

2009

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THE CONTRIBUTION OF EMOTIONAL ENGAGEMENT WITH TRAUMA  
MATERIAL TO OUTCOME IN TWO VERSIONS OF EMOTION FOCUSED  
THERAPY FOR TRAUMA (EFTT)

by

Helen Chagigiorgis

A Dissertation  
Submitted to the Faculty of Graduate Studies  
through Psychology  
in Partial Fulfillment of the Requirements for  
the Degree of Doctor of Philosophy at the  
University of Windsor

Windsor, Ontario, Canada  
2009

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### AUTHOR'S DECLARATION OF ORIGINALITY

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## ABSTRACT

The present study replicated and extended previous research on Emotion Focused Therapy for Trauma (EFTT; Paivio, Hall, Holowaty, Jellis, & Tran, 2001) employing the imaginal confrontation (IC) reexperiencing procedure. The present study had two objectives. The first was to examine the contributions of emotional engagement with trauma material to outcome in two versions of EFTT, each employing a different reexperiencing procedure. These procedures are the IC and empathic exploration (EE) of trauma memories with the therapist. The second objective was to investigate the relative predictive validity of different measurement perspectives of emotional engagement to outcome in the two versions of EFTT. In addition, because both alliance quality and frequency of participation in reexperiencing procedures have been associated with outcome (Paivio et al., 2001) these process variables also were examined.

Clients were randomly assigned to therapy condition: 21 clients completed EFTT with IC and 26 clients completed EFTT with EE. Alliance quality was measured with client self-reports on the Working Alliance Inventory (WAI; Horvath & Greenberg, 1989). Emotional engagement was measured through observer-ratings of videotaped sessions employing the IC and EE procedure using the Levels of Engagement Scale (LES; Paivio et al., 2001) and client self-reports using the Post Session Questionnaire (PSQ; Paivio, Jarry, Chagigiorgis, Hall, & Ralston, in press). Emotional distress was measured with client self-reported subjective units of distress (SUDS) during IC and EE work. Treatment outcome was measured through 7 self-report questionnaires.

In terms of *similarities* between IC and EE, clients reported moderate levels of engagement, from both observer-rated (LES) and self-reported (PSQ) measurement

perspectives, which remained stable over the course of both treatment conditions.

Furthermore, client self-reported emotional engagement during IC and EE both contributed to treatment outcome as did alliance quality. Finally, there were no significant associations between complex measures of engagement (LES and PSQ) and simple distress (SUDS) and frequency of participation in IC and EE was not significantly associated with client change.

In terms of *differences* between IC and EE, there was a steady decline in distress (SUDS) during IC from early to late sessions (although not statistically significant), whereas distress peaked during middle therapy sessions containing the EE procedure and then significantly declined. There was an association between observer-ratings (LES) and self-reports (PSQ) of engagement only in the IC. Finally, in the IC condition, alliance quality and self-reported emotional engagement during IC contributed to resolution of abuse issues, only, whereas in the EE condition, alliance quality and clients levels of distress contributed to multiple dimensions of change.

## ACKNOWLEDGEMENTS

I would like to thank my committee members, Betty Barrett, Alan Scoboria, and Antonio Pascual-Leone. I feel honoured to have had such talented members on my committee. Your enthusiastic heart, analytical mind, and attention to detail most definitely enhanced the quality of this project. A special thanks to the external examiner, Marilyn Fitzpatrick, who provided thoughtful, intelligent, and detailed feedback. You were a pleasure to interact with and an excellent addition to my ‘PhD team’. A special thanks also goes to my dissertation advisor, Sandra Paivio—your standards of excellence assured that the final document was in top shape!! Our work together over the last 7 years and more specifically your presence was such an integral part of my graduate school experience. You have taught me many things that extend beyond the boundaries of academia. Thank you.

I would also like to thank Elisabeth Kunzle, my second rater. Your patience, flexibility, and eagerness to learn made rating easy!! Well, it wasn’t easy—it was long and tedious but we had fun together ☺ Dennis Jackson, you are my stats hero—Thank you for your quick and easy-to-understand responses.

There are others that I would like to acknowledge, who did not directly contribute to my dissertation. However, their indirect assistance was invaluable and I would like to express my heartfelt appreciation. To Paul and Louise Herzberg, thank you for your endless interest in my life and the friendship that you have provided me with. To my favourite people in Windsor—Barb Zakoor, Ann Dafoe, and my friends. Imogen, Tara, Tobi, Wendy—we met 7 years ago in Windsor (the best thing that ever happened to me in Windsor!) and embarked on this journey together. We have supported each other in the most amazing ways over these years and I’d like to express my deepest appreciation for our friendships.

To my friends and family from back home—Jamie, Litsa, Rick, Teresa—despite the distance you too have been a great source of strength and support. I treasure my relationship with each one of you and I thank you for being with me during the last 7 years while I was in Windsor. Mark, you came into my life when it was least expected...and now I cannot imagine what it would be like without you! You have changed my life in the most amazing ways. Thank you for your love and support.

Finally, I want to thank my parents—Toula and Gus. You have been *the constant* in my life. I cannot even begin to describe all it is that you have done for me—Thank you for everything! I love you both.

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## LIST OF ABBREVIATIONS

*List of Measures (Variables Used in the Present Study)*

Measures	Measurement Perspective	Administration
<i>Client Characteristics</i>		
Childhood Trauma Questionnaire (CTQ)	Client Self-report	All client characteristic measures were administered pre- and post-treatment.
Personality Diagnostic Questionnaire–Fourth Edition (PDQ-4)	Client Self-report	
PTSD Symptom Severity Interview (PSSI)	Client Self-report	
<i>Outcome Measures</i>		
Symptom Checklist-Revised (SCL-90-R)	Client Self-report	All treatment outcome measures were administered pre- and post-treatment.
Beck Depression Inventory-II (BDI-II)	Client Self-report	
State-Trait Anxiety Inventory (STAI)	Client Self-report	
Impact of Event Scale (IES)	Client Self-report	
Inventory of Interpersonal Problems (IIP)	Client Self-report	
Rosenberg Self Esteem Scale (RSES)	Client Self-report	
Resolution Scale (RS)	Client Self-report	

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*Process Measures*

Levels of Engagement Scale (LES; multi-dimensional measure of emotional engagement)	Observer-ratings	The LES was rated by two independent observers. Three sessions (early, middle, late) per client were used.
Post Session Questionnaire (PSQ; multi-dimensional measure of emotional engagement)	Client Self-reports	The PSQ and SUDS were administered every session, beginning at session 4.
Subjective Units of Distress (SUDS; uni-dimensional measure of distress)	Client Self-reports	
Working Alliance Inventory (WAI)	Client Self-reports	The WAI was administered every session, beginning at session 3.

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## CHAPTER I: REVIEW OF THE LITERATURE

### Introduction

The present study replicated and extended previous research on Emotion Focused Therapy for Trauma (EFTT; Paivio, Hall, Holowaty, Jellis, & Tran, 2001) which found that emotional engagement with trauma material during an imaginal confrontation (IC) reexperiencing procedure significantly contributed to outcome. During IC, clients imaginably confront perpetrators of abuse and neglect in an empty chair. The present study examined the contributions of emotional engagement and distress with trauma material to outcome in two versions of EFTT, each employing a different reexperiencing procedure. One version includes the IC as the primary reexperiencing procedure. In the alternate version, abuse memories and experiences are empathically explored (EE) exclusively in interaction with the therapist. Second, the present study investigated which perspectives of engagement and distress with trauma material during IC or EE--client self-reports of emotional engagement, observer-rated emotional engagement, or simple rating of distress--was the best predictor of outcome in the two versions of EFTT.

The general consensus among trauma experts is that emotional engagement with abuse memories is necessary for recovery (Briere & Scott, 2006; Foa, Keane, & Friedman, 2000; Herman, 1992a). Thus, treatment approaches typically include exposure-based procedures designed to help clients re-experience abuse events (Briere & Scott, 2006; Herman, 1992a). Research supports this view, that is, clients who emotionally engaged with abuse memories during reexperiencing procedures reported better therapy outcomes, compared to those who did not engage (e.g., Jaycox, Foa, & Morral, 1998; Paivio et al., 2001; Rubenstein, 2004). Most studies have examined

emotional engagement during exposure in cognitive behavioural therapy using client self reports (Foa, Dancu, Hembree, Jaycox, Meadows, & Street, 1999; Foa, Rothbaum, Riggs, & Murdock, 1991; Jaycox et al., 1998; Rubenstein, 2004). Furthermore, emotional engagement typically is defined strictly in terms of subjective levels of distress (SUDS). However, it is recognized that many factors, such as limited awareness of internal states, self-censoring, and social desirability, could interfere with accurate reports of emotional arousal and distress (Rosenberg & Ekman, 1997). Moreover, studies have found discrepancies between client's self-reported in-session emotional arousal (i.e., client experienced distress) and observer-rated expressed emotion (Gleiser, 2003; Warwar, Greenberg, & Perepeluk, 2003). Most therapies emphasize expressed arousal that can be observed by the therapist (Goldman & Greenberg, 2006; Jenkins & Karno, 1992; Safran & Greenberg, 1991) but few studies have compared the predictive power of these perspectives.

Paivio et al. (2001) examined the contributions of emotional engagement with trauma material to outcome using the Levels of Engagement Scale (LES), which is a multidimensional, observer-rater measure of engagement. The LES defines emotional engagement according to three process elements that are considered important in trauma and experiential therapies, and which are unique to the IC procedure used in EFTT. Thus, the LES captures both emotional arousal and treatment specific dimensions. The present study utilized the LES and a comparable, multidimensional client self-report measure of engagement with trauma material (Post Session Questionnaire) to assess the relative contributions of experienced (i.e., self-report) and expressed (i.e., observer-rater) engagement to treatment outcome. The present study also used client SUDS ratings of

distress during reexperiencing procedures to compare the contribution of client self-reported arousal alone to the more multidimensional measures of engagement.

Furthermore, these perspectives were examined in two reexperiencing procedures used in EFTT. It is possible that experience (i.e., self-reports) and expression (i.e., observer-ratings) have different relative importance in different procedures. Finally, alliance quality and frequency of participation in the reexperiencing procedures also were included in the analyses because these process variables have been associated with outcome (Horvath & Bedi, 2002).

The following literature review is organized into three sections. First, the prevalence, risk factors, as well as short- and long-term effects of childhood abuse are outlined. Next, treatments for adult survivors of childhood abuse are presented. General trauma therapies are outlined first, followed by therapies specifically for childhood abuse, including EFTT which is the focus of the present study. Finally, theory and research on emotional engagement and processing of trauma memories are presented.

#### A Review of the Literature on Childhood Maltreatment

##### *Prevalence of Childhood Maltreatment*

Child maltreatment is a broad term that is used to describe the abusive (acts of commission) and neglectful (acts of omission) acts against children, typically perpetrated by adults or older youth (Dubowitz & Bennett, 2007; Trocme, 2005). Child maltreatment is prevalent in North America and represents a major public health concern (Briere, 2002; Trocme, 2005). The Canadian Incidence Study (CIS) of Reported Child Abuse and Neglect examined 25 types of child maltreatment that constituted the following five categories: physical abuse, sexual abuse, neglect, emotional maltreatment and exposure

to domestic violence (Trocme et al., 2005). These were clearly operationally defined in the report (for a detailed description see Trocme et al., 2005). Estimates reported in the CIS-2003 represent substantiated child maltreatment cases, that is, cases in which maltreatment is confirmed through an investigation. Results indicated that of the 235,315 child maltreatment investigations, approximately half (49%) were substantiated. Of the substantiated cases, 81% were identified as having a single category of maltreatment. Of these, 18% were identified as physical abuse, 2% as sexual abuse, 25% as neglect, 11% as emotional maltreatment, and 25% as exposure to domestic violence. The remaining 19% of investigations involved multiple forms of maltreatment, in which all combinations included emotional maltreatment. Childhood sexual abuse that does not involve the parents is only investigated by the police and since the CIS-2003 did not include cases investigated only by the police (Trocme et al., 2005), it is likely that sexual abuse is underestimated and lower than prevalence rates reported in other studies.

A comparison of the CIS-1998 and CIS-2003 indicated a 78% increase in substantiated child maltreatment cases across Canada. This could be a function of an increase in the frequency of child maltreatment cases, better detection from child welfare services, or could be related to changes in assistance programs available to families. The National Clearinghouse on Family Violence suggests that many cases of child maltreatment are not reported for various reasons, including, the nature of family problems related to abuse and neglect, the sense of secrecy and shame surrounding child maltreatment, consequences of intervention, and dependent nature of the child (Trocme et al., 2005).

A community survey of Ontario residents found that 31.2% of males and 21.1% of females reported childhood physical abuse, and that 4.3% of males and 21.8% of females reported childhood sexual abuse (MacMillan et al., 1997). Scher, Forde, McQuaid, and Stein (2004) examined prevalence rates of various forms of childhood maltreatment in an adult community sample in the United States. Results indicated that 12% reported emotional abuse, 5% emotional neglect, 19% physical abuse, 18% physical neglect, 5% sexual abuse. Briere and Elliot (2003) examined the prevalence estimates of child abuse in the general population in the United States. Special efforts were made to insure high response rates addressing concerns about representativeness and standardized measures were used to define abuse. Estimates of sexual abuse indicated that 32% of women and 14% of men reported histories of childhood sexual abuse; 22% of women and 20% of men reported histories of childhood physical abuse; and 22% of the participants who had experienced one form of abuse also had experienced the other type. International prevalence estimates of child abuse in the general population have indicated that sexual abuse rates for women range from 8% to 32%, while sexual abuse rates for men are lower, ranging from 3% to 11% (Finkelhor, 1994). The variability in these prevalence estimates could be due to differences in abuse definitions, survey methods, and representativeness of the samples collected. Taken together, results from these studies suggest that reports of childhood maltreatment are relatively common in the general population.

Prevalence estimates of child maltreatment are even higher in clinical samples (Pilkington & Kremer, 1995). For example, Medrano, Zule, Hatch, and Desmond (1999) reported child abuse prevalence rates for a sample of intravenous drug using women.

Sixty percent of women reported experiencing sexual abuse, 55% reported physical abuse, 83% reported emotional abuse, 83% reported emotional neglect, and 60% reported physical neglected. In a sample of body dysmorphic patients, 80% reported histories of childhood abuse (Didie et al., 2006). These findings suggest that reported histories of child abuse are common among individuals who seek treatment, even when the clients presenting problem is not the abuse.

#### *Risk Factors Associated with Childhood Maltreatment*

It is important to note that not all maltreated children develop problems. For example, Kendall-Tackett (1991) reported that 21% to 49% of sexually abused children do not manifest symptoms. Thus, the developmental trajectory of maltreated children depends on a number of risk factors. Briefly, research has identified specific abuse characteristics, such as age of onset, duration, severity, coercion, and victim-perpetrator relationship, as well as family characteristics, such as family composition, maternal sociopathy, maternal youth, and paternal unavailability, that play a role in the development of problematic behaviour (Beitchman, Zucker, Hood, DaCosta, & Akman, 1991; Brown, Cohen, Johnson, & Salzinger, 1998). For example, research has shown that longer duration and increased coercion (i.e., threats) and severity (i.e., vaginal, anal, or oral penetration) of child maltreatment predicted poorer outcome, including behavioural (e.g., delinquent behaviour, hostile attributes, aggression, inappropriate sexual behaviours, boundary issues) and emotional problems (e.g., depression, anxiety, low self-esteem; Kenaley, 2002; Kendall-Tackett, Williams, & Finkelhor, 1993; Nurcombe, 2000). In terms of age of onset, research shows that children that experience sexual abuse at a younger age (typically before 11 years) exhibit more sexualized behaviours



(McClellan, McCurry, Ronnei, & Adams 1996), anxiety, interpersonal discomfort (Manion et al., 1998), attention problems (e.g., impulsivity, restlessness, poor school performance, hyperactivity), and aggressive behaviours (e.g., setting fires; Kenaley, 2002).

Research also has identified a number of factors that are associated with resilient outcomes in maltreated children. Briefly, the factors identified as contributing to “adversarial growth” or resiliency are social support (Tremblay, Hebert & Piche, 1999), religion/spirituality (Tedeschi & Calhoun, 1995), dispositional optimism (Cadell, Regehr, & Hemsworth, 2003), and finding meaning in the stressful event (Frazier, Tashiro, Berman, Steger, & Long, 2004). A meta-analysis (Brewin, Andrews, & Valentine, 2000) indicated that actual and perceived social support are particularly important resiliency factors. Research has indicated that global perceived support could have a stress-buffering effect on symptom severity of posttraumatic stress disorder (PTSD; Brewin et al., 2000; Schumm, Briggs-Phillips, & Hobfoll, 2006; Tarakeshwar, Hansen, Kochman, Fox, Sikkema, 2006).

Having said this, research has also shown that childhood abuse and neglect are associated with a number of psychiatric diagnoses and psychological and biological deficits in adolescence and adulthood (Dubowitz, Black, Harrington, & Verschoore, 1993; Streeck-Fischer & van der Kolk, 2000; van der Kolk, 2007). The short-term effects are outlined first, followed by long-terms effects of childhood maltreatment.

#### *Short-Term Effects of Childhood Maltreatment*

From a developmental perspective, symptoms resulting from childhood maltreatment are thought to differ according to the child’s developmental phase. As such,

children who are sexually abused at the pre-school stage display some form of sexual behaviour that is age-inappropriate. For example, children could display sexual play with dolls and seductive behaviour (Beitchman et al., 1991). In contrast, children who are physically abused at this stage tend to show more aggressive and “acting out” behaviour (Ammerman, Cassisi, Hersen, & Van Hasselt, 1986; Ammerman & Hersen, 2002). Children maltreated at the school-age stage, tend to show behavioural (e.g., lying, running away from home) and academic problems (e.g., truancy, vandalism, cheating) (Kenaley, 2002). Finally, adolescents tend to show symptoms of posttraumatic stress, depression, anxiety, low self-esteem, suicidal ideation, and engage in risky behaviour (i.e., alcohol/drug abuse) and physical fights with friends and parents (Beitchman et al., 1991).

#### *Long-Term Effects of Childhood Maltreatment*

Research has consistently documented the impact of childhood abuse and neglect to later adult pathology (Browne & Finkelhor, 1986). Some researchers argue that posttraumatic stress or PTSD is the best conceptualization of the long-term impact of childhood maltreatment (Rowan & Foy, 1993). Three symptom clusters define PTSD (American Psychological Association, APA, 1994): intrusion, hyperarousal, and avoidance. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM), intrusive symptoms include distressing thoughts, repeated and distressing dreams, or feeling as if the event is reoccurring through flashbacks, hallucinations, or illusions. Hyperarousal includes insomnia, angry outbursts or irritability, compromised concentration, hypervigilance, and increased startled response. Avoidance often occurs in response to intrusive symptoms. Individuals with experiences of childhood maltreatment

have learned to actively avoid both internal and external triggers that activate abuse-related memories because these are accompanied by a great deal of distress.

Contemporary models of PTSD also emphasize the role of cognitive factors in the maintenance of PTSD, that is, beliefs about the self, others, and the world. Experiences with childhood abuse and neglect can challenge basic beliefs that the world is safe and others can be trusted (Janoff-Bulman, 1989). These altered beliefs are thought to contribute to symptoms of intrusion, hyperarousal, and avoidance. PTSD also commonly co-occurs with depression and anxiety disorders (Blanchard, Buckley, Hickling, Taylor, 1998; Briere & Scott, 2006; Herman, 1992b; Roth, Newman, Pelcovitz, van der Kolk, & Mandel, 1997). Despite the frequent occurrence of PTSD symptoms among survivors of childhood abuse and neglect, some theorists and researchers have argued that the diagnosis of PTSD does not adequately capture the complex disturbances observed in this client population.

Herman (1992b) proposed ‘complex PTSD’ or ‘disorders of extreme stress not otherwise specified’ (DESNOS) to describe the effects of prolonged domestic, sexual, and other interpersonal trauma. DESNOS defines the impact of repeated and prolonged childhood abuse and neglect, in terms of self-regulation, self-definition, interpersonal functioning, and adaptational style/emotional regulation strategies. Attachment theory provides a framework for understanding these psychological sequelae (e.g., Bowlby, 1988; Sroufe, 1995, 2005). Accordingly, children develop emotion regulation strategies, self-esteem, and interpersonal trust through relationships with primary caregivers. Experiences of abuse and neglect at the hands of caregivers could have a negative effect on these areas of development.

Recently, a PTSD Field Trial (Pelcovitz et al., 1997; Roth et al., 1997) examined the clinical relevance of DESNOS. The Structured Interview for DESNOS (SIDES; Pelcovits et al., 1997) was used to assess the presence of DESNOS. The SIDES is a theoretically driven assessment that consists of seven subscales. These are: altered regulation of affect and impulses, dissociation, somatization, altered perceptions of perpetrators, altered self-perceptions, altered relations with others, and altered systems of meaning. Results from the field trial indicated that, compared to trauma survivors, individuals who had not been exposed to trauma rarely endorsed DESNOS items, thus supporting the validity of this diagnostic category. Further support for DESNOS comes from studies showing that complex PTSD is prevalent in severely traumatized client samples (McLean & Gallop, 2003; Roth et al., 1997). As well, symptoms of DESNOS are found to be more prevalent in individuals with history of early onset and longer lasting interpersonal trauma (e.g., physical abuse, sexual abuse; Dorahy et al., 2009; van der Kolk, et al., 2005).

There is consensus among child abuse experts that complex but consistent patterns of psychological disturbances occur in children and adults who have been exposed to repeated or severe interpersonal trauma in their past (Herman 1992b, 1992c; van der Kolk & Courtois, 2005). The following sections describe the disturbances of self-esteem, interpersonal trust, and emotion regulation, characteristic of child abuse survivors.

*Self Esteem and Interpersonal Problems.* Attachment theory provides a framework for understanding the long-term effects of childhood maltreatment observed in complex PTSD. However, it is noted that there are a number of limitations to the

application of attachment theory as a working framework for understanding the long-term effects of child maltreatment. These include, but are not limited to, implications from the field of genetics (i.e., inborn temperament), the role of culture, influence of peer relationships, environmental and situational factors, and implications of events experienced in adulthood (Field, 1996; Kagan, 2004; Kagan & Snidman, 2004; Rothbaum, Weisz, Pott, Miyake & Morelli, 2001; Rutter & O'Connor, 1999). Despite these limitations, attachment theory will serve as a framework for understanding long-term effects and treatment processes within this document since clients in the present study were abused and/or neglected as children and because EFTT draws on these principles.

Bowlby (1988) described attachment as a developmental process, whereby children develop views of the self and expectations from others through their early experiences with primary caregivers. As children grow up, their relationship patterns, based on these expectations, are thought to become more entrenched within their personality and increasingly resistant to change. Thus, attachment experiences in childhood lay the foundation for consistent self-identity and future relationships (Sroufe, 1995, 2005; Sroufe, Egeland, Carlson, & Collins, 2005). Securely attached children tend to be trusting, self-reliant, and generally outgoing and engaging; while their primary caregivers tend to be sensitive, responsive, and accepting. Securely attached children perceive themselves as worthwhile and capable of getting others attention, and perceive intimate others as trustworthy, accessible, and caring.

On the other hand, experiences of abuse and neglect in childhood can interfere with the healthy development of self-identity and relationships with others (Pearlman &

Courtois, 2005). Early violations of trust, security, and control can lead to a sense of the self as weak, bad, helpless, or inadequate and others as untrustworthy, rejecting, or dangerous. According to Herman (1992b), survivors of childhood abuse and neglect can develop a “malignant sense of the self as contaminated, guilty, and evil” (p. 386). In terms of relationships with others, adults with histories of child abuse frequently have insecure attachments (Alexander, 1992; Coe, Dalenberg, Aransky, & Reto, 1995; Styron & Janoff-Bulman, 1997), issues of distrust, betrayal, and powerlessness (Briere, 1992; Herman, 1992c); difficulties with intimacy, child rearing, marital problems, and other maladaptive interpersonal patterns (Berliner & Elliot, 2002; Cole & Putman, 1992; Collins & Read, 1990; van der Kolk, 1996), such as uncertainty about or avoidance of important others, and anxious, intense, or unstable involvement in relationships (Herman, 1992b; Wolfsdorf & Zlotnik, 2001).

Furthermore, research suggests that experiences of childhood maltreatment increase the risk for later victimization in adulthood. For example, women with histories of childhood physical abuse appear to be at an increased risk for physical and emotional abuse in intimate relationships in adulthood (Bensley, Van Eenwyk, & Simmons, 2003); women with histories of childhood sexual abuse appear to be at an increased risk for initiating and receiving physical aggression in their intimate, adult relationship (DiLillo, Giuffre, Tremblay, & Peterson, 2001); and individuals with experiences of emotional abuse are at an increased risk for experiencing partner victimization during adulthood (Crawford & Wright, 2007). In a well controlled study (Widom, Czaja, & Dutton, 2008), men and women who experienced childhood abuse (i.e., physical, sexual, emotional) and neglect were at a higher risk for re-victimization, compared to a comparison group,

matched on client characteristics. Re-victimization was mainly in the area of interpersonal violence, which included physical assaults, sexual assaults, kidnapping, stalking, and having a family/friend commit suicide.

*Emotion Regulation Problems.* Emotion regulation is defined as the “ability to respond to the ongoing demands of experience with a range of emotions in a manner that is socially tolerable and sufficiently flexible to permit spontaneous reactions as well as the ability to delay spontaneous reactions as needed” (Cole, Michel, & Teti, 1994, p. 76). Thus, healthy emotion regulation consists of three capacities: the ability to experience the full range of emotions, modulate emotional experience, and appropriately display emotions (Gross, 1999). The ability to regulate one’s emotions is seen as a developmental task that begins with an empathic significant other (Sroufe, 1995). Children’s capacity to deal with uncomfortable internal states largely depends on the caregiver’s ability to appropriately attend to children’s communications and empathize with and respond to children’s emotional experience (Fosha, 2001; Paivio & Laurent, 2001). Through parent’s empathic responsiveness to children’s feelings and needs, children learn to recognize, label, describe, and appropriately express emotional experience. They also learn to accept and value their internal experience as a useful guide to behaviour (Paivio & Laurent, 2001). Children also develop a repertoire of internal coping and self-soothing strategies, which becomes more sophisticated as children feel safe enough to confront increasingly more challenging and stressful experiences (Briere, 2002). Again, this can occur only in the context of a relationship with an empathic caregiver. Gottman and DeClaire (1997) identified five elements of parental emotion coaching that appear to be necessary for healthy emotion development. These include being aware of the child’s

emotions, recognizing emotional expression as an opportunity for intimacy and teaching, empathic listening and validation of feelings, labelling emotions in words understood by the child, and helping the child problem-solve or deal with upsetting events. Over time, experiences with caregivers in which children's feelings are attended to, valued, and managed, become internalized as competence, compassion for the self, and capacities to self-soothe.

It is hypothesized that experiences of childhood abuse and neglect result in affective disruptions and insufficiently-developed affect regulation (Briere, 1992; Herman, 1992c; Paivio & Laurent, 2001; Pearlman, 1998). Experiences of abuse and neglect generate intense negative feelings and, in abusive and neglectful environments, children are not taught healthy emotion regulation strategies for coping with these powerful feelings. Child abuse and neglect are considered empathic failures (Paivio & Laurent, 2001) because parents fail to help children accept, understand, and modulate their emotional experiences. These early empathic failures give rise to difficulties with both under-regulation and over-control of emotional experience that persist into adulthood. Under-regulation problems in adult survivors can involve feelings of intense alarm, rage, or shame that are activated in response to stimuli that resemble early abuse experiences (Briere, 2002; Herman, 1992b; Paivio & Laurent, 2001).

On the other hand, problems with over-control involve avoidance of emotional experience, often as a strategy for coping with overwhelming affect. Children learn to 'cut off' from their experience and remove the sensations and emotions from consciousness (Cole & Putnam, 1992). Incest survivors, for example, report feeling 'numb' and denial and dissociation appear to be part of the normative repertoire of



regulating emotions (Herman, 1992c). Other over-control difficulties include externalization of emotional experience, through substance abuse, inappropriate or excessive sexual behaviour, aggression, bingeing or purging, or self-injury (Briere, 2002; Briere & Gil, 1998; McCann & Pearlman, 1990). These externalized behaviours represent primitive emotional coping styles that protect the self from potentially overwhelming emotional distress. Again, avoidance means that individuals are cut off from core aspects about the self and information about the environment. This lack of awareness is maladaptive because it perpetuates negative feelings and contributes to unmet needs as well as maladaptive behaviours. Low self-confidence and mastery over internal experiences seem impossible. In sum, avoidance is thought to prevent healing from abusive and neglectful experiences because it perpetuates emotion dysregulation, as well as PTSD and trauma symptoms, and produces accumulated stress (Esterling, L'Abate, Murray, & Pennebaker, 1999; Ford, Courtois, Steele, van der Hart, & Nijenhuis, 2005; Pennebaker & Campbell, 2000). Treatment with this client group therefore addresses symptom distress, self and interpersonal difficulties, as well as emotion regulation disturbances. The following section presents treatments for adult survivors of childhood abuse and neglect.

#### Therapy for Trauma and Childhood Maltreatment

Herman's (1992a) recommendations have been adopted as the "gold standard" treatment for adult survivors of childhood abuse. Accordingly, the "fundamental stages of recovery are establishing safety, reconstructing the trauma story, and restoring connection between survivors and their community" (p. 3). The first stage of treatment focuses on establishing safety, nurturance, acceptance, and restoring power and control in the client

in order to counteract issues of distrust, safety, and interpersonal relatedness that are typical of child abuse survivors (Ford et al., 2005). A safe and trusting therapeutic relationship creates an environment whereby clients can explore painful, traumatic experiences (Briere, 1992, 2002; Herman, 1992a) and helps to counteract negative attachment experiences (Paivio & Laurent, 2001). Moreover, since difficulties with emotional regulation are at the heart of the psychological sequelae of child abuse, it is recommended that the first stage also focus on helping clients regulate intense emotional experience. Treatments vary in the way with which emotional experience is regulated. For example, Linehan's (1993) emotion regulation techniques have been incorporated in most cognitive behavioural approaches (Wolfsdorf & Zlotnick, 2001; Cloitre, Koenen, Cihen, & Han, 2002). In EFTT, empathy is the primary intervention used to regulate client's emotional experience (Paivio & Laurent, 2001).

Thus, the first stage of therapy helps clients prepare for the memory work and 'working through' of trauma experiences that characterizes stage two (Ford et al., 2005). The memory work phase of child abuse therapies largely draws on principles of emotional processing and exposure-based procedures. Experts in the area of child abuse and neglect generally agree that client's emotional engagement with abuse-related memories is necessary for emotional processing and recovery from that experience (Briere, 2002; Herman, 1992a). Emotional arousal is thought to activate the abuse-related memory, and engagement with the trauma material is thought to influence the modification and change of the abuse-related memory through the admission of new information (Foa & Rauthbaum, 1998; Rauch & Foa, 2006). Since therapies for child

abuse draw on principles used in exposure-based therapies in general a brief review of this literature follows.

Cognitive-behavioural treatments (CBT) have received the most empirical validation. These include prolonged imaginal exposure therapy (Echeburua, Corral, Zubizarreta, & Sarasua, 1997; Foa et al., 1991), cognitive processing therapy (CPT; Resick & Schnicke, 1992), and Eye Movement Desensitization and Reprocessing therapy (EMDR; Rothbaum, 1997; Shapiro, 1989, 1999). Exposure techniques used in these therapies are designed to aid clients in confronting feared objects, situations, memories, and images. These techniques vary in duration, frequency, arousal levels, and medium. Imaginal exposure is the repeated recounting of the traumatic memory with the therapist. The aim is to help clients process the trauma in an emotional way by vividly imagining the traumatic event and describing it aloud, along with thoughts and feelings that occurred during the event. Foa's (1991, 1995, 1999) prolonged exposure for PTSD stemming from rape, for example, requires clients to repeatedly imagine and relive the trauma memory during bi-weekly, 90-minute, therapy sessions. All in-session recounts of the trauma are audiotaped and clients are additionally asked to listen to the tape as homework. Research supports the efficacy of imaginal exposure in improving PTSD symptoms with various populations (i.e., rape victims, assault victims, combat-victims; Foa et al., 1991; Riggs, Cahill, & Foa, 2006; van Minnene & Foa, 2006).

Cognitive processing therapy for rape (CPT; Resick & Schnicke, 1992) integrates imaginal exposure with the basic principles of CBT (Beck, Rush, Shaw, & Emery, 1979). The exposure procedure consists of writing a comprehensive account of the trauma and reading it repeatedly. The cognitive component helps clients identify trauma-related

irrational thoughts or dysfunctional beliefs (e.g., “rape doesn’t happen to nice women”, “no one can be trusted”; Resick & Schnicke, 1992, p. 749), and teaches them to challenge those irrational beliefs by examining the evidence and thinking of alternatives. CPT was found to be effective in improving PTSD and depressive symptoms in female rape victims in a group format. However, the contribution of the cognitive component beyond contributions made by exposure is unclear (Foa, 2000). More recently, Resick, Nishith, Weaver, Astin, and Feuer (2002) compared CPT, prolonged exposure therapy, and a minimal attention wait-list, in female rape victims receiving individual therapy. Both CPT and prolonged exposure were superior to the wait-list, and both of these therapies were equally effective in reducing PTSD and depression symptoms.

EMDR (Shapiro, 1989, 1999) is another approach that uses exposure procedures to treat trauma-related problems. In this model, clients first develop positive appraisals of self (e.g., “I can handle stressful situations”) and events in order to counteract negative thoughts that were developed at the time of the trauma. Clients focus on images, thoughts, and feelings about the trauma, while visually tracking the therapist finger moving back and forth or other forms of bilateral stimulation (e.g., tones in the ears, buzzers in palm of hands). It initially was believed that bilateral stimulation was essential in processing trauma memories (Shapiro, 1999). However, recent studies do not support this claim (Bauman & Melnyk, 1994; Renfry & Spates, 1994). Nonetheless, EMDR has been applied to diverse trauma experiences (e.g., Rothbaum, 1997; Wilson, Becker, & Tinker, 1995, 1997), including child abuse, and found to be effective.

Psychodynamic treatments for trauma have received considerably less attention in the published literature. Brief psychodynamic therapy typically incorporates principles of

psychodynamic therapy and principles of exposure (Krupnick, 2002). For example, therapists aim to bring unconscious conflicts into awareness and to help clients gain insight of their reactions through the use of interpretations. Client's reactions to the therapist are interpreted as indicators of unresolved feeling related to significant figures from the past. The exposure component consists of the client telling and retelling their story while the therapist focuses on underlying beliefs, attitudes, and thematic contents that make trauma experience difficult to integrate. Although numerous single case and uncontrolled studies support the use of psychodynamic therapy for PTSD (for a review see Kudler, Blank, & Krupnick, 2000), to date, only two controlled studies have been conducted with a trauma population (Brom, Kleber, & Defares, 1989; Krupnick et al., 2005 in Schottenbauer, 2007). Krupnick et al. (2005) studied a sample of low-income women with histories of interpersonal trauma and found that, compared to a wait-list, clients in psychodynamic group therapy reported improvements in PTSD symptoms and interpersonal functioning.

In terms of treatments specifically for child abuse, most published treatments are group approaches for female survivors of childhood sexual abuse (e.g., Fallot & Harris, 2002; Morgan & Cummings, 1999; Saxe & Johnson, 1993). The sequence of group therapy typically follows Herman's (1992a) treatment recommendations. The first phase involves establishing a safe place for the members of the group. In this phase, clients work together on group exercises, such as examining definitions and views of sexual abuse and incest. Phase two involves breaking the silence, in which women tell their own individual experience of the abuse. Phase three entails working through issues of abuse by reprocessing negative affect related to the abuse at the experiential level. As women

tell their story, they are encouraged to place all the blame on the perpetrator and find appropriate ways to express their anger. The final phase of group therapy involves integration and termination. Individual survivors discuss their progress as well as what they have left to do in order to heal. Ceremonies and exercises focus on dealing with feelings about the end of group meetings and facilitate a positive and hopeful future outlook. Group therapy has been shown to be effective in treating female survivors of childhood sexual abuse (e.g., Morgan & Cummings, 1999; Saxe & Johnson, 1993; Westbury & Tutty, 1999).

There are few evidence-based individual treatments for the long-term effects of child abuse. One example of a CBT approach is Skills Training in Affect and Interpersonal Regulation with Modified Prolonged Exposure (STAIR-MPE; Cloitre et al., 2002). In phase one of this approach, clients are taught coping strategies for managing stress related to abuse. Coping skills include breathing and relaxation training, cognitive restructuring, guided self-dialogue, assertiveness training, role-playing, and thought stopping. Phase two of treatment includes a modified prolonged exposure procedure, in which clients are encouraged to use previously learned coping skills when imaginably confronting the assault. A randomized clinical trial (Cloitre et al., 2002; Cloitre, Stovall-McClough, Miranda, & Chemtob, 2004) compared STAIR-MPE to a minimal attention wait-list in fifty-eight women with PTSD related to childhood sexual and physical abuse. Clients in treatment reported significantly greater improvements in affect regulation, interpersonal skills, and PTSD symptoms. These improvements were maintained at 3- and 9-month follow up.

One outcome study also examined the efficacy of EMDR compared to routine eclectic individual treatment, in a sample of female adult survivors of childhood sexual abuse (Edmond, Rubin, & Wambach, 1999). Clients received six 90-minute individual therapy sessions either according to EMDR protocol ( $n = 20$ ) or routine eclectic treatment ( $n = 20$ ). Routine eclectic treatment consisted of a variety of techniques that were best suited to the clients target complaint. For example, therapists used aspects of CBT and psychodynamic therapies, such as, cognitive restructuring, behaviour modification, relaxation, and interpretation. Results indicated that both EMDR and routine eclectic individual treatment were equally effective in reducing anxiety, depression, and trauma-specific symptoms immediately following therapy.

In sum, most treatments of trauma include principles of exposure, whereby the trauma memory is accessed and emotionally processed. Exposure based treatments, such as those described above, have been found to be effective in treating trauma, in general, and child abuse, in particular. However, most treatments for child abuse are group modalities for women with histories of childhood sexual abuse. Results cannot be generalized to male child abuse survivors or to different types of child abuse. As well, most studies have focused on improving skills and reducing symptom distress. EFTT (Paivio et al., in press; Paivio & Nieuwenhuis, 2001), the focus of the present study, is the only individual modality for men and women with different types of abuse (emotional, physical, sexual, and neglect) that addresses multiple domains of client disturbance typical of childhood abuse. These include general and specific symptoms (e.g., PTSD, depression, anxiety), self-esteem, interpersonal problems, and resolution of

abuse issues with specific perpetrators. EFTT theory, treatment protocol, and research are described below.

*Emotion Focused Therapy for Trauma (EFTT)*

EFTT is a short-term approach that is grounded in current experiential therapy theory and research (Greenberg & Paivio, 1997; Greenberg, Rice & Elliot, 1993; Paivio & Greenberg, 1995). It also draws on theory and research in the areas of emotion (e.g., Damasio, 1999; Fridja, 1986; LeDoux, 1996), attachment (Bowlby, 1988; Sroufe, 1995, 2005), trauma, and child abuse (Briere & Scott, 2006; Herman, 1992a; van der Kolk, 1996).

The basic assumption underlying experiential therapy theory is that attention to and symbolization of subjective internal experience (feelings and meanings), rather than skills training or interpretations (Rogers, 1951), is the primary source of new information used in the construction of new meaning (Greenberg & Paivio, 1997; Greenberg et al., 1993; Gendlin, 1996). As well, emotions are seen as important sources of information that help to organize thoughts and actions (Fridja, 1986) and play a key role in the client's experience of self and others (Greenberg & Paivio, 1997). Emotions are thought to provide information about our concerns, influence goal setting, and communicate and regulate interpersonal interactions (Greenberg & Paivio, 1997). Greenberg and his colleagues (Greenberg & Paivio, 1997; Greenberg et al., 1993; Greenberg & Safran, 1987) outlined a taxonomy of emotions, which included three categories, (1) primary, (2) secondary, and (3) instrumental emotions. These were further differentiated into adaptive and maladaptive responses. Primary adaptive emotions represent fundamental states in which the adaptive value of the emotion is clear. For example, feeling fear in response to



threat, sadness to loss, and anger at violation. In EFTT, primary adaptive emotions are targeted and the goal is to access, unpack, and explore these emotional responses. Primary maladaptive emotions are those that have dysfunctional responses, for example, fear of comfort or touch. In abusive and neglectful environments, these responses were initially seen as adaptive, for example, learning to fear closeness because it was associated with control or violence (Greenberg & Paivio, 1997). In EFTT, primary maladaptive emotions are accessed so that they are available for modification and change. Secondary emotions represent reactions to primary emotional states and typically include discomfort with, evaluation of, and inability to accept the emotion. This reaction does not allow individuals to experience the emotion; rather the experience is one of the consequences of their inability to experience the emotion. For example, being afraid of one's anger, does not allow the experience of anger; feeling angry about one's sadness does not allow for one to experience sadness (Greenberg & Paivio, 1997). In EFTT, secondary emotions are explored so that the primary emotion can be accessed. Finally, instrumental emotions represent emotions that individuals have learned, consciously or unconsciously, to have an impact on others. For example, expressing anger to dominate others, or sadness to evoke sympathy (Greenberg & Paivio, 1997).

Survivors of childhood abuse often learn to deny or suppress adaptive emotions such as anger and sadness, and they also develop maladaptive emotional responses, such as fear, shame, and guilt (Briere & Scott, 2006; Herman, 1992a), that are activated in current situations. EFTT focuses on accessing healthy emotions and associated adaptive meanings in order to change maladaptive emotional responses. For example, maladaptive fear and self-blame can be modified by accessing adaptive anger, which promotes

assertiveness, self-empowerment and holding the abusive or neglectful other, rather than self, accountable for harm.

EFTT also draws on literature in the areas of attachment, trauma, and child abuse that were presented earlier. Briefly, trauma experiences are thought to be encoded in memory and activated in current situations that resemble the trauma. Reliance on avoidance when faced with reminders and internal cues resembling the trauma serves as a strategy of coping with painful memories, which further perpetuates disturbance. As well, early violations of trust, security and control associated with child abuse are thought to form the basis of a person's sense of self and expectations of others. From an attachment theory perspective, abused children develop a view of themselves as weak and bad and view attachment figures as untrustworthy or dangerous. These internal representations of self and others serve as enduring prototypes that influence expectations and behaviours in subsequent intimate relationships (Paivio & Patterson, 1999). EFTT uniquely draws on the Gestalt concept of 'unfinished business' (Greenberg et al., 1993) and thus client problems are not only understood in terms of current difficulties, but in terms of unresolved issues with significant others from the past. Accordingly, clients continue to feel troubled by unexpressed feelings, unmet needs, and disturbing memories in relation to these individuals. Thus, a primary goal in EFTT is to resolve issues with perpetrators and attachment figures.

*Mechanisms of Change.* The EFTT treatment model (Paivio et al., in press; Paivio & Pascual-Leone, in press) posits two interrelated mechanisms of change: the therapeutic relationship and 'emotional processing' of trauma memories. An empathic and collaborative relationship provides a safe environment that allows clients to access,

explore, and reprocess painful trauma memories (Briere, 2002; Herman, 1992a). This type of relationship also provides a new learning experience for abuse survivors whose difficulties with interpersonal relatedness stem from early experiences of profound lack of empathy (Paivio & Laurent, 2001) and interpersonal control (Herman, 1992a). Thus, a positive therapeutic relationship provides a corrective interpersonal experience that can generalize to other relationships. This is consistent with the gold standard and other therapies for this client population (Herman, 1992a; Shea & Zlotnick, 2002).

Emotional processing of abuse memories also is an integral part of EFTT and the focus of this study. Emotional processing in EFTT is described in detail in a later section of this document (emotional processing theory and research section). Briefly, emotional processing of trauma material involves accessing trauma feelings and memories so that they are available for exploration and change. Clients learn that they can tolerate these previously overwhelming emotional experiences. Furthermore, client's internal, subjective experiences, particularly primary adaptive emotions and associated resources, as well as new interpersonal experience with the therapist are thought to produce change.

*EFTT Treatment Protocol.* Paivio and Pascual-Leone (in press) delineated the four phases in EFTT. Accordingly, these are (1) establishing the therapeutic alliance, (2) resolving self-related disturbances, such as fear, avoidance, shame, and self-blame, (3) resolving issues with abusive and neglectful others, and (4) termination. The first three sessions of therapy are devoted exclusively to the development of the therapeutic relationship. This includes developing a secure attachment bond between therapist and client, developing a mutual understanding of the underlying determinants of the client's disturbance, and collaborating on the goals and tasks of therapy. This early phase focuses

on ensuring adequate client emotion regulation and begins emotion coaching and awareness training. Empathic responding is the primary intervention used during this phase and functions to help modulate affective intensity and increase awareness of emotional experience (Paivio & Laurent, 2001). For example, the soothing presence of the therapist can help to reduce the client's sense of loneliness and distress and the therapist empathic responses can direct client's attention to internal experience and help accurately label and express meaning.

In this early phase, clients also are asked to identify the abuse experiences and abusive and/or neglectful others that they wish to focus on in therapy. In the standard version of EFTT (Paivio & Nieuwenhuis, 2001), the IC procedure is introduced in the fourth session. Therapists ask clients to vividly imagine abusive or neglectful others in an empty chair, attend to their internal experience, and express thoughts and feelings to the imagined others. This procedure is thought to quickly activate core emotional processes, including fear, avoidance, and shame, for subsequent exploration.

The second phase of EFTT focuses on reducing self-related disturbances, such as, fear, avoidance of pain, numbing, and dissociation, as well as guilt, shame, and self-blame about the abuse. These are secondary emotions that represent blocks to primary emotional experience and expression of anger and sadness. Thus, these emotions are thought to hinder the process of resolving issues with abusive and neglectful others. Interventions in this phase include empathic exploration, experiential focusing (Gendlin, 1996), and two-chair dialogues that are used in conjunction with the IC. Focusing techniques are used with clients that have difficulty exploring and verbally symbolizing internal experience. These techniques are designed to increase client's awareness of

bodily sensations, find appropriate words for that experience, and eventually explore the meaning of that experience. Two chair dialogues are used to help clients resolve self-interruptive and self-critical conflicts. For example, clients are encouraged to engage in dialogue between the judgemental part of themselves that blames the self for the abuse and the experiencing part that feels ashamed. Intervention supports the emergence of authentic feelings and needs (e.g., ‘I was so young and vulnerable, he should’ve known better!’). Guidelines for implementing these procedures have been clearly delineated (Greenberg et al., 1993; Elliot, Watson, Goldman, & Greenberg, 2004).

In the third phase of EFTT, therapy focuses on resolving issues with abusive and neglectful others. As fear and shame are reduced, clients are better able to imaginably confront abusive and neglectful others during IC and express feelings and needs directly to these imaginary others. At markers of unresolved abuse issues, that is, when clients express hurt, blame, or complaint about the perpetrator, the therapist brings out an empty chair and asks clients to imagine the other in the chair. Clients are directed to attend to their internal experience and express their current feelings and thoughts directly to the imagined other. Clear expression of primary anger at violation and sadness at loss are catalysts for resolution. Over the course of therapy, during the IC, therapists direct the process and promote the emergence of these adaptive emotions, and associated needs, such as for respect, attention, love, and acceptance. Also, therapists promote a sense of entitlement to unmet needs, help clients grieve losses (e.g., loss of innocence), and let go of unmet needs. This strengthens self-esteem, sense of self-empowerment, and helps clients hold the perpetrator, rather than self, accountable for the abuse. Since this can be a

stressful process for some clients, therapists explore client's difficulties and, when necessary, empathically explore abuse material in interaction with the therapist.

In the last phase of EFTT, a final IC is used to consolidate changes and the degree of resolution. Termination involves processing the client's experience of therapy, which includes discussing client difficulties, successes, and helpful aspects. Client and therapist provide feedback, and the client's therapy experience is integrated into their current life.

Recently, an alternate version of EFTT was developed for clients who were unwilling or unable to engage in the IC procedure (Paivio et al., 2001). Clients in the EE procedure explore abuse material exclusively in interaction with the therapist. EFTT with EE is based on the same treatment principles and protocol (Paivio et al., in press; Paivio & Pascual-Leone, in press), and the same model of resolving issues with past others (Greenberg & Foerster, 1996; Greenberg & Malcolm, 2002) as EFTT with IC. Rather than imagining abusive and neglectful others in an empty chair, clients asked to imagine the other in their 'mind's eye' and attend to their internal experience and express current thoughts and feeling to the therapist.

*Contributions of EFTT.* EFTT is distinct from other child abuse therapies described earlier. First, EFTT is an individual treatment for both men and women who are dealing with different types of childhood abuse and neglect. Most published treatments are group modalities exclusively for female survivors of childhood sexual abuse. Second, EFTT emphasizes accessing primary adaptive emotions as a means of modifying and changing maladaptive emotions (Greenberg, 2002). Other treatments focus on skills training and challenging maladaptive cognitions as a means of promoting change (Cloitre et al., 2002; Foa and colleagues, 1991, 1999). Third, EFTT is the only

treatment that is based on an empirically validated model of resolving issues with specific perpetrators of abuse using a specific empty chair intervention (Greenberg & Foerster, 1996; Paivio & Greenberg, 1995). From the perspective of attachment theory, clients continue to suffer from disturbing memories as well as unexpressed feelings and unmet needs involving specific perpetrators. Clients are unable to separate and let go, until these feelings and needs are processed and satisfactorily resolved (Greenberg & Paivio, 1997). Other approaches focus more on self-concept and skill development (Cloitre et al., 2002). Finally, EFTT is an evidence-based model with research supporting both outcome (Paivio et al., in press; Paivio & Nieuwenhuis, 2001) and processes of change (Paivio et al., 2001; Paivio & Patterson, 1999).

*Research Background.* EFTT developed from programmatic research on the processes of resolving interpersonal issues from the past using a Gestalt-derived empty chair procedure (Greenberg & Foerster, 1996; Greenberg & Malcolm, 2002). The following components were identified as distinguishing clients who resolved and those who did not, and comprise the resolution model (Greenberg & Foerster, 1996; Greenberg & Malcolm, 2002). Clients moved from expressing blame, complaint, and/or hurt, to expressing intense primary emotions (such as anger and sadness). Clients also expressed previously unmet interpersonal needs and a sense of entitlement to these needs. Finally, clients who resolved shifted to a stance of increased self-empowerment and self-esteem and increased understanding and/or holding the significant other accountable for harm.

Paivio and Greenberg (1995) tested the efficacy of experiential therapy, based on the above model of resolution, with a general clinical sample of clients. Individual therapy (12 sessions), which included the empty chair technique, was compared to a

psycho-educational group. Clients in the treatment group ( $n = 17$ ) reported significantly greater improvements on multiple dimensions of disturbances compared to those in the psycho-educational group ( $n = 17$ ). EFT specifically for abuse survivors developed from observations of therapy with a subset of abuse survivors ( $n = 4$ ) included in the Paivio and Greenberg study. Therapy with these clients included more work with avoidance and self-blame, for example, thus EFTT was longer (i.e., 20 sessions) to allow more time to deal with these issues. The empty chair intervention used in the Paivio and Greenberg (1995) study is referred to as the IC in EFTT and it is conceptualized as an exposure/reexperiencing procedure for reprocessing child abuse trauma.

*Research Supporting EFTT.* An outcome study (Paivio & Nieuwenhuis, 2001) evaluated the efficacy of EFTT with IC. Clients who completed 20 sessions of therapy ( $n = 19$ ) were compared to a wait list control group ( $n = 19$ ). Results indicated that clients who completed EFTT reported statistically and clinically significant improvements on multiple domains, including general and trauma specific symptoms, current abuse related target complaints, interpersonal problems, self-esteem, and resolution of issues with past abusive and neglectful others. The average pre-post effect sizes across seven dimensions was 1.53 standard deviations. This is well above the standard for successful therapy of .80 standard deviations specified by the APA Taskforce on the Promotion and Dissemination of Psychological Procedures (1995). Clients who completed therapy following the wait list reported gains comparable to those in the immediate therapy group. Furthermore, improvements were maintained at 6-month follow-up.

Process-outcome research on EFTT has tested the posited mechanisms of change in EFTT. Paivio and Patterson (1999) found that client ratings of the therapeutic



relationship was strong by the third session and significantly improved over the course of therapy. Furthermore, although different types of abuse interfered with alliance quality early in therapy, this influence disappeared by the end of treatment. Overall, alliance quality was associated with multiple domains of change including, improvements on global and specific trauma symptoms, self-acceptance, and resolution of abuse issues.

Paivio et al. (2001) examined the contributions of engagement during the IC procedure beyond contributions made by alliance quality to outcome in EFTT. This study is described in detail in the section on emotional processing. Briefly, results indicated that engagement quality contributed to reductions in global distress and trauma-symptoms, and interpersonal problems beyond the contributions of early alliance quality. Thus results support emotional engagement with trauma material during IC as a mechanism of change in EFTT. However, results also indicated that approximately one third of clients declined to substantially participate in IC work. This led to the development of the alternate version, EFTT with EE described earlier. EE is thought to be less evocative and a less stressful procedure.

A recent randomized control trial (Paivio et al., in press) compared the efficacy of EFTT with IC ( $n = 20$ ) and EFTT with EE ( $n = 25$ ). Results indicated large and comparable pre-post improvements in both treatment conditions across ten dependent measures. These assessed symptom distress (depression, anxiety, PTSD), self-esteem, interpersonal problems, and resolution of issues with perpetrators of abuse and neglect. The average pre-post effect sizes across ten dimensions was 1.34 standard deviations for EFTT with IC and 1.30 standard deviations for EFTT with EE. Treatment gains were

maintained, on average, one year following completion of therapy in both versions of EFTT.

There also is some evidence to support the view that EFTT with EE is less evocative and less stressful compared to EFTT with IC. Most clients (20%) who dropped out of the Paivio et al. (in press) study were assigned to the IC condition, compared to seven percent dropout rate for EE. Also, process analyses (Ralston, 2008) for a subset of completers used in the present study ( $n = 15$  in each condition) indicated lower levels of emotional arousal in the EE condition compared to IC. Overall, both versions of EFTT were highly effective and EFTT with EE seems to be a gentler alternative. The next section presents theory and research in the area of emotional engagement and processing.

#### Emotional Processing Theory and Research

The importance of emotionally processing trauma experiences has a long history in the field of psychology, with the earliest conceptualization deriving from psychoanalytic traditions. Accordingly, Breuer and Freud (1895) initially recognized that emotional processing involved some form of reexperiencing in therapy and this was important in ‘curing’ patients who had experienced trauma. This was based on their observations that patients with particular symptoms who recalled traumatic events *and* emotionally re-experienced that event, reported relief from the symptoms. According to their theory, the ego defends against painful and distressing affect associated with traumatic experience by repressing the trauma from conscious awareness (Breuer & Freud, 1895). Repressed memories are posited to be actively maintained at an unconscious level of functioning and thus continue to influence behaviour and result in problematic symptoms. Freud (1910) developed the “free association” method for

accessing painful, repressed, traumatic memories and termed the curing process “working through”. Freud’s understanding of working through required deep exploration of the processes involved in the formation of distressing symptoms and the idea was to uncover the origins of patient’s symptoms and ‘discharge’ the associated repressed feelings and memories. In so doing, the ego would strengthen. Thus, emotional processing occurred by accessing and discharging painful, repressed affect associated with the trauma.

Current psychodynamic conceptualizations of emotional processing draw on these earlier ideas and include concepts of unconscious processes, working through, and corrective emotional experience (Alexander & French, 1980; Kudlre, Krupnick, Blank, Herman, & Horowitz, 2009; Lindy & Wilson, 2001; Schottenbaner, Glass, Arnkoff, & Gray, 2008). From a psychodynamic perspective, traumatic experiences are thought to cause internal self-system disorganization and ego impairment as a result of the development of primitive defences, including dissociation, denial, and somatisation, in response to the trauma (Lindy & Wilson, 2001). The psychological meaning of a traumatic event is understood within the context of the survivor's unique history, constitution, and aspirations (Kudlre et al., 2009). As such, treatment involves an exploration and sorting through of unresolved conflicts, wishes, fantasies, fears, and defences, which have been stirred up by the traumatic event (Kudlre et al., 2009). Important elements of emotional processing include bringing the unconscious into conscious awareness, in tolerable doses (Schottenbaner et al., 2008). The therapist-patient relationship is itself a crucial factor in the patient's response. In addition to uncovering repressed memories and associated affect, it is thought that clients also must undergo a corrective emotional experience, which Alexander and French (1980) defined as

“reexperiencing the old, unsettled conflict but with a new ending”. It is thought that when clients are re-exposed to emotional situations from their past, under more favourable relationship conditions, they are afforded opportunities to master unresolved conflicts. The concept of transference is an integral part of this process and allows clients to master old, unresolved conflicts through their reactions to the therapist. The therapist’s objective, understanding, and caring nature allow clients to face the original conflict situation again and again until it is resolved (Alexander & French, 1980). Intellectual insight into these dynamics is not sufficient for change; rather, personally meaningful emotional experience is more likely to produce lasting change (Fonagy & Target, 2000). In sum, psychodynamic perspectives consider emotional processing of repressed traumatic experiences a necessary condition for client change.

Cognitive behavioural theories (CBT) of emotional processing currently dominate the field of clinical psychology. Cognitive behavioural formulations of emotional processing of trauma material are extensions of behavioural theories (BT) of pathological fear and anxiety. Specifically, Foa and Kozak’s (1986) emotional processing theory, which is based on Lang’s (1977, 1979) bio-informational theory of fear, is used to explain the underlying mechanisms of change during exposure in CBT. According to this theory, fear is thought to be represented in memory as a structure or network of stimulus, response, and meaning elements. Foa and Kozak (1986) proposed that specific pathological fear-related structures underlie anxiety disorders. These structures involve elements that do not reflect reality, have excessive response elements (e.g., avoidance, physiological activity), and are resistant to change. From the behavioural perspective, emotional processing first requires activation of the fear-related memory structure so that

maladaptive elements are available for modification. Once activated, desensitization processes are thought to help clients eventually tolerate distressing and overwhelming feelings, and thus habituate to them. Modification and change is thought to occur by providing information that is incompatible with the memory structure, that is, learning to tolerate trauma feelings and memories provides clients with information that they are safe and that these distressing memories will not actually hurt them.

Foa and Rothbaum (1998) applied this theory of emotional processing to PTSD and extended the basic behavioural theory to additionally target maladaptive cognitions and beliefs commonly associated with PTSD. Thus, CBT focuses on cognitive factors that are thought to prevent optimal processing of traumatic experiences through the use of interventions such as, cognitive restructuring, identifying ‘thinking errors’, and challenging negative appraisals (Rachman, 1980). Maladaptive cognitions that are targeted in treatment include pathological meaning elements of a fear-related memory structure, such as “I’m incompetent and can’t handle stress” or “I should have prevented the trauma” (Rauch & Foa, 2006). Briere’s (2002) self-trauma theory applied to complex trauma is similar to that of CBT but is thought to entail more comprehensive cognitive change. This includes developing a coherent narrative about the traumatic experience, deriving meaning (i.e., how the trauma fits into one’s life), and reprocessing activated maladaptive relational schema. In sum, cognitive behavioural theories of emotional processing entail activating the fear-related structure (by increasing arousal), habituating to the resultant anxiety, and creating new meaning through exposure to new information (e.g., challenges to catastrophic expectations) that is incompatible with the elements of a trauma memory structure.

Compared to BT and CBT, which focuses on distorted cognitions and the emotion of fear, experiential theories have traditionally focused on the importance of the construct of experiencing and a variety of emotions in psychotherapy. Recently, Greenberg and Pascual-Leone (2006) proposed four empirically grounded principles of emotional processing, which include (1) awareness and arousal of emotion, (2) enhancing emotion regulation, (3) reflecting on emotion, and (4) transforming emotion. The first principle entails approaching and accepting painful emotions. This occurs by helping clients attend to and tolerate their emotional experience, which is typically characterized by high arousal. The second principle refers to emotion regulation skills for use with clients who over- or under-regulate their emotions, which interferes with processing core emotional experiences. These skills include identifying and labelling emotions, increasing positive emotions, reducing vulnerability to negative emotions, self-soothing, breathing, and so on. The third principle refers to actively reflecting on emotional experience in order to create new meaning. This process allows clients to develop new narratives for their experiences which are important part of emotional processing of trauma. Finally, the fourth principle refers to changing emotion with emotion. This is a unique characteristic of the experiential tradition and involves accessing adaptive emotions, such as anger or sadness, so that the associated information can be used to modify maladaptive emotion and meaning (Greenberg & Paivio, 1997; Greenberg & Pascual-Leone, 2006). This change process is elaborated below in the context of discussing EFTT. In sum, from an experiential perspective emotional processing involves more than arousal; emotional arousal is only one aspect of this complex process that entails exploring feelings and meaning associated with the multifaceted nature of emotional experience.

EFTT is grounded in experiential therapy theory and as such incorporates the four empirically derived principles described above. In EFTT, emotional processing is thought to involve accessing maladaptive emotional experiences, such as fear and shame, so that they are available for modification. As maladaptive emotional experiences are verbalized and brought into conscious awareness (principle 1: awareness and arousal of emotion), clients learn to tolerate these previously overwhelming emotional experiences through emotion regulation skills of the process of desensitisation (principle 2: emotion regulation). This change mechanism also is consistent with BT and CBT described earlier. A distinctive feature of EFTT is that emotional processing also involves accessing constricted primary emotion, such as anger at maltreatment and sadness at loss, and associated adaptive information (principle 3: reflecting on emotion) in order to modify maladaptive emotion meaning and promote healthy functioning (principle 4: transforming emotion; Damasio, 1999; LeDoux, 1996). This is the process of changing emotion with emotion (Greenberg, 2002; Greenberg & Pascual-Leone, 2006). For example, appropriate expression of sadness at loss promotes grieving, acceptance of loss, and accesses compassion and self-soothing resources. Appropriate expression of anger promotes assertiveness and self-empowerments. Thus, accessing adaptive sadness and anger helps to counteract maladaptive shame and fear. Through this process clients construct new meaning, that is, a more adaptive view of self, others, and traumatic events. In sum, experiential theories of emotional processing, including EFTT, suggest that in addition to emotional arousal and habituation, clients also create new meaning through the process of changing emotion with emotion (Greenberg, 2002).

Another central point common to most trauma theories, including EFTT, is that emotional processing and change requires clients' emotional engagement with trauma memories during reexperiencing procedures. It is thought that clients who under-engage, that is, who do not display arousal and distress when describing their traumatic experience during exposure, do not benefit as much from therapy because trauma feelings and memories have not been sufficiently activated and therefore are not available for modification (Rauch & Foa, 2006). Alternatively, over-engagement during exposure procedures is thought to prevent the integration of disconfirming information into the pathological memory structure. Engagement is related to client's affective abilities and emotional capacities (i.e., ability to tolerate negative, painful emotions). Clients who over-engage are likely to have limited emotion regulation abilities, and this could result in feeling overwhelmed and being destabilized by negative emotional experiences (Briere & Scott, 2006). Over-engagement is thought to result in high arousal and if clients are less able to internally regulate emotional states, it is likely that they will be unable to focus on new information (Rauch & Foa, 2006). Thus, although the memory structure is activated, clients are too highly aroused to cognitively process and construct new meaning. Furthermore, it is thought that over-engagement motivates avoidance which could reduce the likelihood of engaging in future exposures and processing (Briere & Scott, 2006). In EFTT, optimal engagement with trauma material during reexperiencing procedures involves optimal arousal and experiencing. High initial arousal indicates that the emotion structure has been activated. However, this initially high arousal must then subside in order for meaningful exploration to occur.



*Research on Emotional Engagement*

Most research examining emotional engagement during exposure with clients who have experienced some form of trauma is from a CBT perspective. This research supports the contributions of emotional engagement, defined in terms of self-reported levels of arousal, to outcome during cognitive-behavioural exposure therapies. For example, Jaycox et al. (1998) examined the influence of emotional engagement and habituation on outcome during cognitive behavioural exposure therapy for PTSD stemming from rape. Client reports on the subjective units of distress scale (SUDS; 0 = calm and free from distress, 100 = most distressed) were recorded every 10 minutes during the imaginal reliving and these client reports were used as indicators of engagement and habituation. Emotional engagement was calculated using the average SUDS rating for each session. Habituation was calculated by subtracting the final SUDS rating during the exposure from the highest SUDS rating during that same exposure. Results indicated that clients improved in terms of reduced PTSD, depressive, and anxiety symptoms. Cluster analyses of emotional engagement and habituation ratings resulted in three patterns: (1) high engagers/high habituators, characterized by high SUDS ratings in the first session with a gradual decrease over the six sessions, (2) high engagers/non-habituators, characterized by high SUDS ratings in the first session and only slight decrease over the six sessions, and (3) low engagers/non-habituators, characterized by moderate SUDS ratings in the first session and only slight decrease over the six sessions. Results indicated that clients whose pattern was characterized by high engagement (arousal/distress) and high habituation (reduced arousal/distress) were eight times more likely, compared to clients characterized by high engagement/no habituation

or low engagement/no habituation, to meet criteria for good outcome. Jaycox et al. (1998) concluded that their findings support Foa and Kozak's (1985) emotional processing theory such that emotional engagement and habituation (measured with SUDS), are seen as necessary to emotional processing and change. In the absence of engagement and habituation, clients are not able to integrate corrective information that disconfirms pathological beliefs that maintain PTSD, anxiety, and depression

Rubenstein (2004) also examined the contribution of emotional engagement and habituation during cognitive behavioural exposure therapy for PTSD stemming from a variety of traumatic experiences. Again, SUDS ratings were used as measures of emotional engagement and habituation. Rubenstein found that high engagement and habituation in the first session were most predictive of reductions in PTSD symptoms at post-treatment. These findings are consistent with patterns of engagement found by Jaycox et al. (1998), described above. Rauch, Foa, Furr, and Fillip (2004) investigated imagery vividness (SUDS; 0 = cannot see image at all, 100 = very vivid, feels as it were happening now) and perceived anxious arousal (SUDS; 0 = calm and free from distress, 100 = most distressed) with a sample of female survivors of sexual and non-sexual assault. Results indicated that vividness and anxiety were highly inter-correlated in early sessions, suggesting that the imaginal exposure task activated trauma memory structures. The correlation decreased over the course of therapy, such that clients were able to vividly imagine the assault with less anxiety. Finally, anxiety, but not vividness ratings, was related to post-treatment reductions in PTSD symptoms. These findings also are consistent with Foa and Kozak's (1985) theory of emotional processing, which states that

emotional engagement (i.e., high initial anxiety) and habituation (i.e., decrease in anxiety over therapy) are important variables that contribute to client change.

All of the above studies used client self-reports (SUDS) of emotional engagement with trauma memories (arousal/distress) and habituation. Another study (Foa, Riggs, Massie, & Yarczower; 1995) used both SUDS ratings and an observer-rater measure of facial expression to examine the contribution of fear activation to outcome in cognitive behavioural exposure therapy with female assault victims. Results indicated that higher pretreatment symptoms, more facial expression of fear, and higher SUDS ratings during the first exposure session were predictive of a decrease in PTSD symptoms. However, facial expressions were rated only for the first exposure session and therefore analyses did not compare the relationship between observer-ratings (facial expressions) and self-reports (SUDS), over time or the relative predictive value of these two perspectives. This is important because theorists suggest that several factors could interfere with accurate self-reported communications of emotional arousal (Rosenberg & Ekman, 1997). These factors include lack of awareness of internal states, defensive distortions, symbolic representation of emotion in language, social desirability, self-censoring, and memory reconstruction. Therefore, it is important to examine similarities and differences between self-reported and observer-rated aspects of engagement and their relative contributions to treatment outcome since these two perspectives could tap into different processes of emotional engagement.

A recent study by Warwar et al. (2003) examined the contributions of both self-reported and observer-rated in-session emotional intensity to outcome in a sample of clients dealing with emotional injuries that included abandonment and betrayal by

significant others. Results of this study indicated that client self-reports of emotional intensity were not positively related to outcome. Moreover, discrepancies were observed between client reports of in-session emotional intensity and observer-ratings of expressed emotion. For example, one client's emotional expression was rated to be very low by two independent raters, and yet the client reported intense emotional pain in that same session (Warwar et al., 2003). Although this study did not directly compare perspective, findings indicate the importance of including observer-rater measures of therapy processes and raise the question of which measurement perspective (observer-rater or self-report) is a better predictor of outcome.

One study was located that directly compared observer and self-report ratings of emotional engagement with trauma memories. The study examined these perspective during cognitive behavioural exposure therapy with a sample ( $n = 46$ ) of female sexual abuse survivors (Gleiser, 2003). The Client Emotional Arousal Scale-III (CEAS-III; Warwar & Greenberg, 1999) was used to measure emotional engagement. The CEAS-III is an observer-rated measure that is used to identify and rate peak and modal intensity of 15 emotions. In addition, clients' SUDS ratings of arousal/distress were recorded for each session. Results indicated that clients who experienced more habituation of negative affect (reduced arousal) on the observer-rated CEAS-III reported greater reductions in PTSD symptoms. However, findings did not support a positive relationship between observer-rated negative emotional arousal and clients' subjective reports of distress. This could suggest that these two measurement perspectives assess different emotional processes, that is, emotional experience and emotional expression.

The research described thus far investigated emotional engagement and habituation during exposure procedures in CBT. In these studies, emotional engagement was conceptualized in terms of the uni-dimensional constructs of emotional arousal and distress, and primarily focused on the affective state of fear. A study of EFTT for child abuse trauma (Paivio et al., 2001) investigated the benefits of emotional engagement with trauma material using a more complex, multi-dimensional measure of engagement. The Levels of Engagement Scale (LES) is an observer-rater measure that originally was designed to assess the quality of client emotional engagement with trauma material during the IC procedure. Engagement quality is defined “in terms of process elements that are important in expressive and experiential therapies, in general, trauma therapy, in particular, and that are unique to the intervention” (Paivio et al., 2001, p. 440). Accordingly, the LES behaviourally defines three process dimensions: (a) willingness to participate in the intervention, (b) psychological contact with imaginary abusive or neglectful others, and (c) emotional expressiveness or arousal. Thus, emotional engagement with trauma material, from this perspective, is a more complex construct than simply emotional arousal or distress and corresponds to the more complex view of emotional processing described earlier from experiential and EFTT perspectives.

Results of the Paivio et al. (2001) study indicated that high engagement early in therapy was associated with resolution of abuse issues at termination and follow-up, and dosage of IC (mean quality of engagement on the LES X frequency of participation in the intervention) independently contributed to reductions in global symptom distress, specific trauma symptoms, and interpersonal problems, beyond the contributions made by early alliance quality. Furthermore, clients who were rated as highly engaged during IC ( $n =$

10) reported more clinically significant change at the end of therapy compared to clients who engaged only minimally ( $n = 10$ ). Ninety-three percent of clients who were highly engaged compared to 71% of those who engaged at low levels reliably improved over the course of therapy. Moreover, 71% of high engagers compared to 39% of low engagers were classified as recovered at the end of therapy. These findings support emotional engagement with trauma material during IC as a change mechanism in EFTT.

Other process-outcome research from experiential therapies have defined emotional processing more broadly than cognitive behavioural therapies, and thus included more than client arousal. A number of studies have examined the contributions of expressed emotional arousal versus emotional processing to treatment outcome, in other clinical populations. For example, Greenberg, Auszra, Herrmann (2007) examined the relationship between productivity, expressed aroused emotion, and outcome in experiential therapy for depression. These variables were examined in good and poor outcome therapy cases (i.e., based on cut off scores on the Structured Clinical Interview for DSM-IV at termination and client's pre-post difference score on the BDI and Global Adaptive Functioning). The CEAS-III (Warwar & Greenberg, 1999) was used to assess observer-rated emotional arousal. The operational definition of productivity included the awareness, expression, and ownership of a primary emotion, which clients experienced in the present moment. Productivity also included one theme-related component, that is, the emotion has to be on a therapeutically relevant theme. Like the concept of engagement used in the Paivio et al. (2001) study, this definition contains more than simply emotional arousal. Greenberg et al. (2007) did not find differences between good and poor outcome cases on expressed emotional arousal, alone, but did find differences in terms of *both*

expressed emotional arousal and productivity. Thus the more complex process of productivity along together with expressed emotional arousal was most important for successful treatment outcome.

Another study (Missirlian, Toukmanian, Warwar, & Greenberg, 2005) examined the contributions of three process variables (expressed emotional arousal, perceptual processing strategies, and working alliance) to outcome in experiential therapy for depression. In this study, the CEAS-III (Warwar & Greenberg, 1999) also was used to assess observer-rated emotional arousal. Perceptual processing referred to the manner with which clients processed their experiences and included the following seven categories: recognition, elaboration, externally focused differentiation, analytic differentiation, internally focused differentiation, re-evaluation, and integration. Missirlian et al. (2005) found that expressed emotional arousal and more complex perceptual processing during the mid-phase of treatment predicted less depressive and other pathological symptoms post-therapy. Although expressed emotional arousal in the middle phase of treatment contributed to some dimensions of outcome, the combined contributions of expressed arousal and the more complex construct of perceptual processing were greater.

The above studies suggest that observations of more complex emotional processes during experiential or emotionally-focused therapies are better predictors of outcome than simple arousal alone. However, to date, most research examining the benefits of emotional engagement during trauma therapies used self-reported levels of arousal or distress (SUDS) to measure engagement. Together, these findings raise the question of how client self-reported arousal/distress is related to more complex and observed

emotional engagement processes specifically during trauma therapy. The present study addresses this question as well as the relative predictive power of each measurement perspective in a sample of child abuse survivors undergoing EFTT.

### The Present Study

The present study replicated and extended the Paivio et al. (2001) study, described above, by examining the benefits of engagement with trauma material in two reexperiencing procedures used in EFTT--the IC and EE. Thus, two therapy groups are examined: (1) clients who engaged in the IC reexperiencing procedure in EFTT with IC and (2) clients who engaged in the EE reexperiencing procedure in EFTT with EE. The present study extended previous research (Paivio et al., 2001) by examining the contributions of emotional engagement in a new reexperiencing procedure (i.e., the EE intervention). Furthermore, the present study extended previous research by examining the relative predictive validity of client self-reported engagement using the client Post Session Questionnaire (PSQ) and observer-rated engagement using the LES. Finally, this study examined the relative contributions of multidimensional measures of engagement (LES, PSQ) and distress (SUDS) to treatment outcome.

The following hypotheses and questions were addressed:

- (1) Hypothesis 1: Emotional engagement with trauma memories from observer-rated (LES) and self-reported (PSQ) measurement perspectives will be stable over time, during IC and EE.
- (2) Hypothesis 2: Client reported distress (SUDS) during IC and EE will decrease over the course of therapy.
- (3) Hypothesis 3: Since arousal is one component of engagement as defined on



the LES, it is hypothesized that the LES, PSQ, and SUDS will be positively associated with each other, in IC and EE.

- (4) Hypothesis 4: Emotional engagement with trauma material from all perspectives (LES, PSQ, SUDS) will contribute to outcome, in IC and EE.
- (5) Hypothesis 5: Frequency of participation in IC and EE work will contribute to outcome.
- (6) Exploratory Question: Which measure of emotional engagement (LES, PSQ, SUDS) is a better predictor of outcome, in each version of EFTT?

## CHAPTER II: METHOD

### Participants

The present study used data (process and outcome questionnaires, videotapes of therapy sessions) that was collected between 2002 and 2005 as part of psychotherapy research on EFTT conducted in the Psychology Department at the University of Windsor. Outcome results have been reported for the complete sample (45 therapy completers and 8 dropouts; Paivio et al., in press). The present sample consists of those previously reported and two additional clients ( $N = 47$  therapy completers; 21 clients completed EFTT with IC and 26 completed EFTT with EE).

### *Recruitment*

Recruitment strategies for participants in the Paivio et al. (in press) outcome study included newspaper features in the Windsor Star, advertisements in the Windsor Star and PennySaver (a local weekly advertisement flyer delivered to all Windsor residents), posters placed in community medical clinics and public institutions (e.g., Windsor Public Library), letters sent to local doctors and mental health facilities asking for referrals, and by word-of-mouth. The study was described as offering free psychotherapy for adult survivors (both men and women) of child abuse (emotional, physical, and sexual) in exchange for completion of research questionnaires.

Two hundred and seventeen individuals contacted the Psychotherapy Research Centre, a small clinic in the Psychology Department at the University of Windsor. One hundred and sixty seven were screened via telephone interviews (Appendix A) that assessed age, abuse experiences that individuals wished to focus on in therapy, how they heard about the study, and basic exclusion criteria outlined in the section below. Ninety-

one of these individuals who met screening criteria were scheduled for a semi-structured selection interview (Appendix B). The selection interview assessed abuse and family history in detail, mental health history, level of functioning (Global Assessment of Functioning scale, GAF; DSM-IV, American Psychiatric Association, 1994), coping resources, social support, and PTSD symptomology using the PTSD Symptom Severity Interview (PSSI; Foa, Riggs, Dancu, & Rothbaum, 1993). After the interview, individuals completed the Symptom Checklist-90 (SCL; Derogatis, 1983) and Impact of Events Scale (IES; Horowitz, 1986). The telephone screen and selection interview were conducted by trained clinical Psychology graduate students who were members of the EFTT research team.

#### *Inclusion and Exclusion Criteria*

Individuals were excluded if they were under 18 years of age, currently undergoing another therapy, taking psychoactive medication (anxiolitics and antidepressants) that was not stabilized (dose change within the two months), currently had a drug or alcohol problem, were in a crisis that required immediate attention, or had no conscious recollections of childhood abuse. They also were excluded if they had concurrent presenting problems that were incompatible with emotion intensification and a focus on past childhood issues, for example, anger control issues, aggressive or self-harm behaviour, current or recent (within the past year) domestic violence as either perpetrator or victim, and incompatible diagnoses (e.g., bipolar or psychotic disorder). All excluded individuals were referred to appropriate community agencies.

Individuals were included on the basis of commonly accepted criteria for short-term insight-oriented therapy (Beutler, Clarkin, & Bongar, 2000), such as motivation,

capacity to form a therapeutic relationship, and capacity to focus on a circumscribed issue, in this case, past childhood abuse. Individuals were included if they met criteria for having experienced abusive childhood experiences and expressed unresolved feelings concerning specified abusive and neglectful others that they wished to focus on in therapy.

Clients were randomly assigned, using the coin toss method, to either the IC or EE conditions after session 3 and before the implementation of reexperiencing procedures in session 4.

### Therapy and Therapists

#### *Therapy*

EFTT is a manualized individual therapy that applies the general principles of Emotion Focused Therapy (Greenberg & Paivio, 1997) to child abuse trauma (Paivio & Pascual-Leone, in press). Therapy typically consists of 16 to 20 weekly one-hour therapy sessions. As outlined earlier, there are four phases and tasks in EFTT (establishing therapeutic alliance, overcoming self-related difficulties, resolving abuse issues, termination). Within this general framework, there are two versions of EFTT, each employing a different reexperiencing procedure.

*EFTT with IC.* In the standard version of EFTT (Paivio & Nieuwenhuis, 2001), the IC procedure is used to explore and reprocess trauma material. Beginning with the fourth session and later at markers of unresolved abuse issues, the therapist brings out an empty chair and asks clients to imagine the other in the chair. During this reexperiencing procedure, therapists promote psychological contact with the imagined other through the use of “I-you” language, expression of internal experience (thoughts and feelings), and

help to differentiate feelings and associated meanings. In addition, therapists explore shifting perceptions of self and imagined others over the course of therapy. Accordingly, clients are encouraged to imagine and enact how the other would respond to their expressiveness. The IC procedure is used judiciously throughout therapy and the frequency of use varies according to individual client processes and treatment needs.

*EFTT with EE.* Empathic Exploration (EE) was developed as an alternate reexperiencing intervention based on observations that some clients were unwilling or unable to engage in the IC (Paivio et al., 2001). EFTT with EE utilizes the same resolution process model (Greenberg & Foerster, 1996) and treatment principles (Paivio, Holowaty, & Hall, 2004) as EFTT with IC, but differs in that there is no empty chair. Rather than using an empty chair, psychological contact with abuse memories is promoted by encouraging clients to focus, in depth, on traumatic experiences and to imagine the other in their “mind’s eye”. All trauma feelings and memories are explored exclusively in interaction with the therapist.

### *Therapists*

Clients in this study were seen by 11 therapists. These included one master’s level and six doctoral students in Clinical Psychology, and four psychologists who are faculty members at the University of Windsor. All therapists had previous clinical experience with this client group. Therapists were seven women and four men who ranged in age from 25 to 57 years. Therapists participated in approximately 54 hours of training over one semester (14 weeks). Therapists were assigned equal number of clients in both treatment conditions.

## Measures

All instruments used in the present study have previously been used in this type of research (e.g., Barber et al., 1996; Jaycox et al., 1998; Paivio et al., 2001) and have acceptable published psychometric properties. Measures used in the present study were selected on the basis of theory and research and are representative of symptoms characterized with this client group (e.g., Beitchman et al., 1991; Courtois, 1997; van der Kolk, 1996; Paivio & Laurent, 2001; Paivio & McCulloch, 2004). Measures assessing client characteristics, outcome, and therapy processes (see Appendices C to P) are described below.

### *Client Characteristics*

The following information was collected in terms of client characteristics in order to provide a description of the present sample. The following measures provide information concerning symptoms that are typical in abuse survivors.

*Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1993).* The CTQ is a 28-item retrospective measure of the frequency and severity of multiple types of abuse and neglect. Items are rated on a 6-point Likert scale (0 = *never true*, 5 = *very often true*). The scale yields a total score and scores for three types of abuse (emotional, physical, and sexual) and two types of neglect (emotional and physical). Bernstein and Fink reported internal consistency ranging from .79 to .95 and test-retest reliability ranging between .80 and .88 (after 3.6 months of therapy). In the present study, total and all subscales scores were used for analyses. Hall (2008) reported internal consistency for the data used in this study, with  $n = 46$ , to have an alpha value of .89 for the pre-therapy CTQ items.

*Personality Diagnostic Questionnaire–Fourth Edition (PDQ-4; Hyler, 1994).* The PDQ-4 is a 99-item True/False questionnaire. It is considered a screening measure for the presence of personality pathology and can diagnose twelve personality disorders that correspond to DSM-IV criteria. Fossati et al. (1998) reported internal consistency ranging from .46 to .74, and correlations with semi-structured interviews for personality disorder classification ranged from .20 to .40 (Fossati et al., 1998). In the present study, clients were classified as either meeting criteria for having a personality disorder or not meeting criteria (where scores greater than 50 indicate the presence of pathology). Hall (2008) reported internal consistency for the data used in this study, with  $n = 46$ , to have an alpha value of .82 for the pre-therapy PDQ-4 items.

*PTSD Symptom Severity Interview (PSSI; Foa et al., 1993).* The PSSI is a 17-item semi structured interview. Items correspond to DSM-IV criteria for a PTSD diagnosis. Severity of symptoms over the preceding two weeks is rated by the interviewer on a 4-point Likert scale (0 = *not at all*, 3 = *very much*). The PSSI yields a total severity score, and scores on avoidance, arousal, and reexperiencing symptoms. Foa et al. reported good psychometric properties, with internal consistency ranging from .69 to .85, one month test-retest reliabilities ranging from .66 to .77, and inter rater reliability of 95%. In the present study, total severity score was used. Clients also were classified as either meeting criteria for having PTSD or not meeting criteria; PTSD diagnosis also was used as a variable in analyses. Hall (2008) reported internal consistency for the data used in this study, with  $n = 46$ , to have an alpha value of .88 for the pre-therapy PSSI severity items.

### *Outcome Measures*

*Symptom Checklist-Revised (SCL-90-R; Derogatis, 1983).* The SCL is a 90-item questionnaire that measures the degree of distress over the preceding seven days. Items are rated on a 5-point Likert scale (0 = *not at all*, 4 = *extremely*). Derogatis reported subscale internal consistencies ranging from .77 to .90, test–retest reliabilities over 1 week between .80 and .90, and convergence with other measures of symptom distress. In the present study, the total Global Severity Index (GSI) was used for analyses. Hall (2008) reported internal consistency for the data used in this study, with  $n = 46$ , to have an alpha value of .97 for the pre-therapy SCL-90-R items.

*Beck Depression Inventory-II (BDI-II; Beck, Brown, & Steer, 1996).* The BDI-II is a 21-item measure assessing DSM-IV depression symptoms over the previous two weeks. Items are rated on a 4-point scale (ranging from 0 to 3, with statements listed in increasing severity) with response options appropriate to each question. Beck et al. reported coefficient alpha of .92 for an outpatient population and .93 for a college population, and reported one-week test-retest reliability as .93. In the present study, the total depression score was used in analyses. Hall (2008) reported internal consistency for the data used in this study, with  $n = 46$ , to have an alpha value of .89 for the pre-therapy BDI-II items.

*State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, & Lushene, 1970).* The STAI provides separate measures of both state and trait anxiety. The State scale consists of 20 items that assess how clients feel at that particular moment, with items answered on a 4-point Likert scale (1 = *not at all*, 4 = *very much*). The Trait scale consists of 20 items that assess how clients generally feel, with items also answered on a



4-point Likert scale (1 = *almost never*, 4 = *almost always*). Spielberger et al. report test-retest reliabilities of .84 for men and .76 for women on the Trait scale, and of .33 for men and .16 on the State scale. Internal consistency is good, with alphas for the state and trait scale ranging from .83 to .92 and from .86 to .92 respectively (Spielberger et al.). In the present study, total state anxiety scores were used in analyses. Hall (2008) reported internal consistency for the data used in this study, with  $n = 46$ , to have an alpha value of .91 for the pre-therapy State items.

*Impact of Event Scale (IES; Horowitz, 1986).* The IES is a 15-item measure that assesses intrusion and avoidance of symptoms in relation to a specific trauma. Clients rate on a 4-point Likert scale (0 = *not at all*, 3 = *often experienced*) the frequency during the past week with which they experienced each item. The IES produces a total score, reflecting subjective distress, and two subscales, including intrusion (seven items) and avoidance (eight items). Corcoran and Fischer (1994) reported high internal consistency, with coefficients ranging from .79 to .92, and split-half reliability of  $r = .86$ . In the present study, the total score was used as a variable in analyses. Hall (2008) reported internal consistency for the data used in this study, with  $n = 46$ , to have an alpha value of .86 for the IES pre-therapy items.

*Inventory of Interpersonal Problems (IIP; Horowitz, Rosenberg, Baer, Ureno, & Villesenor, 1988).* The IIP is a 127-item questionnaire that assesses distress from interpersonal resources. Clients rate the degree of distress experienced over the preceding seven days on a on a 5-point Likert scale (0 = *not at all*, 4 = *extremely*). Horowitz et al. reported test-retest reliabilities ranging on subscales between .80 and .87 and internal consistency ranging between .82 and .94. In the present study, an average score,

reflecting distress from interpersonal sources, was used in analyses. Hall (2008) reported internal consistency for the data used in this study, with  $n = 46$ , to have an alpha value of .97 for the IIP pre-therapy items.

*Rosenberg Self Esteem Scale (RSES; Rosenberg, 1989).* The RSES is a 10-item measure of client's overall evaluation of their self-worth. Clients rate their level of agreement to each item on a 4-point Likert scale (0 = *strongly disagree*, 3 = *strongly agree*). Scores range from 0 to 30, with higher scores indicating more positive self-evaluations. Kaplan and Sacuzzo (2005) reported internal reliability as .92. In the present study, the total score was used in analyses. Hall (2008) reported internal consistency for the data used in this study, with  $n = 46$ , to have an alpha value of .89 for the pre-therapy RSES items.

*Resolution Scale (RS; Singh, 1994).* The RS is an 11-item questionnaire that assesses the degree to which clients feel troubled by negative feelings and unmet needs, worthwhile, and accepting toward a specific identified other person. Items are rated on a 6-point Likert scale (0 = *not at all*, 5 = *very much*). For this study, most clients completed two RS questionnaires, typically, one for a primary abusive other and one for a secondary other, usually a neglectful mother. Singh reported test-retest reliabilities (over one month) as .73 and .81 with both an undergraduate and a clinical sample. Paivio et al. (2001) reported alpha reliability with an EFTT sample ( $n = 51$ ) as .82. In the present study, the average across the two RS questionnaires was used as a variable for analyses. Hall (2008) reported internal consistency for the data used in this study, with  $n = 46$ , to have an alpha value of .71 for the pre-therapy primary other items and .91 for the pre-therapy secondary other items.

### *Process Measures*

*Levels of Engagement Scale (LES; Paivio et al., 2001).* There are two versions of the LES: the original LES (LES-IC) and a modified version for use with the EE reexperiencing procedure (LES-EE). The LES is an observer-rater measure that was designed to assess the quality of client engagement during the reexperiencing procedures.

#### *LES-IC (Appendix C)*

There are three process elements that comprise the LES-IC: psychological contact with imagined perpetrators of abuse and neglect, client involvement in the reexperiencing procedure, and emotional expression. Psychological contact is defined by detailed descriptions of the imagined other, client use of first and second person pronouns (I-you language) while in dialogue with the imagined other, and directing statements towards and looking at the imagined other in the empty chair rather than the therapist. Client involvement is defined as willing participation in the intervention rather than resistance (e.g., refusal to speak to the imagined other), expressiveness rather than withdrawal, and spontaneous elaboration and initiating dialogue with the imagined other rather than simple compliance to therapist directives. Emotional expression is defined as client expression of their affective experience (e.g., admitting feelings and non-verbal indicators of arousal, such as vocal quality, facial expressions, tears, etc.).

The LES-IC is an ordinal scale consisting of five mutually exclusive categories. Coders assign a single rating to a 15-minute therapy episode that involves IC work, beginning with the therapist bringing out the empty chair. According to Paivio et al. (2001), a rating of 1 indicates client *refusal* to engage in the IC procedure (e.g., absence of interaction with the imagined other), a rating of 2 indicates client *resistance* (e.g.,

minimal interaction with the imagined other, all of which is strictly compliant to the therapist directives), a rating of 3 indicates client *reluctance* (e.g., some spontaneous elaboration, about half of client statements are directed toward imagined other), a rating of 4 indicates client *willingness* (e.g., spontaneous elaboration, initiation of contact, some admission of feelings, most of client statements are directed to imagine other), and a rating of 5 indicates *full engagement* (e.g., spontaneous elaboration, initiation of contact, admission of feelings, emotional arousal, virtually all of client statements are directed to imagined other). Paivio et al. (2001) reported high inter-rater reliability, with  $k = .87$  for the first IC intervention and  $k = .76$  for middle and late sessions, thus supporting its use in future EFTT process research.

#### *LES-EE (Appendix D)*

As stated above, the LES was modified for use with the EE procedure. Since the IC and EE procedures follow the same principles of intervention, adjustments only required deleting references to the empty chair in the IC. For example, psychological contact with the imagined other, in the EE procedure, was defined by vivid memories of abuse, detailed descriptions of perpetrators, and indicators of client ownership through use of 'I' language when discussing an incident of abuse involving a specified perpetrator. Dimensions of involvement and emotional expression in the EE procedure were defined in the same terms as in the IC procedure.

The same ordinal scale also applied when rating episodes of EE. Coders again assign a single rating to a 15-minute therapy episode involving EE work, beginning with the therapist asking the client to focus on exploring trauma memories and imaging the perpetrator in their 'mind's eye'. *Refusal* to engage in the EE procedure was defined as

the client directly refusing to participate in imagining perpetrators and exploring trauma memories with the therapist. *Resistance* was defined as minimally responsive to therapist directives to imagine abuse and perpetrator in their mind's eye, some descriptions of abuse and perpetrator, virtually no emotional arousal, and most of client dialogue in the episode is not related to abuse work. *Reluctance* was defined as some detailed descriptions of abuse and perpetrator, some indicators of emotional arousal, and about half of client dialogue is related to abuse work. *Willingness* was defined as vivid and detailed descriptions of abuse and perpetrators, use of 'I' language, spontaneous elaboration of feelings and needs, some admission of feelings, and most of client dialogue is related to abuse work. *Full engagement* was defined as vivid descriptions of trauma and perpetrators, spontaneous elaboration, admission of feelings, and evidence of emotional arousal and virtually all of client dialogue is related to abuse work.

*Post Session Questionnaire (PSQ; Paivio et al., in press; Appendix E).* The PSQ is a client self-report measure of the quality of engagement with trauma material, administered after therapy sessions, starting at session 4. This measure was developed to parallel the LES. The first question asks clients to rate, on a 7-point scale (1 = *not at all* to 7 = *all of the time*), the extent that child abuse issues were a focus of the session. The remaining questions assess the three process elements that comprise the LES.

Accordingly, clients rate, on a 7-point scale (1 = *not at all* to 7 = *all of the time*), the level of psychological contact with trauma memories and the imagined other, level of difficulty exploring child abuse memories, and ability to get in touch with and express emotion. In the PSQ for the IC condition, there is an additional question that asked clients to assess their level of difficulty imagining others in the empty chair and engaging in a dialogue

with them. A parallel therapist version of the PSQ, administered after every session, starting at session 4, asked the technique (i.e., IC or EE) used to explore abuse memories. Paivio et al. (in press) reported convergence between client and therapist versions of the PSQ at session four to be  $r(43) = .48, p = .001$ .

*Subjective Units of Distress (SUDS).* The SUDS measure was administered after every session, beginning at the fourth session. Clients rated average and maximum level of distress experienced in the session on a scale ranging from 1 to 100 (1 = *calm and free from distress*, 100 = *your most distressing experience*). In the present study, average and peak distress were used as variables in analyses.

*Working Alliance Inventory (WAI; Horvath & Greenberg, 1989).* The WAI is a 12-item questionnaire that assesses the quality of the therapeutic alliance. Items are rated on a 7-point Likert scale (1 = *never*, 7 = *always*). The WAI produces a total score and three subscales, including, goals, bonds, and task. Horvath and Greenberg reported alpha levels ranging from .87 to .93 and correlations with other alliance measures. In the present study, total scores were used.

## Procedure

### *Rating the Levels of Engagement Scale*

*Training of Raters.* The research supervisor (S. Paivio) trained the author in use of the LES-IC. Training entailed rating 4 training episodes not included in the present study and took approximately 20 hours. Training was considered complete when a minimum of 90% agreement between ratters was reached. Once the author was fully trained by the research supervisor, a second rater was trained by the author, who was a Masters level student in Clinical Psychology. Procedures and agreement criteria were identical to those

described above; however, 20 training episodes were rated. All training episodes were 15 minutes in length. A coding manual was developed during the training process with the research supervisor and its development continued with the second rater. The coding manual contained rating rules and guidelines (see Appendix F).

The training procedure for rating the LES-EE was slightly different, in that both research supervisor and author reviewed 4 selected EE training episodes, not included in the present study, for the purposes of modifying the three dimensions identified on the LES-IC. Modifications were made on the “psychological contact” dimension and these became a part of the LES-EE measure. In turn, this became a part of a coding manual (see Appendix G) that specified phrases defining or exemplifying each dimensions. Both the research supervisor and author initially trained the second rater (4 training episodes) and training was completed with the author and second rater (20 episodes). Again, training was considered complete when a minimum of 90% agreement between ratters was reached (95% agreement was actually reached). The development of the coding manual continued throughout the training process and rating rules and guidelines were established throughout this process.

*Selection of IC and EE Sessions.* The sample of therapy sessions, initially, was selected using the therapist PSQ, in which therapists identified sessions with an abuse focus using the appropriate intervention. Accordingly, sessions were selected in which the extent of abuse focus was rated as 3 or higher (indicating the extent that child abuse issues were a focus of the session was ‘some of the time’) *and* employed the intervention (either IC or EE) specific to each therapy condition. Three videotaped sessions per client

were sampled from early (sessions 4), middle (sessions 7 through 11), and late (sessions 12 through 15) therapy.

*Selection of IC and EE Episodes.* For the IC procedure, selection of the IC episode was fairly straight forward. The visual marker was when the therapist brought out the empty chair and directed the client to imagine an abusive or neglectful other in the chair. This can be considered as an invitation to engage in IC work. Rating began with the first client statement that followed from this point. The therapists' progress notes and observations of videotaped therapy sessions employing the IC procedure were used to ensure that there was a substantial amount of IC work in the session.

For the EE procedure, identification of criteria for selection of the EE episode began during the training process by the author. Selection entailed a thorough review of the therapists' progress notes as well as videotaped therapy session for sessions identified as containing the EE procedure on the therapists PSQ (described in previous section). First, the author reviewed therapists progress notes for an indication of the location (i.e., early, mid, or late in the session) of the EE procedure. Then, the videotaped therapy session was reviewed in its entirety looking for markers indicating that the EE procedure was initiated by the therapist. These markers were parallel to the visual marker of the therapist bringing out the empty-chair in the sense that they were clear indicators that the therapist had invited the client to engage in trauma work. Rating began with the first client statement that followed from the first identified therapists' statement indicating invitation to EE work. A list of markers (see Appendix H) was compiled during the training process, reviewed and approved by the research supervisor, and then used to select EE episodes.



*Length of Coding.* The decision to rate a 15-minute episode of IC and EE work was based on observations that, in the Paivio et al. (2001) study, ratings on the LES did not change beyond 15-minutes.

*Reliability of Ratings.* The two trained ratters independently rated 15-minute episodes of IC and EE work, with episodes beginning when the therapist introduced the IC or EE intervention. The 15-minute therapy episode was divided into three 5-minute chunks. Each client utterance in the episode was rated for the presence of dimensions, that is, psychological contact with imagined other and abuse memories, involvement in the procedure, and emotional expression. A single category code was assigned to the entire 15-minute episode based on the average of the three 5-minute chunks. Scores were calculated independently by each rater and compared at the end of the episode. Discrepancies in ratings were discussed and agreement reached immediately following each episode rating, in order to control for rater drift. There was 100% overlap in reliability rating, that is, all episodes were rated, independently, by both the author and the second rater.

#### *Variables Used in Analyses*

In the present study, the following process variables were used in analyses. As noted above, three sessions containing IC or EE work per client were identified using the therapists PSQ, therapists progress notes, and through observations of videotaped sessions. These represented early, middle, and late therapy work containing IC or EE procedures. LES, PSQ, SUDS, and WAI scores are based on the same early, middle, and late therapy sessions (e.g., if sessions 4, 7, and 14 were used to rate LES engagement,

then client reports on the PSQ, SUDS, and WAI from sessions 4, 7, and 14 also were used).

*Emotional Engagement on the LES.* Every client received an emotional engagement score for early, middle, and late therapy sessions utilizing the IC or EE procedure. This score reflected the category code (ranging from 1 to 5) that was assigned to the entire 15-minute IC or EE episode. Average emotional engagement in the IC and EE procedure (i.e., average of early, middle, and late session engagement scores) was calculated for each client and this was used in analyses.

*Emotional Engagement on the PSQ.* Again, each client received an early, middle, and late engagement score using the PSQ. Average emotional engagement in the IC and EE procedure (i.e., average of early, middle, and late session engagement scores) was calculated for each client and this was used in analyses.

*Emotional Distress on SUDS.* Again, each client received an early, middle, and late average and peak distress score based on SUDS ratings. The mean of early, middle, and late average and peak distress score were calculated for each client and this average was used in analyses.

*Frequency of Participation.* Frequency of participation refers to the number of sessions that contained substantial work using the IC or EE procedure. The therapist PSQ was used to determine the frequency of the reexperiencing procedure. Substantial IC and EE work is defined by a rating of at least 3 on the first question of the therapist PSQ, indicating moderate attention to child abuse issues in the session, *and* use of the specific reexperiencing procedure.

*Alliance Quality on the WAI.* The average of early, middle, and late alliance quality was calculated for each client and this was used in analyses.

## CHAPTER III: RESULTS

## Data Screening

Prior to running the study's main analyses, all variables were examined through various SPSS programs for accuracy of data entry, missing items, and fit between their distributions and the assumptions of the statistical tests used in the analyses reported below (Field, 2005; Tabachnick & Fidell, 1996). The variables were examined separately for therapy completers in the IC condition ( $n = 21$ ) and the EE condition ( $n = 26$ ). Missing items on questionnaires were replaced with the clients average score on his or her questionnaire for that particular assessment time (i.e., pre- or post-treatment).

Next, process (LES Early, LES Mid, LES Late, LES Mean, PSQ Early, PSQ Mid, PSQ Late, PSQ Mean, SUDS Average, SUDS Peak, WAI Mean, Frequency), outcome (pre- and post-treatment scores on the BDI, IES, IIP, RS, RSE, SCL, and STAI), and clinical characteristics (pre-treatment scores on the CTQ, PSSI, and PDQ) variables were examined for outliers. Boxplots and the conversion of raw scores to z-scores were used to investigate for the presence of outliers. According to Tabachnick and Fidell (1996), z-scores greater than 3.29 are considered outliers. Inspection of the boxplots and z-scores revealed no outliers on all variables for both the IC and EE treatment condition (note: all z-scores were less than 2.5).

The Kolmogorov-Smirnov test was used in order to test for the assumption of normality (Field, 2005; Tabachnick & Fidell, 1996), a basic assumption for all parametric tests. For the IC condition, variables LES Early and LES Mid had  $p$ 's  $< .05$ , indicating that the distributions of these variables were significantly different from normal. For the EE condition, variables LES Early, LES Mid, and LES Late had  $p$ 's  $< .05$ , indicating that

the distributions of these variables were significantly different from normal. Pre- and post-treatment outcome variables also were examined for normality using the Kolmogorov-Smirnov test. For the IC condition, the BDI and STAI-State post-treatment variables had  $p$ 's  $< .05$ , indicating that the distributions of these variables were significantly different from normal. For the EE condition, BDI and IES post-treatment variables had  $p$ 's  $< .05$ , indicating that the distributions of these variables were significantly different from normal. None of the clinical characteristic variables were significant on the Kolmogorov-Smirnov test.

The Levene's test was used in order to test for the assumption of homogeneity of variance (Field, 2005; Tabachnick & Fidell, 1996). All of the process variables met the assumption of equal variances. In terms of outcome variables, the RS and IIP post-treatment variables had  $p$ 's  $> .05$ , indicating violation of the assumption of equal variances. All of the clinical characteristic variables met the assumption of homogeneity of variance.

All variables that did not meet test assumptions underwent various transformations and were, again, examined for normality and homoscedasticity using Kolmogorov-Smirnov and Levene's tests. None of the transformations were helpful with increasing normality and reducing heteroscedasticity and given the difficulty in meaningfully interpreting transformed variables, it was decided to keep the variables as they were. Moreover, analyses of variance (ANOVA's) are robust statistical procedures (Howell, 1997), and given that the sample sizes in the two treatment conditions are relatively equal (Field, 2005), the violation of equal variances was addressed by using a more conservative alpha level (i.e., .01) and using the Games-Howell post-hoc test when

needed, which takes into consideration unequal variances, rather than Tukey's post-hoc test (Field, 2005).

All hierarchical regression results reported below were examined for multicollinearity, heteroscedasticity, and nonlinearity. For all regressions, the first step included pre-treatment scores and alliance quality on the WAI; the second step included all process variables (LES Mean, PSQ Mean, SUDS Average, SUDS Peak, and Frequency). Regressions were first performed to identify individual cases that had an undue influence on outcome. For each outcome measure, Cooks values were generated. Cases with Cooks values greater than 1.00 are considered to indicate cases with an undue influence on outcome and should be removed from the regression equation (Field, 2005). However, an examination of Cooks values for all regression analyses reported below did not result in the removal of any cases (i.e., all Cooks values were less than 1.00). The Durbin-Watson statistic was used to determine whether the assumption of independent errors was tenable. For each outcome measure, the Durbin-Watson statistic was calculated. Values that are less than 1.00 and greater than 3.00 indicate significant problems however, an examination of Durbin-Watson statistic for all regression analyses did not indicate any problems (i.e., all Durbin-Watson values were approximately 2.00; Field, 2005). VIF and tolerance statistics were used to examine the presence of multicollinearity. VIF statistics greater than 10 and tolerance values less .20 are problematic (Field, 2005). For each outcome measure, VIF statistics were less than 2.00 and tolerance values greater than .20, indicating no multicollinearity. Thus, all regressions included pre-treatment scores and alliance quality on the WAI in the first step

and all process variables (LES Mean, PSQ Mean, SUDS Average, SUDS Peak, and Frequency) in the second step.

### Demographic Characteristics

Table 1 presents demographic characteristics of the 47 therapy completers. As indicated in Table 1, approximately half of the clients were female, most were of European descent, married, had an education beyond high school, and were employed full time with an annual household income over \$20,000. Approximately three quarters of the clients had previously participated in some form of therapy.

Table 1 also presents demographics by therapy condition. Analyses were conducted to test for differences in demographic variables by therapy condition. Independent sample t-tests revealed that clients in IC and EE therapy condition did not differ in terms of age and number of children,  $p$ 's  $> .10$ . Chi-square analyses failed to show any differences between the two therapy conditions in terms of sex, ethnicity, marital status, employment, annual household income, and highest level of education completed, all  $p$ 's  $> .10$ . However, more clients in the IC condition had taken part in previous therapy,  $\chi^2(1, N = 47) = 5.56, p < .05$ . Correlational analyses were conducted in order to determine if this variable was related with process and outcome variables. Previous therapy was not significantly correlated with any client characteristic (pre-treatment scores on the CTQ, PSSI, and PDQ), process (LES Early, LES Mid, LES Late, LES Mean, PSQ Mean, SUDs Average, SUDs Peak, WAI Mean, Frequency), or outcome (pre- and post-treatment scores on the BDI, IES, IIP, RS, RSE, SCL, and STAI-S) variables.

Table 1

*Client Demographic Characteristics*

Variable	Total		IC		EE	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Age	45.83	12.91	46.09	14.69	45.62	11.57
No. of Children	2.09	1.92	2.05	1.69	2.11	2.12
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Sex (female)	26	55.32	11	52.40	15	57.70
Ethnicity						
European Origin	42	89.40	20	95.20	22	84.60
Other	5	10.70	1	4.80	4	15.30
Marital Status						
Single	11	23.40	6	28.60	5	19.20
Common-law	3	6.40	1	4.80	2	7.70
Married	19	40.40	8	38.10	11	42.30
Separated/Divorced	13	27.70	5	23.80	8	30.80
Widowed	1	2.10	1	4.80	0	0.00



Table 1 continued

*Client Demographic Characteristics*

	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
<b>Employment Status</b>						
Full-time/Self-employed	25	53.20	11	52.40	14	53.80
Part-time	9	19.10	4	19.00	5	19.20
Unemployed/Retired/	13	27.70	6	28.60	7	26.90
Disability						
<b>Annual Household Income</b>						
<\$20,000	6	12.80	4	19.00	2	7.70
\$20,000-\$39,000	15	31.90	7	33.30	8	30.80
\$40,000-\$59,000	10	21.30	4	19.00	6	23.10
>\$60,000	16	34.00	6	28.60	10	38.50
<b>Completed Education</b>						
High School	11	23.40	4	19.00	7	26.90
Undergraduate	29	61.70	14	66.70	15	57.70
Graduate	7	14.90	3	14.30	4	15.40
Previous Therapy	41	87.20	21	100.00	20	76.90

Note:  $N = 47$ ;  $nIC = 21$ ;  $nEE = 26$ . IC = Imaginal Confrontation; EE = Empathic Exploration.

### Clinical and Abuse Characteristics

Given that the present study examined emotional engagement and arousal with evocative material in therapy, the following client information and the particular nature of material targeted in therapy sessions are included in order to provide context to the data on engagement that follows. Table 2 presents clinical and abuse characteristics of the 47 therapy completers. Clients reported multiple types of abuse, however, they were asked to identify a primary focus for therapy. In addition, clients identified a primary perpetrator that would be the focus of therapy. As indicated in Table 2, the most frequent type of abuse selected for therapy focus was sexual abuse (55%), and these experiences ranged in severity, including a single episode of anal penetration and paternal incest over many years. Ten clients (21%) reported emotional abuse as the main focus of therapy, ranging from chronic verbal derogation by a caregiver to repeated threats of harm or witnessing extreme family violence. Six clients (13%) identified physical abuse, ranging from strict physical discipline to severe beatings that resulted in injury. Lastly, five clients (11%) identified emotional neglect as the focus of therapy. The most frequent primary perpetrator identified as the focus of therapy included fathers, followed by mothers, non-family members (e.g., priest, babysitter), and finally relatives (e.g., an uncle and brother).

In terms of clinical characteristics, as indicated in Table 2, mean trauma severity, measured by the total score on the CTQ, indicated severe childhood maltreatment (Bernstein & Fink, 1993). The mean severity score on the PSSI indicated moderate trauma symptom severity and most clients met criteria for a PTSD diagnosis on the PSSI. Approximately one-third of clients met initial screening criteria for the

presence of an Axis II personality disorder on the PDQ4 (i.e., a total score of  $> 50$ ; Hyler, 1994).

Table 2 also presents client abuse and clinical characteristics by therapy condition. Analyses were conducted to test for differences in clinical variables by therapy condition. Independent sample t-tests revealed that clients in IC and EE therapy condition did not differ in terms of total scores on the CTQ, PDQ-4, and PSSI, all  $p$ 's  $> .10$ . Chi-square analyses did not reveal difference between therapy condition in terms of abuse focus, primary perpetrator, PTSD diagnosis at pre-treatment, Axis II diagnosis, and medication, all  $p$ 's  $> .10$ . Thus, clients in the IC and EE conditions did not differ in terms of pre-treatment clinical characteristics.

Table 2

*Client Clinical Characteristics at Pre-treatment*

Variable	Total		IC		EE	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Abuse Type						
Physical	6	12.80	2	9.50	4	15.40
Emotional	10	21.30	5	23.80	5	19.20
Sexual	26	55.30	13	61.90	13	50.00
Neglect	5	10.60	1	4.80	4	15.40
Primary Abuser						
Father	22	46.80	9	42.90	13	50.00
Mother	14	29.80	8	38.10	6	23.10
Brother	2	4.30	1	4.80	1	3.80
Relative	3	6.40	2	9.50	1	3.80
Other	6	12.80	1	4.80	5	19.20
PTSD (Yes)	30	63.80	15	71.40	15	57.70
Axis II on PDQ-4 (Yes)	30	70.20	15	71.40	18	69.20
Medication (Yes)	11	23.40	5	23.80	6	23.10

Table 2 continued

*Client Clinical Characteristics at Pre-treatment*

Variable	Total		IC		EE	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
CTQ (Total)	73.66	17.30	72.90	20.27	74.27	14.88
PDQ-4	39.89	15.02	37.84	13.70	41.54	16.08
PSSI	23.47	11.41	23.52	11.20	23.43	11.81

Note.  $N = 47$ ;  $n_{IC} = 21$ ;  $n_{EE} = 26$ . IC = Imaginal Confrontation; EE = Empathic

Exploration; PTSD = Posttraumatic Stress Disorder; CTQ = Childhood Trauma

Questionnaire; PDQ-4 = Personality Diagnostic Questionnaire–Fourth Edition; PSSI =

PTSD Symptom Severity Interview.

## Treatment Outcome

Table 3 presents the pre- and post-treatment data on seven outcome measures. At pre-treatment, most clients reported moderate levels of depression (BDI), trauma symptoms (IES), global symptom distress (i.e., T scores > 70 on the SCL; Derogatis, 1983), and anxiety (STAI). Most clients also reported severe distress from interpersonal sources (i.e., T scores > 60 on the IIP; Horowitz et al., 1988), negative self-esteem (RSE), and low abuse resolution (RS). In sum, pre-treatment characteristics of the 47 therapy completers, indicate that this was a moderately distressed group with histories of severe child abuse and significant interpersonal and self-related problems.

Table 3 also presents pre- and post-treatment data by therapy condition. Analyses were conducted to test for differences in pre-treatment scores by therapy condition. Independent sample t-tests revealed that clients in IC and EE therapy condition did not differ on severity of depression (BDI-II), trauma symptoms (IES), interpersonal problems (IIP), resolution of abuse (RS), self esteem (RSE), global distress (SCL), and anxiety (STAI-S), all  $p$ 's > .10. Thus, clients in the IC and EE treatment condition did not differ in terms of pre-treatment symptoms and levels of distress.

A repeated-measures multivariate analysis of variance (MANOVA) of pre- and post-treatment scores on seven dependent measures yielded a significant effect for time,  $F(7, 39) = 21.89, p < .001$ . Results also indicated no significant effect for therapy condition,  $F(7, 39) = .64, p > .10$ , and there was no interaction between therapy condition and time,  $F(7, 39) = 1.80, p > .10$ . Results of univariate  $F$  tests shown in Table 3 indicated significant pre- post improvements on all measures for both treatment groups.

Table 3

*Means and Standard Deviations on Dependent Measures at Pre-test and Post-test*

Measure	Pre-test						Post-test						$F(1, 45)^a$	$\eta^2$
	Total		IC		EE		Total		IC		EE			
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>		
BDI-II	22.02	10.95	23.10	9.29	21.16	12.25	9.23	10.77	8.43	10.08	9.87	11.45	54.53***	.55
IES	25.23	8.51	25.38	8.10	25.11	9.00	9.91	8.21	11.65	7.89	8.50	8.34	104.64***	.70
IIP	1.83	.54	1.85	.42	1.82	.62	1.21	.69	1.06	.42	1.32	.84	64.58***	.59
RS	39.46	6.59	38.92	5.69	39.91	7.32	25.39	8.88	24.93	7.09	25.76	10.23	128.52***	.74
RSE	24.12	5.75	24.38	5.38	23.92	6.12	19.52	7.10	18.70	5.54	20.18	8.19	24.48***	.35
SCL	1.48	.66	1.47	.58	1.49	.73	.72	.63	.65	.48	.78	.73	68.69***	.60
STAI-S	49.68	12.84	51.05	12.27	48.58	13.42	36.06	13.02	36.45	11.37	35.75	14.34	35.03***	.44

Note.  $N = 47$ ;  $nIC = 21$ ;  $nEE = 26$ . IC = Imaginal Confrontation; EE = Empathic Exploration; BDI-II = Beck Depression Inventory - II; IES = Impact of Event Scale; IIP = Inventory of Interpersonal Problems; RS = Resolution Scale; RSE = Rosenberg Self-Esteem Scale; SCL = Symptom Checklist-90 Revised; STAI-S = State Anxiety Inventory. \*\*\*  $p < .001$ . <sup>a</sup> = statistics from univariate F-tests.

### Reliability of LES Ratings

In total, 63 IC episodes and 78 EE episodes were rated. Inter-rater reliability for the LES ratings was calculated using Cohen's kappa, which corrects for agreement by chance. Kappa values above .75 reflect 'excellent' agreement, between .40 and .75 reflect 'fair to good' agreement, and below .40 reflect 'poor' agreement (Fleiss, 1981). For the IC episodes, Cohen's kappa was .85, and for the EE episodes, Cohen's kappa was .91. Thus, the two ratters reached excellent agreement (Fleiss, 1981) for both IC and EE episodes.

### Process Variables

Table 4 presents means and standard deviations on all process variables related to reexperiencing procedures in EFTT. Process variables include measures of emotional engagement (LES, PSQ, SUDS), frequency of participation in the reexperiencing intervention (Frequency), and alliance quality (WAI).

#### *Emotional Engagement (LES and PSQ) and Distress (SUDS) during Reexperiencing Procedures*

As indicated in Table 4, observer-ratings of overall emotional engagement on the LES showed moderate levels of engagement in both IC (range, 1.67 to 4.33 on the 5-level scale) and EE reexperiencing procedures (range, 1.33 to 4.67 on the 5-level scale). Similarly, self-report ratings of overall emotional engagement on the PSQ, indicated moderate levels of engagement in both IC (range, 20.42 and 46.67 with a maximum score of 49) and EE reexperiencing procedures (range, 18.78 to 49.00 with a maximum score of 49). Clients reported experiencing moderate levels of distress during sessions involving the IC (range, 8.33 to 82.33) and EE (range, 1.00 to 68.33) intervention; and moderate to



high peaks of distress (SUDS) during sessions involving the IC (range 13.33 to 100.00) and EE (range, 34.00 to 90.00) intervention. A MANOVA comparing the IC and EE treatment conditions did not reveal an overall statistically significant difference between the two reexperiencing procedures on all measures,  $F(4, 42) = .60, p = ns, \eta^2 = .05$ .

#### *Frequency of Participation*

As indicated in Table 4, clients in the IC condition underwent an average of 5 sessions ( $SD = 1.66$ ; range, 2 to 8) that contained the IC procedure and clients in the EE condition underwent an average of 10 sessions ( $SD = 3.03$ ; range, 2 to 16) that contained the EE procedure. Univariate F tests indicated a significant difference between the two versions of EFTT on the frequency variable,  $F(1, 45) = 35.15, p < .001, \eta^2 = .44$ . Thus, clients in the EE therapy condition had more therapy sessions containing the EE intervention, compared to clients in the IC condition who had fewer therapy sessions containing the IC intervention.

#### *Alliance Quality (WAI)*

Table 4 also indicates that clients reported high scores on the WAI, indicating strong therapeutic alliances. Client self-reported alliance quality was strong during assessed IC and EE sessions. Independent samples t-test comparing the IC and EE treatment conditions on alliance quality, revealed no differences,  $t(45) = .39, p > .10$ .

Table 4

*Means and Standard Deviations of Observer-rated (LES) and Self-reported (PSQ) Engagement, Client Distress (SUDS), Frequency, and Alliance Quality (WAI) by Therapy Condition*

Measure	<u>Total</u>		<u>IC</u>		<u>EE</u>		$F(1, 45)^a$	$\eta^2$
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>		
LES Mean	2.89	.78	2.95	.80	2.85	.78	.21	.01
PSQ Mean	34.76	7.23	33.35	7.61	35.90	6.85	1.46	.03
SUDS								
Average	46.38	19.18	47.33	22.09	45.60	16.88	.09	.00
Peak	65.93	18.99	66.17	22.23	65.72	16.38	.01	.00
Frequency	7.85	3.32	5.43	1.66	9.81	3.03	35.15***	.44
WAI Mean	6.23	.58	6.26	.55	6.19	.62	.14	.00

Note.  $N = 47$ ;  $n_{IC} = 21$ ;  $n_{EE} = 26$ . IC = Imaginal Confrontation; EE = Empathic Exploration; LES = Levels of Engagement Scale; PSQ = Post-Session Questionnaire; SUDS = Subjective Units of Distress; Frequency = Frequency of participation in IC or EE; WAI = Working Alliance Inventory; Frequency = Frequency of IC or EE intervention.

\*\*\*  $p < .001$ . <sup>a</sup> = statistics from Univariate F-tests.

## Results Concerning Study Hypotheses and Questions

*Hypothesis 1*

Hypothesis 1 stated that observer ratings of engagement on the LES and client self-reports of engagement on the PSQ would be stable over time, during IC and EE. Table 5 presents means and standard deviations for early, middle, and late engagement on the LES and PSQ. The quality of engagement (LES and PSQ) was moderate during early, middle, and late therapy sessions containing the IC and EE procedure. A Repeated Measures MANOVA was used to examine the quality of engagement over time in the IC and EE procedures. Results did not indicate a significant effect for condition,  $F(2, 44) = 1.01, p = ns, \eta^2 = .04$ , time,  $F(2, 42) = 2.56, p = ns, \eta^2 = .19$ , or a time by condition interaction,  $F(2, 42) = 1.07, p = ns, \eta^2 = .09$ . Thus, hypothesis 1 was supported since initial engagement quality in the exposure-based procedure was maintained over the course of therapy, from both measurement perspectives (i.e., observer-ratings and self-reports), in IC and EE.

*Hypothesis 2*

Hypothesis 2 stated that levels of distress experienced during IC and EE procedures, measured with SUDS, would decrease over the course of therapy, in both IC and EE. Table 5 also presents means and standard deviations for early, middle, and late emotional distress on SUDS (average and peak). For ease of interpretation, average and peak SUDS ratings were plotted over time, for both IC and EE procedures, and are presented in Figures 1 and 2, respectively. A visual inspection of Figures 1 and 2, suggest that, during IC, there is a steady decline in average and peak distress. During EE, both figures illustrated an inverted V-pattern with respect to client reported average and peak

levels of distress. In other words, levels of average and peak distress increased in the middle phase of therapy, and were followed by reductions in distress at the late phase of treatment. Paired samples t-tests were used to examine differences in distress from early to middle and middle to late therapy sessions. These were examined separately for average and peak SUDS and for the IC and EE procedure. For the IC procedure, analyses did not reveal significant results for average and peak distress from early to middle and for middle to late therapy, all  $p$ 's  $> .10$ . For the EE procedure, analyses did not reveal significant results for average and peak distress from early to middle therapy,  $p$ 's  $> .10$ . However, average distress during EE work approached significance from middle to late therapy ( $p = .09$ ) and peak distress reported during EE work was significantly different from middle to late therapy,  $t(24) = 2.13$ ,  $p < .05$ . Thus, hypothesis 2 was partially supported since peak levels of distress decreased from middle to late therapy in the EE treatment condition.

Table 5

*Means and Standard Deviations of Observer-rated (LES) and Self-reported (PSQ)*

*Engagement and Client Distress (SUDS) over Time by Therapy Condition*

Measure	<u>Total</u>		<u>IC</u>		<u>EE</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
LES						
Early	3.02	.92	3.00	.89	3.04	.96
Middle	2.98	.90	2.90	.83	3.04	.96
Late	2.68	1.23	2.95	1.32	2.46	1.14
PSQ						
Early	33.10	8.49	31.30	8.45	34.94	8.33
Middle	36.03	8.80	34.58	9.05	37.15	8.61
Late	35.03	9.66	34.61	7.91	35.36	11.01
SUDS Average						
Early	44.00	25.14	48.16	26.78	40.71	23.83
Middle	48.86	24.26	47.47	26.60	50.00	22.76
Late	42.47	22.62	40.79	27.25	43.79	18.68
SUDS Peak						
Early	65.98	28.56	67.89	26.99	64.47	30.22
Middle	71.09	25.70	67.63	31.42	73.83	20.38
Late	59.74	26.58	58.63	32.15	60.63	21.89

Note.  $N = 47$ ;  $n_{IC} = 21$ ;  $n_{EE} = 26$ . IC = Imaginal Confrontation; EE = Evocative Empathy; LES = Levels of Engagement Scale; PSQ = Post-Session Questionnaire; SUDS = Subjective Units of Distress.

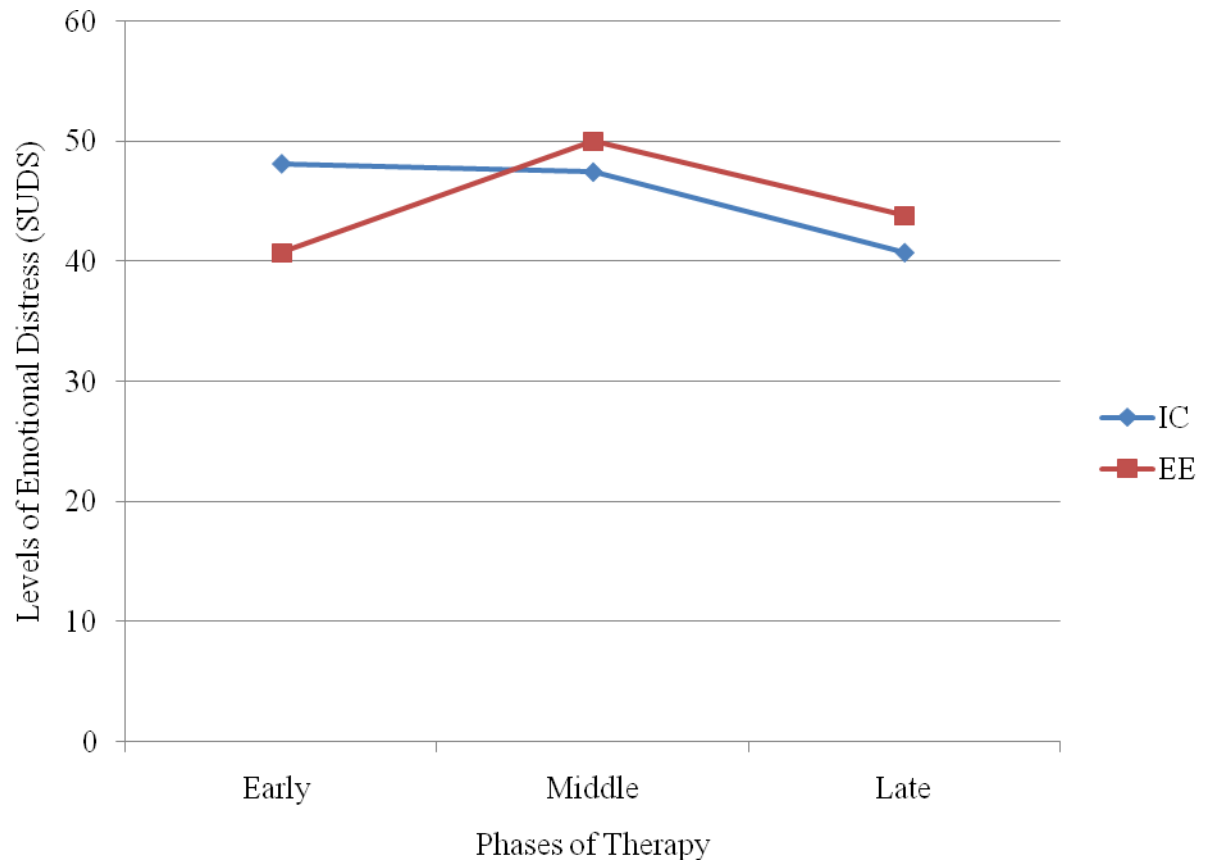


Figure 1. Average Levels of Emotional Distress (SUDS) during Reexperiencing Procedures in Early, Middle, and Late Phases of Therapy, in both versions of EFTT.

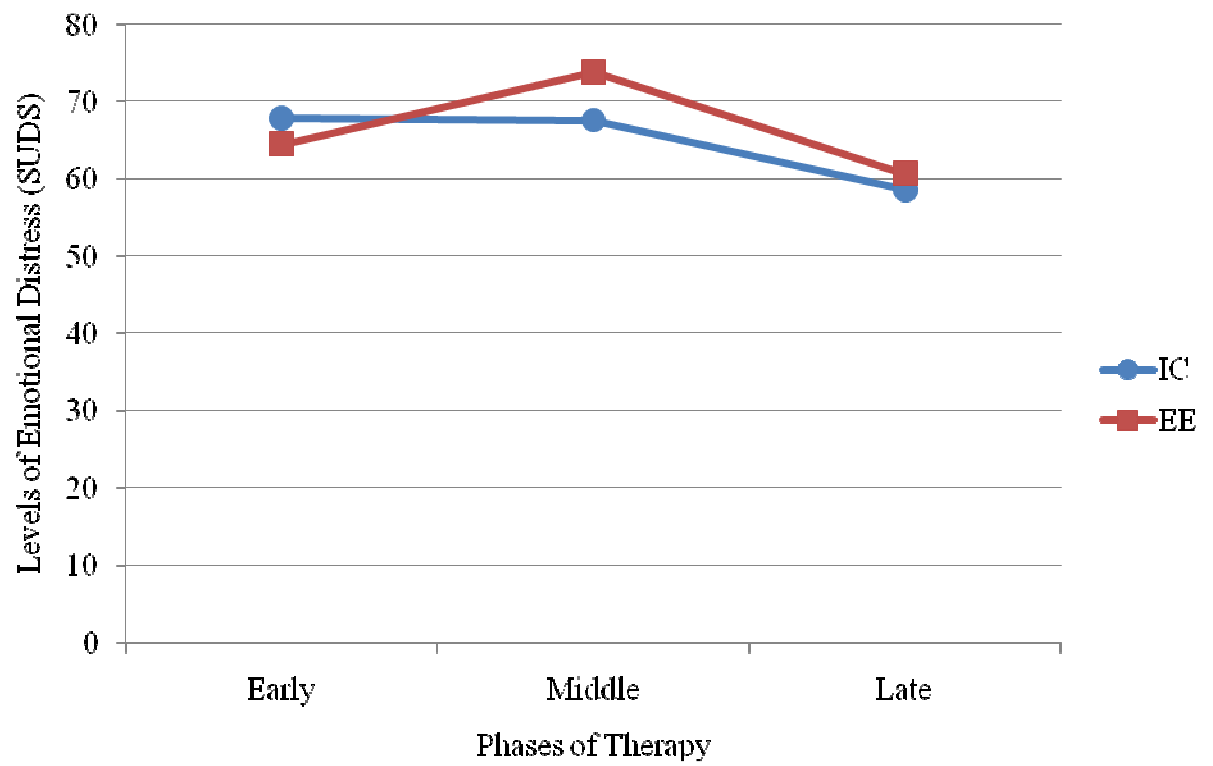


Figure 2. Peak Levels of Emotional Distress (SUDS) during Reexperiencing Procedures in Early, Middle, and Late Phases of Therapy, in both versions of EFTT.

*Hypothesis 3*

Hypothesis 3 stated that observer ratings of engagement on the LES, client self-reports of engagement on the PSQ, and SUDS ratings would be positively associated with each other, in both IC and EE procedures. Table 6 presents the correlations among these process variables. As indicated in Table 6, in the IC, observer-rated engagement quality on the LES was positively and significantly correlated with self-reported engagement quality on the PSQ. There were no significant relationships between complex measures of engagement (LES and PSQ) and simple distress (SUDS) but there were positive correlations among the self-reported distress ratings. Higher ratings of average distress were associated with higher ratings of peak distress (SUDS). In the EE, observer-ratings and self-reports of emotional engagement were positively but not significantly associated. Again, no significant relationships between complex measures of engagement (LES and PSQ) and simple distress (SUDS) were found but there were positive correlations among the self-reported distress ratings. Thus, hypothesis 3 was partially supported since observer-rated (LES) and self-reported (PSQ) quality of engagement during IC were significantly correlated.

*Other Significant Correlations*

As indicated in Table 6, self-reported engagement quality on the PSQ during IC was positively correlated with alliance quality (WAI) and there were positive correlations between average and peak distress (SUDS) and Frequency, that is, more distress during the IC procedure was associated with more frequent participation in the procedure (or vice versa). In the EE, the relationship between self-reported quality of engagement (PSQ) and alliance quality approached significance.



Table 6

*Intercorrelations among Process Variables by Therapy Condition*

Variable	Correlation					
	1	2	3	4	5	6
IC ( <i>n</i> = 21)						
1. LES Mean	-	.42 <sup>*</sup>	.13	.24	-.16	.29
2. PSQ Mean		-	.08	.05	-.12	.47 <sup>*</sup>
3. SUDS Average			-	.90 <sup>**</sup>	.45 <sup>**</sup>	-.24
4. SUDS Peak				-	.60 <sup>**</sup>	-.10
5. Frequency					-	-.20
6. WAI Mean						-
EE ( <i>n</i> = 26)						
1. LES Mean	-	.16	-.10	.16	.04	.03
2. PSQ Mean		-	.03	-.01	-.36	.35 <sup>a</sup>
3. SUDS Average			-	.67 <sup>**</sup>	.05	-.29
4. SUDS Peak				-	.07	-.30
5. Frequency					-	-.13
6. WAI Mean						-

Note. *N* = 47; *n*IC = 21; *n*EE = 26. IC = Imaginal Confrontation; EE = Empathic Exploration; LES = Levels of Engagement Scale; PSQ = Post-Session Questionnaire; SUDS = Subjective Units of Distress; Frequency = Frequency of participation in IC or EE procedure; WAI = Working Alliance Inventory; Frequency = Frequency of IC or EE intervention.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ . <sup>a</sup>  $p = .07$ .

*Hypothesis 4*

Hypothesis 4 stated that emotional engagement with trauma material from all perspectives (LES, PSQ, SUDS) would contribute to outcome in both versions of EFTT. In order to test this hypothesis, partial correlations were conducted between measures of emotional engagement (LES, PSQ, SUDS) and post-treatment outcome, controlling for pre-test outcome on each dependent measure. In addition, because both alliance quality and frequency of participation in exposure procedures have been associated with outcome (Horvath & Bedi, 2002), these process variables (i.e., WAI and Frequency) also were included in analyses. Analyses were done separately for each treatment condition.

Table 7 presents partial correlations for the IC procedure. As indicated in Table 7, observer-ratings of engagement quality during IC (LES) were not significantly associated with post-treatment improvements on any of the dependent measures. However, both client self-reports of engagement during IC (PSQ) and alliance quality (WAI) were significantly associated with greater resolution of abuse issues on the RS.

Table 8 presents partial correlations for the EE procedure. As indicated in Table 8, observer-ratings (LES) and self-reports (PSQ) of engagement during EE were associated with improvements on several post-test outcome measures. Observer-rated engagement (LES) was associated with reductions in interpersonal problems (IIP) post therapy. Although not statistically correlated, there were moderately large associations (Cohen, 1988) between observer-rated engagement and trauma symptoms on the IES ( $r = -.39$ ) and global symptoms of distress on the SCL ( $r = -.31$ ), indicating that higher engagement quality was associated with reductions on trauma and global symptoms of distress. Client self-reported engagement (PSQ) during EE was associated with less state

anxiety (STAI-S) post-treatment. Higher peak distress (SUDS) during EE was associated with greater resolution of abuse issues (RS). Finally, alliance quality (WAI) was associated with lower global symptom distress (SCL). Although not statistically correlated, there were moderately large associations (Cohen, 1988) between alliance quality and all outcome measures (r-values ranging from  $-.21$  to  $-.37$ ).

In sum, hypothesis 4 was partially supported. Engagement in IC and EE, measured from both perspectives (i.e., observer- and self-ratings), contributed to treatment outcome. However, the different perspectives of engagement behaved differently in the two versions of EFTT. During the IC procedure, client self-reports of emotional engagement (PSQ) in the primary exposure-based procedure and alliance quality predicted one dimension change--better resolution of abuse issues on the RS. During the EE procedure, all process variable were associated with some dimension(s) of change--observer-rated (LES) and self-reports of engagement (PSQ, SUDS) in the primary exposure-based procedure predicted reduced anxiety and interpersonal problems, as well as better resolution of abuse issues, respectively; while alliance quality (WAI) in EE predicted less global symptom distress.

Table 7

*Partial Correlations Between Process Measures and Post-test Change, Controlling for Pre-test Scores, in the IC Treatment Condition*

Process Variables	Posttest Change						
	BDI	IES	IIP	RS	RSE	SCL	STAI-S
LES Mean	-.03	.09	.04	-.24	-.09	.14	.05
PSQ Mean	.19	-.02	.07	-.67**	.09	.19	-.20
SUDS							
Average	-.01	.00	.27	.23	.26	.17	.22
Peak	.17	.17	.23	.15	.39	.21	.38
Frequency	-.02	.34	.11	.17	.03	.06	.30
WAI Mean	.28	.10	-.15	-.63*	.19	.19	.10

Note.  $n = 21$ . BDI = Beck Depression Inventory – II; IES = Impact of Event Scale; IIP = Inventory of Interpersonal Problems; RS = Resolution Scale; RSE = Rosenberg Self-Esteem Scale; SCL-90-R = Symptom Checklist-90 Revised; STAI-S = State-Trait Anxiety Inventory - State; LES = Levels of Engagement Scale; PSQ = Post Session Questionnaire; SUDS = Subjective Units of Distress; Frequency = Frequency of IC or EE intervention; WAI = Working Alliance Inventory. \*  $p < .05$ , \*\*  $p < .01$ .

Table 8

*Partial Correlations Between Process Measures and Post-test Change, Controlling for Pre-test Scores, in the EE Treatment Condition*

Process Variables	Posttest Change						
	BDI	IES	IIP	RS	RSE	SCL	STAI-S
LES Mean	-.20	-.39	-.46*	-.25	.05	-.31	-.28
PSQ Mean	-.10	-.15	.03	-.12	-.10	-.30	-.42*
SUDS							
Average	.33	.26	.33	-.12	.30	.29	.27
Peak	.06	-.16	-.16	-.44*	.09	-.06	.02
Frequency	.27	.19	.09	.14	.22	.06	.05
WAI Mean	-.27	-.36	-.37	-.25	-.15	-.69**	-.22

Note.  $n = 23$ . BDI = Beck Depression Inventory – II; IES = Impact of Event Scale; IIP = Inventory of Interpersonal Problems; RS = Resolution Scale; RSE = Rosenberg Self-Esteem Scale; SCL-90-R = Symptom Checklist-90 Revised; STAI-S = State-Trait Anxiety Inventory - State; Levels of Engagement Scale; PSQ = Post Session Questionnaire; SUDS = Subjective Units of Distress; Frequency = Frequency of IC or EE intervention; WAI = Working Alliance Inventory. \*  $p < .05$ , \*\*  $p < .01$ .

*Hypothesis 5*

Hypothesis 5 stated that frequency of participation in IC and EE would contribute to outcome. Tables 7 and 8 indicate that frequency of participation in IC and EE did not contribute to treatment outcome, in both EFTT with IC and EFTT with EE, respectively. Thus, hypothesis 5 was not supported.

*Exploratory Question*

Exploratory question 1 asked which measure of emotional engagement (LES, PSQ, SUDS) would be a better predictor of outcome, in each version of EFTT. In order to address this question, the relative contributions of the process variables to treatment outcome were examined using hierarchical regressions. Separate regressions were conducted for each treatment condition and only for treatment outcome variables that were found to be significant in the partial correlation analyses reported above (see Table 7 and 8, for the IC and EE respectively). Thus, one hierarchical regression was conducted for the IC condition (i.e., RS as dependent variable). Four hierarchical regressions were conducted for the EE condition (i.e., IIP, RS, SCL, STAI-S as dependent variables). For all hierarchical regressions, the first step included entering pre-treatment scores in order to control for pre-therapy severity on each measure as well as the WAI which, according to theory and research, is related to outcome (Horvath & Bedi, 2002; Martin, Gaske, & Davis, 2000). In the second step, all process variables were entered (LES, PSQ, SUDS Average, SUDS Peak, and Frequency). All tables below include the following statistical information: the unstandardized beta values (B), which represent the degree that each predictor affects the outcome if the effects of all other predictors are held constant, in raw scores; standard error of the unstandardized beta values (SEB), which indicates the extent

to which these values would vary across different samples; standardized beta values ( $\beta$ ), which represents the number of standard deviations that the outcome will change as a result of one standard deviation change in the predictor; R square ( $R^2$ ), which represents the amount of variance that is accounted for in outcome by the predictor variables; R square change ( $\Delta R^2$ ), which represents that change in  $R^2$  resulting from the inclusion of new predictors; and the squared semi-partial correlation ( $sr^2$ ), which measures the unique relationship between a predictor and the outcome (Field, 2005).

For the IC condition, Table 9 presents a summary of the hierarchical regression analysis for process variables predicting post-test resolution of abuse issues on the RS. As indicated in Table 9, step 1 and step 2 of the regression equation were significant. After step 1, 51% of the variance in post-test RS scores was accounted for by the regression model from this sample, which contained RS pre-test and WAI scores. After step 2, with all the independent variables in the equation, 72% of the variance in the post-test RS scores was accounted for by the regressions model that contained all process variables in addition to pre-test and WAI scores. The change in  $R^2$  resulting from the inclusion of the new predictors was not significant.

Beta weights for each predictor variable were examined to assess their relative importance in the prediction of abuse resolution on the RS. In step 1, beta weights for pre-test and WAI scores were significant ( $p$ 's < .01). In step 2, after inclusion of all process variables, self-reported emotional engagement on the PSQ significantly contributed to resolution of abuse issues, beyond contributions made by the predictor variables in step 1 ( $p$  < .01).

Squared semi-partial correlations ( $sr^2$ ) were examined in order to assess the proportion of variance each significant predictor contributed *uniquely* to treatment outcome, controlling for joint variance shared between variables. In step 1, the working alliance contributed the most unique variance to the model (33%) and pre-test scores contributed 25% unique variance. In step 2, after inclusion of all the independent variables, self-reported emotional engagement on the PSQ accounted for the most unique variance in post-test resolution on the RS (18%).

In terms of the EE condition, Table 10 presents a summary of the hierarchical regression analysis for process variables predicting post-test resolution of abuse issues on the RS. As indicated in Table 10, step 1 and step 2 of the regression equation were significant. After step 1, 26% of the variance in post-test RS scores was accounted for by the regression model from this sample, and after step 2, 54% of the variance in the post-test RS scores was accounted for. The change in  $R^2$  resulting from the inclusion of the new predictors approached significance. In step 1, beta weights for pre-test scores were significant ( $p < .05$ ). In step 2, beta weights for pre-test scores and self-report ratings of peak distress during sessions containing the EE procedure were significant ( $p$ 's  $< .05$ ) and alliance quality approached significance. Squared semi-partial correlations ( $sr^2$ ) revealed that, in step 1, pre-treatment scores (22%) contributed the most unique variance to the model. In step 2, pre-test scores contributed the most unique variance to the model (22%) and self-report ratings of peak distress (SUDS) contributed 19% unique variance.

Table 11 presents a summary of the hierarchical regression analysis for process variables predicting post-test interpersonal problems on the IIP, in the EE therapy condition. As indicated in Table 11, step 1 and step 2 of the regression equation were



significant. After step 1, 54% of the variance in post-test IIP scores was accounted for by the regression model from this sample, and after step 2, 81% of the variance in the post-test IIP scores was accounted for. The change in  $R^2$  resulting from the inclusion of the new predictors was significant. In step 1, beta weights for pre-test scores were significant ( $p < .001$ ) and alliance quality approached significance. In step 2, beta weights for pre-test scores, average and peak distress on SUDS, and alliance quality on the WAI were significant ( $p$ 's  $< .05$ ). Squared semi-partial correlations ( $sr^2$ ) revealed that, in step 1, pre-treatment scores contributed 48% unique variance to the model. In step 2, pre-test scores contributed the most unique variance to the model (53%). Self-reports of average and peak distress, collectively, contributed to 19% unique variance, followed by alliance quality, which contributed 9% unique variance.

Table 12 presents a summary of the hierarchical regression analysis for process variables predicting post-test global symptom distress on the SCL, in the EE therapy condition. As indicated in Table 12, step 1 and step 2 of the regression equation were significant. After step 1, 63% of the variance in post-test SCL scores was accounted for by the regression model from this sample, and after step 2, 78% of the variance in the post-test SCL scores was accounted for. The change in  $R^2$  resulting from the inclusion of the new predictors approached significance. In step 1, beta weights for pre-test and WAI scores were significant ( $p$ 's  $< .001$ ). In step 2, beta weights for pre-test scores, WAI, self-reports of average distress (SUDS Average) during sessions containing the EE procedure were significant ( $p$ 's  $< .05$ ). Squared semi-partial correlations ( $sr^2$ ) revealed that, in step 1, pre-treatment scores contributed 59% unique variance to the model and alliance quality contributed 30% unique variance. In step 2, pre-test scores contributed the most unique

variance to the model (53%), alliance quality (WAI) contributed 30% unique variance and self-report ratings of average distress (SUDS) contributed 8%.

Table 13 presents a summary of the hierarchical regression analysis for process variables predicting post-test state anxiety on the STAI-S, in the EE therapy condition. As indicated in Table 13, step 1 and step 2 of the regression equation were not significant. After step 1, 8% of the variance in post-test STAI-S scores was accounted for by the regression model from this sample, and after step 2, 34% of the variance in the post-test STAI-S scores was accounted for by the regressions model. The change in  $R^2$  was not significant. None of the beta weights were significant in step 1 and in step 2.

Table 9

*Summary of Hierarchical Regression Analysis for Process Variables Predicting Post-test Outcome on the RS, in the IC Therapy Condition*

Variables	B	SEB	$\beta$	Sig.	$sr^2$	$R^2$	$\Delta R^2$
Step 1						.51	
Pretest scores on RS	.64	.21	.51**	.01	.25		
WAI Mean	-7.45	2.16	-.58**	.00	.33		
Step 2						.72	.21
Pretest scores on RS	.37	.23	.30	.13	.06		
WAI Mean	-3.64	2.34	-.28	.14	.05		
LES Mean	.43	1.51	.05	.78	.00		
PSQ Mean	-.51	.17	-.54*	.01	.18		
SUDS Average	.11	.12	.33	.34	.02		
SUDS Peak	-.02	.12	-.06	.86	.00		
Frequency	.31	.77	.07	.69	.00		

Note.  $n = 21$ . RS = Resolution Scale; WAI = Working Alliance Inventory; LES = Levels of Engagement Scale; PSQ = Post Session Questionnaire; SUDS = Subjective Units of Distress; Frequency = Frequency of participation in IC work.

Step 1:  $F(2, 18) = 9.24, p < .01$ ; Step 2:  $F(7, 13) = 4.84, p < .01$ ;  $\Delta F(5, 13) = 2.18, p > .10$ .

Table 10

*Summary of Hierarchical Regression Analysis for Process Variables Predicting Post-test Outcome on the RS, in the EE Therapy Condition*

Variables	B	SEB	$\beta$	Sig.	$sr^2$	$R^2$	$\Delta R^2$
Step 1						.26	
Pretest scores on RS	.66	.25	.47*	.02	.22		
WAI Mean	-3.73	2.99	-.23	.23	.05		
Step 2						.54	.28
Pretest scores on RS	.75	.24	.53**	.01	.24		
WAI Mean	-5.92	3.00	-.36	.06	.10		
LES Mean	-1.44	2.25	-.11	.53	.01		
PSQ Mean	.10	.28	.07	.72	.00		
SUDS Average	.14	.15	.23	.36	.02		
SUDS Peak	-.40	.15	-.63*	.01	.19		
Frequency	.46	.58	.14	.44	.02		

Note.  $n = 26$ . RS = Resolution Scale; WAI = Working Alliance Inventory; LES = Levels of Engagement Scale; PSQ = Post Session Questionnaire; SUDS = Subjective Units of Distress; Frequency = Frequency of participation in EE work.

Step 1:  $F(2, 23) = 3.98, p < .05$ ; Step 2:  $F(7, 18) = 3.07, p < .05$ ;  $\Delta F(5, 18) = 2.27, p = .09$ .

Table 11

*Summary of Hierarchical Regression Analysis for Process Variables Predicting Post-test Outcome on the IIP, in the EE Therapy Condition*

Variables	B	SEB	$\beta$	Sig.	$sr^2$	$R^2$	$\Delta R^2$
Step 1						.54	
Pretest scores on IIP	.94	.19	.70***	.00	.48		
WAI Mean	-.37	.19	-.27	.07	.07		
Step 2						.81	.27**
Pretest scores on IIP	1.10	.16	.82***	.00	.53		
WAI Mean	-.48	.16	-.15*	.11	.03		
LES Mean	-.26	.12	-.15	.14	.01		
PSQ Mean	.02	.02	.16	.21	.02		
SUDS Average	.02	.01	.42**	.01	.09		
SUDS Peak	-.02	.01	-.46**	.01	.10		
Frequency	-.03	.03	-.09	.45	.01		

Note.  $n = 26$ . IIP = Inventory of Interpersonal Problems; WAI = Working Alliance Inventory;

LES = Levels of Engagement Scale; PSQ = Post Session Questionnaire; SUDS = Subjective

Units of Distress; Frequency = Frequency of participation in EE work.

Step 1:  $F(2, 23) = 13.53, p < .00$ ; Step 2:  $F(7, 18) = 10.60, p < .001$ ;  $\Delta F(5, 18) = 4.88, p < .01$ .

Table 12

*Summary of Hierarchical Regression Analysis for Process Variables Predicting Post-test Outcome on the SCL, in the EE Therapy Condition*

Variables	B	SEB	$\beta$	$sr^2$	$R^2$	$\Delta R^2$
Step 1					.63	
Pretest scores on SCL	.89	.15	.90***	.00	.59	
WAI Mean	-.80	.18	-.67***	.00	.33	
Step 2					.78	.15
Pretest scores on SCL	.92	.14	.92***	.00	.53	
WAI Mean	-.75	.16	-.64**	.00	.30	
LES Mean	-.10	.11	-.11	.38	.01	
PSQ Mean	-.02	.01	-.14	.29	.01	
SUDS Average	.02	.01	.39*	.02	.08	
SUDS Peak	-.02	.01	-.35	.04	.06	
Frequency	-.03	.03	-.12	.34	.02	

Note.  $n = 26$ . SCL = Symptom Checklist-Revised; WAI = Working Alliance Inventory; LES = Levels of Engagement Scale; PSQ = Post Session Questionnaire; SUDS = Subjective Units of Distress; Frequency = Frequency of participation in EE work.

Step 1:  $F(2, 23) = 19.73, p < .001$ ; Step 2:  $F(7, 18) = 9.06, p < .001$ ;  $\Delta F(5, 18) = 2.40, p = .08$ .

Table 13

*Summary of Hierarchical Regression Analysis for Process Variables Predicting Post-test Outcome on the STAI-S, in the EE Therapy Condition*

Variables	B	SEB	$\beta$	Sig.	$sr^2$	$R^2$	$\Delta R^2$
Step 1						.08	
Pretest scores on STAI	.25	.22	.23	.28	.05		
WAI Mean	-5.20	4.84	-.22	.29	.05		
Step 2						.34	.26
Pretest scores on STAI	.30	.23	.28	.21	.06		
WAI Mean	-.82	5.11	-.04	.87	.00		
LES Mean	-1.86	3.88	-.10	.64	.01		
PSQ Mean	-.93	.47	-.44	.06	.11		
SUDS Average	.37	.24	.44	.14	.09		
SUDS Peak	-.21	.24	-.23	.40	.03		
Frequency	-.46	1.00	-.10	.65	.01		

Note.  $n = 26$ . STAI-S = State-Trait Anxiety Inventory, State; WAI = Working Alliance Inventory;

LES = Levels of Engagement Scale; PSQ = Post Session Questionnaire; SUDS = Subjective

Units of Distress; Frequency = Frequency of participation in EE work.

Step 1:  $F(2, 23) = .96, p = .40$ ; Step 2:  $F(7, 18) = 1.35, p = .29$ ;  $\Delta F(5, 18) = 1.46, p = .25$ .

*Summary of Findings from Hierarchical Regressions.* In the IC condition, only self-reported emotional engagement (PSQ) contributed to outcome beyond contributions made by alliance quality. Specifically, self-reported engagement with trauma material during IC contributed to resolution of issues with abusive and neglectful others (RS).

In the EE condition, however, neither self-reported nor observer-rated perspectives of emotional engagement with trauma material during EE independently contributed to outcome. Rather, client self-reported distress (SUDS) during EE was the dimension prognostic of outcome. Furthermore, client ratings of simple distress on the SUDS predicted multiple dimensions of change. Specifically, peak distress during EE predicted better resolution of abuse issues (RS) and reduced interpersonal problems (IIP), beyond contributions made by alliance (WAI); average distress during EE contributed to reduced interpersonal problems (IIP) and global symptom distress (SCL), although these contributions were not beyond contributions made by alliance (WAI). Finally, alliance quality (WAI) during EE independently contributed to reduced global symptom distress (SCL).

### Supplementary Analyses

Post hoc analyses were conducted, in order to further examine null findings concerning observer-rated engagement on the LES. Analyses examined effects of client demographic and therapist factors on measures of emotional engagement (LES, PSQ) and emotional distress (SUDS Average and Peak). In terms of client demographics, analyses revealed no significant effects on any measures of emotional engagement and distress for ethnicity, marital status, employment status, annual income, and completed years of education. Client gender, however, was found to be significant.



Table 14 presents means and standard deviations of client gender by therapy condition. In the total sample (21 males and 26 females), univariate F tests indicated a significant effect of client gender on observer-rated engagement (LES) during IC and EE,  $F(1, 45) = 7.36, p < .01, \eta^2 = .14$ . Thus, males were rated as less emotionally engaged, compared to females, in both re-experiencing procedures combined. In the IC treatment condition, univariate F tests approached significance for gender differences on the LES,  $F(1, 19) = 3.42, p = .08, \eta^2 = .15$  (10 males and 11 females). Similarly, in the EE treatment condition, univariate F tests approached significance for gender differences on the LES,  $F(1, 24) = 3.84, p = .06, \eta^2 = .14$  (11 males and 15 females). As Table 14 indicates, males were, on average, rated as less emotionally engaged during the IC and EE reexperiencing procedure. Lastly, in the IC treatment condition, univariate F tests indicated gender differences on self-reported peak distress (SUDS),  $F(1, 19) = 5.19, p < .05, \eta^2 = .22$ . Thus, males, on average, reported lower peaks of emotional distress during sessions containing the IC intervention, compared to females.

In terms of therapist factors, gender was not found to be significant, that is, analyses revealed no differences between male and female therapists on any measures of emotional engagement and distress.

Since Paivio et al. (2001) used *early* engagement quality (LES ratings on session 4), rather than *average* engagement quality (which were used in the present study), partial correlations were conducted between *early* emotional engagement on the LES and post-treatment outcome, controlling for pre-test outcome on each dependent measure. Analyses were done separately for each treatment condition. Results indicated that early engagement in the IC procedure was significantly associated with one dimension of client

change--resolution of abuse issues ( $r = -.48, p < .05$ ). Early engagement during EE was not associated with any dimension of change.

Table 14

*Means and Standard Deviations of Process Variables by Clients Gender*

Measures		<u>Client Gender</u>			
		Male		Female	
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
LES	Total	2.57	.67	3.15	.78
	IC	2.63	.76	3.24	.75
	EE	2.51	.60	3.09	.82
PSQ	Total	33.07	8.13	36.13	6.24
	IC	33.83	8.98	32.92	6.54
	EE	32.37	7.65	38.49	4.99
SUDS Average	Total	44.89	17.91	47.58	20.41
	IC	40.17	20.98	53.85	21.94
	EE	49.18	14.23	42.98	18.61
SUDS Peak	Total	62.02	18.61	69.08	19.07
	IC	55.63	20.19	75.78	20.23
	EE	67.82	15.73	64.19	17.22

Note.  $N = 47$ . IC = Imaginal Confrontation; EE = Empathic Exploration; LES = Levels of Engagement Scale; PSQ = Post Session Questionnaire; SUDS = Subjective Units of Distress.

### Summary of All Findings

Table 15 presents a summary of the present study's main hypotheses and research questions, analyses used to address these, and main findings.

Table 15

*Summary of Hypotheses/Questions, Analyses, and Findings.*

Hypothesis/Questions	Analyses Performed	Findings
<i>Characteristics of Process Variables, in both versions of EFTT.</i>		
Descriptive statistics for process variables, in both IC and EE.	Means and Standard Deviations	Moderate levels of observer-rated (LES) and self-reported (PSQ) engagement in both IC and EE.
		Moderate levels of self-reported distress (SUDS) in both IC and EE.
		Strong alliance quality (WAI) in both IC and EE.
	MANOVA	Significant effect for condition, indicating differences between IC and EE in terms of process variables .
	Univariate F-test	Significant effect for Frequency, indicating that EE treatment condition had more sessions containing EE procedure.
Hypothesis 1: Quality of engagement would be maintained over course of therapy, from both measurement perspectives, in both IC and EE.	Repeated Measures ANOVA	<p>*No significant effect for time (early, middle, late observer-rated and self-reported engagement), condition, and interaction.</p> <p>Initial engagement quality was maintained over course of therapy, from both measurement perspectives, in both IC and EE.</p>

*\* Findings Support Hypotheses*

*Note.* EFTT = Emotion Focused Trauma Therapy; IC = Imaginal Confrontation; EE = Empathic Exploration; LES = Levels of Engagement Scale; PSQ = Post Session Questionnaire; SUDS = Subjective Units of Distress; WAI = Working Alliance Inventory; RS = Resolution Scale; STAI-S = State-Trait Anxiety Inventory - State; IIP = Inventory of Interpersonal Problems; SCL-90-R = Symptom Checklist-90 Revised.

Hypothesis 2: Levels of self-reported distress (SUDS) would decrease over time, in both IC and EE.	Pairwise t-tests	<p><b>IC:</b> There was a steady decline in average and peak distress over therapy, although this was not statistically significant.</p> <p><b>*EE:</b> There was an inverted V-pattern for average and peak distress. Reductions in peak distress were significant from middle to late therapy sessions containing the EE.</p>
<p><i>Relationship between Observer- and Self-Report Ratings of Engagement and Distress, in both versions of EFTT.</i></p>		
Hypothesis 3: Observer-rated (LES) and self-reported (PSQ) engagement and client distress (SUDS) would be positively associated with each other, in both versions of EFTT.	Pearson product moment correlation coefficient	<p><b>*IC:</b> Observer-ratings of engagement during IC were positively and significantly correlated with self-report ratings of engagement.</p> <p><b>EE:</b> Observer-ratings were positively, but not significantly, correlated with client self-reports of engagement.</p> <p>No significant relationship between multidimensional measures of engagement and levels of distress, in both IC and EE.</p>

*\* Findings Support Hypotheses*

*Note.* EFTT = Emotion Focused Trauma Therapy; IC = Imaginal Confrontation; EE = Empathic Exploration; LES = Levels of Engagement Scale; PSQ = Post Session Questionnaire; SUDS = Subjective Units of Distress; WAI = Working Alliance Inventory; RS = Resolution Scale; STAI-S = State-Trait Anxiety Inventory - State; IIP = Inventory of Interpersonal Problems; SCL-90-R = Symptom Checklist-90 Revised.

Other significant relationships.	Pearson product moment correlation coefficient	<p><b>IC:</b> Self-reported of engagement during IC were positively and significantly correlated with alliance quality. Average and peak levels of distress were associated with frequency of participation.</p> <p><b>EE:</b> Although not statistically significant, there were moderately large correlations between alliance quality and all outcome variables.</p>
<hr/> <p><i>Contributions of Process Variables to outcome, in both versions of EFTT.</i></p>		
Hypothesis 4: Emotional engagement with trauma material from all measurement perspectives would contribute to outcome in both versions of EFTT.	Partial Correlations	<p><b>*IC:</b> Self-reported engagement during IC contributed to resolution of abuse issues (RS).</p> <p>Levels of distress did not contribute to any client outcome.</p> <p><b>*EE:</b> Self report engagement during EE contributed to less anxiety (STAI-S). Observer-rated engagement during EE contributed to reduced interpersonal problems (IIP).</p> <p><b>* Peak distress during EE contributed to resolution of abuse issues (RS).</b></p>

*\* Findings Support Hypotheses*

*Note.* EFTT = Emotion Focused Trauma Therapy; IC = Imaginal Confrontation; EE = Empathic Exploration; LES = Levels of Engagement Scale; PSQ = Post Session Questionnaire; SUDS = Subjective Units of Distress; WAI = Working Alliance Inventory; RS = Resolution Scale; STAI-S = State-Trait Anxiety Inventory - State; IIP = Inventory of Interpersonal Problems; SCL-90-R = Symptom Checklist-90 Revised.

Hypothesis 5: Frequency of participation in IC and EE work will contribute to outcome, in both versions of EFTT.	Partial Correlations	Frequency of participation in IC and EE did not contribute to outcome in either version of EFTT.
Other process variables that contributed to client outcome.	Partial Correlations	<p><b>IC:</b> Alliance quality contributed to resolution of abuse issues (RS).</p> <p><b>EE:</b> Alliance quality contributed to reduced global symptom distress (SCL).</p>
<i>Exploratory Question 1</i>		
Which measure of emotional engagement with trauma material during the primary exposure-based procedure (IC or EE) is a better predictor of outcome, in each version of EFTT?	Hierarchical Regression	<p><b>IC:</b> Self-reported engagement during IC predicted better resolution of abuse, beyond contributions made by the alliance.</p> <p><b>EE:</b> Self-reported peak distress during EE predicted better resolution of abuse issues and reduced interpersonal problems, beyond contributions made by alliance.</p> <p>Self-reported average distress during EE contributed to reduced interpersonal problems and global symptoms of distress, but not beyond contributions made by alliance.</p> <p>Alliance quality predicted reduced global symptom distress.</p>

*\* Findings Support Hypotheses*

*Note.* EFTT = Emotion Focused Trauma Therapy; IC = Imaginal Confrontation; EE = Empathic Exploration; LES = Levels of Engagement Scale; PSQ = Post Session Questionnaire; SUDS = Subjective Units of Distress; WAI = Working Alliance Inventory; RS = Resolution Scale; STAI-S = State-Trait Anxiety Inventory - State; IIP = Inventory of Interpersonal Problems; SCL-90-R = Symptom Checklist-90 Revised.



*Post-hoc Analyses*

Are there client or therapist factors related to differences in emotional engagement (LES, PSQ, SUDS) with trauma material during the primary exposure-based procedure (IC or EE)?	MANOVA and Univariate F Tests	<p><b>Total:</b> Observer-rated engagement differed based on client gender (<math>p &lt; .01</math>). Males were rated as less emotionally engaged by an observer compared to females.</p> <p><b>IC:</b> Males tended to be rated as less emotionally engaged during the IC procedure by an observer (<math>p = .08</math>).</p> <p>Self-reported peak distress during IC was lower for males (<math>p &lt; .05</math>), compared to females.</p> <p><b>EE:</b> Males tended to be rated as less emotionally engaged during the EE procedure by an observer (<math>p = .06</math>).</p>
Does early engagement (LES) predict outcome?	Partial Correlations	<p><b>IC:</b> Early engagement was significantly associated with better resolution of abuse issues.</p> <p><b>EE:</b> Early engagement was not significantly associated with any outcome measure.</p>

*\* Findings Support Hypotheses*

*Note.* EFTT = Emotion Focused Trauma Therapy; IC = Imaginal Confrontation; EE = Empathic Exploration; LES = Levels of Engagement Scale; PSQ = Post Session Questionnaire; SUDS = Subjective Units of Distress; WAI = Working Alliance Inventory; RS = Resolution Scale; STAI-S = State-Trait Anxiety Inventory - State; IIP = Inventory of Interpersonal Problems; SCL-90-R = Symptom Checklist-90 Revised.

## CHAPTER IV: DISCUSSION

The present study examined client processes in two versions of EFTT, each employing a different reexperiencing procedure. These procedures are imaginal confrontation (IC) of abusive and neglectful others and empathic exploration (EE) of trauma material with the therapist. The processes that were examined were emotional engagement with trauma material from observer-rated (LES) and self-report (PSQ) perspectives, and self-reported distress (SUDS) during the IC and EE procedures. In addition, frequency of participation in IC and EE and alliance quality (WAI) during these procedures were examined. The present study had two main objectives. The first was to examine the contributions of engagement with trauma material and levels of distress during the IC and EE procedures to treatment outcome. The second objective was to investigate which perspective of engagement with trauma material was the best predictor of outcome--the observer-rated, multi-dimensional perspective (LES), the client self-reported multi-dimensional perspective (PSQ), or client ratings of distress (SUDS).

Before discussing results of the present study, it is important to provide a brief summary of findings concerning treatment outcome in order to place present process and process-outcome findings in context. Clients in the present study were a moderately distressed group of men and women who reported histories of severe emotional, physical, and sexual childhood abuse and were randomly assigned to treatment condition. Clients in both the EFTT with IC and EFTT with EE treatment conditions reported large gains in multiple domains (symptom distress, interpersonal and self-related difficulties) and there were no significant differences between the treatment conditions in terms of outcome (Paivio et al., in press). Thus therapy processes examined in the present study took place

in the context of two highly and comparably effective treatments. In the discussion that follows, process and process-outcome findings are summarized and discussed in terms of similarities and differences between the IC and EE interventions.

#### Similarities between IC and EE

Clients reported moderate levels of engagement with trauma material during both IC and EE, from both observer-rated (LES) and self-reported (PSQ) measurement perspectives, and these engagement levels remained stable over the course of both treatment conditions. Furthermore, client self-reported emotional engagement during IC and EE contributed to treatment outcome. Clients also reported strong alliances during assessed IC and EE sessions and alliance quality during these sessions contributed to outcome in both conditions. The above findings were consistent with study expectations. However, contrary to expectations, results of the present study also indicated no significant associations between complex measures of engagement (LES and PSQ) and simple distress (SUDS), during the IC or EE procedures; and frequency of participation in IC and EE was not significantly associated with client change in either condition. The following sections discuss each of these findings.

#### *Engagement Quality (LES and PSQ) and Distress (SUDS) over the Course of Therapy*

Observer-ratings (LES) and self-reports (PSQ) indicated moderate levels of engagement with trauma material during both the IC and EE procedures, over the course of both therapies. Furthermore, findings from the present study indicated that initial engagement quality in both IC and EE, from both measurement perspectives was maintained over the course of each therapy. These findings are consistent with those of Paivio et al. (2001), who similarly found that the quality of engagement during the IC

procedure was moderate and stable over the course of treatment. Thus, the quality of engagement with trauma material during EFTT, regardless of the procedure, sets the course for the remainder of therapy and highlights the importance of therapists facilitating the best possible processes early in therapy. These findings also could reflect clients' ability and/or capacity to emotionally engage with trauma material, regardless of the procedure, that does not substantially change.

Clients also reported moderate levels of distress (SUDS) throughout therapy sessions and moderate to high peaks of distress during IC and EE, although the patterns of distress differed over the course of therapy for each procedure. This will be discussed in a later section on differences between IC and EE. Present findings regarding moderate levels of emotional engagement and moderate to high distress during IC and EE suggest that "optimal" emotional engagement with trauma memories was achieved in EFTT with the current client sample. As noted in the literature review, optimal engagement is thought to be related to the client's capacities to tolerate negative, painful emotions. Clients who under-engage during re-experiencing procedures do not show signs of distress compared to clients who over-engage that show extremely high levels of distress, to the point that the emotional experience is overwhelming (Briere & Scott, 2006; Rauch & Foa, 2006). Thus, moderate levels of engagement with higher peaks of emotional arousal during IC and EE, suggest that clients were neither under- or over-engaged.

#### *Alliance Quality*

Findings from the present study indicated that, on average, clients reported strong alliances in therapy overall and during measured IC and EE procedures. These findings are consistent with theory and research on the importance of alliance quality in the

treatment of problems stemming from childhood abuse. As indicated in the literature review, the consensus among child abuse experts is that treatment first requires building trust between therapist and client (Courtois & Ford, 2009; Ford et al., 2005; Fosha et al., 2009; Herman, 1992a). Trust and safety develop within a nurturing and accepting therapeutic relationship, such that power and control are restored to the client in order to counteract issues of distrust, insecurity, and problems with interpersonal relatedness that are typical of child abuse survivors.

Strong therapeutic alliances found in the present study also is consistent with EFTT theory (Paivio & Pascual-Leone, in press) and research (Paivio et al., 2001; Paivio & Laurent, 2001; Paivio & Nieuwenhuis, 2001; Paivio & Patterson, 1999) which found strong therapeutic alliances in EFTT with IC. Findings from the present study also suggest comparable development of strong alliances in EFTT with EE. Finally, it is important to note the reciprocal influence of alliance quality on engagement. The WAI (Horvath & Greenberg, 1989), used in the present study, is made up of three subscales that are based on Bordin's (1994) trans-theoretical model of the working alliance. The three subscales are: bond (e.g., affective connection between therapist and client), agreement on goals of therapy, and agreement on therapy tasks (e.g., engaging in memory work/exposures). Engagement quality also includes three components, one of which is agreement on and willingness to participate in therapeutic tasks.

#### *Association among Complex Measures of Engagement and Emotional Distress*

Findings of the present study did not support a significant association between complex measures of engagement (LES and PSQ) and the measure of distress (SUDS), during the IC and EE procedures. This suggests that these are conceptually independent

constructs. The SUDS consists of two items that measure the highest and average levels of distress that clients experienced during sessions containing IC or EE. This reflects experienced emotional distress or arousal alone, whereas the LES is a multidimensional measure of emotional engagement that includes willingness to participate in the intervention, psychological contact with the imagined other, as well as expressed emotional arousal.

This failure to find an association between complex measures of engagement and the single dimension of emotional distress is consistent with the different conceptualizations of emotional processing proposed by behavioural, cognitive-behavioural, and experiential therapies, outlined in the literature review. Behavioural and cognitive-behavioural theories of emotional processing have typically focused on 'pathological fear' and the maladaptive cognitions that generate fear. Thus, research examining emotional processing and engagement from these perspectives has defined these constructs strictly in terms of arousal/distress whereas experiential therapies have defined emotional processing and engagement more broadly. For example, a recent study (Watson & Bedard, 2006) used the Experiencing Scale (Klein, Mathieu-Coughlan, & Kiesler, 1986) to measure client emotional processing. The Experiencing Scale is a multi-dimensional observer-rated measure that assesses the quality of clients' exploration and reflection on their inner experience in order to achieve self-understanding. Emotional arousal may be a prerequisite for, but is not synonymous with, this exploration process. Greenberg and Pascual-Leone (2006) similarly define emotional processing in terms of productive work with emotion and identify four sub-processes – awareness, regulation, reflection, and transformation. Only regulation is related to arousal.

The finding that multidimensional emotional engagement and emotional distress are distinct constructs also is consistent with research from experiential therapies. For example, Greenberg et al. (2007) found that client's arousal alone was not necessarily an indication of productive emotional processing in experiential therapy. These researchers concluded that the *productivity* of the expressed arousal (i.e., exploration of evoked material) is more important for successful treatment than arousal alone. Again, this indicates that arousal and emotional engagement are interrelated yet distinct constructs. In another study, Bridges (2006) reviewed a number of clinical vignettes of clients in short-term emotion-focused therapy and rated them according to four key components of emotion. These were: *emotional arousal* (physiologically measured with wrist watch cardiac monitor), *emotional experience* (self report questionnaires), *emotional expression* (observable verbal and nonverbal expressive behaviours), and *emotional processing* (meaningful integration of emotion and cognition). Findings from this study indicated that there is a complex interplay among these dimensions. For example, clients who were resolved at the end of therapy (good outcome), experienced "break downs", sobbed deeply, were unable to speak, and showed intense levels of cardio-vascular arousal. According to Bridges (2006) "each breaking down leads to a breaking through to a deeper, more meaningful processing, leading to both insight and a sense of resolution" (pp. 566), which again is more than arousal alone.

#### *Contributions of Emotional Engagement to Treatment Outcome*

Findings from the present study indicated that the multi-dimensional process of emotional engagement with trauma material during the IC and EE procedures contributed to outcome in both conditions. In the EFTT with IC condition, client self-reports of

engagement (PSQ) during IC predicted better resolution of issues with abusive and neglectful others (RS), beyond contributions made by alliance quality. In the EFTT with EE condition, observer-rated and client reports of engagement in the EE procedure predicted less distress stemming from interpersonal problems and anxiety, respectively. However, these contributions were not beyond contributions made by alliance quality and by emotional distress (distress was not a contributing factor in EFTT with IC). The latter findings will be discussed further in the sections on differences between IC and EE.

Overall, findings that client engagement with trauma material contributed to outcome are consistent with theories of emotional processing of trauma memories and trauma recovery. Emotional processing requires that emotional responses related to trauma memories are activated during exposure procedures and this process differs from simple narration of the trauma (Briere & Scott, 2006). The manner in which trauma responses are processed in therapy is similar, but not identical, to Foa and Kozak's (1986) model of processing 'pathological fear' underlying anxiety disorders, such that fear responses are not reinforced in sessions, and thus eventually tend to fade. This is what Briere and Scott (2006) call creating a disparity between the client's feelings (i.e., fear, helplessness) and the current state of reality (i.e., a safe environment with therapist).

Findings from the present study that the *multi-dimension process* of emotional engagement contributed to treatment outcome also support experiential theories of emotional processing. Experiential theorists (e.g., Greenberg & Paivio, 1997; Paivio & Pascual-Leone, in press) define emotional processing more broadly than traditional behavioural models (e.g., Foa & Kozak, 1986) in terms of the importance of a variety of emotions besides fear and the construct of experiencing in therapy. Thus, from an



experiential perspective, emotional processing includes more than client arousal or distress. Present findings also support EFTT theory, in particular, on the role of emotional engagement with trauma material as a mechanism of change—emotional engagement again is defined as a multi-dimensional process.

However, contrary to expectations in the present study, observer-ratings of engagement quality (measured on the LES) during IC and EE did not independently contribute to any dimension of client change. These results are inconsistent with findings reported in previous research on EFTT with IC. For example, in the Paivio et al. (2001) study, high engagement (measured by the LES) *early* in therapy was associated with resolution of abuse issues at termination and follow-up and overall dosage of the IC intervention (quality on the LES X frequency of participation in IC), independently contributed to multiple dimensions of change. Post-hoc analyses in the present study indicated that early engagement (on the LES) during IC was associated with resolution of abuse issues. Early engagement during EE was not associated with any post-treatment change. Thus, these findings are consistent with those of Paivio et al. (2001) for the IC condition only, and again highlight the importance of early processes in therapy.

Post hoc analyses in the present study suggest that client gender provides a possible explanation for the null findings regarding observer-rated engagement and outcome. Analyses revealed that men were rated as less emotionally engaged during both the IC and EE procedures, compared to women. This finding could be understood within the framework of the gender role conflict theory (Marin & Russo, 1999; O'Neil, Good, & Holmes, 1995). This theory states that the socialization of masculine gender roles, which involves restricting emotional expression and denying personal weakness (Cohn &

Zeichner, 2006; Sipes, 2005), could result in a rigid adherence to specific attitudes and behaviours associated with masculinity while, simultaneously, rejecting feminine attitudes and behaviours (O'Neil et al., 1995). Restrictive emotionality is defined as a fear of expressing personal feelings and avoiding 'softer' emotions (O'Neil et al., 1995). Research has shown that men who have restrictive emotionality also have difficulty finding words to express their emotions, feel uncomfortable with emotional disclosure, and with the emotional expression of others (O'Neil, 1981; O'Neil et al., 1995), and they tend to minimize emotional pain (Krugman, 1996). Research conducted by Gottman and colleagues (Carstensen, Gottman, & Levenson, 2004; Gottman & Levenson, 1988; Levenson, Carstensen, & Gottman, 1994), which examined emotional behaviour in intimate, long-term relationships via videotaped interactions, consistently showed that men were less emotionally expressive, compared to women, who expressed greater emotionality overall (e.g., expressed more negative emotions, such as anger, and more positive emotions, such as joy). However, this outward expression in males did not reflect measured internal physiological arousal or distress (Levenson et al., 1994).

With respect to the present study, it is possible that men were less emotionally expressive during the reexperiencing procedures and thus were rated by observers as less emotionally engaged. Furthermore, it also is possible that men provided a better account of their perception of engagement when they were privately and anonymously filling out the self-report measure, which could explain the contributions of self-reported engagement to outcome. The composition of the present sample, in terms of client gender also could explain the differences between current null findings and those of Paivio et al. (2001) in which observer-rated engagement did contribute to outcome. The current study

had more male clients (45%) compared to the Paivio et. al study (22%). Indeed, the large proportion of males in the present study is unusual in clinical samples, in general, which typically are predominantly female (Cloitre et al., 2002; Cloitre, Stovall-McClough, Miranda, & Chemtob, 2004; Edmond, Rubin, & Wambach, 1999).

*Contributions of Frequency of Participation in Reexperiencing Procedures to Outcome*

Findings of the present study did not support the predicted contribution of frequency of participation in the IC or EE procedures to treatment outcome. These findings are inconsistent with principles of desensitization, which emphasize reductions in trauma symptoms with repeated exposure. Studies of CBT have found that longer exposures were associated with greater habituation, which is the proposed change mechanism in CBT theory of emotional processing (van Minnen & Foa, 2006). However, there are a number of differences between traditional prolonged exposure therapy (e.g., Foa et al., 1999, 2005) and EFTT, which reflect the differential views of emotional processing and the construct of emotional engagement. Briefly, EFTT has a more complex view of emotional processing and change which goes beyond reductions in fear and simple habituation. The process of therapy also is consistent with this view, in that EFTT emphasizes client experiencing (i.e., exploration and construction of new meaning concerning the self, others, and traumatic events). In contrast, prolonged exposure therapy emphasizes simply the exposure aspect, lasting for approximately 60-min during every 90-min session. Thus, in EFTT, frequency of participation in IC or EE alone is not most important since there are other processes occurring. Furthermore, most clients in Foa's studies experienced a single trauma, which they recounted, repeatedly during the exposure procedures. It is possible that frequency is an important predictor of client

outcome for those who experienced a single trauma and had a primary presenting problem of PTSD. In contrast, clients in the present study experienced prolonged abuse, with a number of traumas and some with multiple perpetrators. Thus, this sample was likely suffering from complex PTSD, which extends beyond the classic PTSD symptoms and includes identity and interpersonal disturbances, and emotion regulation difficulties (Herman, 1992b). Gleiser, Ford, and Fosha (2008) suggest that “for a survivor of repeated familial abuse, with comorbid diagnoses, disorganized attachment, and chaotic lifestyle patterns, repeated exposure may be as effective as tugging on a tangled knot” (p. 353). Thus, for clients with complex PTSD, frequency of participation, alone, may not be the best predictor of outcome.

This finding is inconsistent with results reported in the Paivio et al. (2001) study, which found that overall dosage of the IC intervention (quality on the LES X frequency of participation in IC), independently contributed to multiple dimensions of change. In that study, frequency contributed to the predictive power of quality (measured on the LES) and together they predicted better outcome. In the present study, even though correlation coefficients were not statistically significant, greater frequency of both IC and EE was consistently associated with poorer outcome. Reasons for this and particularly for the inconsistency in findings concerning frequency of participation in IC (e.g., possible therapist and/or client factors) are unclear. It is thus impossible to draw conclusions about influence of frequency of participation in re-experiencing procedures, alone, in EFTT.

#### *Contributions of Alliance Quality to Treatment Outcome*

Findings from the present study indicated that alliance quality during the IC and EE procedures contributed to treatment outcome in each condition, respectively. These

findings are consistent with alliance research, showing that therapeutic alliance is a robust predictor of outcome (Horvath & Bedi, 2002; Martin et al., 2000) across various treatment modalities with varying client populations (Castonguay & Beutler, 2006). Research with abuse survivors also shows that the therapeutic relationship contributes to outcome. For example, Cloitre et al. (2002, 2004) found that the strength of the therapeutic relationship established early in therapy predicted less PTSD symptomology after therapy completion.

Present findings are consistent with EFTT theory and support the role of the therapeutic relationship as a mechanism of change. According to EFTT theory, the therapeutic alliance functions in two ways. First, the therapeutic relationship creates a safe and trusting environment, which helps clients access and eventually reprocess early traumatic experiences (Paivio et al., 2001). Second, the therapeutic relationship helps to counteract early negative relational experiences. Furthermore, findings from the present study are consistent with past research on EFTT with IC (Paivio et al., 2001; Paivio & Patterson, 1999). For example, alliance quality in the fourth session independently predicted improvements in global self-esteem and was associated with resolution of abuse issues (Paivio et al., 2001). However, it should be noted that, in the present study, alliance quality during the IC and EE procedures contributed to different dimensions of change. The differential contributions to outcome will be described in detail in the section that follows on differences between the IC and EE procedures.

#### Differences between IC and EE

The following summarizes differences found between the two re-experiencing procedures examined in the present study. First, patterns of client reported levels of

emotional distress (SUDS) differed during the IC and EE. There was a steady decline in distress during IC from early to late sessions (although not statistically significant), whereas distress peaked during middle therapy sessions containing the EE procedure and then significantly declined. These findings only partly support study hypotheses. Second, with respect to frequency of participation in the reexperiencing procedure, clients had more sessions containing the EE procedure and there were significant association between client distress (SUDS) during IC and more frequent participation in the procedure. Third, there was an association between observer-ratings (LES) and self-reports (PSQ) of engagement only in the IC. Fourth, although, as predicted, client self-reports of emotional engagement with trauma material and alliance quality during IC and EE contributed to outcome, these process variables contributed to different dimensions of change in the two treatment conditions, with processes during IC contributing to resolution of abuse issues, alone, whereas processes during EE contributed to multiple dimensions of change. The following sections discuss these findings.

#### *Client Distress (SUDS) over the Course of Therapy*

Findings from the present study indicated that patterns of average and peak levels of emotional distress (SUDS) differed during the IC and EE procedures. In EFTT with IC, a steady decline was observed from early to late sessions, for both average and peak distress, although this was not statistically significant. In the EFTT with EE condition, an inverted V-pattern was observed from early to late sessions, for both average and peak distress during EE, with the highest levels of distress reported during the middle phase of treatment. Results indicated that reductions in peak distress during EE, from middle to late therapy sessions containing the EE intervention, were significant.

The steady decline in levels of distress during the IC intervention, although not statistically significant, is consistent with desensitization processes and emotional processing theory (Foa & Rothbaum, 1998; Rauch & Foa, 2006). This decline in distress also is consistent with findings for cognitive therapy using prolonged exposure (Jaycox et al., 1998; Rubenstein, 2004). Emotional processing theory posits that clients experience higher levels of distress when initially engaging in exposure procedures. However, over the course of therapy, as clients are continually exposed to distressing trauma memories, the strength of this response diminishes. In other words, clients are desensitized to the initially distressing thoughts and feelings associated with the trauma memory. Research on CBT including prolonged exposure indicates that the best treatment outcome is characterized by clients who show high initial distress with gradual habituation, measured with the SUDS (Jaycox et al., 1998; Rubenstein, 2004).

In terms of the EE procedure, the inverted V-pattern for average and peak distress is consistent with greater distress during the middle or ‘working through’ phase of therapy, described in most trauma-focused therapy models including EFTT (e.g., Briere, 2002, 2006; Herman, 1992a; Paivio & Pascaul-Leone, in press). The working phase of therapy involves in-depth exploration of trauma material that may have been avoided or defended against in early sessions and thus is more likely to be associated with higher distress or emotional arousal.

Different findings concerning patterns of client emotional distress in the IC and EE procedures could be a function of different demand characteristics of each of the interventions. For example, asking the client to imagine a perpetrator of harm sitting across from him or her in the therapy room--especially the first time this task is

introduced--can be highly evocative and quickly activate painful feelings and memories. Thus, achieving emotional arousal is easily accomplished and the critical issue in IC is the client engaging in dialogue with the imagined other. In contrast, in the EE procedure, evocative interventions that activate client's emotional arousal, without the use of an empty chair, may be more challenging for the therapist, especially in early sessions when therapists may be more reluctant to "push" their clients. Indeed previous analyses of a subset of clients in EFTT (Ralston, 2006) found overall lower levels of observer-rated emotional arousal during EE compared to IC episodes.

#### *Frequency of Participation in the Reexperiencing Procedures*

Findings from the present study indicated that clients underwent more sessions containing the primary reexperiencing procedure (IC or EE) in EFTT with EE compared to EFTT with IC. Since EE is less distinct from the remainder of therapy and less evocative (Ralston, 2006), compared to the IC, it is possible that clients more easily moved into this type of trauma exploration. Moreover, present findings also indicated a significant association between greater client distress (average and peak) during IC and more frequent participation in the procedure and a moderately large (although not statistically significant) association between more frequent participation in IC and more anxiety and trauma symptoms at the end of therapy. This was not the case for EE. Thus, in the EFTT with IC condition, more frequent confrontation of imagined perpetrators was associated with more distress both in the immediate and longer term. However, it is important to note that this relationship may be reciprocal. It is possible that therapists more frequently encouraged more distressed and anxious clients to participate in IC in



order to help alleviate symptoms. It makes sense that, since EE is less evocative and distinct from the remainder of therapy, these effects would be less prominent.

*Association between Observer-rated and Self-report Measures of Engagement*

Findings from the present study indicated a significant association between observer-rated (LES) and client self-reported (PSQ) multi-dimensional measures of engagement with trauma material during IC, but this was not the case for measures of engagement during EE. Convergence of measurement perspectives in IC is consistent with results of the Paivio et al. (2001) study of EFTT with IC, which found a significant association between the LES and a self-report measure similar to the PSQ. Together, these findings support the convergent validity of the LES and PSQ measures, at least in the context of the IC procedure.

In contrast, observer-rated (LES) and self-reports (PSQ) of emotional engagement with trauma material during EE were not significantly associated with each other. These differential results for IC and EE could be partly related to differences between the self-report PSQ measures of engagement used in the two conditions. Both measures include an item that represents the “psychological contact” dimension of engagement (e.g., “I was able to get in touch with experiences of childhood maltreatment and vividly remember others involved”). However, the PSQ-IC contains an additional item that specifically asks clients the degree to which they were able to engage in a dialogue with the imagined other in the empty chair. Thus two items define the “psychological contact” dimension in the PSQ-IC measure. This parallels the observer-rated LES-IC measure which includes looking at and talking directly to the imagined other (I-you language) in the empty chair as criteria for “psychological contact”. Because there is no empty-chair

used in EE, the psychological contact dimension on the PSQ-EE is represented by a single item. It is possible that this single item did not adequately parallel more complex observer-rated criteria for psychological contact on the LES-EE, such as clear and vivid memories of abuse, detailed descriptions of perpetrators behaviour and abuse, and use of “I” language (ownership) when discussing their reactions to abuse and perpetrators involved. This could have reduced the strength of association between measurement perspectives.

The lack of convergence between different measurement perspectives during EE also could be related to the nature of the EE procedure itself. In terms of observer-ratings of engagement on the LES-EE, markers for the beginning of the EE intervention consisted of a variety of therapist statements that were clearly identified by researchers (see Appendix H). However, for clients, the entire process of exploration during EE may not be easily distinguishable from the overall context of therapy. This is in contrast with the IC procedure which begins with the therapist bringing out an empty chair and the process remains quite distinct from the rest of therapy. Moreover, on the PSQ-EE measure, clients were asked to rate their degree of engagement with trauma material during the *session*, with no reference to a specific technique. Thus, it is possible that self-reported engagement quality on the PSQ reflected client engagement during the session, rather than during the particular EE procedure that was identified and rated by researchers. This also would reduce convergence across measurement perspectives.

#### *Contributions of Emotional Engagement and Distress to Treatment Outcome*

Findings of the present study revealed that client self-reported emotional engagement with trauma material during the IC procedure (the multidimensional process

measured on the PSQ) contributed to resolution of abuse issues, beyond contributions made by alliance quality. This is precisely the domain of disturbance that the IC procedure was designed to address. In contrast, client self-reports of distress (measured on the SUDS) was the important variable and process during the EE procedure and independently contributed to both global and specific dimensions of change. First, it is possible that common method variance partly contributed to the association between self-report process and self-report outcome measures in both conditions. Common method variance refers to inflated relationships between variables measured by the same method (in this case, self-reports) based on the underlying assumption that there is a shared bias across variables measured with the same method (Campbell & Fiske, 1959). However, Spector (2006) argues that common method variance is an “oversimplification of the true state of affairs” (p. 221) and suggests that the nature of the shared bias depends on both the construct of interest and how it is measured. If assumptions underlying shared method variance were true, then all variables measured with the same method theoretically should produce significant correlations, and this is not the case. Thus, in the present study, method alone is not likely sufficient to account for specific process-outcome findings.

The finding that emotional engagement during IC contributed to resolution of abuse issues supports EFTT theory that emotional engagement with trauma material is a mechanism of change. Furthermore, the IC intervention was specifically designed to explore and resolve complex and longstanding issues with perpetrators of abuse and neglect--usually attachment figures. Thus, this finding also supports the specific theory behind the intervention. The finding that emotional distress during the EE procedure,

alone, contributed to change is consistent with traditional behavioural emotional processing theory and research (Foa & Rothbaum, 1998; Rauch & Foa, 2006). Most trauma experts, including EFTT theorists, agree that emotional arousal is required in order to activate trauma memories so they are available for modification (Briere & Scott, 2006; Paivio & Pascual-Leone, in press; Rauch & Foa, 2006). Moreover, research supports this view. Studies have found that clients who report high levels of distress (measured on the SUDS) during prolonged exposure, that reduced over the course of therapy, reported reductions on depression, anxiety, and PTSD symptoms at the end of therapy (Foa et al., 1995, 1999; Jaycox et al., 1998; Rubenstein, 2004).

Emotional arousal is important because trauma survivors typically use emotional avoidance as a strategy to protect against feeling overwhelmed. Avoidance cuts the individual off from important information and is thought to perpetuate disturbance and interfere with trauma recovery (Briere, 1992, 2002; Rauch & Foa, 2006; Ford et al., 2005; Herman, 1992a; Paivio & Pascual-Leone, in press). Thus, emotional arousal in EFTT activates core emotion structures and associated information which is then available for exploration, integration into current meaning systems, and construction of new meaning regarding self, others, and traumatic events (Paivio & Pascual-Leone, in press). As noted earlier, emotional arousal may be particularly important during EE which is not so distinct from the overall context of therapy.

Differences between the IC and EE procedures, in terms of which process and measurement perspective was most important to change, again, could partly be explained by the characteristics in each procedure. During IC, the complex process of interacting with an imagined other is the critical factor since emotional arousal is quickly achieved

through the process of imagining the perpetrator in the room. During EE, on the other hand, exploring trauma-related issues with the therapist is relatively easily achieved since similar processes occur throughout therapy process, but achieving emotional arousal (indicated by distress on the SUDS) in order to activate core trauma memories is the most potent process.

The finding that engagement with trauma material during IC contributed to only one dimension of change, compared to emotional distress during EE, which contributed to multiple dimensions, raises the question of whether EE is a superior intervention. First, it is important to recall that both treatment conditions--EFTT with IC and EFTT with EE--had broad benefits for clients, including reductions in global and specific symptom distress (depression, anxiety, PTSD), difficulties with self-esteem and interpersonal relatedness, and resolution of issues with particular perpetrators of harm. Thus, the circumscribed benefits of the IC *intervention*, per se, suggest that IC is not representative of what occurred in the overall treatment. Other processes besides engagement with trauma material during IC and the therapeutic alliance must have contributed to client gains. However, successful IC can only occur in the context of these other processes--successful treatment is a function of both global and specific change factors (Norcross, 2002; Paivio et al., 2001). On the other hand, emotional arousal during the EE *intervention* had a broader effect on treatment outcome. It seems that, unlike IC, the EE procedure, itself, is comprised of both global and specific change factors. It is not possible to say, however, that the EE procedure is superior to the IC procedure since both treatments, as a whole, were highly effective. It is only possible to say that EE is likely

more representative of what occurred in the overall therapy (with a special emphasis on the importance of emotional arousal).

*Contributions of Alliance Quality to Treatment Outcome*

Findings from the present study indicated that alliance quality during the IC and EE procedures contributed to different dimensions of outcome. Alliance quality during IC contributed to only one dimension of change--better resolution of issues with abusive/neglectful others (RS). This is consistent with results from the Paivio et al. (2001) study of EFTT with IC. Together these findings support one posited role of the alliance in EFTT with IC, that is, in facilitating client engagement in the primary re-experiencing procedure. It is possible that a strong alliance during IC also provided a corrective interpersonal experience which additionally contributed to resolving past issues with perpetrators.

In contrast, alliance quality during the EE procedure contributed to both global and specific dimensions of change, including reduced global symptom distress (SCL), interpersonal problems (IIP), and resolution of issues with particular perpetrators of harm (RS). There also were moderately large (although not statistically significant) associations between alliance quality during EE and all of the outcome dimensions. Thus, the therapeutic alliance, like the EE intervention itself, had a broader influence in EFTT with EE, compared to the IC procedure in EFTT with IC. This again suggests that processes during EE were more representative of processes that occurred throughout therapy.

### Strengths and Limitations of the Present Study

In terms of strengths, this is the first study to examine the relative contributions of different perspectives of emotional engagement with trauma material during exposure-based procedures, and the first to examine these over and above the contributions of common factors (the alliance). This also is the first study to examine these processes in a sample of men and women dealing with different types of child abuse trauma, and the first study to examine and compare these processes during two different re-experiencing procedures. Comparing observer-rated and self-reported emotional engagement with trauma material (as a complex process), and client self-reports of distress (as a more simple construct), allowed for examination of the relative importance of clients' *experience* of engagement, *experience* of distress, and observed *behaviour* during trauma exploration. Since most previous research examining emotional engagement in therapy with abuse survivors used only client reports, the present study provided a more complete picture of emotional processes and their contributions to client change. Results suggest that, in a sample comprised of almost 50% males, clients' *experience* of engagement and distress may be more important than their actual expression. This potentially has important implications for clinical practice since therapist often rely on their observations of client behaviour in making decisions about how to intervene.

An additional strength of the present study is the sampling of episodes from early, middle, and late sessions, again allowing for a more complete picture of emotional processes over the course of two different therapies.

Importantly, this investigation has contributed to EFTT theory of therapy with this client population by supporting emotional engagement with trauma material and the

therapeutic alliance as mechanisms of change. Furthermore, present results concerning emotional processing of trauma material suggest varying relative importance of different aspects of emotional processing--engagement and arousal--in the two different reexperiencing procedures. This differential importance of each construct or process likely is a function of the unique characteristics of each intervention and suggests different crucial processes depending on the particular procedure that is used to explore trauma material--engagement in the complex process of interacting with an imagined perpetrator versus increasing arousal/distress. Present findings further suggest that the role of the alliance as a contextual factor was closely related to the role of each intervention. Together these findings again have obvious important implications for clinical practice.

Methodologically, the use of different measurement perspectives of engagement quality (observer-ratings on the LES and self-report ratings on the PSQ) allowed for assessment of the validity of these instruments for measuring key therapy processes. Results support their use in future process-outcome research in therapies that employ an empty chair procedure (since there were significant correlations between LES and PSQ in IC only). This is particularly important in terms of the client self-report PSQ measure of engagement with trauma material. Analyses of therapy processes using transcripts and videotapes is notoriously time consuming and labour-intensive. The use of valid and easily administered client self-reports therefore can contribute to needed future process-outcome research with this client group. Understanding the processes of change is most relevant to treatment development and clinical practice (Kazdin & Nock, 2003; Wampold, 2005) and to date there are few such studies in the area of complex trauma.



In terms of limitations of the present study, the most general limitations concern the size of the sample. According to Field (2005), a general rule-of-thumb for determining appropriate sample size for multiple regressions is  $N \geq 50 + 8m$ , where  $m$  is the number of predictor variables. Thus, the present study, with seven predictor variables, required a sample of 106 participants. However, the limited resources that often are available for conducting this type of psychotherapy research makes this criterion difficult, if not impossible, to meet. Nonetheless, the small sample in the present study limited power to detect small to medium-sized effects, for example, concerning the contribution of observer-rated engagement to outcome. A related limitation concerns the large number of analyses conducted and the inflated Type I error rate. Thus some significant findings, for example, concerning process-outcome associations in the EFTT with EE condition, may be due to chance.

Other methodological limitations concern the number of process and outcome variables that did not meet assumptions of normality and homogeneity of variance, and the questionable psychometric properties of some of the measures (e.g., personality pathology on the PDQ and anxiety on the STAI). It should be noted, however, that statistical tests used in the present study are typically sufficiently robust to tolerate some violation of assumptions, given equal sample sizes (Field, 2005), and the above instruments are widely used in this type of research (e.g., Barber et al., 1996; Jaycox et al., 1998; Paivio et al., 2001). Nonetheless, the above methodological short-comings, together, limit conclusions that can be drawn from present results and highlight the importance of future replication

Another methodological limitation concerns the coding procedure for the LES. As noted earlier, observer-ratings on the LES were conducted on a 15-minute therapy episode containing IC and EE work. Paivio et al. (2001) reported that this sampling strategy was sufficient to capture a representative sample of IC process (ratings beyond 15 minutes did not change the category assigned to the episode) and significant findings using the LES in the Paivio et al. (2001) study suggest that the strategy was effective. Nonetheless, it is possible that, in the present study, this strategy did not adequately capture the quality of emotional engagement with trauma material during the session. Examining the entire IC and EE episodes regardless of length may have yielded a more accurate account of therapy processes and thus increased the predictive power of observer-rated engagement.

A related limitation concerns potential rater bias when using the LES with male clients. Supplementary analyses from the present study indicated that males were rated as less emotionally expressive, compared to female clients. Since men express emotion differently than women (Wong & Rochlen, 2005), it is possible that the female raters were relying on more female defined criteria for rating emotional engagement. Thus, rater bias may have additionally contributed to the limited influence of observer-rated engagement with trauma material in the present study.

Finally, results of the present study cannot be generalized to other trauma therapies or to clients with different characteristics. EFTT has a number of distinct features that are not characteristic of other therapies for complex trauma, including a flexible structure, reliance on a specific process model of resolution, and empathic responding as the primary therapist operation (Paivio & Pascual-Leone, in press).

Additionally, clients in the present study were moderately distressed and excluded on the basis of a number of factors that are commonly observed in this client group, most notably, risk of self-harm, substance abuse, and co-morbid diagnoses. They also were predominantly of European decent. Thus, results from the current investigation can only be generalized to individuals who meet inclusion and exclusion criteria of the present study and with similar demographic characteristics. In particular, it already has been noted that the large proportion of males in the present study is unusual in clinical samples (Cloitre et al., 2002, 2004; Edmond et al., 1999) and may have influenced results in a number of ways that were not assessed.

### *Conclusions*

Empirical investigations of effective treatments and research on process-outcome for complex trauma are limited. Results of the present study therefore contributed to the existing, but limited, empirical knowledge in this area and provided guidance for working with this challenging client population. The present study demonstrated that both IC and EE promoted therapeutic processes consistent with EFTT principles and productive psychotherapy. Furthermore, results from the present study illustrated that emotional processing of trauma memories during IC and EE and the therapeutic relationship are important mechanisms of change in EFTT, which have varying relative importance in different reexperiencing procedures. Future research should replicate the present study to add confidence to results. Furthermore, future research should replicate the present study with different therapeutic modalities and reexperiencing procedures and examine the relative contributions of clients' experience of engagement and distress, and observed behaviour. As demonstrated in this study, these processes vary in terms of their

contributions to outcome and this seems to be linked to different theories of emotional processing. It is important for future research to begin to make these distinctions in order to add to the literature concerning complex PTSD.

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## Appendix A: Telephone Screen

### PHONE SCREEN PROCEDURES

#### Basic Information for Callers

We are conducting research on a particular psychotherapy approach for resolving issues related to childhood abuse (emotional, physical, sexual). We are offering approximately 16 to 20 sessions of free individual therapy in exchange for participation in the research. Participation involves completion of questionnaires before and after therapy completion and following therapy sessions.

Because of the research component and the short-term nature of the therapy, there are certain requirements for participation. I will need to ask you questions over the phone that are personal and may be difficult to talk about, but your answers will help me decide if we can meet your needs. I also will be able to suggest alternatives if we cannot. The phone interview could take about 30 minutes.

If, after this phone interview, our program seems like a good fit for you and you wish to continue, I will schedule you for a more in-depth personal interview. At that time, we also will ask you to complete brief questionnaires and can give you more information about the program. At that time we can both decide whether this program indeed can meet your needs. You will be notified of our decision within a few days.

Do you have any questions? Would you like to proceed with the telephone interview?

#### Questions Regarding Suitability

Note: When caller does not meet a criterion, immediately terminate the interview, tell caller another service would be more helpful and ask if he/she would like the number of an alternate service. Refer to resource list for appropriate referral.

1. How did you find out about the program?
2. How old are you? (Minimum, 18 years)
3. Are you currently receiving another therapy or counselling, or taking medication for psychological problems? (If yes, not suitable because of research criteria, continue with current treatment)
4. Do you currently have problems with alcohol or drug abuse? Have you had these problems in the past? (Minimum, clean/sober for 1 year. Otherwise not suitable, these issues take precedence over a focus on issues from the past.)
5. Are you currently involved in an abusive or violent adult relationship? If past, when did the abuse end and under what circumstances? (Minimum 1 year, otherwise not suitable, these issues take precedence over a focus on issues from the past.)

6. Have you ever been diagnosed with having a psychiatric or emotional disorder? What was the diagnosis, who diagnosed the disorder and when? (Incompatible diagnoses include: schizophrenia, bipolar disorder, anorexia nervosa, obsessive-compulsive disorder, dissociative disorders. Interviewer may need to consult with supervisor to assess suitability. Provide referral.)

7. Are you currently in crisis (need to see someone immediately)? (If yes, not suitable due to wait-list condition. Refer to Crisis Services.)

8. Have you ever felt so bad you wanted to hurt yourself or commit suicide? If yes, what happened? When was the last time you felt like that or actually hurt yourself? (Not suitable if current risk of self-harm or suicide. Provide referral - self-harm group at Hotel Dieu or Crisis)

9. Tell me something about the child abuse experiences you want to focus on in therapy? (Criteria: conscious memories of abuse, can identify a specific relationship to focus on in therapy--i.e., abusive and/or neglectful other. Global marital, relationship or adjustment problems, or inferences about abuse are not suitable.)

Disposition of Call

Does NOT meet criteria. Why?

Specify referral \_\_\_\_\_

Meets Criteria

APPOINTMENT FOR INTERVIEW

NAME \_\_\_\_\_ PHONE (H) \_\_\_\_\_ (W) \_\_\_\_\_

DATE \_\_\_\_\_ TIME \_\_\_\_\_ INTERVIEWER \_\_\_\_\_

GIVE DIRECTIONS TO THE PSYCHOLOGICAL SERVICES CENTRE OR  
PSYCHOLOGY DEPARTMENT & PARKING

INFORM THAT INTERVIEW WILL TAKE APPROXIMATELY 90 MINUTES



## Appendix B: Selection Interview

### SCREENING AND SELECTION INTERVIEW GUIDELINES

Information in the following areas should be obtained:

#### 1. PRESENTING PROBLEM

What are the main things the person wants help with in therapy? How can therapy help?  
Feelings toward past abusive and/or neglectful others?

#### 2. HISTORY OF CHILD ABUSE

Includes perpetrator(s), age of onset, duration, severity, coping strategies, external resources at the time, disclosure to others.

#### 3. QUALITY OF PAST RELATIONSHIPS

Includes relationships with family members, peers, teachers.

#### 4. QUALITY OF CURRENT RELATIONSHIPS

Includes spouse, children, peers, other sources of social support.

#### 5. PHYSICAL AND MENTAL HEALTH HISTORY

Includes serious illnesses, hospitalizations, diagnoses, medications, previous therapy experiences.

#### 6. PAST AND PRESENT FUNCTIONING

Includes occupational, educational, and interpersonal functioning; current stressors, coping strategies. DSM-IV GAF score (see attached scale):

#### 7. PTSD SYMPTOM SEVERITY

See attached interview schedule.

Appendix C: The Levels of Engagement Scale

Dimensions of Engagement in IC

1. Willingness to Participate in Intervention
  - (a) Agreement on the value of the intervention rather than refusal or resistance
  - (b) Willingness to communicate; uninhibited and active rather than withdrawn
  - (c) Spontaneous elaboration; initiates dialogue with imagined other rather than purely compliant with therapist directives
2. Psychological Contact with Imagined Other
  - (a) Describes how other looks/behaves
  - (b) Looks at/towards imagined other rather than therapist
  - (c) Uses "you" and "I" language rather than third person in dialogue with imagined other
3. Emotional Arousal
  - (a) Admits feelings verbally
  - (b) Nonverbal indicators of emotional arousal (e.g., vocal quality, gestures, tears)

## Appendix C: Descriptions of the Five Levels of Engagement according to the Three Dimensions for the IC

Level	Willingness to Participate	Psychological Contact with Imagined Other	Emotional Arousal	% of dialogue with imagined other
<b>1 – Refusal</b>	Client directly refuses to participate in intervention  OR ignores directives to speak to other	NO descriptions of how other looks/behaves.  NO “I, you” language”.  NOT looking at imagined other.	No admission of feelings  AND  NO non-verbal evidence of emotional arousal.	0-10% of interaction is with the imagined other.  All statements are compliance with therapist directives.
<b>2 - Resistant</b>	Client does not want to participate in the intervention but is minimally compliant.  NO spontaneous elaboration or initiation of dialogue.  Client is withdrawn rather than active or expressive in dialogue.	<i>Minimal</i> psychological contact with imagined other:  e.g., almost <i>all third person</i> when referring to other;  almost NO descriptions of other;  almost NO eye contact with other.	Virtually <i>no emotion</i> (verbal or nonverbal) expressed in dialogue with other.	10-30% of interaction is with the imagined other.  Almost all statements toward imagined other are <i>strictly compliance</i> with therapist directives.  <i>Therapist involvement is needed</i> to get client to start and maintain the dialogue.
<b>3 - Reluctant</b>	Client is ambivalent about participation in the intervention.  Compliance with therapist directives to speak to imagined other.	<i>Some</i> psychological contact with imagined other:  Some descriptions of how other looks and behaves; some eye contact	<i>Admits feelings but little arousal</i>  OR  Arousal but dialogue with	30-60% of interaction is with the imagined other

	<i>Some spontaneous elaboration of therapist initiated statement occurs.</i>	<i>BUT frequent use of third person when addressing other.</i>	imagined other is frequently interrupted by interaction with the therapist.	
<b>4 - Willing</b>	<p>Client willingly participates in the intervention but may be somewhat emotionally constricted in interaction with imagined other (e.g., due to performance anxiety, fear of facing other, or fear of overwhelming affect).</p> <p><i>Moderate amount of spontaneous elaboration AND client initiates statements/topics (content) beyond what is suggested by therapist.</i></p>	<p><i>Consistent psychological contact with imagined other:</i></p> <p>Consistent use of "I" and "you" language;</p> <p>Consistent and detailed descriptions of how other looks and behaves;</p> <p>Consistent eye contact with imagined other.</p>	<p><i>Admits feelings although may still be little arousal, flat, intellectual in interaction with imagined other</i></p> <p>OR</p> <p>Arousal is evident but feeling words are missing.</p>	<p>60-80% of interaction is with the imagined other.</p> <p>Minimal interaction with therapist (e.g., for purpose of structuring, clarification, discussion of client difficulty).</p>
<b>5 - Full</b>	<p>Client is <i>fully and uninhibitedly engaged</i> in the dialogue with imagined other.</p> <p>After initial therapist guidance, <i>virtually all</i> client statements to imagined other involve <i>spontaneous elaboration</i> AND frequent client <i>initiation</i> of topics.</p>	<p><i>Consistent psychological contact with other:</i></p> <p>Consistent use of "I" and "you" language;</p> <p>Detailed descriptions of how other looks and behaves;</p> <p>Consistent eye contact with imagined other.</p>	<p><i>Admits feelings AND evidence of emotional arousal.</i></p> <p>Tone of voice; facial expressions, body language indicate emotional arousal</p>	<p>80-100% of interaction is with the imagined other.</p> <p>Once dialogue begins, <i>virtually no interruptive</i> interaction with therapist.</p> <p>Minimal therapist involvement.</p>

Appendix D: Levels of Engagement Scale-EE

Dimensions of Engagement in EE

1. Willingness to Participate in Intervention
  - (a) Agreement on the value of the intervention rather than refusal or resistance
  - (b) Willingness to communicate; uninhibited and active rather than withdrawn
  - (c) Spontaneous elaboration; initiates discussion about imagined other and abuse rather than purely compliant with therapist directives.
2. Psychological Contact with Identified Abusive Other and Trauma
  - (a) Vivid memories of abuse and others involved
  - (b) Describes in detail how other looked/behaved and abuse
  - (c) Uses "I" language when discussing their reactions to abuse and others involved (ownership)
3. Emotional Arousal
  - (a) Admits feelings verbally
  - (b) Nonverbal indicators of emotional arousal (e.g., vocal quality, gestures, tears)

## Appendix D: Descriptions of the Five Levels of Engagement according to the Three Dimensions for the EE

Level	Willingness to Participate	Psychological Contact	Emotional Arousal	Percentage of dialogue IN
<b>1 – Refusal</b>	Client directly refuses to participate in therapists invitation to focus on specific trauma memory with specific identified other  OR  Ignores therapist directives to explore trauma memories	No evidence of psychological contact with exploration of trauma memories:  NO vivid or detailed descriptions of perpetrator and abuse;  NO evidence of ownership of experience (i.e., use of ‘I’ language)	No admission of feelings  AND  No evidence of emotional arousal expressed.	0-10% of client dialogue with therapist concerns abuse memory and identified others.
<b>2 - Resistant</b>	Client does not want to participate in the intervention but is <i>minimally compliant</i> .  <i>No spontaneous elaboration</i> or initiation in exploring trauma memories.  Client is withdrawn rather than active or expressive during exploration of specific abuse memory.	<i>Minimal</i> psychological contact with trauma memories and imagined (perceptions of) other:  <i>Little</i> ownership during dialogue with therapist (little use of “I” language)  <i>Few</i> descriptions of other.	<i>Little emotion</i> (verbal or nonverbal) expressed during trauma work.	10-30% of client dialogue with therapist concerns abuse memory and identified others.  <i>Most</i> statements to the therapist are strictly compliance with therapist directives to "Say more about that."
<b>3 - Reluctant</b>	Client is ambivalent about participation in the intervention.  <i>Compliance with therapist directives</i> to explore trauma memories and perceptions of imagined other.	<i>Some</i> psychological contact with trauma memories and some vivid and detailed memories of abuse and others involved in abuse:  Signs of ownership (use of “I” language)	Admits feelings but little arousal  OR  Arousal when describing abuse and expressing reactions to imagined other	30-60% of client dialogue with therapist concerns abuse memory and identified others.

	<i>Some spontaneous elaboration</i> of therapist initiated statement occurs.			
<b>4 - Willing</b>	<p>Client <i>willingly participates</i> in the intervention but may be somewhat emotionally constricted (e.g., for fear of being overwhelmed).</p> <p><i>Moderate</i> amount of <i>spontaneous elaboration</i> AND client initiates statements/topics (content) beyond what is suggested by therapist</p>	<p><i>Consistent</i> psychological contact with trauma memories and imagined other.</p> <p>Consistent use of "I" language</p> <p>Consistent vivid, detailed descriptions of abuse and perpetrators.</p>	<p>Admits feelings although may still be little arousal, flat, intellectual</p>	<p>60-80% of client dialogue with therapist concerns abuse memory and identified others.</p> <p>Most of the dialogue is about trauma memories and perceptions of others involved</p>
<b>5 - Full</b>	<p>Client is <i>fully and uninhibitedly engaged</i> in trauma work and vivid memories and descriptions of others.</p> <p>Virtually all client utterances involve spontaneous elaboration AND frequent client initiation of topics.</p>	<p>All evidence indicates <i>constant and consistent</i> psychological contact with abuse memories and imagined other.</p> <p>Consistent use of "I" language - ownership of experience</p> <p>Consistently vivid, detailed descriptions of abuse and perpetrators.</p>	<p>Admits feelings</p> <p>AND</p> <p>Evidence of emotional arousal</p>	<p>80-100% of client dialogue with therapist concerns abuse memory and perpetrators</p> <p>Virtually all dialogue concerns exploration of trauma memories, perceptions of imagined other</p>

## Appendix E: Post Session Questionnaires

## Therapist PSQ-IC

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

*Part I:*

1. To what extent were trauma memories and experiences a focus of today's session?

1	2	3	4	5	6	7
not at all		somewhat		moderately		very much

2. What was the primary intervention used to explore child abuse issues in today's session: \_\_\_\_\_

*Part II:*

1. My client 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. My client found it difficult to talk freely and explore memories and experiences of childhood maltreatment without holding back.

1	2	3	4	5	6	7
not at all		somewhat		moderately		very much

3. My client was able to fully feel and express feelings about how he/she was treated as a child.

1	2	3	4	5	6	7
not at all		somewhat		moderately		very much

4. My client 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



## Therapist PSQ-EE

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

*Part I:*

1. To what extent were trauma memories and experiences a focus of today's session?

1	2	3	4	5	6	7
not at all		somewhat		moderately		very much

2. What was the primary intervention used to explore child abuse issues in today's session: \_\_\_\_\_

*Part II:*

1. My client 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. My client found it difficult to talk freely and explore memories and experiences of childhood maltreatment without holding back.

1	2	3	4	5	6	7
not at all		somewhat		moderately		very much

3. My client was able to fully feel and express feelings about how he/she was treated as a child.

1	2	3	4	5	6	7
not at all		somewhat		moderately		very much

## 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 trauma memories and experiences a focus of today's session?

1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7 \_\_\_\_\_  
not at all                      somewhat                      most of                      all of  
the time                      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 memories and experiences of 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:*

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)

## 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 trauma memories and experiences a focus of today's session?

1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ 7 \_\_\_\_\_  
not at all                      somewhat                      most of                      all of  
the time                      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 memories and experiences of 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:*

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)

Appendix F: Coding Manual for LES-IC

**LES-IC GUIDELINES:**

1. For each client statement (each client utterance separated by therapist utterance of 2 or more words) determine to whom client is talking – imagined other, another part of self, therapist, uncertain.

If the client is talking to the imagined other then check the IN box (indicating IN dialogue) on scoring sheet (see below). Criteria for talking to imagined other are those defined in the psychological contact dimension. The following three questions address all aspects of the psychological contact dimension:

Is the client looking at the imagined other?  
Is the client using I-you language?  
Is the client providing descriptions of the other?

If answers are YES then the client is IN dialogue with the imagined other.

If client is talking to the therapist, even if they are talking about the abuse, they are OUT of dialogue. Statements that are OUT of dialogue are NOT rated on the dimensions of engagement below.

2. For each client statement that is IN dialogue with the imagined other determine whether:

- a. Statement involves spontaneous elaboration and/or client initiated topic:

Note whether the client is simply repeating therapist statements, answering therapist questions, asking for clarification, elaborating on therapists comment, spontaneously elaborating, or initiating dialogue WITH imagined other.

If client is answering therapist question or asking for clarification, then those statements will NOT receive a rating on this dimension.

If client is elaborating in response to therapist directives, spontaneously elaborating, or initiating dialogue, then those statements WILL receive a rating on this dimension.

Provide a description of the quality of client elaboration (i.e., a little, moderately, or a lot).

- b. Evidence of emotional arousal (verbal or non-verbal):

Indicate on scoring sheet whether the client is verbally admitting to feelings and/or non-verbal expressions of feelings. This will help distinguish ratings.

Additionally, rate expressions in terms of arousal level (low, medium, or high). If the client only admits to feelings and there is NO non-verbal indicators of arousal then they can only receive a rating of low arousal on that statement; a rating of medium requires admission to feelings plus minimum arousal; a rating of high requires both admission to feelings and high arousal.

3. Determine overall LES rating for each 5 min chunk based on proportion of statements directed to imagined other and on dimensions of arousal and willingness to participate.
4. The final rating is based on the average rating of the three 5-minute chunks. A final rating can INCREASE or DECREASE by ONE **point depending on the quality of elaboration and/or arousal (face validity)**.

For, example, if the client is in dialogue 70% of the time; they show spontaneous elaboration and some initiation of dialogue; admit to feelings and show many signs of arousal (i.e., tears, tone of voice, body posture, etc.) then a rating of 4 can be increased to a rating of 5.

5. The final rating is based on ALL statements, irrespective of whether the client was IN or OUT of dialogue. For example, if the first 5 min chunk was rated a 5, but then the IC turned into a critical split, the second and third chunks would be rated a 1 (not engaged). Thus, the overall score must reflect ALL statements in the episode and a final rating of 2 or 3 would likely be given.

Example of Scoring Sheet:

**Rater:** \_\_\_\_\_

**Client:** \_\_\_\_\_

**Therapist:** \_\_\_\_\_

In	Out	Statement	Spont. Elab.	Emotional Arousal
	X			
	X			
	X			
	X			
	X			
	X			
	X			
	X			
	X	End of First 5-min chunk		
X				
X			Elab	Verbal (low)
	X			
	X			
	X			
X			Elab (low)	Tears (low)
X				Verbal (low)
	X	End of Second 5-min chunk		
	X			
X			Clarification	Verbal (low)
X			Answer Q.	Tears (low)
	X			
	X			
	X	End of Third 5-min chunk		

**First 5-min chunk:**

0% with imagined other (out of dialogue with imagined other)

**Rating of 1 (Refusal)**

**Second 5-min chunk:**

57% of dialogues is with imagined other

Some spontaneous elaboration

Some emotional arousal

**Rating of 3 (Reluctant)**

**Third 5-min chunk:**

28% of dialogue with imagined other

No spontaneous elaboration

Some arousal

**Rating of 2 (Resistant)**

**Average rating** for entire 15-min episode: **2 (Resistant)**. If the client was NOT constricted in terms of their arousal, then this rating might have been increased to a 3.

Appendix G: Coding Manual for LES-EE

**LES-EE GUIDELINES:**

1. For each client statement (each client utterance separated by therapist utterance of 2 or more words) ask yourself:

Criteria for deciding whether client statement are IN (i.e., dialogue with therapist concerns abuse memory and identified others) are those defined in the psychological contact dimension. The following three questions address all aspects of the psychological contact dimension:

Does the statement concern a specific traumatic incident with a specific identified perpetrator?

Does the client provide vivid and detailed descriptions of event and abusive other?

Is the client using I language in referring to their own experience?

If answers are YES then the client is IN the process of exploring trauma memories concerning perpetrators (i.e., doing EE work). This should be rated at IN on the scoring sheet.

If answers are NO then the client statement is rated OUT on the scoring sheet. Statements that are OUT should not be rated on the qualitative dimensions below.

2. For each IN client statement determine whether:

- a. Statement involves spontaneous elaboration or client initiated topic:

Note whether the client is simply repeating therapist statements, answering therapist questions, asking for clarification, elaborating on therapists comment, spontaneously elaborating, or initiating discussion of specific memory, details of abuse, and descriptions of abusive other.

If client is answering therapist question or asking for clarification, then those statements will NOT receive a rating on this dimension.

If client is elaborating in response to therapist directives, spontaneously elaborating, or initiating dialogue, then those statements WILL receive a rating on this dimension.

Provide a description of the quality of client elaboration (i.e., a little, moderately, or a lot).

- b. Evidence of emotional arousal (verbal or non-verbal):

Indicate on scoring sheet whether the client is verbally admitting to feelings and/or non-verbal expressions of feelings. This will help distinguish ratings.

Additionally, rate expressions in terms of arousal level (low, medium, or high). If the client only admits to feelings and there is NO non-verbal indicators of arousal then they can only receive a rating of low arousal on that statement; a rating of medium requires admission to feelings plus minimum arousal; a rating of high requires both admission to feelings and high arousal.

3. Determine rating for each 5 min chunk based on proportion of statements that are IN and on dimensions of arousal and willingness to participate.
4. The final rating is based on the average rating of the three 5-minute chunks. A final rating can INCREASE or DECREASE by ONE **point depending on the quality of elaboration and/or arousal (face validity)**.

For, example, if the client is in dialogue 70% of the time; they show spontaneous elaboration and some initiation of dialogue; admit to feelings and show many signs of arousal (i.e., tears, tone of voice, body posture, etc.) then a rating of 4 can be increased to a rating of 5.

5. The final rating is based on ALL statements, irrespective of whether the client was IN or OUT of dialogue. For example, if the first 5 min chunk was rated a 5, but then the IC turned into a critical split, the second and third chunks would be rated a 1 (not engaged). Thus, the overall score must reflect ALL statements in the episode and a final rating of 2 or 3 would likely be given.

#### Examples of Psychological Contact:

##### IN Statements

C: I remember how he stared at me, that look on his face, it really scared me  
Evidence of psychological contact because: vivid memory, description of perpetrator, and I language.

C: She's watching me with folded arms... IN

T: What did you want to say to her?

C: I don't know OUT

Evidence of psychological contact for the first statement because: vivid memory and detailed description of perpetrator (mother)

C: I really had to beg her just to get some attention. It was horrible, I just felt like nothing...I just wanted to say to her 'why cant you be more like my aunt', 'why are you yelling at me'



Evidence of psychological contact because: client is referring to specific argument (abuse memory) with her mother (identified neglectful other), vivid memory, use of I language when referring to own experience.

C: ...he stunk, especially when he was drinking. And he had this glass eye, it looked, he looked crazy, I can see it now. He was repulsive. I just remember going to visit him at the hotel, because she made me, why would she do that? And I remember, I was scared...the image of him passed out on the bed of this cheap motel...

Evidence of psychological contact because: client is referring to specific memory (abuse memory) with her father (identified abusive other) and mother (identified neglectful other), it's a vivid memory, use of I language when referring to own experience.

### OUT Statements

C: Well, I was the oldest of my grandparents children, they used to take us...

No evidence of psychological contact because: grandparents not identified as abusive others and speaking in general terms about her childhood (i.e., no specific incident that she is referring to)

C: I felt abused there and I didn't have the coping skills to deal with what was happening to me...

No evidence of psychological contact because: client is referring to CAS organization, not to a specific identified other, and there was no specific incident that he was referring to.

## Appendix H: Markers for EE Episode Selection

The following therapist statements were identified as markers of the beginning of EE work.

### Invitation to Engage in EE Work

T: Lets imagine and explore what it was like for you when you were young, and explore this in depth.

T: Can you think of a time when she wasn't there for you?

T: Do you remember a time when you were a boy and your mother was intruding on your boundaries?

T: I was wondering if we could focus more in depth on your relationship with your mom and how she treated you as a child. Is there a particular time that stands out for you?

T: Can you think of a situation from the past that we can walk through together, step by step?

T: (Client talking about inner struggle setting boundaries with mom) Lets go in there with a situation and find out what is going on for you...

T: Put yourself back there in that situation...

T: (While he was driving to the session, the client was thinking about his dad and the abusive experiences and got very angry thinking about this) Say more about that anger, as you're driving you realize you are very angry with your father for what he did, stay with that feeling of anger, tell me more about why you are angry...

T: If you had a chance to tell her exactly what you wanted to, what would those words be?

T: Lets stay with that first response, what would you like to say to him? How would you make him understand...

## VITA AUCTORIS

*“...I am standing in Business Depot ordering business cards and the clerk is asking what information I would like to have displayed on my cards. I state that my name is Helen Chagigiorgis, Ph.D., C. Psych. ... I awaken with a smile upon my face and realize my dream begins today as soon as I mail my application. This is my vision, to become a practicing psychologist and researcher within the field of clinical psychology.”*

This was the introductory paragraph of my graduate school applications. My goal is finally being realized as I write this last section of my dissertation before depositing. This autobiographical essay reflects how my training as a future psychologist began...

I was told that as a young girl, I was extremely sensitive to others' feelings and displayed an endless curiosity that allowed me to bond with others. Similarly, my desire to help others has always been strong and, in many ways, has been shaped by my cultural background and earlier experiences. I was born in Canada (Feb. 27, 1978), but raised in Greece, where I lived between the ages of three and nine. I have vivid memories of the festivities of a week-long Halloween in February and my two-week Easter break from school – roasting lamb on Easter Sunday, endless tables of food and lots of family surrounding me. I fondly recall spending my summer vacations in the villages in which my parents were raised. In my father's village, Filiatra, Pelloponiso, I would swim and play in the olive gardens with my cousins. In my mother's mountain village, Athanasios Diakos, I would play in the river and the village main square. Family members and friends were constantly around me and formed a part of everyday life. We helped each other in so many ways, from preparing dinner to supporting one another through life's inevitable struggles.

I left behind a large extended family when I moved to Woodbridge, Ontario. This was a difficult adjustment for me. When my new grade four teacher introduced me to the rest of the class as the “new student who doesn't speak English”, I felt my difference immediately. My limited communication skills presented a barrier in developing meaningful relationships with other students. I was the *foreigner*, who ate *weird* food and didn't speak the language – these days one could liken me to the character *Soula* from *My Big Fat Greek Wedding*. Over the years, and with the help of some very kind peers, I began to learn English and develop close friendships. By grade seven, I finally felt a sense of belonging and acceptance. I began to view my “differences”, which originally made me feel unusual and alone, as distinctive characteristics that made me unique. I believe that my experience of receiving support further strengthened my desire to help and touch the lives of others. Taken together, these early experiences played a major role in the development of my sensitivity to others and ultimately, my career choice. So by the time I entered high school I knew that I wanted to dedicate my life working in the helping profession. I have not looked back since.

I graduated from York University in 2001 with a Bachelor of Science, majoring in Psychology. I began my graduate training at the University of Windsor in 2002 and obtained a Master's degree in Clinical Psychology in 2005. My final degree, a doctoral degree (PhD), will be awarded in October 2009. The academic journey may have come to end but my personal and professional learning will continue.