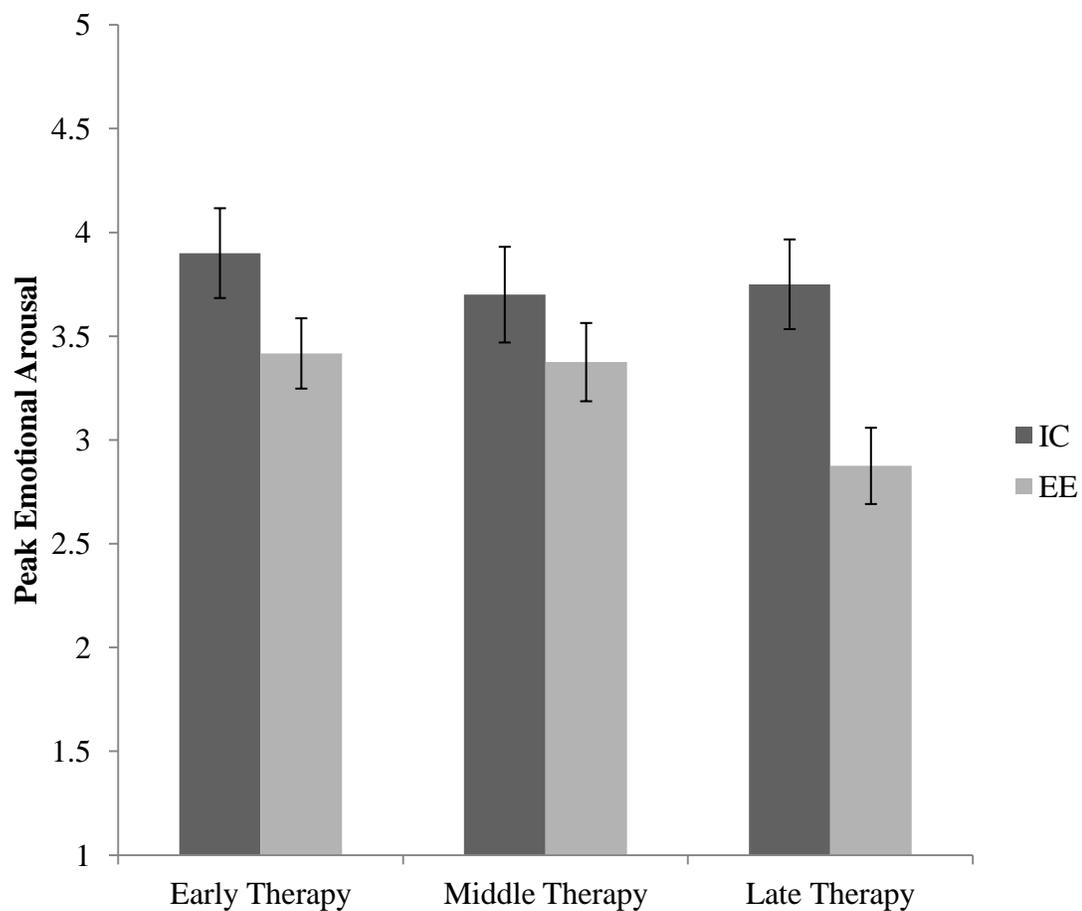


Figure 4. Peak emotional arousal (EAS-R) over early, middle, and late therapy for IC and EE groups (N=44).



**Client engagement (PSQ).** The repeated measures ANOVA revealed statistically significant differences between client engagement (PSQ) scores at early, middle, and late therapy, Wilk's Lambda  $F(2, 41) = 7.02, p = 0.002, \eta_p^2 = 0.26$ . There were statistically significant differences between early, middle, and late therapy client engagement. Therefore, in subsequent MRA early, middle, and late therapy peak emotional arousal were considered separately. The between subjects effect of re-experiencing procedure (IC/EE) was not statistically significant,  $F(1,42) = 2.76, p = 0.10, \eta_p^2 = 0.06$ . There was no significant interaction,  $F(2, 41) = 2.53, p = 0.09, \eta_p^2 = 0.11$ . See Figure 5 for a graph of client engagement over early, middle, and late therapy for IC and EE groups.

**Average distress (SUDS).** The repeated measures ANOVA revealed no statistically significant differences between average distress scores at early, middle, and late therapy, Wilk's Lambda  $F(2, 40) = 0.21, p = 0.81, \eta_p^2 = 0.01$ . The between subjects effect of re-experiencing procedure (IC/EE) was not statistically significant,  $F(1,41) = 0.39, p = 0.54, \eta_p^2 = 0.01$ , and there was no interaction,  $F(2, 40) = 0.98, p = 0.39, \eta_p^2 = 0.05$ . See Figure 6 for a graph of average distress over early, middle, and late therapy for IC and EE groups.

**Peak distress (SUDS).** The repeated measures ANOVA revealed no statistically significant differences between peak distress scores at early, middle, and late therapy, Wilk's Lambda  $F(2, 39) = 1.60, p = 0.30, \eta_p^2 = 0.08$ . The between subjects effect of re-experiencing procedure (IC/EE) was not statistically significant,  $F(1,40) = 0.39, p = 0.62, \eta_p^2 = 0.01$ , and there was no interaction,  $F(2, 39) = 0.03, p = 0.84, \eta_p^2 < 0.01$ . See Figure 7 for a graph of peak distress over early, middle, and late therapy for IC and EE groups.

Figure 5. Client engagement (PSQ) over early, middle, and late therapy for IC and EE groups (N=44).

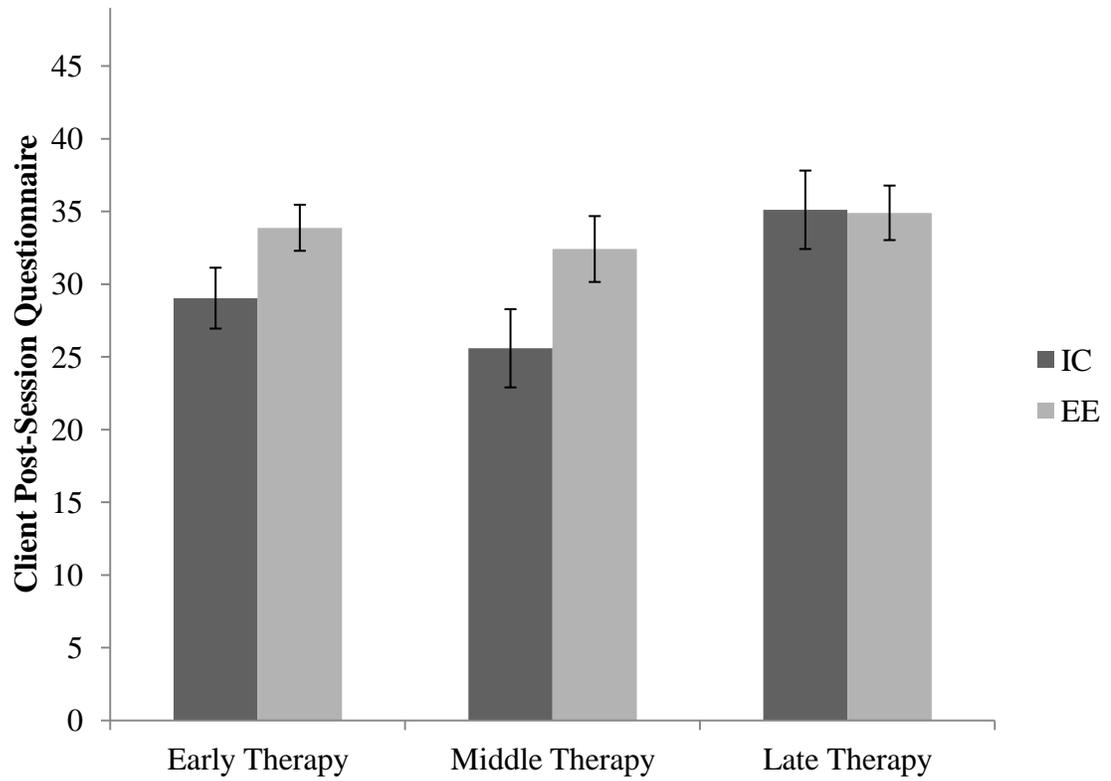


Figure 6. Average distress (SUDS) over early, middle, and late therapy for IC and EE groups (N=43).

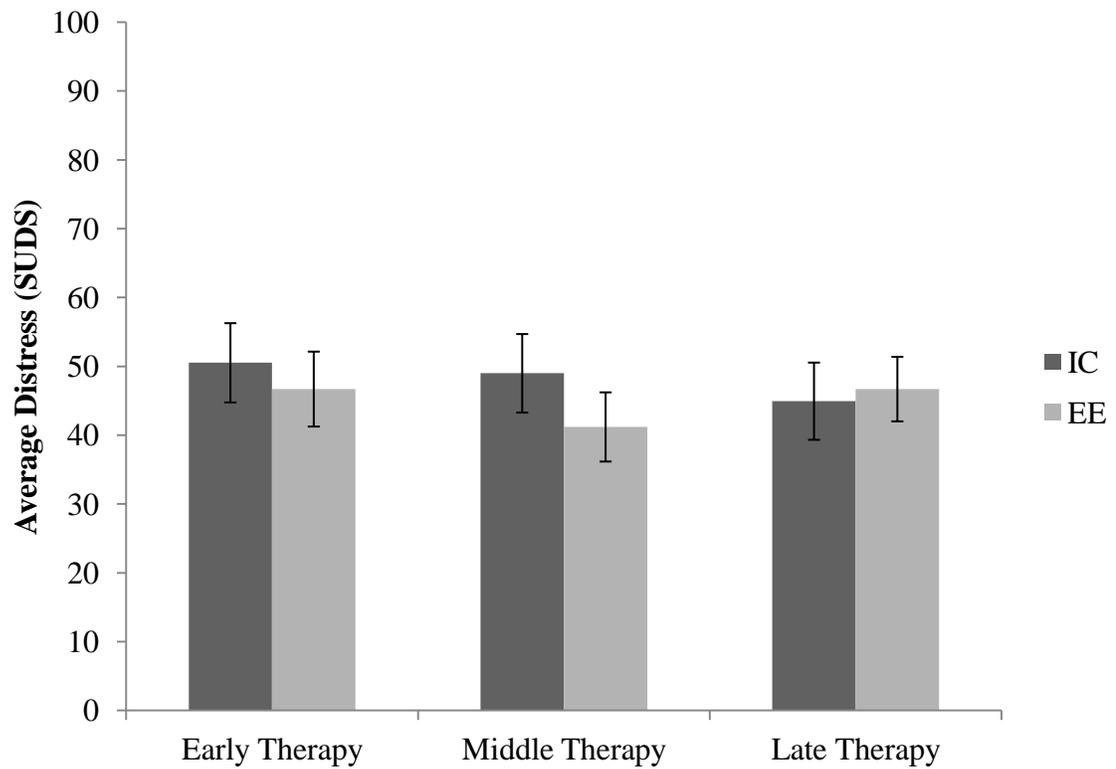
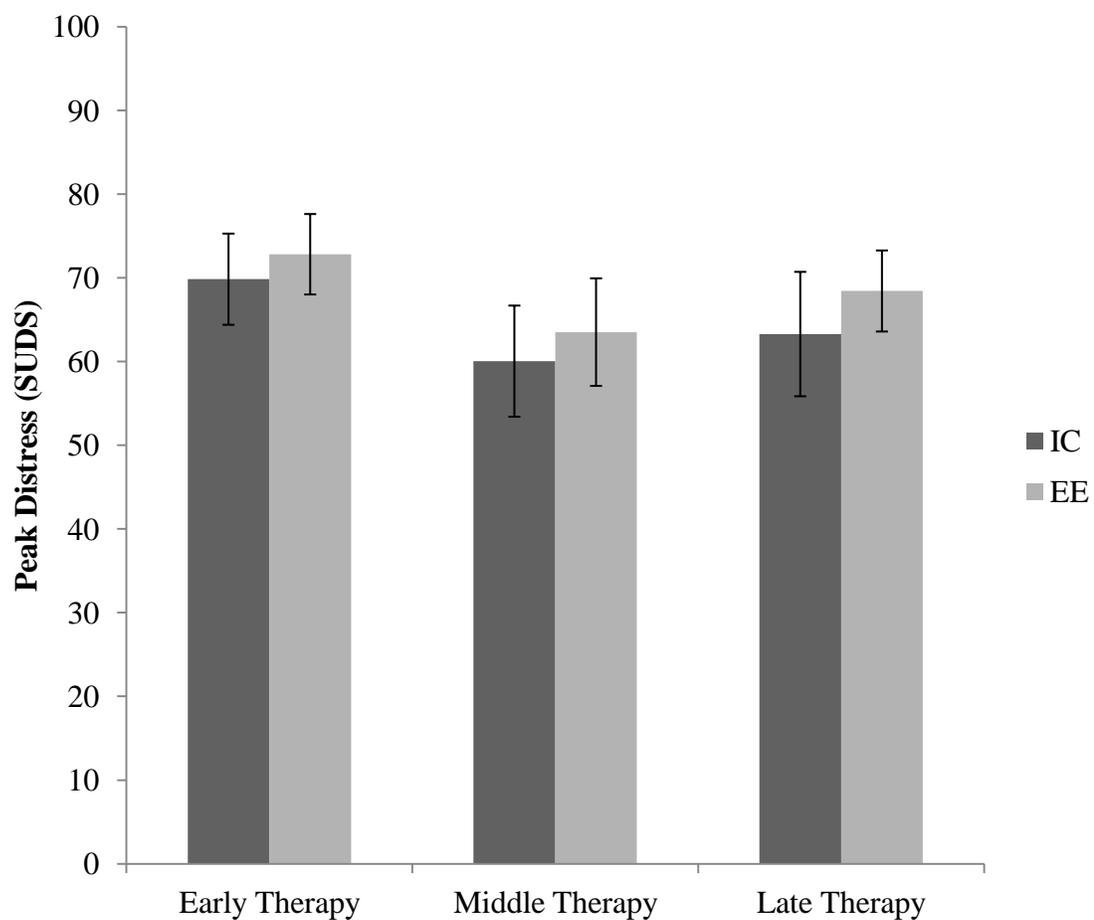


Figure 7. Peak distress (SUDS) over early, middle, and late therapy for IC and EE groups (N=42).



**Summary.** Results of repeated measures ANOVAs indicated that client engagement (PSQ) was the only process variable that varied over therapy progression from early to late sessions. Subsequent data analyses for client engagement consisted of a regression with early, middle, and late session client engagement predicting pre-treatment PTSD symptom severity. Given that there was no interaction between re-experiencing procedure (IC/EE) and therapy progression for client engagement, re-experiencing procedure was not included in the client engagement MRA. The process variables with no effect for therapy progression – modal and peak experiencing, modal and peak emotional arousal, and average and peak distress – were averaged over early, middle, and late sessions in the subsequent analysis. H2, that the influence of PTSD would diminish over therapy progression, was not supported for process variables with no effect for therapy progression because the hypothesis was conceptually contingent on an effect for therapy progression on the process variables.

### **Primary Analyses**

**Correlations between pre-treatment PTSD symptom severity and composite therapy processes.** Table 4 presents the inter-correlations among pre-treatment PTSD symptom severity and each of the composite process variables. As indicated in Table 4, higher pre-therapy PTSD symptom severity (PSSI) was significantly associated with higher peak distress (SUDS) averaged over early, middle, and late sessions. This finding partially supported H1 that PTSD would negatively influence therapy processes.

Table 4

*Pearson Correlations Between Pre-Treatment PTSD Symptom Severity and Consolidated**Process Variables*

		Pre-therapy PSSI	Modal EXP	Peak EXP	Modal EAS-R	Peak EAS-R	Client PSQ	Avg. SUDS	Peak SUDS
Pre-therapy PSSI	r	-							
	Sig.								
Modal EXP	r	-0.17	-						
	Sig.	0.27							
Peak EXP	r	-0.09	0.24	-					
	Sig.	0.57	0.12						
Modal EAS-R	r	0.40**	0.17	0.22	-				
	Sig.	<0.01	0.26	0.15					
Peak EAS-R	r	0.36*	0.17	0.20	0.80**	-			
	Sig.	0.02	0.27	0.19	<0.01				
Client PSQ	r	0.05	0.01	0.17	0.08	0.05	-		
	Sig.	0.75	0.96	0.30	0.62	0.75			
Avg. SUDS	r	0.26	-0.03	0.09	0.32*	0.27	-0.18	-	
	Sig.	0.10	0.84	0.58	0.05	0.09	0.26		
Peak SUDS	r	0.41**	-0.09	-0.02	0.34*	0.35*	-0.07	0.73**	-
	Sig.	<0.01	0.57	0.90	0.03	0.03	0.67	<0.01	

Note. \* =  $p < 0.05$ , \*\* =  $p < 0.01$ , \*\*\* =  $p < 0.001$ . PSSI = PTSD Symptom Severity

Interview; EXP = Patient Experiencing Scale; EAS-R = Emotional Arousal Scale-Revised.

However, higher pre-treatment PTSD symptom severity was associated with higher consolidated modal and peak emotional arousal (EAS-R), which was contrary to H1 which predicted a negative association. As indicated in Table 4, pre-therapy PTSD symptom severity was not significantly associated with other processes.

**Contribution of pre-treatment PTSD symptom severity to process variables over the course of therapy.** Given that preliminary repeated measures ANOVAs indicated that only the client engagement (PSQ) had an effect for therapy progression, H1 and H2 was tested for engagement using a MRA with engagement at early, middle, and late sessions predicting pre-treatment PTSD symptom severity. Additionally, the previous repeated measures ANOVA indicated no main effect for treatment condition for client engagement, so re-experiencing procedure was not entered into the regression analysis.

Results of the MRA with client engagement at three time points as predictor variables are presented in Table 5. As indicated in Table 5, client emotional engagement with trauma material during re-experiencing procedures did not statistically significantly predict variance of pre-treatment PTSD symptom severity. Given that the model was not statistically significant, neither H1, which posited that increased pre-therapy PTSD symptom severity would be predicted by decreased client engagement, or H2, which posited that the relationship would diminish by the end of therapy, were supported.

Table 5

*MRA ANOVA Source Table for Pre-Treatment PTSD Symptom Severity as Predicted by Client Engagement (PSQ) at Early, Middle, and Late Sessions*

Client PSQ	Sum of Squares	df	Mean Square	F	Sig.	Adjusted R <sup>2</sup>
Regression	51.37	3	17.12	0.13	0.94	-0.07
Residual	5186.61	38	136.49			
Total	5237.98	41				

*Note.* \* =  $p < 0.05$ , \*\* =  $p < 0.01$ , \*\*\* =  $p < 0.001$ . PSSI = PTSD Symptom Severity Interview, PSQ = Post Session Questionnaire, MRA = Multiple Regression Analysis.

**Contribution of re-experiencing procedure on regression between pre-therapy PTSD symptom severity and process variables over therapy.** To test whether re-experiencing condition (IC/EE) affected the hypothesized relationship between PTSD symptom severity and therapy processes, the process variables that were stable over therapy (averaged over early, middle, and late sessions) and had a main effect for re-experiencing procedures in preliminary analyses were analyzed with a MRA. Re-experiencing procedure entered in the second step as a moderator.

Results of the MRAs, with the included averaged process variables (peak distress on the SUDS and modal and peak emotional arousal on the EAS-R) predicting pre-treatment PTSD symptom severity with re-experiencing procedure (IC or EE) as a moderator, are presented in Table 6. As indicated in Table 6, re-experiencing procedure (IC/EE) did not moderate the relationship between any of the included process variables and pre-treatment PTSD symptom severity.

### **Summary of All Findings**

Table 7 outlines the preliminary analyses and hypotheses along with the associated statistical analyses and findings.

Table 6

*MRA ANOVA Source Table for Separate Regressions (With Re-Experiencing Procedure Entered as a Moderator) of Pre-Treatment PTSD Symptom Severity as Predicted by Averaged Process Variables*

Averaged Process Variable	Regression df	Residual df	F Change	Sig.	Adjusted R <sup>2</sup>
Modal EAS-R	1	41	0.95	0.34	0.14
Peak EAS-R	1	41	0.77	0.39	0.10
Peak SUDS	1	40	0.59	0.45	0.14

*Note.* \* =  $p < 0.05$ , \*\* =  $p < 0.01$ , \*\*\* =  $p < 0.001$ . MRA = Multiple Regression Analysis, PSSI = PTSD Symptom Severity Interview, EXP = Patient Experiencing Scale, EAS-R = Emotional Arousal Scale Revised, SUDS = Subjective Units of Distress Scale.

Table 7

*Summary of Preliminary Analyses, Hypotheses, Analyses Performed, and Findings*

Preliminary Analyses	Analyses Performed	Findings
Compared Ralston ( $n = 15$ ) and Jongsma ( $n = 17$ ) samples on peak and modal experiencing and emotional arousal	MANOVA	<ul style="list-style-type: none"> <li>No significant differences</li> </ul>
Assessed effect for therapy progression and re-experiencing procedure for each process variable	Repeated measures ANOVAs (early, middle, and late sessions), IC/EE as between subjects factor	<ul style="list-style-type: none"> <li>No effect for therapy progression for modal and peak EXP, modal and peak EAS-R, and average and peak SUDS</li> <li>Significant effect for therapy progression for client PSQ</li> </ul>

*Note.* MANOVA = Multivariate Analysis of Variance; ANOVA = Analysis of Variance; IC = Imaginal Confrontation; EE = Empathic Exploration; EXP = Patient Experiencing Scale; EAS-R = Emotional Arousal Scale-Revised; SUDS = Subjective Units of Distress.

Table 7 Continued

*Summary of Preliminary Analyses, Hypotheses, Analyses Performed, and Findings*

Hypothesis	Analyses Performed	Findings
1. More severe pre-therapy PSSI related to increased SUDS and decreased EXP, EAS-R, and client PSQ	Process variables with effect for time: MRAs <hr/> Process variables with no effect for time: correlations (process variables averaged over early, middle, and late sessions)	<ul style="list-style-type: none"> <li>Client PSQ MRA was not significant (H1 not supported)</li> </ul> <hr/> <ul style="list-style-type: none"> <li>Correlations for modal EXP, peak EXP, and average SUDS were not significant (H1 not supported)</li> <li>Increased pre-therapy PSSI associated with increased peak SUDS (H1 supported)</li> <li>Increased pre-therapy PSSI associated with increased modal and peak EAS-R (H1 not supported)</li> </ul>

*Note.* MRA = Multiple Regression Analysis; PSSI = PTSD Symptom Severity Interview; EXP = Patient Experiencing Scale; EAS-R = Emotional Arousal Scale-Revised; PSQ = Post Session Questionnaire; SUDS = Subjective Units of Distress.

Table 7 Continued

*Summary of Preliminary Analyses, Hypotheses, Analyses Performed, and Findings*

Hypothesis	Analyses Performed	Findings
2. The effect of pre-therapy PSSI would diminish over therapy	Process variables with effect for therapy progression: MRA	MRA of client PSQ was not significant (H2 not supported)
	Process variables with no change over therapy: not significant because of no effect for therapy progression	H2 not supported
3. Higher modal and peak EAS-R in IC compared to EE	Repeated measures ANOVAs (early, middle, and late sessions) for modal and peak EAS-R, IC/EE as between subjects factor	Higher modal and peak emotional arousal (EAS-R) in IC compared to EE (H3 supported)

*Note.* MRA = Multiple Regression Analysis; IC = Imaginal Confrontation; EE = Empathic Exploration; PSSI = PTSD Symptom Severity Interview; EAS-R = Emotional Arousal Scale-Revised; PSQ = Post Session Questionnaire.

## DISCUSSION

### **Key Findings**

The present study examined the contribution of pre-treatment post-traumatic stress disorder (PTSD) symptom severity on client processes (experiencing, emotional arousal, emotional engagement with trauma material, and distress) during re-experiencing procedures (IC and EE) over early, middle, and late sessions of emotion-focused therapy for complex trauma (EFTT).

Results indicated that client engagement with trauma material on the client PSQ increased from early to late re-experiencing episodes, while all other measured processes (experiencing, emotional arousal, and distress) were stable over therapy progression. Results also indicated lower levels of emotional arousal (consistent with H3) and peak experiencing in EE compared to IC, while other processes during these different procedures were comparable. Finally, more severe pre-treatment PTSD symptom severity was associated with higher peak distress and higher emotional arousal averaged across therapy. The former partly supports H1.

Overall, the present study found little evidence that PTSD symptom severity negatively impacted therapy processes. Rather results indicated that not only do clients with a range of moderate PTSD symptom severity have good outcomes in EFTT (Paivio et al., 2010), but they also have generally productive therapy processes. Clients in EFTT with more severe trauma symptoms remain able to engage in and explore trauma material despite experiencing more distress and emotional arousal compared to clients with less severe symptomatology. The theoretical and clinical importance and implications of the

present study are discussed below, along with an exploration of the relevance to the broader literature and how the present study can inform future research.

### **Preliminary Analyses**

**Sample.** The sample consisted of adult survivors (women  $n = 26$ , men  $n = 21$ ) of childhood neglect and/or physical, sexual, and/or emotional abuse that were randomly assigned to EFTT with IC or with EE. This is a more diverse sample compared to most others reported in the literature. The majority of published treatments for complex trauma focus exclusively on female survivors of sexual abuse (i.e. Cloitre et al., 2010; Krupnick, Green, Miranda, & Stockton, 2008).

**Client characteristics.** Clients in the original outcome study (Paivio et al., 2010) were screened for the capacity to emotionally regulate and suitability for short term therapy, with clients with severe emotional dysregulation problems excluded from the study. The average client pre-treatment PTSD symptom severity was in the moderate range. However, problems with suicidality, co-morbidity with substance abuse, and self-harm are common features of complex trauma described in the literature (Courtois & Ford, 2009). Given the specificity of the sample in terms of symptom severity and selection criteria, results of the present study may not generalize to clients with more severe disturbance.

**Therapy process variables.** For clients in the present study, levels of emotional arousal (EAS-R) and distress (SUDS) were in the moderate range and emotional engagement with trauma material (PSQ) during re-experiencing procedures ranged from moderate to high. The level and quality of these observer-rated and client-reported processes are consistent with theory regarding re-experiencing procedures in EFTT. It is

difficult for clients to confront trauma feelings and memories, and re-experiencing procedures are notoriously stressful and can have low compliance and high drop-out rates (McFarlane & Yehuda, 2000; Paivio & Pascual-Leone, 2010). The IC and EE procedures in EFTT were designed to optimize client capacity to explore and process trauma material and consequently therapy outcome. During IC and EE, therapists provide the clients with empathy and clients have control over what trauma material is explored and how often it is explored in order to promote engagement and manage distress (Paivio & Pascual-Leone, 2010). In terms of quality of processes compared to other studies, the modal ( $M = 3.87$ ) and peak ( $M = 4.85$ ) client experiencing averaged over early, middle, and late sessions were high relative to an experiential therapy study for depression in which the average experiencing was 2.99 (Pos, Greenberg, Goldman, & Korman, 2003). Level four on the experiencing measure (EXP) is characterized by descriptions of feelings and internal experiences, while level three is characterized by personal reactions to external events (Klein et al., 1989). Thus on average, clients in the present study were more consistently focused on affective experience during trauma exploration, which is consistent with the EFTT treatment model and emotional processing of trauma material as the posited mechanism of change (Paivio & Pascual-Leone, 2010). Given that higher levels of experiencing are associated with good client outcome (Ralston, 2006; Robichaud, 2004), the comparatively high levels of experiencing in EFTT support EFTT as an effective therapy according to not only outcome measures (Paivio et al., 2010) but also adaptive therapy process measures.

Moderate levels of emotional arousal in the present study indicated sufficient intensity to activate trauma material and sufficient regulation to allow exploration of this

material. Again, this is consistent with expectations based on the EFTT treatment model (Paivio & Pascual-Leone, 2010). It also is noteworthy that present results indicated that anger followed by sadness were the most predominant types of emotion expressed per episode, which is consistent with Ralston's (2006) findings with a portion of the present study's sample. This is consistent with findings from previous research on EFTT in which anger and sadness were the predominant emotions expressed in episodes that clients found most helpful (Holowaty & Paivio, 2012). Again, this is consistent with the EFTT treatment model which posits that anger and sadness as catalysts for resolution of abuse issues and therapeutic change (Paivio & Pascual-Leone, 2010).

**Effect for therapy progression on process variables.** Results of the present study indicated that the only process variable that varied over therapy progression was engagement with trauma material, with clients reporting higher levels of engagement from early to late sessions during both IC and EE. The increase in engagement with trauma material (client PSQ) over therapy is consistent with expectations based on protocols for the IC and EE procedures. Therapists provide support and empathic responding and clients have control over the trauma material explored and the pace of exploration, so that clients become more comfortable with and feel less threatened by confronting trauma material and imagining perpetrators over time as they feel more empowered and resolved. Engagement also may have increased over therapy as therapist skill improved with supervision and experience and as PTSD symptoms and other symptoms of disturbance decreased.

Given that engagement with trauma material increased as therapy progressed, client engagement does not appear to be a stable client quality in EFTT. Instead, on

average, engagement with trauma material increases over therapy. This finding has implications for EFTT research and theory. Given that client engagement with trauma material appears to be contingent on therapy progression rather than a stable client process in EFTT, theoretically engagement with trauma material would be more sensitive to therapy progression than other more stable variables (i.e. experiencing). Future EFTT research on therapy processes could examine if client engagement with trauma material plateaus when clients have become more resolved or if client engagement that is stable or decreases over therapy is indicative of less optimal outcome or increased dropout rates.

On the other hand, all other measured processes (experiencing, emotional arousal, and distress) were stable over the course of therapy. The stability of distress from early to late re-experiencing episodes in EFTT in particular differs from findings regarding exposure in CBT. Jaycox and colleagues (1998) found that for good outcome clients distress was high at the beginning of therapy and gradually decreased. Authors explained this finding in terms of habituation to exposure processes. Stability of client distress in an effective trauma therapy such as EFTT suggests other change mechanisms besides habituation. It also suggests that clients can benefit from trauma exploration even though confronting trauma material continues to be moderately distressing as long as that distress is managed and supports are provided.

In terms of the stability of emotional arousal from early to late sessions of EFTT, this partly could be explained by the emphasis on safety and emotion regulation during the first three sessions. Therefore, by session four clients could have reached their optimal arousal levels when confronting trauma material. In contrast to the stable levels of emotional arousal found in the present study, Mackay, Farkham, Stiles and Goldfried

(2002) reported different patterns of emotional arousal over the course of therapy for depression between therapy modalities, with lowest emotional arousal in middle sessions for cognitive behavioural therapy and highest emotional arousal in middle sessions for psychodynamic therapy. In the present study, emotional arousal was measured during trauma exploration which is designed to be emotionally evocative, unlike the aforementioned study which rated the emotional arousal of entire sessions. MacKay and colleagues' (2002) study provides evidence that levels of process variables over therapy vary based on the specific therapy modality. Therefore, the present study on therapy processes in re-experiencing procedures in EFTT found different patterns of process variable levels over therapy than other process therapy studies, and this variability in findings may be indicative of differences in client samples, therapy modalities, and episode selection methods between the studies.

Stability of experiencing in the present study is inconsistent with results reported by Pos, Greenberg, Goldman, and Korman (2003) for experiential therapy for depression, in which experiencing significantly increased from early to late sessions. These different results could be partly due to the nature of depression symptoms characterized by emotional flatness, or the sampling procedure. The present study specifically sampled experiencing during trauma re-experiencing procedures which was not the case in the Pos and colleagues' study. These procedures are designed to consistently promote maximum meaning exploration, and consequently are expected to be emotionally evocative (Paivio & Pascual-Leone, 2010).

The stability of experiencing, emotional arousal, and distress following session four may also indicate that these process measures are affected by relatively stable

factors, such as client characteristics and alliance. It is possible that by session four (the first session sampled in the present study), clients had attained their typical and characteristic level of arousal, distress, and meaning exploration when exploring trauma material. This highlights the importance of facilitating high quality processes early in therapy because the quality of early processes set the course for therapy processes later in therapy. For example, there is evidence supporting the importance of alliance quality early in therapy as a predictor of outcome (Horvath & Greenberg, 1989).

Future studies should examine if experiencing, emotional arousal, and distress changed from the first to fourth session of EFTT. Future research could also test the apparent finding that experiencing, emotional arousal, and distress appear to be stable over therapy during re-experiencing episodes in EFTT. Additionally, future studies could compare experiencing, emotional arousal, and distress ratings for whole session durations over therapy, given that these process variables may only be stable over therapy during the evocative re-experiencing episodes.

**Effect of treatment condition (IC or EE) on process variables.** Consistent with H3, results of the present study indicated that the EE procedure had significantly lower observed peak experiencing (EXP) and modal and peak emotional arousal (EAS-R) compared to IC. All other processes in the different procedures were comparable. These findings with the entire sample of therapy completers were consistent with Ralston's (2006) findings for a subset of the sample used in the present study. The finding concerning arousal is consistent with EFTT theory and intentions underlying the development of EE as a less evocative and stressful re-experiencing procedure compared to IC (Paivio & Pascual-Leone, 2010). This finding also consistent with the lower drop-

out rates in EE compared to IC (7% in EE compared to 20% in IC) that were reported in the outcome study which was the source of the archival data in the present study (Paivio et al., 2010). This finding has implications for clinical practice and future research. For instance, EFTT therapists could recommend clients with severe PTSD symptom severity and at risk for dropout to EE rather than IC in order to minimize the risk of dropout and emotional dysregulation. Future research could examine the effectiveness of such selective assignment.

Importantly, however, EE was designed to be identical to IC in terms of steps in the process of resolution (Greenberg & Foerster, 1997) and intervention principles (Paivio et al., 2010). The present study with the entire sample of therapy completers found no differences between IC and EE in terms of modal depth of experiencing, levels of emotional engagement with trauma material, and levels of distress. This indicates that during both procedures clients were able to access imagined perpetrators of abuse and neglect and to express and explore feelings and associated meanings (i.e., the impact of abuse on sense of self). Interestingly, clients reported that confronting traumatic experiences was equally distressing regardless of the procedure.

**Inter-correlations among process variables.** Present findings indicated that higher levels of arousal were associated with higher levels of distress during trauma exploration. The emotions associated with traumatic experiences are by definition distressing, so some distress is expected when clients are engaged in trauma exploration. However, results indicated that other key processes – engagement, experiencing, arousal (distress) - were independent of each other, indicating distinct client processes during trauma exploration. This is partly consistent with expectations based on the definitions of

each of these constructs. For example, while moderate levels of meaning exploration (EXP) require some emotional arousal, high levels of meaning exploration require low levels of emotional arousal. However, high quality emotional engagement with trauma material requires some spontaneous elaboration of meaning and high levels of emotional arousal (Paivio & Pascual-Leone, 2010). Perhaps the difference here is that engagement also is a function of time - how long the client was engaged in exploring trauma material. This dimension is not relevant to either experiencing or arousal. Overall, it is a strength of the present study that it is the first to examine four distinct client processes during two distinct re-experiencing procedures.

### **Primary Analyses**

Consistent with expectations, more severe pre-treatment PTSD symptom severity was significantly associated with higher distress over therapy. However, future research is needed to determine whether high levels of distress during IC and EE indeed are associated with poorer outcome in EFTT. Contrary to study expectations (H1), more severe PTSD symptom severity (PSSI) pre-treatment was significantly associated with higher rather than lower levels of emotional arousal (modal and peak EAS-R) over the course of therapy. It was originally theorized that the PTSD symptom of avoidance would lead to overall reduced arousal, given that individuals exposed to traumatic events often use emotional avoidance rather than becoming overwhelmed (Paivio & Pascual-Leone, 2010). In addition, given that the sample was screened for problems with emotional dysregulation, the author expected that clients with predominantly hyper-arousal symptoms were more likely to be filtered out for emotional dysregulation, leaving clients with more predominant avoidance symptoms. The assumption also was that extremely

high levels of emotional arousal would be maladaptive and interfere with clients' capacity to confront trauma material without being overwhelmed. In retrospect, it appears that clients entering therapy with the highest levels of PTSD symptom severity also found re-experiencing trauma material during IC and EE most evocative, and that may have been a benefit rather than a hindrance to effective therapy. EFTT (Paivio & Pascual-Leone, 2010) and trauma theory (Foa, Hembree, & Rothbaum, 2007) posit that a degree of emotional arousal is required to access trauma feelings and memories so they are available for emotional processing and change. Ralston (2006) found that higher emotional arousal contributed to improved outcome in the EE treatment condition ( $n = 15$ ), with a subset of the present study's sample. Paivio and colleagues (2010) found that more severe PTSD was associated with greater improvements in self-esteem, at least in the EE condition. Future research with the entire sample of therapy completers can determine whether higher levels of emotional arousal contribute to good outcome.

Pre-treatment PTSD symptom severity did not significantly influence average distress (SUDS), depth of experiencing (modal and peak EXP), or engagement with trauma material (client PSQ) during re-experiencing procedures. Therefore, clients with increased trauma symptoms could explore internal experience and make meaning at similar levels to clients with less symptom severity, but they displayed more emotional arousal and distress. Given that on average, clients reported moderate pre-treatment PTSD symptom severity, it is possible that with the emphasis on empathy and emotion regulation, trauma symptoms reduced by session four and no longer influenced meaning exploration, average distress, or engagement. The nature of the IC and EE trauma exploration procedures may help to explain this finding. As noted earlier, therapist

empathy and support are essential to both of these procedures and that clients had control over what trauma material was explored and how often it was explored during the re-experiencing procedures. Therefore, clients may have been able to reach moderate to high levels of therapy processes given the therapist support and control over the trauma exploration procedure (Paivio & Pascual-Leone, 2010). It also is possible that therapist empathy and support during early sessions contributed to diminished interference of therapy processes by trauma symptom severity by the time these procedures were introduced at session four.

Overall, there was little evidence that PTSD symptom severity negatively impacted therapy processes. Rather results indicated that not only do clients with moderate PTSD symptom severity have good outcomes in EFTT (Paivio et al., 2010), but they also have generally productive therapy processes (high experiencing and emotional arousal). Clients who entered therapy with more severe trauma symptoms experienced more distress and emotional arousal than clients with less severe symptomatology, but they were able to engage in and explore trauma material and benefit from therapy.

These findings inform clinical practice for EFTT therapists. For clients with severe trauma symptoms, therapists should be mindful of the probable heightened distress and emotional arousal during trauma exploration. It is possible that the gentler, less evocative EE procedure would be most appropriate for this group, at least until symptoms are reduced. This would enhance client engagement with and emotional processing of trauma material and minimize drop-out. The present study also has implications for EFTT research. EFTT was designed as a therapy for survivors of complex trauma which is strongly associated with PTSD (Widom, 1999). The finding that PTSD symptom

severity does not interfere with key therapy processes coupled with findings from previous research that these symptoms do not interfere with outcome (Paivio et al., 2010) strongly supports the applicability of both versions of EFTT (IC and EE) to individuals with PTSD, at least those who are suitable for short term trauma focused therapy. Future research can examine the contributions of these in-session processes to outcome in the entire sample of therapy completers and the contributions of therapists to good process.

### **Strengths of the Present Study**

This is the first study to examine the effects of pre-treatment PTSD symptom severity on client processes during trauma exploration in EFTT using two different re-experiencing procedures. Moreover, this is the first study to examine and compare the quality of four independent therapy processes during these two procedures. Results strongly support the EFTT treatment model and the applicability of both interventions to clients entering therapy with PTSD. Given that EFTT is a specialized treatment for complex trauma, the examination of how trauma symptom severity affects therapy process is highly relevant. The present study supported the specialization of EFTT for clients with complex trauma, given that more severe trauma symptoms did not interfere with EFTT progression and engagement.

The present study has numerous implications for EFTT theory, future research, and clinical practice, which were specifically addressed above in conjunction with the associated findings. The link between PTSD symptom severity before therapy and therapy processes could inform therapists about therapy process trends for clients with more severe PTSD symptom severity and could contribute to future research on optimizing therapy for individuals experiencing trauma symptoms. Additionally, the

findings supported EFTT theory which posited that EE is a less evocative re-experiencing procedure compared to IC (Paivio & Pascual-Leone, 2010) and identified EE as an effective treatment alternative for this vulnerable client group.

Methodological strengths include variables that were measured from multiple perspectives (clinical interviews, observer-ratings, and self-reports) so that results are not a function of shared method variance. Additionally, the study used standardized observer rated process measures with good validity, reliability, and inter-rater reliability which increased confidence in the validity of the findings.

### **Limitations of Present Study**

The inferences and conclusions that can be drawn from this study are limited by a few factors. First, the small sample size of 47 clients and multiple comparisons potentially inflated Type II error so that some findings may have been due to chance. The small sample also limited statistical power to detect small effects. Additionally, violations of assumptions limit conclusions that can be drawn from study findings. For instance, violations of assumptions of multivariate normality, sphericity, and independence of errors could have resulted in imprecise statistical results. The removal of outliers was warranted based on statistical convention; however the removal of any outliers when the sample is small runs the risk of skewing results based on differences between the outliers and included clients. Although the clients that were removed as outliers did not differ in demographics from the included clients, results still may have been affected. Last, the present study focused on EFTT for adult survivors of childhood abuse who were screened for appropriateness for short term trauma focused therapy, which excluded clients with emotional dysregulation or extreme PTSD symptom severity. This limits the ability to

generalize the study findings to clients with more severe problems, which are often observed in survivors of complex trauma. Findings also cannot be generalized to other trauma therapies.

## **Conclusions**

Results of the present study indicated that PTSD symptom severity before the onset of therapy had a minimal effect on therapy processes during trauma exploration with the exception of increased emotional arousal and peak distress. Therapist attention to symptom distress in early sessions plus provision of empathy and client control over the process during re-experiencing procedures likely minimized the influence of pre-treatment PTSD symptom severity on therapy processes. In addition, the study findings also supported empathic exploration (EE) as a less evocative and stressful re-experiencing procedure compared to imaginal confrontation (IC; Paivio & Pascual-Leone, 2010). As noted earlier, the study provided strong support for the EFTT treatment model and the applicability of both the IC and EE interventions to clients who enter therapy with PTSD.

## REFERENCES

- Álvarez, M. J., Roura, P., Osés, A., Foguet, Q., Solà, J., & Arrufat, F. X. (2011). Prevalence and clinical impact of childhood trauma in patients with severe mental disorders. *The Journal of Nervous and Mental Disease*, 199(3), 156-161.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- Australian Institute of Health and Welfare (AIHW) (2004). Child Protection Australia 2002-2003. AIHW cat. No. CWS 22. Canberra: AIHW (Child Welfare Series no. 34).
- Bacon, H., & Richardson, S. (2001). Attachment theory and child abuse: An overview of the literature for practitioners. *Child Abuse Review*, 10(6), 377-397.
- Badenoch, B. (2008). *Being a brain-wise therapist: A practical guide to interpersonal neurobiology* (Norton Series on Interpersonal Neurobiology). New York, NY: WW Norton & Company.
- Bernstein, D., & Fink, L. (1998). *Manual for the Childhood Trauma Questionnaire*. New York, NY: The Psychological Corporation.
- Berry, W. D. (1993). *Understanding regression assumptions*. Sage university paper series on quantitative applications in the social sciences. 07-092. Newbury Park, CA: Sage.
- Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human*

*development*. New York: Basic Books, Inc.

Brewin, C. R., Andrews, B., & Gotlib, I. H. (1993). Psychopathology and early experience: A reappraisal of retrospective reports. *Psychological Bulletin*, 113(1), 82.

Briere, J. (1992). *Child abuse trauma: Theory and treatment of the lasting effects* (Vol. 2). Thousand Oaks, CA: Sage Publications, Incorporated.

Briere, J., & Scott, C. (2012). *Principles of trauma therapy: A guide to symptoms, evaluation, and treatment*. New York, NY: Sage Publications.

Castonguay, L. G., Goldfried, M. R., Wiser, S., Raue, P. J., & Hayes, A. M. (1996). Predicting the effect of cognitive therapy for depression: A study of unique and common factors. *Journal of Consulting and Clinical Psychology*, 64(3), 497-504.

Cawson, P., Wattam, C., Brooker, S. and Kelly, G. (2000). *Child maltreatment in the United Kingdom: a study of the prevalence of child abuse and neglect*. London: NSPCC.

Chagigiorgis, H. (2009). *The contributions of emotional engagement with trauma material to outcome in two version of emotion focused trauma therapy (EFTT)*. Unpublished doctoral dissertation, University of Windsor, Windsor, Ontario, Canada.

Chard, K. M., Weaver, T. L., & Resick, P. A. (1997). Adapting cognitive processing therapy for child sexual abuse survivors. *Cognitive and Behavioral Practice*, 4(1), 31-52.

Cloitre, M., Stovall-McClough, K. C., Noonan, K., Zorbas, P., Cherry, S., Jackson, C. L., ... & Petkova, E. (2010). Treatment for PTSD related to childhood abuse: A

- randomized controlled trial. *American Journal of Psychiatry*, 167(8), 915-924.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Cohen, L. R., & Hien, D. A. (2006). Treatment outcomes for women with substance abuse and PTSD who have experienced complex trauma. *Psychiatric Services*, 57(1), 100-106.
- Courtois, C. A. (2008). Complex trauma, complex reactions: Assessment and treatment. *Psychotherapy: Theory, Research, Practice, Training* 41(4), 412-425.
- Courtois, C. A., & Ford, J. D. (2009). *Treating complex traumatic stress disorders: An evidence-based guide*. New York, NY: Guilford Press.
- Damasio, A. R. (1999). *The feeling of what happens: Body and emotion in the making of consciousness*. New York, NY: Harcourt.
- Department for Education and Skills (2004). *Referrals, Assessments and Children and Young People on Child Protection Registers: Year Ending 31 March 2003*. London: TSO.
- Dong, M., Anda, R. F., Felitti, V. J., Dube, S. R., Williamson, D. F., Thompson, T. J., ... & Giles, W. H. (2004). The interrelatedness of multiple forms of childhood abuse, neglect, and household dysfunction. *Child Abuse & Neglect*, 28(7), 771-784.
- Fergusson, D.M., Horwood, L.J. & Lynskey, M.T. (1996). Childhood sexual abuse and psychiatric disorders in young adulthood. Part II. Psychiatric outcomes of sexual abuse. *Journal of the American Academy of Child and Adolescent Psychiatry*, 35(10), 1365-1374.
- Fergusson, D. M., Boden, J. M., & Horwood, L. J. (2008). Exposure to childhood sexual

and physical abuse and adjustment in early adulthood. *Child Abuse & Neglect*, 32(6), 607-619.

Field, A. (2005). *Discovering statistics with SPSS* (2<sup>nd</sup> ed.). London: Sage.

Foa, E., Hembree, E., & Rothbaum, B. O. (2007). *Prolonged exposure therapy for PTSD: Emotional processing of traumatic experiences therapist guide*. Oxford: Oxford University Press.

Foa, E. B., Huppert, J. D., & Cahill, S. P. (2006). *Emotional processing theory: An Update*. New York, NY: Guilford Press.

Foa, E. B., Keane, T. M., & Friedman, M. J. (Eds.). (2000). *Practice guidelines from the international society for traumatic stress studies: Effective treatments for PTSD*. New York, NY: The Guilford Press.

Foa, E. B., Riggs, D. S., Dancu, C. V. & Rothbaum, B. O. (1993). Reliability and validity of a brief instrument for assessing posttraumatic stress disorder. *Journal of Traumatic Stress*. 6(4), 459-473.

Gladstone, G. L., Parker, G. B., Mitchell, P. B., Malhi, G. S., Wilhelm, K., & Austin, M. P. (2004). Implications of childhood trauma for depressed women: an analysis of pathways from childhood sexual abuse to deliberate self-harm and revictimization. *American Journal of Psychiatry*, 161(8), 1417-1425.

Green, B. L. (1990). Defining trauma: Terminology and generic stressor dimensions. *Journal of Applied Social Psychology*, 20(20), 1632-1642.

Green, S. B. (1991). How many subjects does it take to do a regression analysis? *Multivariate Behavioural Research*, 26 (3), 499-510.

Greenberg, L. S., & Foerster, F. (1996). Task analysis exemplified: The process of

- resolving unfinished business. *Journal of Consulting and Clinical Psychology*, 64(3), 439-446.
- Greenberg, L. S., & Malcolm, W. (2002). Resolving unfinished business: Relating process to outcome. *Journal of Consulting and Clinical Psychology*, 70(2), 406-416.
- Greenberg, L. S., & Paivio, S. (1997). *Working with emotions: Changing core schemes*. New York, NY: Guilford Press.
- Greenberg, L. S., & Paivio, S. C. (2003). *Working with emotions in psychotherapy* (Vol. 13). New York, NY: Guilford Press.
- Greenberg, L. S., & Pascual-Leone, A. (2006). Emotion in psychotherapy: A practice-friendly research review. *Journal of Clinical Psychology*, 62(5), 611-630.
- Greenberg, L. S., Rice, L. N., & Elliott, R. (1993). *Facilitating emotional change: The moment-by-moment process*. New York, NY: Guilford Press.
- Greenberg, L. S., & Safran, J. D. (1987). *Emotion in psychotherapy*. New York, NY: Guilford Press.
- Greenberg, L. S., & Watson, J. C. (2006). *Emotion-focused therapy for depression*. Washington, DC: American Psychological Association.
- Herman, J. L. (1992). Complex PTSD: A syndrome in survivors of prolonged and repeated trauma. *Journal of Traumatic Stress*, 5(3), 377-391.
- Holowaty, K. (2004). *Process characteristics of client-identified helpful events in emotion-focused therapy for adult survivors of childhood abuse (EFT-AS)*. Unpublished doctoral dissertation, University of Windsor, Windsor, Ontario, Canada.

- Holowaty, K. A. M., & Paivio, S. C. (2012). Characteristics of client-identified helpful events in emotion-focused therapy for child abuse trauma. *Psychotherapy Research, 22*(1), 56-66.
- Horowitz, M., Wilner, N., & Alvarez, W. (1979). Impact of event scale: A measure of subjective stress. *Psychosomatic Medicine, 41*(3), 209-218.
- Horvath, A. O., & Greenberg, L. S. (1989). Development and validation of the working alliance inventory. *Journal of Counseling Psychology, 36*(2), 223-233.
- Jenkins, S. R., & Baird, S. (2002). Secondary traumatic stress and vicarious trauma: A validation study. *Journal of Traumatic Stress, 15*(5), 423-432.
- Jaycox, L. H., Foa, E. B., & Morral, A. R. (1998). Influence of emotional engagement and habituation on exposure therapy for PTSD. *Journal of Consulting and Clinical Psychology, 66*(1), 185-192.
- Kiesler, D. J. (1971). Patient experiencing and successful outcome in individual psychotherapy of schizophrenics and psychoneurotics. *Journal of Consulting and Clinical Psychology, 37*(3), 370-385.
- Kim, D., Bae, H., & Chon Park, Y. (2008). Validity of the subjective units of disturbance scale in EMDR. *Journal of EMDR Practice and Research, 2*(1), 57-62.
- Klein, M. H., Mathieu, P. L., Gendlin, E. T. & Kiesler, D. J. (1969). *The experiencing scale: A research and training manual* (Vol. 1). Madison, WI: University of Wisconsin Extension Bureau of Audiovisual Instruction.
- Klein, M. H., Mathieu-Coughlan, P., & Kiesler, D. J. (1989). The experiencing scales. In L. S. Greenberg & W. M. Pinsof (Eds.), *The psychotherapeutic process: A research handbook* (pp. 21-71). New York, NY: Guilford Press.

- Krupnick, J. L. (2002). Brief psychodynamic treatment of PTSD. *Journal of Clinical Psychology, 58*(8), 919-932.
- Krupnick, J. L., Green, B. L., Stockton, P., Miranda, J., Krause, E., & Mete, M. (2008). Group interpersonal psychotherapy for low-income women with posttraumatic stress disorder. *Psychotherapy Research, 18*(5), 497-507.
- Lang, P. J. (1995). The emotion probe. *American Psychologist, 50*(5), 372-385.
- LeDoux, J. (1996). *The emotional brain: The mysterious underpinnings of emotional life*. New York, NY: Simon & Schuster.
- Lee, D. A., Scragg, P., & Turner, S. (2001). The role of shame and guilt in traumatic events: A clinical model of shame-based and guilt-based PTSD. *British Journal of Medical Psychology, 74*(4), 451-466.
- Littrell, J. (1998). Is the re-experience of painful emotion therapeutic? *Clinical Psychology Review, 18*(1), 71-102.
- Machado, P. P., Beutler, L. E. & Greenberg, L. S. (1999). Emotion recognition in psychotherapy: Impact of therapist level of experience and emotional awareness. *Journal of Clinical Psychology, 55*(1), 39-57.
- Mackay, H. C., Barkham, M., Stiles, W. B., & Goldfried, M. R. (2002). Patterns of client emotion in helpful sessions of cognitive-behavioral and psychodynamic-interpersonal therapy. *Journal of Counseling Psychology, 49*(3), 376-380.
- MacMillan, H.L., Tanaka, M., Duku, E., Vaillancourt, T., & Boyle, M.H. (2013). Child physical and sexual abuse in a community sample of young adults: Results from the Ontario child health study. *Child Abuse & Neglect, 37*(1), 14-21.
- Malinosky, R. R., & Hansen, D. J. (1993). Long term consequences of childhood

- physical abuse. *Psychological Bulletin*, 114(1), 68-79.
- McFarlane, A. C., & Yehuda, R. (2000). Clinical treatment of posttraumatic stress disorder: Conceptual challenges raised by recent research. *Australian and New Zealand Journal of Psychiatry*, 34(6), 940-953.
- McGee, H., Garavan, R., de Barra, M., Byrne, J. & Conroy, R. (2003). *The SAVI report: Sexual abuse and violence in Ireland*. Dublin: Liffey Press.
- Miles, J. & Shelvin, M. (2001). *Applying regression and correlation: A guide for students and researchers*. London: Sage Publications Inc.
- Mlotek, A. (2013). *The contribution of therapist empathy to client engagement and outcome in emotion-focused therapy for complex trauma*. Unpublished masters thesis, University of Windsor, Windsor, Ontario, Canada.
- Mullen, P. E., Martin, J. L., Anderson, J. C., Romans, S. E., & Herbison, G. P. (1996). The long-term impact of the physical, emotional, and sexual abuse of children: A community study. *Child Abuse & Neglect*, 20(1), 7-21.
- Najavits, L. M., Weiss, R. D., Shaw, S. R., & Muenz, L. R. (1998). "Seeking safety": Outcome of a new cognitive-behavioral psychotherapy for women with posttraumatic stress disorder and substance dependence. *Journal of Traumatic Stress*, 11(3), 437-456.
- Neumann, D. A., Houskamp, B. M., Pollock, V. E., & Briere, J. (1996). The long-term sequelae of childhood sexual abuse in women: A meta-analytic review. *Child Maltreatment*, 1(1), 6-16.
- Paivio, S. C., Hall, I., Holowaty, K., Jellis, J., & Tran, N. (2001). Imaginal confrontation for resolving child abuse issues. *Psychotherapy Research*, 11(4), 433-453.

- Paivio, S. C., Jarry, J. L., Chagigiorgis, H., Hall, I. & Ralston, M. (2010). Efficacy of two versions of emotion-focused therapy for resolving child abuse trauma. *Psychotherapy Research*, 20(3), 353-366.
- Paivio, S. C. & Nieuwenhuis, J. A. (2001). Efficacy of emotion focused therapy for adult survivors of child abuse: A preliminary study. *Journal of Traumatic Stress*, 14(1), 115-133.
- Paivio, S. C. & Pascual-Leone, A. (2010). *Emotion-focused therapy for complex trauma: An integrative approach*. Washington, D.C.: American Psychological Association.
- Paivio, S. C., & Patterson, L. A. (1999). Alliance development in therapy for resolving child abuse issues. *Psychotherapy: Theory, Research, Practice, Training*, 36(4), 343-352.
- Paolucci, E. O., Genuis, M. L., & Violato, C. (2001). A meta-analysis of the published research on the effects of child sexual abuse. *The Journal of Psychology*, 135(1), 17-36.
- Pearlman, L. A., & Courtois, C. A. (2005). Clinical applications of the attachment framework: Relational treatment of complex trauma. *Journal of Traumatic Stress*, 18(5), 449-459.
- Pilkington, B., & Kremer, J. (1995). A review of the epidemiological research on child sexual abuse: Clinical samples. *Child Abuse Review*, 4(3), 191-205.
- Plutchik, R. (1986). *Emotion: Theory, research, and experience* (Vol. 3). H. Kellerman (Ed.). New York, NY: Academic press.
- Pos, A. E., & Greenberg, L. S. (2007). Emotion-focused therapy: The transforming power

- of affect. *Journal of Contemporary Psychotherapy*, 37(1), 25-31.
- Pos, A. E., Greenberg, L. S., Goldman, R. N., & Korman, L. M. (2003). Emotional processing during experiential treatment of depression. *Journal of Consulting and Clinical Psychology*, 71(6), 1007-1016.
- Putnam, F. (2003). Ten-year research update review: Child sexual abuse. *Journal of the American Academy of Child Adolescent Psychiatry*, 42(3), 269–278.
- Ralston, M. (2006). *Emotional arousal and depth of experiencing in imaginal confrontation versus evocative empathy*. Unpublished doctoral dissertation, University of Windsor, Windsor, Ontario, Canada.
- Read, J., Os, J. V., Morrison, A. P., & Ross, C. A. (2005). Childhood trauma, psychosis and schizophrenia: A literature review with theoretical and clinical implications. *Acta Psychiatrica Scandinavica*, 112(5), 330-350.
- Resick, P. A., Nishith, P., & Griffin, M. G. (2003). How well does cognitive-behavioral therapy treat symptoms of complex PTSD? An examination of child sexual abuse survivors within a clinical trial. *CNS Spectrums*, 8(5), 340-355.
- Robichaud, K. (2004). *Depth of experiencing as a client prognostic variable in emotion-focused therapy for adult survivors of childhood abuse*. Unpublished doctoral dissertation, University of Windsor, Windsor, Ontario, Canada.
- Rosner, R. (1996). *The relationship between emotional expression, treatment, and outcome in psychotherapy*. Frankfurt, Germany: Lang.
- Rowan, A. B., & Foy, D. W. (1993). Post-traumatic stress disorder in child sexual abuse survivors: A literature review. *Journal of Traumatic Stress*, 6(1), 3-20.
- Schottenbauer, M. A., Glass, C. R., Arnkoff, D. B., & Gray, S. H. (2008). Contributions

- of psychodynamic approaches to treatment of PTSD and trauma: A review of the empirical treatment and psychopathology literature. *Psychiatry: Interpersonal and Biological Processes*, 71(1), 13-34.
- Seedat, S., Nyamai, C., Njenga, F., Vythilingum, B., & Stein, D. J. (2004). Trauma exposure and post-traumatic stress symptoms in urban African schools Survey in Cape Town and Nairobi. *The British Journal of Psychiatry*, 184(2), 169-175.
- Seidler, G. H., & Wagner, F. E. (2006). Comparing the efficacy of EMDR and trauma-focused cognitive-behavioral therapy in the treatment of PTSD: A meta-analytic study. *Psychological Medicine*, 36(11), 1515-1522.
- Springer, K. W., Sheridan, J., Kuo, D., & Carnes, M. (2007). Long-term physical and mental health consequences of childhood physical abuse: Results from a large population-based sample of men and women. *Child Abuse & Neglect*, 31(5), 517-530.
- Stoltenborgh, M., Bakermans-Kranenburg, M. J., Alink, L. R., & van IJzendoorn, M. H. (2012). The universality of childhood emotional abuse: a meta-analysis of worldwide prevalence. *Journal of Aggression, Maltreatment & Trauma*, 21(8), 870-890.
- Stopping child abuse. (2008). In *Royal Canadian Mounted Police*. Retrieved August 8, 2014, from <http://www.rcmp-grc.gc.ca/pubs/ccaps-spcca/chi-enf-eng.htm>
- Tabachnick, B. G., & Fidell, L. S. (2008). *Using multivariate statistics*. Northridge, LA, Pearson.
- U.S. Department of Health and Human Services, Administration on Children, Youth and Families (2003). *Child Maltreatment 2001*. Washington, DC: U.S. Government

Printing Office.

- Waldinger, R. J., Schulz, M. S., Barsky, A. J., & Ahern, D. K. (2006). Mapping the road from childhood trauma to adult somatization: The role of attachment. *Psychosomatic Medicine*, 68(1), 129-135.
- Widom, C. S. (1999). Posttraumatic stress disorder in abused and neglected children grown up. *American Journal of Psychiatry*, 156(8), 1223-1229.
- Wiser, S., & Goldfried, M. (1993). Comparative study of emotional experiencing in psychodynamic–interpersonal and cognitive–behavioral therapies. *Journal of Consulting and Clinical Psychology*, 61(5), 892–895.
- Wolpe, J., & Lang, P. J. (1969). *Fear survey schedule*. San Diego, CA: Educational and Industrial Testing Service.
- Zlotnick, C., Mattia, J. I., & Zimmerman, M. (2001). The relationship between posttraumatic stress disorder, childhood trauma and alexithymia in an outpatient sample. *Journal of Traumatic Stress*, 14(1), 177-188.

## APPENDIX

### Short Form of the Client Experiencing Scale (EXP)

Level	Content	Treatment
1	External events; refusal to participate	Impersonal, detached
2	External events; behavioural or intellectual descriptions of self	Interested, personal, participation in the process
3	Personal reactions to external events; limited descriptions of self; behavioural descriptions of feelings	Reactive, emotionally involved
4	Descriptions of feelings and personal experiences	Self-descriptive, associative
5	Problems or propositions about feelings and personal experiences	Exploratory, elaborative, hypothetical
6	A “felt sense” of inner referent	Focused on there being more about “it” (the topic)
7	A series of “felt senses” connecting the content	Evolving, emergent

Rating for modal experiencing: \_\_\_\_\_

Rating for peak experiencing: \_\_\_\_\_

From:

Klein, M. H., Mathieu-Coughlan, P., & Kiesler, D. J. (1989). The experiencing scales. In L. S. Greenberg & W. M. Pinsof (Eds.), *The psychotherapeutic process: A research handbook* (pp. 21-71). New York, NY: Guilford Press.

## Client's Emotional Arousal Scale – Revised

Rate emotional quality (Circle apparent primary emotion):

Anger Fear Surprise Sadness Disgust Hurt Joy (Shame/Guilt)

Rate emotional intensity: Five Point Scale (Holowaty, 2004)

1. There is no visible emotional arousal in voice, body, gestures, or words. Clients either do not admit to any feelings and there is no visible evidence of arousal or clients may admit to feelings in words, but there is no evidence of arousal
2. Feelings are expressed in words but there is very little emotional arousal present in voice, body or gestures
3. Feelings are expressed in words and some emotional arousal is allowed to show in voice, body, or gestures
4. Feelings are expressed in words and moderately intense arousal is shown in voice, body, or gestures
5. Feelings are expressed with either fairly full or full and intense arousal in which clients are freely releasing with voice, words, or physical movement

Rating for modal emotional intensity:\_\_\_\_\_

Rating for peak emotional intensity:\_\_\_\_\_

From:

Holowaty, K. A. M., & Paivio, S. C. (2012). Characteristics of client-identified helpful events in emotion-focused therapy for child abuse trauma. *Psychotherapy Research*, 22(1), 56-66.

Machado, P. P., Beutler, L. E., & Greenberg, L. S. (1999). Emotion recognition in psychotherapy: Impact of therapist level of experience and emotional awareness. *Journal of Clinical Psychology, 55*(1), 39-57.

## PSQ-IC Instructions

When completing this questionnaire, please answer the questions as follows:

If you answer to Part 1, Question # 1 (“To what extent were issues with abusive/neglectful others a focus of today’s session?”) is between 2 and 7, complete all the questions in Parts II and III.

OR

If your answer to Part 1, Question # 1 (“To what extent were issues with abusive/neglectful others a focus of today’s session?”) is 1 (“not at all”), do not complete any of the questions in Parts II and III.

ALSO

Please note that in Part II, questions # 2 and # 4 are in a different form compared to questions # 1 and # 3. For example, question # 1 refers to ability to get in touch with childhood experiences; whereas, question # 2 refers to difficulty exploring these issues. Therefore, the rating scales for these questions are in reverse form.

PSQ from:

Paivio, S. C., Jarry, J. L., Chagigiorgis, H., Hall, I. & Ralston, M. (2010). Efficacy of two versions of emotion-focused therapy for resolving child abuse trauma. *Psychotherapy Research*, 20(3), 353-366.

SUDS from:

Wolpe, J., & Lang, P. J. (1969). *Fear survey schedule*. San Diego, CA: Educational and Industrial Testing Service.

CLIENT NO \_\_\_\_\_

DATE \_\_\_\_\_

SESSION \_\_\_\_\_

Client PSQ – IC

Please answer each of the following questions with reference to the session you just completed.

Part I:

1. To what extent were issues with abusive/neglectful others a focus of today's session?

1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7 \_\_\_\_\_

not at all                      somewhat                      most of the time                      all of the time

Part II:

1. I was able to get in touch with experiences of childhood maltreatment and vividly remember others involved.

1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7 \_\_\_\_\_

not at all                      somewhat                      moderately                      very much

2. I found it difficult to talk freely and explore issues related to childhood maltreatment without holding back.

1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7 \_\_\_\_\_

not at all                      somewhat                      moderately                      very much

3. I was able to fully feel and express feelings about how I was treated as a child.

1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7 \_\_\_\_\_

not at all                      somewhat                      moderately                      very much

4. I found it difficult to imagine the other person in the empty chair and to engage in a dialogue with him/her.

1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7 \_\_\_\_\_

not at all                      somewhat                      moderately                      very much

Part III: (Subjective Units of Distress Scale)

1. On a scale from 1 to 100, rate your level of distress during today's session (with 100 being your most distressing experience and 1 being calm and free from distress).

Average level of distress: (from 1 to 100) \_\_\_\_\_

Highest level of distress: (from 1 to 100) \_\_\_\_\_

## PSQ-EE Instructions

When completing this questionnaire, please answer the questions as follows:

If you answer to Part 1, Question # 1 (“To what extent were issues with abusive/neglectful others a focus of today’s session?”) is between 2 and 7, complete all the questions in Parts II and III.

OR

If your answer to Part 1, Question # 1 (“To what extent were issues with abusive/neglectful others a focus of today’s session?”) is 1 (“not at all”), do not complete any of the questions in Parts II and III.

ALSO

Please note that in Part II, questions # 2 and # 4 are in a different form compared to questions # 1 and # 3. For example, question # 1 refers to ability to get in touch with childhood experiences; whereas, question # 2 refers to difficulty exploring these issues.

PSQ from:

Paivio, S. C., Jarry, J. L., Chagigiorgis, H., Hall, I. & Ralston, M. (2010). Efficacy of two versions of emotion-focused therapy for resolving child abuse trauma. *Psychotherapy Research*, 20(3), 353-366.

SUDS from:

Wolpe, J., & Lang, P. J. (1969). *Fear survey schedule*. San Diego, CA: Educational and Industrial Testing Service.

CLIENT NO \_\_\_\_\_

DATE \_\_\_\_\_

SESSION \_\_\_\_\_

Client PSQ – EE

Please answer each of the following questions with reference to the session you just completed.

Part I:

1. To what extent were issues with abusive/neglectful others a focus of today's session?

1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7 \_\_\_\_\_

not at all                      somewhat                      most of the time                      all of the time

Part II:

1. I was able to get in touch with experiences of childhood maltreatment and vividly remember others involved.

1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7 \_\_\_\_\_

not at all                      somewhat                      moderately                      very much

2. I found it difficult to talk freely and explore issues related to childhood maltreatment without holding back.

1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7 \_\_\_\_\_

not at all                      somewhat                      moderately                      very much

3. I was able to fully feel and express feelings about how I was treated as a child.

1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7 \_\_\_\_\_

not at all                      somewhat                      moderately                      very much

Part III: (Subjective Units of Distress Scale)

1. On a scale from 1 to 100, rate your level of distress during today's session (with 100 being your most distressing experience and 1 being calm and free from distress).

Average level of distress: (from 1 to 100) \_\_\_\_\_

Highest level of distress: (from 1 to 100) \_\_\_\_\_

## PTSD Symptom Severity Interview

Date: \_\_\_\_\_

Assessment Time: \_\_\_\_\_

Client Number: \_\_\_\_\_

### Traumatic Stress Symptoms:

Notes: current effects of childhood abuse experience, motivation for seeking therapy—  
ie., why now; significant distress or impaired functioning.

Describe briefly the stressful event(s) reported by the client.

*Criterion A1- actual or threatened death or injury, threat to psychological integrity*

*Criterion A2- fear, helplessness, horror*

For each item listed below, ascertain whether the individual experience the symptoms during the past two weeks. Probe all positive responses in order to determine the severity of the symptoms (e.g., in the past two weeks, how often have you had bad dreams or nightmares), then rate the severity on the scale presented below.

Rating Scale (ratings made over the last two weeks)

0 = not at all

1 = once per week or less/a little bit/once in a while/a few

2 = 2-4 times per week/somewhat/ half the time/some

3 = 5 or more times per week/very much/almost always/many

Re-experiencing Symptoms (need one)

\_\_\_\_\_ 1. Have you had recurrent or intrusive distressing thoughts or recollections about the childhood traumatic/abusive experiences (e.g., find self thinking about or remembering when you don't want to)?

\_\_\_\_\_ 2. Have you been having recurrent bad dreams about the childhood trauma/abuse?

\_\_\_\_\_ 3. Have you had the experience of suddenly reliving the early traumatic/abusive experiences, flashbacks of being in the situation, acting or feeling as if it was reoccurring?

\_\_\_\_\_ 4. Have you been intensely emotionally upset when reminded of the early traumatic/abusive situations (includes anniversary reactions, television shows, talking about it in current interview)?

\_\_\_\_\_ 5. Have you been having intense physical reactions when reminded of these early abusive situations (e.g., stomach ache, tension, numbing, feeling panicky)?

Avoidance Symptoms (need three)

\_\_\_\_\_ 6. Have you persistently been making efforts to avoid thoughts or feelings associated with the early abuse (e.g., shut it out of your mind, shut down, numb out, is this happening now)?

- \_\_\_\_\_ 7. Have you persistently been making efforts of avoid activities, situations, or places that remind you of the early abusive situations (e.g., avoiding contact with certain people and family members, watching certain movies and television shows)?
- \_\_\_\_\_ 8. Are there any important aspects of those early traumatic/abusive experiences that you can still cannot remember?
- \_\_\_\_\_ \*9. Have you markedly lost interest in free time activities since those early abusive experiences? Frequency in the last two weeks?
- \_\_\_\_\_ \*10. Have you felt detached or cut off from others around you since these early experiences? Chronic? Within the last two weeks?
- \_\_\_\_\_ \*11. Have you felt that your ability to experience emotions is somehow diminished?
- \_\_\_\_\_ 12. Have you felt that any future plans or hopes have changed because of those early abusive experiences?

Arousal Symptoms (need two)

- \_\_\_\_\_ 13. Have you been having persistent difficulty falling or staying asleep?
- \_\_\_\_\_ 14. Have you been continuously irritable or having outbursts of anger?
- \_\_\_\_\_ 15. Have you been having persistent difficulty concentrating?
- \_\_\_\_\_ \*16. Are you overly alert since those early abusive experiences? Chronic?  
Frequency within the past two weeks?
- \_\_\_\_\_ \*17. Have you been jumpier, more easily startled, since those early experiences?  
Chronic? Frequency within the past two weeks?

Meets criteria for PTSD Diagnosis: \_\_\_\_\_

Chronic or Delayed Onset

Severity Rating: \_\_\_\_\_

Other Diagnosis: \_\_\_\_\_

## VITA AUCTORIS

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