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Changes in Quality of Emotional Processing in Trauma Narratives as a Predictor of Outcome in Emotion Focused Therapy for Complex Trauma

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Changes in Quality of Emotional Processing in Trauma Narratives as a Predictor of
Outcome in Emotion Focused Therapy for Complex Trauma

By

Ula Khayyat-Abuaita

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

Windsor, Ontario, Canada

2016

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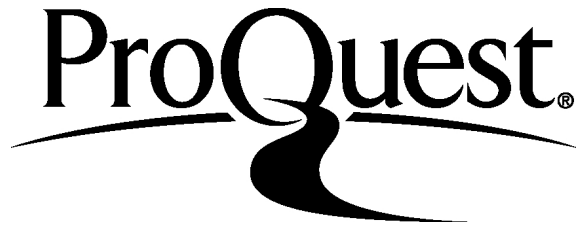
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Outcome in Emotion Focused Therapy for Complex Trauma

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ABSTRACT

The present study tested a model of change in emotional processes over the course of Emotion Focused Therapy for Trauma (EFTT). The Classification of Affective Meaning States (CAMS; Pascual-Leone & Greenberg, 2005) specifies a sequential shift from maladaptive and unproductive affective processes (i.e. global distress, fear and shame, and rejecting anger), through negative self-evaluation and expressing unmet needs, to productive affective processes (i.e. hurt and grief, self-compassion, assertive anger, and acceptance and agency) that aid in adaptive functioning. This study used the CAMS to examine changes in the quality of emotional processes during trauma narratives in early and late sessions of EFTT. It was expected that a shift from unproductive to productive affective processes over the course of therapy would be associated with resolution of abuse issues and reduction in trauma symptomology at therapy termination. It was also anticipated that the shift in affective processes would follow the sequence as presented in the CAMS. Results indicated a greater frequency of productive affective processes in late narratives; a greater frequency of productive processes was more predictive of treatment outcome compared to unproductive processes; and greater increase in the frequency of productive processes from early to late narratives significantly contributed to good treatment outcome. Findings also revealed a significant interaction between unproductive and productive affective processes in predicting treatment outcome. These findings are consistent with the proposed hypotheses of the present study. Finally, results indicated that clients were significantly more likely to follow the proposed sequence for lower level processes, which supports the hypothesis. However, results did not produce similarly significant results for higher levels. Rather

clients expressed higher levels of productive affective processes in late sessions that were not preceded by lower levels of processes in the proposed model. The findings have implications for guiding the therapeutic process in a productive manner that leads to trauma recovery.

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CHAPTER 1

INTRODUCTION

Objectives

The present study tested a model of change in emotional processes (Pascual-Leone & Greenberg, 2005) in early and late sessions of Emotion Focused Therapy for Trauma (EFTT; Paivio & Pascual-Leone, 2010).

Rationale for the Study

Complex trauma refers to recurrent actual or threat of violence, which typically has an interpersonal nature and often occurs in the context of childhood maltreatment (Paivio & Pascual-Leone, 2010). The lifetime prevalence of childhood abuse is disturbingly high in community and clinical populations, with rates being as high as 90% in specific diagnostic groups (Pilkington & Kremer, 1995; Scher, Forde, McQuaid, & Stein, 2004).

Repeated exposure to childhood maltreatment frequently results in a constellation of psychological disturbances, particularly disrupted narrative and affective processes. Affective disruptions may include chronic feelings of insecurity, worthlessness, shame, anger at violation, sadness at loss, and problems identifying, labelling, and regulating these feelings (under-regulation and avoidance/overcontrol). When traumatic events are unresolved, these processes are evident in client narratives about traumatic events. One of the primary focuses for EFTT is the emotional processing of trauma material by helping clients to access previously suppressed adaptive emotions (e.g., anger at violation, sadness at loss) so the associated meanings can be used to help modify maladaptive emotions such as fear and shame. Pascual-Leone and Greenberg (2005) have proposed a

model of emotional change processes during emotion-focused therapy, which is applicable to EFT specifically for trauma. This model is presented in Figure 1.

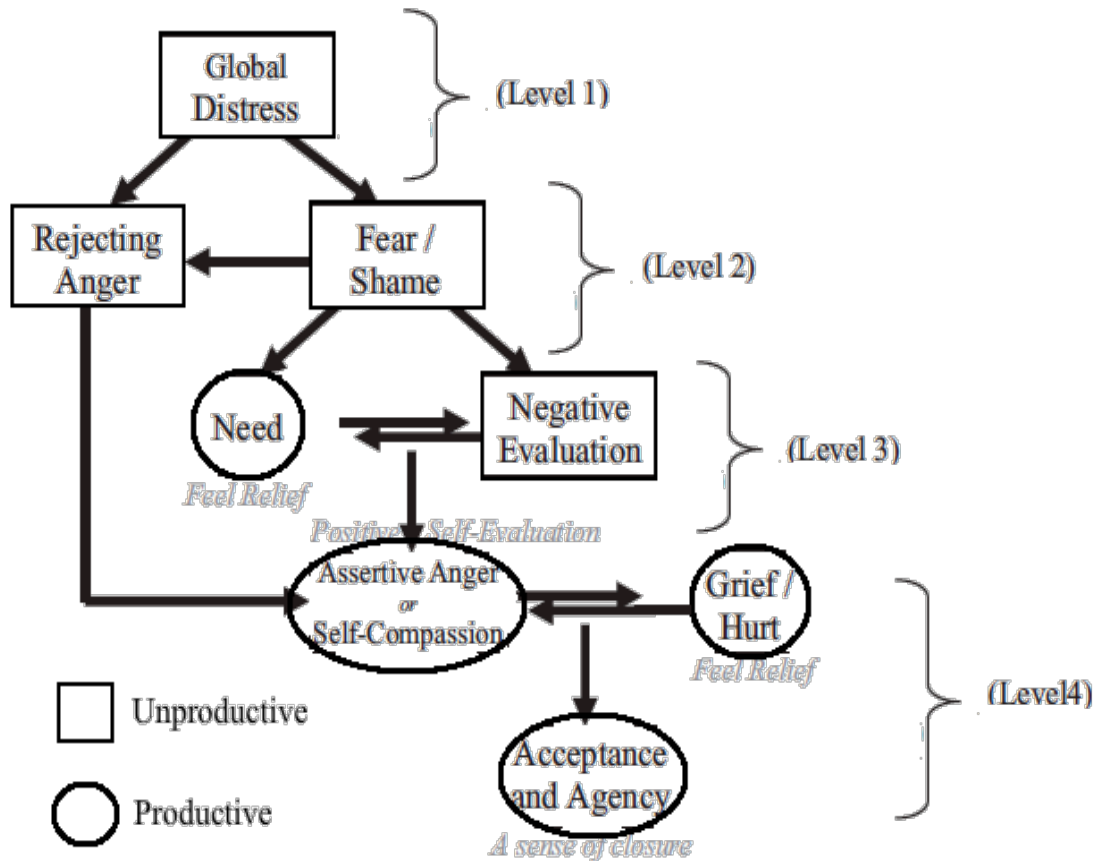


Figure 1. Rational/empirical model: A state-transition diagram for emotional processing. Modified from “Emotional Processing in Experiential Therapy: Why ‘the Only Way Out Is Through,’” by A. Pascual-Leone & L. S. Greenberg. *Journal of Consulting and Clinical Psychology*, 75, p. 877. Copyright 2007 by American Psychological Association.

The model of therapeutic change presented in Figure 1 above specifies a sequential shift from unproductive and maladaptive to productive and adaptive affective processes. The Classification of Affective Meaning States (CAMS; Pascual-Leone & Greenberg, 2005) is a transtheoretical, psychometrically sound measure that specifies the components in this model. The CAMS model proposes that clients initially experience Global Distress, which involves an aroused expression of emotional upset or distress that is undifferentiated and low in meaningfulness (level 1). Through the process of therapeutic exploration, global distress is differentiated into specific maladaptive emotions (level 2). These include Fear and Shame, which are characterized by deep personal pain and a pervasively negative view of oneself, and Rejecting Anger, which involves a sense of victimization rather than empowerment. The above levels are considered unproductive because they do not promote healthy functioning. In the process of therapy the meaning of the above affective processes are further explored which results in specific Negative Evaluations or beliefs about oneself (e.g., as weak or bad) and Existential Needs, wants, or desires (e.g., for confidence or self-esteem) (level 3). These are a higher level of processing because they involve a clear and specific symbolization of meaning, which can be explored and challenged, and motivation to get needs met. This understanding of meaning (e.g., causes and effects of negative self-evaluations) and unmet wants, desires, and needs allows for the emergence of productive affective processes that aid in adaptive functioning (level 4). Self-Compassion, involves clients reflexively attempting to meet their own needs, through self-care and nurturance. Assertive Anger is an empowered expression and assertion of personal boundaries, which unlike rejecting anger described above, is accompanied by a sense of strength and

confidence. Hurt and Grief involve the healthy and meaningful expression of sadness at loss or injury. Finally, Acceptance and Agency is characterized by resolution of issues, increased sense of personal agency or control, and looking toward the future.

The purpose of the present study is to use the CAMS to examine qualitative changes in emotional processes during in-session client trauma narratives over the course of EFTT. As such, it was expected that there will be a shift from unproductive to productive affective processes from early to late sessions, and the shift will be greater in cases with good outcomes. The study also tested the sequence of components specified in the model and measured by the CAMS.

Overview of the Literature Review

The literature review in the current manuscript initially focuses on defining child abuse trauma and its long-term psychological effects. Subsequently, it outlines various treatments for adult survivors of childhood abuse. Finally, it describes EFTT and supportive research, with a particular emphasis on emotional processing in therapy.

CHAPTER 2

REVIEW OF THE LITERATURE

Trauma

The definition of trauma, according to the Diagnostic and Statistical Manual of Mental Disorders (4th ed., Text Revision [DSM-IV-R]; American Psychiatric Association, 2000) includes exposure to actual or threatened death, serious injury, or threat to the physical integrity of self or others; and the person's reaction involves intense fear, helplessness, or horror. Additionally, the individual exhibits symptoms from three distinct clusters: re-experiencing, avoidance, and increased arousal. Re-experiencing of the traumatic event involves recurrent memories, traumatic nightmares, dissociative reactions, intense or prolonged distress, and physiological reactivity. The avoidance cluster includes the persistent and effortful avoidance of distressing thoughts, feelings, or external reminders that are related to the trauma, inability to recall significant aspects of the trauma, diminished interest in activities, feelings of detachment from others, restricted affect, and a sense of foreshortened future. Increased arousal includes sleeping disturbances, irritable or aggressive behaviour, concentration problems, hypervigilance, and exaggerated startle response.

The diagnostic criteria have been revised in Diagnostic and Statistical Manual of Mental Disorders (5th ed., [DSM-V]; American Psychiatric Association, 2013) to incorporate repeated exposure to aversive events, accompanied by one additional symptom cluster of negative cognitions and moods. This cluster includes negative beliefs and expectations, persistent distorted blame, negative emotions, as well as some of the symptoms that were previously included in the avoidance symptom cluster.

Traumatic events can be differentiated by using one of several categorical systems. Some experts propose a spectrum of traumatic experiences that include those defined in the DSM-IV as well as childhood experiences that involve rejection, humiliation, abandonment, and lack of attachment with the primary caregiver (Nebrosky, 2003; Shapiro & Maxfield, 2002). Exposure to trauma also has been differentiated in the literature based on type, severity, or breadth of effects resulting in two main categories (Pelcovitz, Kaplan, DeRosa, Mandel, & Slazinger, 2000; Scoboria, Ford, Hsio-ju, & Frisman, 2008; van der Kolk & McFarlane, 1996) described below.

Type I Trauma

Type I or simple trauma refers to a single event such as an accident, natural disaster, or an assault. Such an event has the potential to result in long-term disturbances as well as symptoms that are characteristic of Post-Traumatic Stress Disorder (PTSD). Notably, a single traumatic event may occur within a more complex environment (Paivio & Pascual-Leone, 2010). For example, a child might experience the suicide of a caregiver, as well as having been previously subjected to prolonged neglect due to the caregiver's mental health problems.

Type II Trauma

Type II or complex trauma refers to recurrent actual or threat of violence which is typically interpersonal in nature, including social or political violence, domestic violence, and childhood maltreatment. The present study primarily focuses on trauma resulting from childhood maltreatment. In such cases, it is common for victims to know their perpetrators, be subjected to ongoing abusive situations, and be further victimized by

societal shortcomings that may be present in mental health, judicial, and social support systems (Paivio & Pascual-Leone, 2010).

According to Paivio & Pscual-Leone (2010), traumatic experiences during childhood may occur at the hands of a caregiver leading to feelings of betrayal and violation that might interfere with normal development. Childhood maltreatment not only occurs at a critical age, but it is often recurrent in nature. Research shows that exposure to multiple traumatic events is much more common in comparison to the exposure of a single traumatic event. Additionally, individuals who develop PTSD symptoms and seek treatment are most likely to have experienced multiple childhood traumas (Resick, Nishith, & Griffin, 2003; van der Kolk, 2003).

Child Abuse Trauma

Several definitions of child maltreatment have been proposed in the literature, and most typically it is defined as non-accidental acts of commission that include physical and sexual abuse, and acts of omission that include neglect, which are perpetrated against children by an adult (Cahill, Kaminer, & Johnson, 1999; Dubowitz & Bennett, 2007). Bernstein and Fink (1998) distinguish between several types of childhood abuse. Physical abuse is defined as a bodily assault on a child resulting from an adult that poses a risk of or an actual injury. Sexual abuse refers to the occurrence of sexual contact between a child and an older person that may include coercion. However, sexual abuse frequently does not take place during threatening or violent conditions. Rather, abusers may misuse their authority or relation to the child, and the victim may recognize the presence of abuse only in retrospect. Additionally, sexual abuse includes a spectrum of inappropriate

activities, ranging from penetration to no physical contact (Finkelhor, 1990; Finkelhor, 1994).

The definition of emotional abuse is less clear in the literature, but it refers to instances of verbal assaults on a child by an adult, that may include the threat of physical violence, witnessing violence, or degrading the child's sense of self-worth (Bernstein & Fink, 1998; Paivio, Hall, Holowaty, Jellis, & Tran, 2001). Emotional neglect refers to the failure of caregivers to provide the child with basic psychological and emotional needs, and physical neglect refers to the failure of providing basic physical needs (Bernstein & Fink, 1998).

Prevalence of Childhood Abuse

There is wide variability in the prevalence estimates of childhood abuse. Differences in the definitions partly account for this variation, but even with identical definitions, variations are present across different regions in the world (Paivio & Cramer, 2004, Pilkington & Kremer, 1995). Another reason for variability in prevalence estimates is the methodology employed across studies. Retrospective self-reports of child abuse have been criticized as lacking accuracy compared to data obtained through prospective investigations (Halverson, 1988). However, recent literature shows that retrospective studies are worthwhile and claims that they lack reliability are exaggerated (Hardt & Rutter, 2004). Despite the variability in estimates, studies show that exposure to child abuse is common. Scher et al. (2004) reported that approximately 30% of women and 40% of men experienced some form of childhood maltreatment, and 13% experienced multiple forms of maltreatment.

A meta-analysis investigating the worldwide prevalence of child physical abuse was conducted, and the overall estimates indicate a rate of 0.3% in informant studies and 22.6% for self-report studies (Stoltenborgh, Bakermans-Kranenburg, van IJzendoorn, & Alink, 2013). This study found no variation in prevalence rates across genders, cultures, or geographic regions. Prevalence rates of child sexual abuse were reported to be at an overall rate of 11.8%, with significant differences across informant report studies (0.4%) and self-report studies (12.7%) (Stoltenborgh, van IJzendoorn, Euser, & Bakermans-Kranenburg, 2011). Few studies have investigated emotional abuse and neglect due to the lack of agreement in defining those less concrete forms of childhood maltreatment (Paivio & Cramer, 2004). However, a recent meta-analysis reported prevalence rates for emotional abuse of 0.3% for informant report studies and 36.3% for self-report studies (Stoltenborgh, Bakermans-Kranenburg, Alink, & van IJzendoorn, 2012). Another meta-analysis provided prevalence rate of 16.3% for physical neglect and 18.4% for emotional neglect. Research design factors contributed to significant variation in prevalence rates across studies (Stoltenborgh, Bakermans-Kranenburg, & van IJzendoorn, 2013).

Trocme et al. (2005) compared finding from the Canadian Incidence Study of Reported Child Abuse and Neglect (CIS-1998 to CIS-2003). Results revealed an increase in incidents of investigation by 86% and an increase in the rate of substantiated maltreatment by 152%. This dramatic increase may be the result of changes in the investigation of maltreatment and changes in procedures. There have been additional changes in the collection of data for the CIS-2008 where the risk of maltreatment was investigated as well as the incidence of maltreatment (Fallon et al., 2011). Results from the CIS-2008 show that there were 235,841 child maltreatment investigations in Canada

in 2008. Of those cases, 74% involved the investigation of an alleged incident, while 26% were assessments of the risk of future maltreatment. The most investigated form of childhood maltreatment was neglect at 26%, followed by physical abuse at 19%, exposure to intimate partner violence at 17%, emotional maltreatment at 7%, and sexual abuse at 4% (Fallon et al., 2012). In Ontario, the prevalence of child physical abuse was more frequently reported by males (33.7%) compared to females (28.2%) (MacMillan, Tanaka, Duku, Vaillancourt, & Boyle, 2013). In contrast, sexual abuse was more common among females (22.1%) than males (8.3%). No prevalence estimates for emotional abuse and neglect were provided in the MacMillan et al study. The high prevalence rates for childhood abuse highlight that this issue is widespread across the world and in Canada. Accordingly, it is essential to understand helpful treatment processes that address the difficulties experienced by survivors of childhood trauma.

Psychological Effects of Childhood Abuse

Exposure to a traumatic event does not necessarily lead to the development of psychological disturbance (Breslau et al., 1991; Kendall-Tackett, 1991). There are several protective factors that act as a buffer to the negative consequences of childhood maltreatment including, social support, emotional health, and academic achievement (Folger & Wright, 2013; Sperry & Widom, 2013; Tharp, DeGue, Valle, Brookmeyer, Massetti, & Matjasko, 2012). On the other hand, research indicates that an increase in psychological problems is associated with certain abuse characteristics including, frequency and duration of abuse, penetration, use of force, and close relationship to the perpetrator (Beitchman, Zucker, Hood, DaCosta, & Akman, 1991; Easton, Renner, & O'Leary, 2013).

Numerous studies show that childhood abuse is associated with physical as well as psychological and psychiatric problems. Pilkington and Kremer (1995) found high rates of childhood abuse in clinical samples, in general, and rates up to 90% among specific diagnostic groups. Min et al. (2013) found that individuals who reported at least one form of childhood maltreatment had an increased likelihood of having substance abuse problems and a chronic medical condition. Additionally, childhood maltreatment has been linked to PTSD, depression, suicidal ideation, poor academic performance, further sexual victimization, and body image problems (Brooke & Mussap, 2012; van der Kolk et al., 2005).

Symptoms that occur in the early aftermath of child abuse, such as behavioral, social, and academic problems (Beitchman et al., 1991; Finkelhor & Browne, 1986), frequently can be directly related to the exposure of trauma, but there is more ambiguity surrounding the causal link between child abuse and long-term problems. Nonetheless, the impact of childhood maltreatment may have a dramatic manifestation in adulthood, a phenomenon known as the “sleeper effect”. This may be due to the ability of an adult to understand childhood events more fully compared to a child, leading to the emergence of the full impact of childhood maltreatment (Beitchman, Zucker, Hood, DaCosta, Akman, & Cassavia, 1992).

Experts have agreed that the multiple symptoms experienced by survivors of prolonged and repeated trauma are not adequately reflected in the diagnostic formulation of PTSD (Cloitre, Stolbach, Herman, van der Kolk, Pynoos, Wang, & Petkova, 2009). Herman (1992b) first coined the term “disorders of extreme stress not otherwise specified

(DESNOS)”, more recently known as “complex PTSD” to describe this array of symptoms.

Herman (1992a) proposed that symptoms of complex PTSD are reflected in a number of interrelated areas of disturbance. Areas that were the focus of the present study include self-related and interpersonal problems, as well as affect regulation difficulties. These will be elaborated on in the following section. Related areas of disturbance include characterological and personality changes such as features of borderline personality disorder (Beitchman et al., 1992), which involves pervasive and long-standing difficulties in self, interpersonal relationships, and emotion regulation (American Psychiatric Association, 2013). Numerous studies show a link between exposure to traumatic events and the development of personality disorders, particularly borderline personality (Gaher, Hofman, Simons, & Hunsaker, 2013; van Dijke, Ford, van Son, Frank, & van der Hart, 2013). Herman also highlights the association between childhood maltreatment and vulnerability to revictimization in adulthood. This may be due to victimized children being forced out of their families into high-risk situations, and having no experience of positive relationships (Beitchman et al., 1992; Briere & Runtz, 1993; Finkelhor, 1979).

Attachment relationships are the context for a child developing a sense of self-as safe and worthwhile, others as trustworthy and dependable, and the capacity to regulate emotional experience (Bowlby, 1988; Gottman, 1997; Sroufe, 1996). Thus the long-term effects are thought to stem, not only from trauma exposure, but also from negative attachment relationships. Due to the strong association between childhood abuse and the long-term psychological effects, it is essential to examine the therapies that focus on

these issues. Thereby, the present study focused on examining the processes of treatment for complex trauma and the associated disturbances.

Self-Related Problems

Childhood maltreatment can contribute to problems in the sense of self such as, feelings of worthlessness, and low self-esteem, and distorted beliefs (Paivio & Pascual-Leone, 2010; van der Kolk et al., 2005). The negative experiences of victims of childhood abuse results in maladaptive self-perceptions, as children try to make sense of their maltreatment in the absence of social support. For instance, self-perceptions of helplessness may arise from a child's inability to defend itself from the perpetrator, and a self-perception of being inherently "bad" may be due to perceiving maltreatment as a form of punishment (Briere & Runtz, 1993). These self-related problems are comparable to the negative self-evaluation process (level 3) in the CAMS model (e.g. feeling unlovable, worthless; Pascual-Leone & Greenberg, 2005).

Interpersonal Problems

Abusive relationships in childhood may contribute to developing internal representations of interpersonal relationships that are carried into adulthood, which are characterized by a sense of powerlessness, lack of trust, and betrayal (Bowlby, 1988; Liem, O'Toole, & James, 1996; Paivio & Shimp, 1998). Victims often experience a sense of betrayal especially in cases where the child is dependent on the abuser as a provider (Finkelhor & Browne, 1986; Liem, O'Toole, & James, 1996). Additionally, childhood maltreatment predicts problems in social functioning including, inability to express their needs to others, victimization in future relationships, and lower parental self-efficacy

(Caldwell, Shaver, Li, & Minzenberg, 2011; Rellini, Zyolensky, & Reosenfield, 2012; van der Kolk et al., 2005).

Emotion Regulation Problems

Emotion regulation can be 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). Emotion regulation capabilities are believed to develop from the attachment bond between the child and their primary caregiver. Parental empathy is crucial in helping children develop the ability to regulate their own emotions by either dampening or intensifying them (Bowlby, 1988; Gottman, 1997). They also learn to recognize, label, describe, accept, and value their emotional experiences (Paivio & Laurent, 2001; Sroufe, 1995). In contrast, problems in emotion regulation often stem from parental empathic failures typical of abusive and neglectful environments. Both dysregulation and avoidance or overcontrol are problematic because emotions are a source of information (Paivio & Shimp, 1998) that is not available when emotions are overwhelming or inaccessible.

Childhood abuse may result in difficulties regulating intense and chronic feelings of fear, anger, sadness, and shame. Those overwhelming emotions can interfere with several areas of functioning including: learning, performance, interpersonal relations, and poor impulse control, and narrative processes. Adult survivors may continue to experience inappropriate triggers of automatic alarm reactions and intense emotions in situations that resemble past abusive experiences (Herman, 1992a; Paivio & Laurent, 2001). Pascual-Leone and Greenberg (2005) proposed comparable unproductive affective

processes in the CAMS model, which include global distress, fear/shame, and rejecting anger.

In terms of over-control, abused children learn to view emotional avoidance as essential to their survival and adaptation to their environments. Therefore, they attempt to manage their traumatic and painful experiences by employing strategies including, dissociation, disavowal, suppression, and overcontrol of emotions. Furthermore, chronic avoidance of emotional experience is related to difficulties in recognizing and describing emotional experiences, referred to as “alexithymia” (Herman, 1992a; Paivio & Laurent, 2001). Alexithymia, in turn, is associated with a host of psychological problems, including impaired narrative processes, self-injurious behaviours (Paivio & McCulloch, 2004; Swannell, Martin, Page, Hasking, Hazell, Taylor, & Protani, 2012), somatic symptoms (Gulec, Altintas, Inanc, Bezgin, Koca, & Gulec, 2013), borderline symptoms (Gaher, Hofman, Simons, & Hunsaker, 2013), and body image disorders (Franzoni et al., 2013).

Disrupted Narrative and Emotion Processes

In addition to the above long term effects, abundant literature supports the negative impact of trauma on narrative processes. These effects overlap with self, interpersonal, and emotion regulation difficulties described above. Traumatic events, by definition, involve intense emotional experiences and produce lasting and intrusive trauma memories. Those traumatic memories are comprised of sensations and affective states that often are not integrated into a coherent narrative (van der Kolk, Hopper & Osterman, 2001). Complex child abuse trauma in particular may have a significant negative effect on the quality of narratives in regards to the self and others.

Constructing personally meaningful stories and communicating them is a fundamental aspect of psychotherapy, particularly in EFTT (Angus, 2012). Pennebaker & Seagal (1999) have shown that helping clients replace problematic stories with newly constructed, meaningful, coherent, and emotionally integrated narratives is linked to positive treatment outcomes. In contrast, studies have shown that poor narrative processes are associated with increased trauma symptoms. Impoverished narratives are characterized as being incoherent, incomplete, fragmented, having disorganized temporal orientation, lacking insight, and do not refer to internal experiences (O’Kearney & Perrott, 2006). Trauma often occurs under extreme physiological arousal that affects the individual’s ability to process traumatic events effectively (Foa, Molnar, & Cashman, 1995). As such, focusing on the maladaptive emotional and narrative processes is the cornerstone of therapy for complex trauma

Research indicates that survivors of trauma who continue to be symptomatic and distressed can have difficulties in making sense of their traumatic experiences, due to memory gaps, and avoidance of traumatic memories (Foa, Molnar, & Cashman, 1995; Mundorf & Paivio, 2011). These individuals frequently provide impoverished narratives concerning self, others, and traumatic events. A review of the research (O’Kearney & Perrott, 2006) identified factors that characterize impoverished trauma narratives for adult survivors of repeated childhood maltreatment. For example, the narratives of untreated survivors were characterized by incoherence, that is, they tended to be fragmented and incomplete. As well, narratives of untreated adult survivors tended to focus on the past rather than present or future indicating a tendency to ruminate on past abusive events (Klein & Janoff-Bulman, 1996). Another indicator of poor narrative

quality was the description of the external details of events rather than using insight words and referring to internal experiences (Foa et al., 1995; Pennebaker & Francis, 1996). This is significant because the capacity to focus on internal experience has been strongly linked to emotional processing of trauma feelings and memories and recovery (Paivio & Pascual-Leone, 2010). Mundorf and Paivio (2011) similarly found that trauma narratives written before EFTT were characterized by low level experiencing, that is, limited attention to feelings and associated meanings. The inability to emotionally engage in therapy and the use of negative emotion words at the end of treatment also were indicators of poor narrative quality for clients who did not benefit from therapy (Foa et al., 1995).

Complex trauma has a significant effect on the quality of narratives in regards to the self and others. Accordingly, an essential component in the treatment of complex trauma involves creating coherent narratives, which adds meaning to the traumatic events, promotes an understanding of the self, which in turn, helps in regulating emotions (Paivio & Pascual-Leone, 2010). Boritz, Brytnwick, Angus, Greenberg, & Carpenter (2012) developed the Narrative-Emotion Process Coding System (NEPCS), which identifies markers of emotion and narrative processes that occur during therapy. A recent study by Carpenter (2012), established that productive narratives that focus on emotional awareness, reconstructing new self-identity, and characterized by being coherent and personally meaningful, were significantly associated with good outcome in EFTT.

Mendes et al. (2010) examined the narrative change processes in clients with depression and found significant differences between good and poor outcome groups in reconceptualization (i.e. comprehension about oneself and the process that fostered

transformation) and performing change (i.e. new ways of acting as a result of the change process). Another study by Moreira, Beutler, & Gonçalves (2008), which included patients with comorbid diagnoses of depression and substance use, examined the relationship between changes in patients' narratives and treatment outcomes. The results show significant difference between good and poor outcome cases in regards to change in narrative production over the course of therapy, specifically change in coherence, complexity and content diversity.

In terms of change in narrative processes in EFTT, the Mundorf and Paivio (2011) study referred to above has particular relevance to the present study. Mundorf and Paivio examined trauma narratives written before and after therapy for clients in the Paivio et al. (2010) RCT. Narrative quality was analyzed on several dimensions including valence of emotion words, temporal orientation, level of coherence, and depth of experiencing. In general, findings revealed that written narrative quality improved over the course of EFTT and changes in the quality of these written narratives were positively associated with reduction in trauma disturbances and abuse resolution. In particular, Mundorf and Paivio (2011) found that the quality of trauma narratives before and after EFTT predicted the level of psychological disturbance throughout the course of treatment. The presence of negative emotion words and depth of experiencing at pretreatment were associated with abuse resolution at post-treatment. Additionally, it was found that the proportion of negative emotion words did not change from pre- to post- treatment. However, a limitation in that study was that the types of negative emotions and the differentiation between adaptive and non-adaptive negative emotions were not examined. The present study is in part a follow up to and expansion of the Mundorf and Paivio (2011) study. The

present study examines the quality of in-session, rather than written, trauma narratives early and late in therapy and also distinguishes between different types of negative emotions.

Treatment Approaches for Complex Trauma

It is important to place EFTT, the treatment context for the present study, in the broader context of effective treatments for complex trauma. Despite the diversity of therapeutic techniques in the treatment of trauma, Herman's (1992a) stage model (i.e., establishment of safety, remembrance and mourning, reconnection to present life) is considered the "gold standard" and these features are common across approaches, including EFTT. Importantly, it has been established that accessing past painful experiences in the context of a safe therapeutic relationship can bring about positive change (Paivio & Pascual-Leone, 2010). Exploring trauma memories allows the victim to construct new meaning as well as process emotions that are connected to the traumatic event (Enosh & Buchbinder, 2005; Paivio & Laurent, 2001).

Additionally, despite an abundance of clinical wisdom in the area, only a handful of individual therapy approaches have been investigated empirically and most focus exclusively on female sexual abuse survivors. The most common of these are cognitive-behavioral approaches.

For example, cognitive processing therapy (CPT) focuses on challenging problematic cognitions (i.e. self-blame) and exposure in a safe environment (Cahill et al., 2009). Chard (2005) modified this approach for victims of child sexual abuse (CPT-SA), which adds components that focus on development, communication skills, and social support. Chard (2005) studied a sample of 71 women randomly assigned to either CPT-

AS (17 weeks of combined individual and group manual-based therapy) or a minimal attention wait-listed control group. Results showed significant clinical gains for the CPT-AS group on measures of PTSD, depression, and dissociation.

Another CBT approach for complex PTSD is skills affective training and interpersonal regulation (STAIR) followed by exposure (Cloitre et al., 2010). The STAIR component focuses on emotion regulation and interpersonal problems, and the exposure component involves narratives of childhood trauma. Cloitre et al. (2010) studied 104 women who had a PTSD diagnosis related to childhood sexual and physical abuse who were randomly assigned to a 16-session combined treatment of STAIR and exposure or two other treatment combinations (i.e. STAIR/Support and Exposure/Support). The findings revealed that the STAIR/Exposure combination was more effective in sustaining full remission in PTSD symptoms, had greater improvements in emotion regulation and interpersonal problems, and was associated with lower drop-out rates compared to the two other conditions (Cloitre et al., 2010).

Eye movement desensitization and reprocessing (EMDR) therapy is another commonly used approach to the treatment of complex PTSD. This approach is based on the assumption that unprocessed trauma memories need to be integrated into larger adaptive memory networks (Oren & Solomon, 2012). EMDR therapy begins with emotion regulation skills training, followed by standardized procedures for accessing traumatic memories while applying bilateral stimulation, such as tracking the therapist's finger by side-to-side eye movements (Spates, Koch, Cusack, Pagoto, & Waller, 2009; Oren & Solomon, 2012). Four meta-analyses found EMDR to be an effective treatment for trauma symptoms stemming from a variety of stressors, including child abuse, in

comparison to control conditions (Bradley, Greene, Russ, Dutra, & Westen, 2005; Davidson & Parker, 2001; Sack, Lempa, & Lamprecht, 2001; Van Etten & Taylor, 1998).

Unlike the CBT approaches that focus on skills training, interpersonal psychotherapy (IPT) focuses on interpreting maladaptive relationship patterns, and helps clients find new ways to understand and interact in relationships. This focus is particularly important because PTSD symptoms often result from interpersonal trauma and are linked to impairment in interpersonal functioning (Kudler et al., 2009). One study evaluated the effectiveness of IPT as a treatment for depression among women with sexual abuse histories (Talbot, Conwell, O'Hara, Stuart, Ward, Gamble, et al., 2005). A sample of 25 women was enrolled in a 16-session treatment. The results show significant improvement in depression and psychological functioning

Emotion-Focused Therapy for Complex Trauma (EFTT)

EFTT, the context for the present study, is a short-term (16 to 20 sessions), evidence-based experiential approach to the treatment of complex trauma (Paivio, & Nieuwenhuis, 2001; Paivio et al., 2010, Paivio & Pascual-Leone, 2010). While the approaches described above focus on female survivors with histories of sexual abuse trauma and with a PTSD diagnosis EFTT is the only published evidence-based individual therapy for both men and women with histories of various types of childhood maltreatment.

EFTT is based on the general model of emotion-focused therapy (Greenberg & Paivio, 1997) applied to complex trauma. Fundamental assumptions of the general model are that emotions are an adaptive orienting system and a source of information, and that attention to internal subjective experience (feelings and meanings) is the primary source

of new information (as opposed to skills training, challenging maladaptive cognitions, or interpretations). EFTT also integrates theory and research in the areas of attachment and trauma that were outlined in earlier sections of this manuscript. (Bowlby, 1988; Gottman, 1997; Herman, 1992b).

The EFTT Model

EFTT shares features with other treatments for complex trauma. Most importantly, common features include promoting a safe environment for the client that facilitates the process of exploring trauma material, emotional processing and exposure to access trauma feelings and memories and produce desirable changes, and addressing self and interpersonal difficulties. Although EFTT addresses current difficulties, therapy emphasizes resolving issues with particular perpetrators of abuse and neglect, usually attachment figures. It is thought that adult survivors continue to be disturbed by negative feelings and memories as well as unmet needs concerning these specific others. EFTT is uniquely based on a refined rational-empirical model that specifies steps in the process of resolving past relational issues (“unfinished business”) using a Gestalt-derived empty-chair intervention (Greenberg & Foerster, 1997). Steps that discriminated clients who resolved issues from those who did not included expression of previously inhibited adaptive emotion (anger, sadness), entitlement to unmet needs, increased self-empowerment and self-affiliation, a more differentiated perspective of the significant other, and holding them accountable for harm. This model was modified to meet the needs of clients dealing specifically with child abuse issues (Paivio & Nieuwenhuis, 2001). Modifications include an explicit emphasis on reducing self-related difficulties

such as fear, avoidance, and shame; and reframing the empty-chair intervention in terms of “imaginal confrontation” to emphasize both interpersonal and exposure processes.

Mechanisms of Change

EFTT proposes two main mechanisms of change, which are the therapeutic relationship and emotional processing of trauma memories. Providing a safe and collaborative therapeutic relationship serves two important functions in EFTT. First, it facilitates the client’s ability to access and re-experience painful traumatic memories. Second, it provides a corrective emotional experience that helps to counteract the empathic failures experienced through previous relationships with attachment figures (Paivio & Pascual-Leone, 2010).

Emotional processing of traumatic memories involves a number of sub-processes identified by Greenberg & Pascual-Leone (2006) but most importantly, emotional processing in EFTT involves the process of emotional transformation, that is, changing emotion with emotion. Accordingly, maladaptive emotions, such as fear and shame, are modified by accessing previously avoided adaptive emotion, such as anger and sadness, and associated adaptive meaning. For example, feelings of shame towards the self are transformed to feelings of anger towards the perpetrator.

EFTT Interventions

The primary interventions employed throughout EFTT are advanced empathic responding and promoting experiencing. Empathic responding facilitates emotional processing of trauma material, by helping to modulate the level of arousal and increasing awareness of emotional experiences (Paivio & Laurent, 2001). Promoting experiencing refers to attending to and exploring internal feelings and meanings and constructing new

meaning in the process (Gendlin, 1996; Klein et al., 1969). Advanced empathic responding and promoting experiencing are the basis of all procedures used in EFTT, including exposure-based procedures (Paivio & Pascual-Leone, 2010).

Phases of EFTT

The four phases of EFTT include (1) cultivating the therapeutic alliance, (2) reducing self-related difficulties, such as fear and shame, (3) resolving trauma and attachment injuries, and (4) termination. Notably, EFTT is not a stage-based treatment, but certain processes are more prominent during specific phases of treatment (Paivio & Pascual-Leone, 2010).

The first phase of therapy is comprised of the first four sessions. The focus is on establishing a secure therapeutic relationship and collaborating on treatment goals and tasks. The client is encouraged to disclose trauma material, sometimes for the first time, and is provided with a rationale for how future re-experiencing will facilitate resolution and reduce symptoms. Additionally, re-experiencing procedures involving imaginal confrontation of perpetrators and in-depth exploration of trauma issues are introduced in session four. Throughout this initial phase of therapy, the therapist attends to the quality of client trauma narratives, monitors their emotional regulation abilities, ability to explore trauma material and engage in the interventions, and identifies emotional processing difficulties that become the focus of future intervention (Paivio & Pascual-Leone, 2010). As predicted in the present study, clients would express lower levels of affective processes in early sessions (i.e. Global Distress, Fear/Shame, Rejecting Anger) that require further exploration.

The second phase focuses on reducing self-related difficulties that emerged in phase one. Difficulties such as avoidance of emotions, dissociation, fear, shame, guilt, and self-criticism, with a core sense of the self as weak and defective are obstacles to reaching resolution of attachment injuries. In addition re-experiencing procedures, interventions used in this phase, such as Gestalt-derived two-chair dialogues, experiential focusing, and memory work target these self-related problems. (Paivio & Pascual-Leone, 2010).

The third phase focuses on resolution of issues with perpetrators. By reducing self-related difficulties in the previous phase, clients are better equipped to imaginably confront abusive and neglectful others and express adaptive emotions (e.g., assertive anger, sadness, grief) and associated meanings that have been blocked in earlier phases. One important aspect of this intervention is to encourage the client to be assertive with the imagined other about their entitlement to unmet needs and hold them accountable for being traumatized. As proposed in this study, clients would transition into higher levels of affective processes in the CAMS model of change (i.e. Assertive Anger, Hurt/Grief, Acceptance & Agency) during later sessions.

The focus of the fourth phase is termination and consolidating the changes that occurred throughout therapy and termination. Ideally the quality of trauma narratives has shifted so that clients are able to fully express assertive anger, grieve losses, and experience greater sense of acceptance and agency. This shift in trauma narrative quality from early to late sessions was the focus of the present study. Finally, the client and therapist discuss the experience of therapy, such as difficulties and helpful events, and explore future plans and goals (Paivio & Pascual-Leone, 2010).

Research Supporting EFTT

Background Development of EFTT

Paivio and Greenberg (1995) examined the efficacy of 12 sessions of individual experiential therapy using a Gestalt empty-chair dialogue for “unfinished business” in comparison to a psycho-education group. Therapy was based on the empirically verified model of the process of resolving unfinished business that was described in an earlier section of this manuscript (Greenberg & Foerster, 1996). A sample of 34 clients was included in the study ($n = 17$ each group). Clients were evaluated before and after treatment as well as at two follow-up points. Evaluations targeted symptomology, interpersonal difficulties, target complaints, and resolution of unfinished business. Results from the study showed that clients in the experiential therapy condition reported significantly greater improvements in comparison to the psycho-education group on all areas.

Paivio and Pascual-Leone (2010) conducted subsequent analyses and examined the in-session process for a subset of clients ($n=4$), who focused on childhood abuse. Observations indicated notable differences in terms of processes in this subgroup compared to clients with no history of childhood abuse -- they had more difficulties engaging in the empty-chair procedure, exhibited more fear and avoidance of confronting perpetrators and trauma memories and more shame, and did not necessarily exhibit reduced hostility toward perpetrators at the end of therapy. These observations lead to the development of EFTT designed specifically for child abuse trauma.

Outcome. Paivio and Nieuwenhuis (2001) examined the efficacy of EFTT. The study included 32 clients and they were assigned to either immediate or delayed

treatment conditions. Clients who immediately received EFTT showed significant improvement post treatment and at nine month follow-up in several areas of disturbance (i.e. symptomology, target complaints related to abuse, interpersonal difficulties, and self-affiliation). In contrast, clients showed minimal improvement during the wait period, but after receiving EFTT showed comparable improvements to the immediate therapy condition.

A more recent clinical trial examined the efficacy of two versions of EFTT (Paivio et al., 2010). Clients were randomly assigned to one of two treatment conditions each using a different re-experiencing procedure -- imaginal confrontation of perpetrators (n=20) or empathic exploration (n=25) of trauma issues exclusively in interaction with the therapist. Results indicated significant improvements in symptomology, interpersonal difficulties, and resolution of abuse issues for both treatment conditions and no significant differences between the two treatment conditions in terms of outcome. Data for the present study was drawn from this sample.

Processes. Several process studies have supported the posited mechanisms of change in EFTT. Paivio and Patterson (1999) examined the effect of different types of childhood abuse on the therapeutic alliance and treatment outcome. The study included 33 clients who were included in the Paivio & Nieuwenhuis (2001) outcome study described above. Findings revealed that certain types of abuse interfered with alliance quality early in therapy, but those difficulties dissipated over the course of treatment and did not influence treatment outcome. Furthermore, the quality of therapeutic alliance was associated with several treatment outcomes including reduced symptoms of distress and resolution of issues with abusive/neglectful others.

Several studies have found a positive association between emotional arousal and depth of experiencing during re-experiencing procedures and therapeutic outcomes in EFTT. For example, Holowaty and Paivio (2012) found that clients in Paivio & Nieuwenhuis (2001) study identified events with higher emotional arousal as more helpful in comparison to control events. Robichaud (2004) found that depth of experiencing during early sessions predicted outcome for the same clients. Ralston (2006) examined processes for clients in the Paivio et al (2010) RCT and found that arousal during re-experiencing procedures predicted outcome in EFTT.

Emotional engagement with trauma material during re-experiencing procedures also was associated with positive outcomes in EFTT. Paivio et al. (2001) define engagement as including three main aspects: psychological contact with the imagined other, willing participation in the intervention, and expressing emotions. Research results indicated that higher quality engagement was associated with greater resolution of abuse issues, reduction in symptoms, and decreased interpersonal problems (Paivio et al., 2001). Additionally, lower levels of client engagement were associated with higher dropout rates (Paivio et al., 2001). A more recent study also found that emotional engagement during the different re-experiencing procedures used in EFTT predicted outcome (Chagigiorgis, 2010).

Emotional Change Processes

Most therapeutic traditions have recognized the importance of emotion in therapeutic change. Psychodynamic approaches have used the term “corrective emotional experience” to refer to experiencing a new ending for old and unsettled conflicts (Alexander & French, 1980). Behavioral and cognitive behavioral approaches use the

term “emotional processing” to refer to activating fear related memories so that they are available for modification, while also helping the client tolerate the distressing feelings (Foa & Kozak, 1986). Experiential and emotion-focused approaches to therapy have always recognized the central importance of feelings and meanings in therapeutic change.

Greenberg and Paivio (1997) developed a model of emotional processing or change that delineates the process of transforming maladaptive emotions, such as fear and shame) into adaptive ones (such as assertive anger, sadness and grief) in emotion focused therapy. More recently, Pascual-Leone and Greenberg (2007) developed a revised version of this emotional processing model and developed a measure to assess components of the model, or affective meaning states. They conducted an initial exploratory qualitative analysis with a sample of six clients, and subsequently tested the model with a sample of 34 clients who were undergoing experiential therapy for depression and interpersonal difficulties.

Findings from the first study by Pascual-Leone and Greenberg (2007) distinguished undifferentiated and maladaptive emotions (i.e. global distress, fear, shame, and aggressive anger) from more advanced and processed emotions or emotional meaning states (i.e. assertive anger, self-compassion, hurt, and grief). Moreover, the study resulted in a model (presented in Figure 1) that highlighted the importance of meaning making (i.e., expressing unmet needs and negative self-evaluations associated with emotions such as fear and shame) in facilitating the shift from maladaptive insufficiently processed emotions to adaptive emotional processing levels. The second study by Pascual-Leone and Greenberg (2007) compared clients with good versus poor treatment outcomes. Findings revealed that good outcome clients were significantly more

likely to exhibit positive in-session affects and reach more advanced levels of emotional processing compared to poor outcome clients, which verified the model. Pascual-Leone and Greenberg (2005) specify the criteria for each affective process in the CAMS measure.

Since the verification of this model, numerous studies have used the CAMS to assess emotional change processes in various therapeutic approaches (Kramer, Pascual-Leone, Despland, & de Roten, 2014; McNally, Timulak, & Greenberg, 2014; Pascual-Leone, 2009; Pascual-Leone & Greenberg, 2005). The present study used the CAMS to test the model of emotional change processes in EFTT. In particular, this study examined change in in-session emotional processes during trauma narratives early and late in EFTT.

The Present Study

In summary, there is a high prevalence of childhood abuse and neglect in community and clinical samples (Pilkington & Kremer, 1995; Scher et al., 2004). Exposure to childhood trauma has been associated with the development of a number of psychological disturbances in adulthood (Brooke & Mussap, 2012), including disruptions in narrative and emotion processes. Ample theory and research supports the importance of re-experiencing and emotional processing of traumatic memories in client change (Breuer & Freud, 1950; Foa & Kozak, 1986; Fonagy & Target, 2000; Pascual-Leone, 2009; Pascual-Leone & Greenberg, 2007). EFTT, which is an effective treatment for complex trauma, focuses on emotional processing of trauma material during therapy (Greenberg & Pascual-Leone, 2006; Paivio & Pascual-Leone, 2010). As noted in earlier sections of this manuscript, abundant literature supports the negative effects of traumatic

events on narrative and examining the quality of emotional processes specifically during trauma narratives is particularly relevant to understanding trauma recovery.

The present study tested a theoretical model of emotional change processes (Pascual-Leone & Greenberg, 2005) in EFTT. This theoretical model, shown in Figure 1, specifies a sequential shift from unproductive (i.e. undifferentiated, maladaptive) to productive emotional states (i.e. advanced, adaptive). The Classification of Affective Meaning States (CAMS; Pascual-Leone & Greenberg, 2005), a psychometrically sound measure of the theoretical model, was used to assess client in-session emotional processes during trauma narratives early and late in therapy. Overall, it was expected that better outcome cases in EFTT are characterized by a sequential shift that starts off with global distress, to specific maladaptive emotional processes (i.e., fear/shame and rejecting anger), through expressing the meaning associated with these emotions (i.e., unmet needs and negative self-evaluations), to the emergence and more expressions of adaptive emotional processes (e.g. assertive anger, hurt/grief, and acceptance and agency).

Hypotheses

1. Hypothesis 1: Productive affective processes of the CAMS will be more present during trauma narratives in late sessions than in early sessions.
2. Hypothesis 2: Productive affective processes of the CAMS will be more present during trauma narratives in good outcome cases than in poor outcome cases.
3. Hypothesis 3: A greater change from unproductive to productive affective processes of the CAMS from early to late trauma narratives will be present in good outcome cases than in poor outcome cases.

4. Hypothesis 4: The qualitative changes in affective processes during trauma narratives will follow the sequential shift proposed in the CAMS model.

CHAPTER 3

METHOD

The present study used archival data collected between 2002 and 2006 as part of an EFTT research study that was conducted in the psychology department at the University of Windsor (Paivio et al., 2010). The collected data consist of self-report measures and videotaped therapy sessions for clients who completed EFTT. All clients provided their written consent that indicated that they understood the risks, benefits, and rights for participating in the research study (Appendix A). Clients provided written consent that they might be randomly assigned to wait for therapy and research participation (Appendix B). Clients also consented for therapy sessions to be audio and video taped, and that the tapes will be retained for research purposes after the completion of therapy (Appendix C). The original outcome study (Paivio et al., 2010) was approved by the University of Windsor Research Ethics Board.

Recruitment

The following sections describe procedures reported by Paivio et al (2010). Participants were recruited through newspaper features and advertisements, posters placed in public institutions, letters to medical and mental health professionals, and word-of-mouth. The study was described as offering free psychotherapy for adult survivors of childhood abuse and neglect in exchange for research participation (Appendix D).

Screening and Selection

Telephone screenings and selection interviews were conducted by trained clinical psychology graduate students to assess participants' suitability for the EFTT research study. A total of 163 participants underwent an initial telephone screening (Appendix E)

which included description of childhood abuse experiences that will be the focus of therapy, and assessment of whether individuals meet the initial inclusion and exclusion criteria specified in the following section.

Individuals who met initial screening criteria were scheduled for an in-person semi-structured selection interview (Appendix F). The interview involved a detailed assessment of the presenting problem, abuse history, past and current relationship qualities, history of physical and mental health, level of functioning using the Global Assessment of Functioning Scale (GAF; DSM-IV, American Psychiatric Association, 1994), and symptoms of PTSD using the PTSD Symptom Severity Interview (PSSI; Foa, Riggs, Dancu, & Rothbaum, 1993). A total of 56 clients were randomly assigned one of two treatment conditions, each involving a different re-experiencing procedure, and 46 clients completed treatment.

Inclusion and Exclusion Criteria

Individuals were excluded if they were younger than 18 years of age, currently were receiving other therapy, dosage change of psychoactive medication in the past two months, currently had a substance abuse problem, currently involved in an abusive relationship, had a diagnosis of a psychiatric disorder (i.e. schizophrenia, bipolar disorder, eating disorder, obsessive-compulsive disorder, or dissociative disorder), were in a crisis that required immediate attention, were at risk for suicide, or had no conscious recollections of past childhood abuse.

Inclusion criteria were based on suitability factors for short-term therapy, which include motivation, ability to form a therapeutic alliance, and willingness to focus on the past childhood abuse issues (Beutler, Clarkin, & Bongar, 2000). In addition to having a

history of childhood abuse, individuals were included if they continue to experience unresolved feelings towards the abusive others.

Client Characteristics

Paivio et al., (2010) reported that clients in the original outcome study were predominantly female (53.3%), Caucasian (88.9%), married (48.9%), with children ($M=2.07$; $SD=1.94$), had post-secondary education (75.6%), employed (71.1%), with a household income above \$40,000 per year (57.8%), and a mean age of 45.6 years ($SD=13$). The majority of clients (69%) reported multiple forms of childhood maltreatment, but they were requested to identify only one type to be the focus of therapy. The focus of therapy, as identified by clients, was comprised as follows: sexual abuse (55.6%), emotional abuse (22.2%), physical abuse (13.3%), and emotional neglect (8.9%). Therapy was primarily focused on the unresolved issues towards the specified abusive and neglectful others. The identified perpetrators were fathers or paternal figures (44.5%), mothers (31.3%), brothers (4.4%), other relatives (6.7%), and non-relatives (13.3%).

The Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998), which is a measure that assesses the extent of different types of abuse and neglect, showed scores that were classified as severe. The majority of clients (62.2%) met criteria for PTSD as assessed by the PSSI (Foa, et al., 1993), and 33% of clients met criteria for personality pathology as assessed by the PDQ-4 (Hyler, 1994) and clinical judgment.

Therapy

Therapy consisted of 16 to 20 weekly one-hour sessions of EFTT. As outlined previously, the primary tasks of therapy include establishing a good therapeutic alliance,

reducing self-related difficulties, resolving issues with perpetrators, and termination. There were two versions of EFTT and each involved a different re-experiencing procedure -- imaginal confrontation of perpetrators in an empty chair and empathic exploration of trauma material in interaction with the therapist.

Therapists

Eleven therapists saw the clients who participated in the study (Paivio et al., 2010). The therapists included seven females and four males, with ages ranging from 27 to 57 years. There was one master's level student, six doctoral level students in clinical psychology, and four clinical psychologists who were also faculty members in the Psychology Department. All therapists had previous clinical experience with clients who have a trauma history. In addition, they participated in approximately 54 hours of EFTT training by Dr. Paivio, and each therapist saw between two and eight clients. Therapy was conducted at a clinic in the Psychology Department. Throughout the study, weekly individual supervision and team meetings were held, which involved review of therapy videos and providing supervision by Dr. Paivio.

Measures

Client Characteristics

Measures of client characteristics are those used in the original Paivio et al (2010) outcome study and reflect features typical of this client group. Those pre-treatment measures were used for the purpose of describing the sample, and were not included in the final analyses.

Demographic Questionnaire. General demographics information was collected about all clients. The questionnaire included questions about age, gender, marital status,

number of children, years of education completed, employment, occupation, annual household income, previous counseling/therapy, and ethnicity (Appendix G)

Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998). The CTQ is a 28-item retrospective measure that assesses the frequency of occurrence and severity of different types of abuse and neglect. Clients rate items on a 6-point Likert scale (0 = never true, 5 = very often true). The scale provides an overall score and subscale scores for three types of abuse (emotional, physical, and sexual) and two types of neglect (emotional and physical; Appendix H). The internal consistency for this measure is reported to be ranging from .79 to .95, and the test-retest reliability after 3.6 months ranging between .80 and .88 (Bernstein & Fink, 1998). The internal consistency for the data used in this study is reported to be an alpha value of .89 (Hall, 2008).

Personality Diagnostic Questionnaire-Fourth Edition (PDQ-4; Hyler, 1994). The PDQ is a 99-item true/false questionnaire. This measure screens for the presence of personality pathology according to the DSM-IV criteria for 12 distinct personality disorders. An overall score over 50 is an indication of the likelihood that personality pathology is present (Appendix I). Fossati et al. (1998) reported a range from .46 to .74 for internal consistency, and a range from .20 to .40 for correlations with semi-structured interviews. The internal consistency for the data used in this study is reported to be an alpha value of .82 (Hall, 2008). In the present study, clients with total scores over 50 were classified as having personality pathology. There was 71.7% agreement in the diagnosis of personality disorder based on clinical judgment and as identified by the PDQ-4.

PTSD Symptom Severity Interview (PSSI; Foa et al., 1993). The PSSI is a 17-item semi structured interview that corresponds with PTSD criteria in the DSM-IV. The interviewer rates symptoms severity over the preceding two weeks on a 4-point Likert scale (0 = not at all, 3 = very much). The PSSI provides an overall score of severity and subscale scores on avoidance, arousal, and reexperiencing (Appendix J). The internal consistency is reported to be ranging from .69 to .85, the test-retest reliability over one month period ranging from .66 to .77, inter rater reliability of 95%, and significant correlations between the PSSI and other measures of distress (Foa et al., 1993). The internal consistency for the data used in this study is reported to have a value of .88 (Hall, 2008). In the present study, clients were identified as meeting criteria for PTSD based on the total severity score.

Outcome

Several outcome measures were administered in the original Paivio et al. (2010) outcome study including, the Impact of Events Scale (IES; Horowitz, 1986), State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, & Lushene, 1970), Beck Depression Inventory-II (BDI-II; Beck, Brown, & Steer, 1996), Target Complaints (Discomfort) Scale (TCD; Battle et al., 1966), Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1989), Inventory of Interpersonal Problems (IIP; Horowitz, Rosenberg, Baer, Uren˜o, & Villasen˜or, 1988), Resolution Scale (RS; Singh, 1994). Outcome measures that were used in the present study are a subset of those administered in the original Paivio et al (2010) outcome study. These measures are selected because they reflect the primary foci of therapy, which is trauma and abuse resolution.

Impact of Event Scale (IES; Horowitz, 1986). The IES is a 15-item measure that assesses symptoms of intrusion and avoidance in relation to trauma. Clients rate items on a 4-point Likert scale (0 = not at all, 3 = often experienced) the frequency of experiencing the specified symptoms during the preceding week. The IES yields a total score of distress, two additional subscales for intrusion and avoidance (Appendix K). The internal consistency for this measure is reported to range from .79 to .92 (Corcoran & Fischer, 1994). Hall (2008) reported the internal consistency for the data used in this study to have an alpha value of .86.

Resolution Scale (RS; Singh, 1994). The RS is comprised of 11 items that assesses the degree of resolution in regards to past childhood maltreatment and issues towards abusive and neglectful others. Clients rate items on a 6-point Likert scale (0 = not at all, 5 = very much; Appendix L). The test-retest reliability over one month ranges between .73 and .81, and high correlations were found between changes on the RS and other outcomes measures (Singh, 1994). The alpha reliability, as reported in an EFTT sample ($n = 51$), was .82 (Paivio et al., 2001). In the present study, clients completed two RS questionnaires, one for the primary perpetrator and another for a secondary other usually a neglectful mother. The average of the two RS scores were analyzed to obtain an indication of the overall degree of resolution.

Processes

The main process measure that was used in this study is the Classification of Affective Meaning States (CAMS; Pascual-Leone & Greenberg, 2005).

Classification of Affective Meaning States (CAMS; Pascual-Leone & Greenberg, 2005). The CAMS is a nominal measure for coding in-session emotional states. It is

comprised of 12 codes each representing a distinct affective process and they include Global Distress, Specific Maladaptive Fear or Shame, Generic Rejecting Anger, Negative Evaluation, Existential Need, Specific Self-Compassion, Specific and Adaptive Assertive Anger, Specific Adaptive Grief or Hurt, Relief, Acceptance and Agency, Mixed/Uncodable, and End Code. Figure 1 outlines nine of the twelve affective processes. The remainder three codes were not included in the CAMS model because the “Relief” code is not a necessary step for clients to reach resolution, the “Mixed/Uncodable” represents the absence of a clear and distinct affective process, and “End Code” indicates the end of the episode selected for coding. The twelve codes are categorized into two variables; ten of the codes comprise the first variable and the remainder two (i.e. Negative Evaluation and Existential Need) comprise the second variable. Each segment is coded for the presence or absence of one of the affective processes specified above, and only one code from each variable can be given to each segment. Coding each affective process involves an evaluation on five criteria that address three distinct aspects. The first aspect refers to the emotional tone and it includes the criterion of emotion words and action tendency, which refers to client’s type of self-organization. The second aspect is involvement and it includes the two subsequent criteria of expression (i.e. non-verbal behaviours, emotional arousal) and vocal quality (i.e. internally focused voice that does not appear to be rehearsed). The third aspect refers to meaning and it includes the criteria of stance or adaptivity, which refers to the presence of some aspect of meaning differentiation, and specificity, which refers to the degree that meaning is integrated towards a healthy end (Appendix M). Pascual-Leone & Greenberg (2007) reported the agreement on the sequential ordering of the codes was reliable

(Cohen's $K = .91$). Agreement level that is more than .75 is considered excellent and above chance (Fleiss, 1981).

Procedure

Client Selection

The present study analyzed emotional processes for a sample of 46 clients from the original outcome study (Paivio et al., 2010). Since there were no significant differences in terms of pre-treatment characteristics and outcome for clients in the two treatment conditions (Paivio et al., 2010) these data were combined for present analyses. However, only clients with similar content of trauma narratives in early and late sessions were included in the present study, and client selection was based on episode selection. Trauma narratives were considered similar if they are comprised of similar type of childhood maltreatment and caused by the same perpetrator, but they can be distinct incidents.

Episode Selection

The selection of episodes for each client has significant importance, as they need to be reflective of the intended content. Initial selection of tapes in the present study included the earliest and latest possible sessions with substantial trauma narratives, that is adequate and detailed description of trauma and not superficial. Identifying the specified sessions was based on the following procedure: (1) The earliest and latest three sessions' therapist process notes were examined for the presence of trauma content in consecutive order. (2) Once trauma content is identified, the early and late sessions were compared for having similar content. (3) Subsequently, the videotapes of the specified sessions

were reviewed for confirmation of the presence of trauma content. Episode selection was done in a manner that is blind to treatment outcome.

Markers for the beginning of trauma narratives include description of traumatic events, reference to perpetrators, and unresolved feelings in regards to trauma. Markers that signify the ending of trauma narratives include a clear change in topic, diverging away from the traumatic event, therapist interjection, and inaudibility. Additionally, agreement between the two raters in regards to the beginning and ending of each trauma narrative ensured the reliability of episode selection, and any disagreements were resolved through discussion (Goldman et al., 2005; Pos et al., 2003).

Training of Raters

Raters for this study were two doctoral level students in clinical psychology. An expert on the CAMS (Dr. Antonio Pascual-Leone) trained both raters in use of this measure. The CAMS manual was utilized during the training process using the data from Paivio et al. (2001), and additional guidelines and rules were created to facilitate reaching adequate inter-rater reliability between raters. Specifically, (1) if the rater was not sure of the affective process, then it was coded as uncodeable; (2) the client did not have to repeat the context of their emotion in every minute, the code could be maintained if there was no apparent shift; (3) the affective process had to be central and present, not merely mentioned; (4) if the therapist stated something and the client agreed and elaborated, then what the therapist stated was coded; (5) client mere descriptions of past experiences were not coded, rather clients should show current emotions in reference to past experiences. The two raters initially rated sessions together until they shared a common understanding of the measure. Subsequently, they rated sessions separately and compared ratings until

adequate reliability was established (Cohen's kappa = .87). The tapes used during training were part of a separate dataset and were not included in the present study. Dr. Pascual-Leone was available for consultation throughout the rating process.

Rating of Episodes

Ratings of episodes that were included in the present study commenced once inter-rater reliability of at least .80 was established. The principal researcher (UK) rated all episodes and second rater rated one third of the episodes in order to establish reliability. Both raters rated episodes independently and discussed ratings immediately following the rating of each episode in order to control for rater drift. Episodes were rated in one-minute segments, and this decision was based on the observation in previous research that one-minute segments are representative of emotional processes during therapy using the CAMS measure (Kramer et al., 2014; Kramer, Pascual-Leone, Despland, & de Roten, 2015).

Data Analysis

The present study examined changes in the quality of emotional processes in trauma narratives in early and late sessions for good versus poor outcome cases of EFTT. Accordingly, the predictor variables are the affective processes on the CAMS, which are measured by the frequency of occurrence using one-minute units, in early and late sessions for both outcome groups. The affective processes of the CAMS were categorized into four levels: (1) Global Distress, (2) Fear/Shame, and Rejecting Anger, (3) Negative Evaluation, and Existential Need, (4) Hurt/Grief, Self-Compassion, Assertive Anger, and Acceptance & Agency. The processes were also categorized into Unproductive, which included Global Distress, Fear/Shame, Rejecting Anger, and Negative Evaluation, and

Productive processes, which included Existential Need, Hurt/Grief, Self-Compassion, Assertive Anger, Relief, Acceptance & Agency. In sum, the analyses were conducted on the same data that was aggregated in three different ways.

The criteria used to assess clinically significant change (CSC) were standard criteria specified by Jacobson and Truax (1991) and commonly used in psychotherapy research. These included published clinical cutoff scores for distress on each measure as well as the reliable change index (RCI), which refers to change in pre-post scores that are greater than the normal fluctuations on the measures. These criteria for CSC were reported in the original outcome study (Paivio et al., 2010) and were as follows; IES at post-treatment < 18.10 and pre-post difference > 2.4 , and RS at post-treatment < 26.40 and pre-post difference > 3.11 . Specifically, in the present study, poor outcome cases are those that did not meet criteria for CSC on either one or both outcome measures and therefore were considered clinically unchanged, while good outcome cases are those that met CSC criteria on both measures and therefore were considered recovered.

Statistical analyses for examining each of the hypotheses were conducted as follows: First, non-parametric tests for two related samples – Wilcoxon signed rank sum test was conducted to examine the change in affective processes from early to late sessions. Second, binary logistic regression was conducted to examine processes on the CAMS as a predictor for treatment outcome. Third, binary logistic regression was also conducted to examine the changes in processes from early to late sessions as a predictor for treatment outcome.

Finally, it was proposed that the qualitative changes in affective processes will follow the sequence presented in the CAMS model in early and later sessions and for

good and poor outcome cases. Processes were categorized into the four sequential levels described above, and it was expected that higher level processes should be preceded by lower level ones. Accordingly, the Fisher Exact Probability Test was utilized to examine the probability for each level of the processes to occur in the predicted sequence. It was hypothesized that affective processes will occur in concordance with the sequence presented in the CAMS model significantly more frequently than discordant processes. The following table presents the four hypotheses proposed for the present study and the statistical procedures that were conducted to examine them.

Table 1

List of Hypotheses and Statistical Procedures

Hypothesis	Predictor	Outcome	Statistical Procedure
1	Differences in CAMS processes between early vs. late sessions		Non-parametric tests for two related samples – Wilcoxon signed rank sum test
2	CAMS processes	Good vs. poor treatment outcome	Binary logistic regression
3	CAMS processes	Change from early to late in good vs. poor treatment outcome	Binary logistic regression
4	Processes will follow the sequence presented in the CAMS.		Fisher Exact Probability Test

CHAPTER 4

RESULTS

Data Screening

Prior to testing the study's hypotheses and conducting the main analyses, a total of eight cases were excluded from the original sample ($N = 46$) resulting in the final sample of 38 clients for this study. Two cases were excluded because they did not have a trauma narrative in early sessions, two cases did not have trauma narratives in late sessions, and two cases did not have similar trauma narrative content in early and late sessions. The data were examined for data entry errors and missing items. There were two cases that were missing data for the outcomes measures, thus they were also excluded from the study. All the dependent variables included in this study were converted to z-scores in order to detect the presence of any outliers. The criteria for a normal distribution were compared to the data and there were no outliers found.

Client Demographic Characteristics

Table 2 presents the client demographic characteristics of the 38 participants included in the present study. As the table shows, a slight majority of the clients were female, had an average of approximately two children, most were of European decent, a majority were either married or divorced/separated, approximately half were employed full-time, over one third had an annual household income over \$60,000, and the majority had an education beyond high school level. The majority of clients had previous experience with receiving some form of therapy. Results of correlational analyses indicated no significant relationships between client demographic characteristics and previous therapy experience and outcome (IES and RS). Thus clients in good and poor

treatment outcome groups in the present sample are comparable in terms of demographic characteristics and these client variables did not significantly influence outcome.

Table 2

Client Demographic Characteristics

Variable	<i>M</i>	<i>SD</i>
Age	44.34	12.31
Number of Children	1.95	1.99
	<i>N</i>	<i>%</i>
Sex		
Male	17	44.70
Female	21	55.30
Ethnicity		
European Origin	34	89.50
Other	4	10.50
Marital Status		
Single	9	23.70
Common-Law	3	7.90
Married	13	34.20
Separated/Divorced	12	31.60
Widowed	1	2.60
Employment Status		
Full-time/Self-Employed	19	50.50
Part-time	8	21.10
Unemployed/Retired/Disability	11	28.90

Table 2 continued

Client Demographic Characteristics

Variable	<u>N</u>	<u>%</u>
Annual Household Income		
<\$20,000	6	15.80
\$20,000-\$39,000	10	26.30
\$40,000-\$59,000	8	21.10
>\$60,000	14	36.80
Education Level		
High School	8	21.10
Undergraduate	24	63.20
Graduate	6	15.80
Previous Therapy Experience	34	89.50

Note. N = 38.

Clinical and Abuse Characteristics

Table 3 presents clinical and abuse characteristics of the 38 participants at the pre-treatment stage. Over one third of the clients reported multiple types of abuse (34%), but all participants were requested to report the primary type of abuse and the primary abuser they wished to focus on in therapy. As illustrated in Table 3, sexual abuse was the most frequent type of abuse selected as a focus of treatment (53%) which ranged from a single incident to prolonged abuse spanning over several years. Six clients (16%) reported physical abuse, which ranged from strict discipline to severe beatings. Eight clients (21%) identified emotional abuse, ranging from verbal degradation to repeated threats of harm. Finally, four clients (11%) reported neglect as the main focus of therapy. Clients most frequently identified the father (42%) as the primary abuser, followed by mother (32%), brother (5%), relative (5%), and other non-family members (16%).

In regards to clinical characteristics, approximately one third of clients (34%) met criteria for a personality disorder on the PDQ-4 (i.e., a total score of >50; Hyler, 1994). More than one fourth of clients (26%) reported taking medication as treatment for mental health difficulties. Clinical and abuse characteristics were examined in relation to good and poor treatment outcome groups in the present sample. Independent sample t-tests indicated that there were no significant differences between clients in outcome groups in terms of the extent of childhood trauma (CTQ), and PTSD symptom severity (PSSI). Additionally, chi-square analyses indicated no significant difference between the two outcome groups in regards to the presence of a personality disorder. However, there were significant differences between the two outcome groups in regards to severity of personality pathology (PDQ-4), $t(35.321) = 2.452$, $p = .019$, Cohen's $d = .83$, in which

higher severity of personality pathology was present in the poor treatment outcome group. Chi-square analysis also revealed that taking psychoactive medication was related to poor treatment outcome $\chi^2 (1) = 9.89, p = 0.002, \phi = .510$.

Table 3

Client Clinical Characteristics at Pre-treatment

Variable	Total	
	<u>N</u>	<u>%</u>
Abuse Type		
Sexual	20	52.60
Physical	6	15.80
Emotional	8	21.10
Neglect	4	10.50
Abuser(s)		
Father	16	42.10
Mother	12	31.60
Brother	2	5.30
Relative	2	5.30
Other	6	15.80
Axis II on PDQ-4 (Yes)	13	34.20
Medication (Yes)	10	26.30
	<u>M</u>	<u>SD</u>
CTQ (Total)	74.51	16.46
PDQ	42.35	14.33
PSSI	23.11	11.79

Note. N = 38; CTQ = Childhood Trauma Questionnaire; PDQ-4 = Personality Diagnostic Questionnaire-Fourth Edition; PSSI = PTSD Symptom Severity Interview.

Sample of Episodes

In regards to the total number of sessions, clients underwent an average of 16.79 sessions ($SD = 1.06$; range, 12 to 20). Two episodes were selected for each of the therapy completers. The earliest possible trauma narrative episode from the initial three sessions of treatment was selected ($M = 1.34$, $SD = .63$), in which the first session was selected in 28 cases, the second session was selected in 7 cases, and the third session was selected in 3 cases. The latest possible trauma narrative episode from the final three sessions of treatment was selected ($M = 1.84$, $SD = .68$), in which the last session was selected in 12 cases, the second to last session was selected in 20 cases, and the third to last session was selected in 6 cases.

The average length of the selected episodes was examined for the presence of differences between early and late episodes. A paired samples t-test was conducted and the results indicated that there were no significant differences between early ($M = 16.68$ minutes) and late ($M = 18.74$ minutes) episodes $t(37) = -.943$, $p > .10$.

Reliability of the CAMS Process Measure

In total, 76 episodes were rated. Inter-rater reliability for the CAMS coding was calculated using Cohen's kappa, which corrects for agreement between the two raters by chance. Cohen's kappa for the present study was .93, which is above the recommended cutoff value of .75 for having "excellent" agreement (Fleiss, 1981).

Treatment Outcome

The criteria used to determine treatment outcome, which was explained earlier in the manuscript, indicated the presence of 18 (47.37%) poor outcome cases (i.e. clinically

unchanged on at least one outcome measures) and 20 (52.63%) good outcome cases (i.e. significantly improved or recovered on both outcome measures).

Analyses were conducted to examine the change in pre- and post-treatment scores across the two time-points. Initially, the assumptions for multivariate analysis of variance (MANOVA) were examined in order to detect any violations that may have occurred. The sample size for this analysis is considered adequate ($N = 38$), since there are around 10 participants for each of the four dependent variables, which include the IES and RS outcomes measures at two different time-points. To check if the multivariate normality assumption has been violated, the histogram plots were examined and the Shapiro-Wilks test was conducted. The results showed that all the variables met the normality assumption except for IES at the post-treatment time point. Accordingly, the square root transformation was selected, as it successfully induced normality for this particular variable. The assumption of the homogeneity of variance/covariance matrices was checked for any violations by conducting the Box's M test. The test turned out to be non-significant indicating that the assumption has not been violated. However, the Box's M test is susceptible to instability and may not produce accurate results. Thus, Levene's test was used to examine the homogeneity of variance, which revealed that the assumption was met for all the dependent variables except for the RS at the post-treatment time point. Since none of the transformations induced homogeneity of variance, the variable was included in the analysis in its original form. Notably, MANOVA is robust against violating this assumption provided that the sample sizes of the two groups are comparable (Field, 2009).

Subsequent to examining the assumptions, a repeated-measures MANOVA of pre- and post-treatment scores on the two outcome measures was conducted. The results indicated a significant effect for time on the IES, $F(1, 36) = 232.54, p < .001, \eta^2 = .866$, as well as on the RS, $F(1, 36) = 271.95, p < .001, \eta^2 = .883$. Table 4 shows results of the significant pre- post improvement on outcome measures. Clients reported significant levels of trauma symptoms (IES Cutoff > 18.10) and low levels of abuse resolution (RS Cutoff > 26.40) at the pre-treatment stage. Notably, the original version of the IES was used in this study, which has fewer items and lower cutoff clinical scores compared to the revised version of this measure (IES-R). Thus, the pre-treatment characteristics of the clients indicate a history of severe childhood maltreatment and significant distress from trauma symptoms.

Table 4

Overall Changes in Outcome Measures at Pre- and Post-Treatment

Measure	Pre-Treatment		Post-Treatment		$F(1, 36)^b$	η^2
	\underline{M}	\underline{SD}	\underline{M}	\underline{SD}		
IES	25.26	8.59	9.97	8.65	232.54***	.866
RS	39.92	6.55	26.01	9.33	271.95***	.833

Note. $\underline{N} = 38$; IES = Impact of Event Scale; RS = Resolution Scale. *** = $p < .001$. ^b =

statistics from multivariate F-tests. η^2 = partial eta squared (effect size).

Results for Study Hypotheses

Hypothesis 1

The first hypothesis stated that productive processes of the CAMS would be present at a higher frequency during trauma narratives in late sessions than in early sessions. Accordingly, non-parametric tests for two related samples (i.e. early versus late sessions) were conducted to examine this hypothesis. The Wilcoxon signed rank sum test was selected because the data do not have a normal distribution and participants were assessed on two different time-points for all variables (Siegel, 1956). The frequency of occurrence for each of the affective processes was calculated for early and late sessions, in which each occurrence represents one minute. The processes were categorized into four levels: (1) Global Distress, (2) Fear/Shame, and Rejecting Anger, (3) Negative Evaluation, and Need, (4) Hurt/Grief, Self-Compassion, Assertive Anger, and Acceptance & Agency. The affective processes were also categorized into unproductive (undifferentiated and maladaptive) and productive (advanced and adaptive). Unproductive processes include Global Distress, Fear/Shame, Rejecting Anger, and Negative Evaluation. Productive processes include Existential Need, Self-Compassion, Assertive Anger, Grief/Hurt, Relief, and Acceptance & Agency.

Table 5 presents the means and standard deviations for the affective processes. It also provides the results for the differences in frequencies of occurrence of the CAMS processes in early versus late sessions. Notably, the analyses were conducted on the same data that was aggregated in three different ways (i.e. affective processes, levels of processes, and productiveness of processes).

Table 5

Differences in Frequencies of Occurrence of the CAMS Affective Processes in Early vs. Late Sessions.

Affective Processes	Early Sessions		Late Sessions		z-score	p-value
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Global Distress	8.053	4.897	5.553	6.310	-2.269 ^b	.023
Fear/Shame	3.921	3.283	2.842	3.468	-1.407 ^b	.159
Rejecting Anger	4.052	4.921	5.447	4.774	-1.574 ^c	.115
Negative Evaluation	.290	.611	.237	.751	-.591 ^b	.554
Existential Need	.132	.343	.395	.823	-1.889 ^c	.059
Self-Compassion	.026	.162	.421	1.154	-2.200 ^c	.028
Assertive Anger	.053	.226	1.053	1.593	-3.715 ^c	.000
Grief/Hurt	.052	.324	1.158	2.007	-3.078 ^c	.002
Relief	.105	.388	.263	.760	-1.066 ^c	.286
Acceptance/Agency	.000	.000	1.368	2.376	-3.071 ^c	.002
Level 1	8.053	4.899	5.553	6.310	-2.269 ^b	.023
Level 2	7.974	6.284	8.290	5.826	-.266 ^c	.791
Level 3	.421	.683	.632	1.261	-.403 ^c	.687
Level 4	.132	.414	4.053	5.013	-4.476 ^c	< .001
Unproductive	16.316	8.367	14.079	8.970	-.929 ^b	.353
Productive	.368	.714	4.711	5.306	-4.712 ^c	.000

Note. $N = 38$. ^b = Based on positive ranks. ^c = Based on negative ranks. Unit of analysis = 1 minute.

The results of the analyses indicate a significantly lower frequency of Global Distress in late sessions when compared to early sessions. The results were in the opposite direction for Self-Compassion, Assertive Anger, Grief/Hurt, and Acceptance & Agency, where the frequencies of occurrence were higher in late sessions in comparison to early sessions. Notably, Existential Need was also in the predicted direction as the other productive processes but it did not reach statistical significance ($p < .10$). Additionally, there were no significant differences in the frequencies of occurrence for Fear/Shame, Rejecting Anger, Negative Evaluation, and Relief. These results were consistent with the proposed hypothesis and with previous literature (Pascual-Leone & Greenberg, 2007). In regards to frequencies of the affective processes based on the four levels categorization, the results indicate lower frequencies for Level 1 in late sessions in comparison to early sessions ($Z = -2.269, p = .023, r = .37$). In contrast, Level 4 showed higher frequency in late sessions in comparison to early sessions ($Z = -4.476, p < .001, r = .73$). However, there were no significant differences in the frequencies of Level 2 and Level 3 of the affective processes between early and late sessions. By examining the processes based on the productiveness categorization, the results showed no significant differences for unproductive processes between early and late sessions, but there were significantly higher frequencies of productive processes in late sessions when compared to early sessions, which is consistent with the proposed hypothesis ($Z = -4.712, p < .001, r = .76$).

Hypothesis 2

The second hypothesis stated that productive processes of the CAMS would be present at a higher frequency during trauma narratives in good outcome cases compared

to poor outcome cases (Kramer et al., 2014). Binary logistic regression analysis was selected to compare the frequency of processes in good and poor outcome cases. Initially, the independent variables were centered in order to facilitate the interpretation of the results and the data was examined for violations of the assumptions. In regards to sample size, the rule of thumb is to have between 10 and 15 participants for each predictor (Field, 2009). Thus, the processes were categorized into four levels based on their level of advancement in the CAMS model. While the sample size ($N = 38$) falls short of the 10 participants for each of the four predictors, the analysis is considered robust for small violations. The data were also examined for the presence of any outliers on the predictor variables using leverage statistics (hat elements), which is appropriate for use with smaller samples. A cutoff of .39 was calculated using the formula $(3*(k+1))/n$, which revealed that the data do not contain any outliers on the predictor variables. As for examining the presence of outliers on the outcome variable, studentized residuals were used because of the relatively small sample size and they provide a precise estimate of the error of variance for each case. Comparing the data to a normal distribution, there were no values greater than the cutoff of 3.29, which indicates that there are no outliers present. The assumption of influential observations (i.e. scores that are outliers on both the independent and dependent variables) was examined for any violations by employing Cook's distance test, which includes any values above the cutoff of 1, and results revealed the presence of three cases that might be a cause of concern. Accordingly, the concern of having influential observations was investigated further. Due to the small sample size, standardized DFFITS and the DFBETAS were used with a cutoff point of 1.0, which revealed that there were no unduly influential observations.

The assumption of multicollinearity was not violated because it fell within normal limits of Variation Influential Factor (VIF) < 10, and Tolerance >.2 (Menard, 1995; Myers, 1990). It was also found that the assumption of linearity was not violated because the interaction terms between the predictor variables and their log transformations were not significant. The independence of errors assumption was violated in this dataset because the cases are related (i.e. the same participants were assessed at different points in time). The optimal solution in cases where the independence of errors assumption has been violated is to conduct a multi-level modeling analysis. However, it is not possible to conduct this particular analysis due to the small sample size (Kreft & de Leeuw, 1998; Twisk, 2006). I used the Durbin-Watson test to examine the effects of violating this assumption, in which the score was found to be within normal limits (i.e. between 1.5 and 2.5). Thus, I proceeded with conducting the binary logistic regression analysis because violating the assumption of independence of errors did not appear to be problematic in this dataset.

Subsequent to examining the assumptions, I conducted the binary logistic regression analysis to compare the frequency of all four levels of affective processes in good and poor outcome cases. The frequency of occurrence for each process was based on one-minute segments. All of the predictors were entered into the regression model in one block. The forced entry method was selected because stepwise techniques are not stable and often produce non-replicable results (Field, 2009). A test of the full model against a constant only model was statistically significant, which is an indication that the predictor variables together were reliable in distinguishing between good and poor outcome cases, $\chi^2(4) = 12.056, p = 0.017$. The Hosmer-Lemeshow test was not

significant, $\chi^2(8) = 9.169, p = 0.328$, which indicates that the logistic regression model has goodness of fit. Additionally, Nagelkerke's R^2 of .363 shows that the model explains approximately 36% of the variance in treatment outcome. The model's overall success at predicting the outcome was 73.7% of all cases ($N = 38$). Specifically, the model correctly classified 66.7% of poor outcome cases ($n = 18$), and 80% of good outcome cases ($n = 20$). However, the Wald statistic revealed that none of the predictor variables made a significant contribution to the prediction. Notably, the results presented in Table 6 show that higher frequencies of the advanced levels of the affective processes (i.e. level 3 and level 4) are closer to approaching significance ($p < .10$) in predicting good treatment outcome in comparison to processes of lower levels. That is, the results were in the direction of the proposed hypothesis, but they were not statistically significant.

In addition to the forced entry method, the hierarchical method for binary logistic regression was used to examine the order of importance of the four levels of the affective processes. The results indicated the presence of a hierarchical relationship, in which Level 4 of processes is a stronger predictor of treatment outcome than the other three levels $\chi^2(1) = 5, p = 0.025$. In sum, both the forced entry and the hierarchical methods produced comparable results, which indicate that higher levels of the affective processes are stronger predictors of treatment outcome.

Table 6

*Frequencies of the Four Levels of the Affective Processes as Predictors for Treatment**Outcome.*

Variable	β (SE)	Wald χ^2 (<i>df</i> =1)	<i>p</i> -value	95% CI for Odds Ratio		
				Lower	Odds Ratio	Upper
Constant	.27(.41)					
Level 1	-.04 (.05)	.68	.410	.87	.96	1.06
Level 2	.04 (.05)	.88	.348	.96	1.04	1.14
Level 3	-.58 (.34)	2.86	.091	.29	.56	1.10
Level 4	.25 (.14)	3.15	.076	.97	1.29	1.70

Note. β = Beta Weight; SE = Standard Error; χ^2 = Chi-square; OR = Odds Ratio; CI = Confidence Interval. Unit of analysis = 1 minute.

Hypothesis 3

The third hypothesis postulated that a greater change from unproductive (i.e. undifferentiated, maladaptive) to productive (advanced, adaptive) affective processes of the CAMS from early to late trauma narratives will be present in good outcome cases compared to poor outcome cases (Kramer et al., 2014). Prior to conducting the binary logistic regression analysis, the independent variables were centered and the assumptions were examined. In this analysis, the processes were categorized into productive and unproductive based on the CAMS model. Thus, the sample ($N = 38$) exceeds the rule of having at least 15 participants for each of the two predictors (Field, 2009). In regards to the presence of outliers, the predictor variables were examined using leverage statistics (hat elements). A cutoff of .23 was calculated using the formula $(3*(k+1))/n$, which revealed that the data have three cases that contain outliers on the predictor variables. Outliers on the outcome variable were examined using the studentized residuals, which indicated that there were no values above the cutoff of 3.29. Cook's distance test was used to determine the presence of any influential observations, which indicated the presence of one case that might be a cause of concern. However, examining the standardized DFITS and DFBETAS indicated that there are no values above the cutoff values of 1.0. Overall, the analysis revealed the presence of three cases that are outliers on the independent variables. The analyses were conducted with and without the three outliers and their presence appeared to distort the results, so they were excluded from the final analysis. As such, the overall sample included in this analysis ($n = 35$), poor outcome cases ($n = 16$), and good outcome cases ($n = 19$).

The assumptions were examined with and without the outliers and there were no significant changes. The assumption of multicollinearity was not violated because it fell within normal limits of Variation Influential Factor (VIF) < 10, and Tolerance > .2 (Menard, 1995; Myers, 1990). It was also found that the assumption of linearity was not violated because the interaction terms between the predictor variables and their log transformations were not significant. The independence of errors assumption has been violated because the cases are related. However, the Durbin-Watson test produced a score within the normal limits (i.e. between 1.5 and 2.5), which indicated that violating this assumption was not problematic.

Subsequently, I conducted a binary logistic regression analysis to compare the changes in the frequency of presence of unproductive and productive CAMS processes from early to late trauma narratives in good and poor outcome cases. The frequency of occurrence was based on one-minute segments, and the change in frequency was calculated by subtracting the number of early segments from late segments for each of the affective processes. Both predictors and the interaction term between them were entered into the regression model in one block, as the forced entry method is the most appropriate due to its stability (Field, 2009).

A test of the full model against a constant only model was statistically significant, which is an indication that the predictor variables together were reliable in distinguishing between good and poor outcome cases, $\chi^2(3) = 19.976, p < 0.001$. The Hosmer-Lemeshow test was not significant, $\chi^2(7) = 4.844, p = 0.679$, which indicates that the logistic regression model has goodness of fit. Additionally, *Nagelkerke's R²* of .581 shows that the model explains approximately 58% of the variance in treatment outcome.

The model's overall success at predicting the outcome was 80% of all cases ($n = 35$). Specifically, the model correctly classified 75% of poor outcome cases ($n = 16$), and 84.2% of good outcome cases ($n = 19$). The Wald statistic demonstrated that the change in productive affective processes made a significant contribution to predicting treatment outcome ($p = .005$), which supports the hypothesis, but the change in frequency of unproductive processes was not a significant predictor. EXP(B) value indicates that when the change in frequency of productive processes is increased by one unit (i.e. one minute), the odds ratio is 2.162 times as large and therefore the therapy completer was more than twice as likely to have a good treatment outcome.

Additionally, there was a significant interaction effect between unproductive and productive processes ($p = .037$). This indicates that the effect of change in frequency of productive affective processes on treatment outcome differs depending on the change in frequency of unproductive processes. In sum, the increase in frequency of productive affective processes from early to late sessions contributes to having a good treatment outcome by 100%, but the odds of good treatment outcome are only increased by 4% for cases that also had increased frequency of unproductive affective processes. These results are consistent with the proposed hypothesis.

Table 7

Change in Frequencies of Unproductive and Productive Affective Processes as Predictors for Treatment Outcome.

Variable	β (SE)	Wald χ^2 (<i>df</i> =1)	<i>p</i> -value	95% CI for Odds Ratio		
				Lower	Odds Ratio	Upper
Constant	1.49(.67)					
Unproductive	.01 (.04)	.10	.748	.93	1.01	1.10
Productive	.77 (.27)	7.96	.005	1.27	2.16	3.70
Unproductive by Productive	.40 (.02)	4.34	.037	1.00	1.04	1.08

Note. β = Beta Weight; SE = Standard Error; χ^2 = Chi-square; OR = Odds Ratio; CI = Confidence Interval. Unit of analysis = 1 minute.

Hypothesis 4

The fourth hypothesis proposed that the qualitative changes in emotional processes during trauma narratives will follow the sequential shift proposed in the CAMS model. The affective processes were coded based on the four levels described earlier: (1) Global Distress, (2) Fear/Shame, Rejecting Anger, (3) Negative Evaluation, Existential Need, (4) Self-Compassion, Assertive Anger, Grief/Hurt, and Acceptance & Agency (Kramer et al., 2014; Pascual-Leone & Greenberg, 2007). The Fisher Exact Probability Test was used to examine the sequence of processes in early and late sessions. This type of analysis was selected because some of the cells contain fewer than five cases, which violates the assumption for Chi-square, but the Fisher Exact Probability Test corrects the results. Early and late sessions were analyzed separately in order to meet the assumption of independence of observations. The procedure involved coding each level of the affective processes once they appeared for the first time and in the sequence in which they occurred. Transitioning from one level to another varies depending on which process occurred first and the direction of transitioning to other processes. Subsequently, the data were analyzed based on the probability of transitioning in the predicted sequence (i.e. concordant vs. discordant) one level at a time through the four levels.

Table 8 presents the results of transitioning between affective processes in early sessions. The results indicate that clients in the present study were significantly more likely to follow the proposed sequence in the first transition between levels of the processes. Clients were also more likely to be concordant in their second transition. Both of those findings support the proposed hypothesis. However, there are no data for the third transition, because clients did not reach higher levels of processes in early sessions.

Table 9 presents the results of transitioning between affective processes in late sessions. The results indicate that clients were significantly more likely to be concordant in the first transition (i.e. following the proposed sequence) between levels of processes, which is consistent with the proposed hypothesis. However, the second and third transitions between levels of processes did not follow the proposed sequence.

Table 10 presents descriptive results for the proportion of clients who experienced a given affective process and the frequency of those that occurred in the predicted sequence based on the CAMS model. The coding procedure used was nested sequences, in which each process was coded as concordant if it was preceded by processes from each of the lower levels, and was coded as discordant if it occurred without being preceded by each of the lower levels in the model. In sum, results indicate that a higher proportion of clients were concordant with the proposed sequence of lower affective processes, which supports the hypothesis, but the proportion dropped markedly at higher levels.

Table 10 also presents descriptive results for the proportion of clients who experienced affective processes in the sequence proposed by the CAMS model. The coding procedure used was ordered pairs, in which each process was coded as concordant if it was preceded by processes from one level below it (not necessarily preceded by processes from each of the lower levels), and was coded as discordant if it first occurred without being preceded by processes from the level below. The ordered pairs coding procedure follows the same sequence of the CAMS model, but it is less conservative than the nested sequences procedure. The results indicate a higher concordance rate in lower affective processes in comparison to higher levels. The proportion of clients with concordant affective processes was comparable using both procedures.

Table 8

Sequence of Affective Processes in Early Sessions.

Variable	Concordant N(%)	Discordant N(%)	<i>p</i> -value	ϕc
Transition 1 (between first and second occurring levels)	30(81.1%)	7(18.9%)	< .001	.911
Transition 2 (between second and third occurring levels)	9(64.3%)	5(35.7%)	.041	.650
Transition 3 (between third and fourth occurring levels)	N/A*	N/A*	N/A*	N/A*

Note. ϕc = Cramer's Phi

* Cells did not have any observations.

Table 9

Sequence of Affective Processes in Late Sessions.

Variable	Concordant N(%)	Discordant N(%)	<i>p</i> -value	ϕc
Transition 1 (between first and second occurring levels)	18(51.4%)	17(48.6%)	< .001	.828
Transition 2 (between second and third occurring levels)	6(23.1%)	20(76.9%)	.692	.144
Transition 3 (between third and fourth occurring levels)	3(60.0%)	2(40.0%)	.400	.612

Note. ϕc = Cramer's Phi

Table 10

*Frequency of Concordant Affective Processes in Early, Late, and Combined Sessions
Using Nested Sequences Coding Procedure.*

Sessions	Level 1		Level 2		Level 3		Level 4		
	GD	FS	RA	NE	N	SS	AA	GH	Acc
Early	38/38	33/35	25/29	8/8	5/5	0/1	0/2	0/1	0/0
Late	31/31	15/28	19/29	5/5	8/10	2/7	2/18	3/12	1/12
Combined	38/38	34/36	33/37	12/12	13/13	5/8	7/19	8/12	7/12

Table 11

*Frequency of Concordant Affective Processes in Early, Late, and Combined Sessions
Using Ordered Pairs Coding Procedure.*

Sessions	Level 1		Level 2		Level 3		Level 4		
	GD	FS	RA	NE	N	SS	AA	GH	Acc
Early	38/38	33/35	25/29	8/8	5/5	0/1	0/2	0/1	0/0
Late	31/31	15/28	19/29	5/5	10/10	2/7	2/18	3/12	2/12
Combined	38/38	34/36	33/37	12/12	13/13	6/8	8/19	8/12	7/12

Note¹. GD = Global Distress; FS = Fear/Shame; RA = Rejecting Anger; NE = Negative Evaluation; N = Need; SS = Self-Compassion; AA = Assertive Anger; GH = Grief Hurt; Acc = Acceptance/Agency.

Note². The denominator reflects the frequency of occurrence for each affective process; the numerator reflects the frequency of processes that occurred in concordant sequence.

Affective processes that did not occur at all for a given client are not included.

Overall Summary of Findings

Table 12 presents an overall summary of the present study's hypotheses, the analyses conducted to examine them, and the main findings.

Table 12

Summary of Questions, Hypotheses, Analyses, and Findings.

Table	Question/ Hypothesis	Analyses	Findings	<i>p</i> -value	ES
Table 2	Demographic Characteristics	Descriptive Statistics.	N/A	N/A	N/A
	Are clients in the two treatment outcome groups comparable in terms of demographic characteristics?	Correlational Analysis.	No significant differences between the two groups	$p > .10$	N/A
Table 3	Clinical and Abuse Characteristics	Descriptive Statistics.	N/A	N/A	N/A
	Are clients in the two treatment outcome groups comparable in terms of clinical and abuse characteristics at pre-treatment?	Independent Samples T-test, Chi-square.	No significant differences between the two groups in terms of extent of childhood trauma, and PTSD symptom Severity, Personality Disorder	$p > .10$	N/A
			Significant difference between groups in regards to severity of personality disorder	$p = .021$	Cohen's $d = .83$
			Medication significantly related to poor treatment outcome	$p = .002$	$\phi = .510$

Table 12 continued

Summary of Questions, Hypotheses, Analyses, and Findings.

Table	Question/ Hypothesis	Analyses	Findings	<i>p</i> -value	ES
	Is there a significant difference in the average length of the selected episodes between early and late sessions?	Paired Samples T-test.	No significant difference between early and late sessions	$p > .10$	N/A
Table 4	Is there a significant change in pre- and post-treatment on outcome measures?	Repeated-Measures MANOVA	Significant effect for time in IES	$p < .001$	$\eta^2 = .866$
			Significant effect for time in IES	$p < .001$	$\eta^2 = .883$
Table 5	Hypothesis 1: Productive affective processes of the CAMS will be present at a higher frequency during trauma narratives in late sessions than in early sessions.	Non-parametric tests for two related samples – The Wilcoxon signed rank sum test.	* No significant differences in frequency of unproductive affective processes between early and late sessions. * Higher frequency of productive affective processes in late sessions.	$p > .10$ $p < .001$	N/A $r = .76$

Table 12 continued

Summary of Questions, Hypotheses, Analyses, and Findings.

Table	Question/ Hypothesis	Analyses	Findings	<i>p</i> -value	ES
Table 6	Hypothesis 2: Productive affective processes of the CAMS will be present at a higher frequency during trauma narratives in good outcome cases than in poor outcome cases.	Binary Logistic Regression.	None of the predictor variables significantly predicted treatment outcome. Level 4 of the affective processes is more strongly related to good treatment outcome than the other three levels.	$p > .10$ $p = .025$	N/A Nagelkerke $R^2 = .363$
Table 7	Hypothesis 3: Greater change from unproductive to productive affective processes of the CAMS from early to late trauma narratives will be present in good outcome cases than in poor outcome cases.	Binary Logistic Regression.	* Change in frequency of unproductive affective processes was not a significant predictor * Increase in productive affective processes was significantly related to good treatment outcome. * Significant interaction effect between unproductive and productive affective processes.	$p > .10$ $p = .005$ $p = .037$	OR = 1.01 OR = 2.16 OR = 1.04

Table 12 continued

Summary of Questions, Hypotheses, Analyses, and Findings.

Table	Question/ Hypothesis	Analyses	Findings	<i>p</i> -value	ES
Table 8	Hypothesis 4: Qualitative changes in affective processes during trauma narratives will follow the sequential shift proposed in the CAMS model.	Fisher Exact Probability Test	* Significantly more likely to follow the proposed sequence in the first and second transitions between affective processes in early sessions.	<i>p</i> < .001	Φ c = .911
Table 9			* Significantly more likely to follow the proposed sequence in the first transition between affective processes in late sessions.	<i>p</i> < .001	Φ c = .828
			Not significantly more likely to follow the proposed sequence in the second and third transitions between affective processes in late session.	<i>p</i> > .10	N/A
Table 10 & 11		Frequencies	Higher concordance in lower levels	N/A	N/A

Note. EFTT = Emotion-Focused Therapy for Complex Trauma; IES = Impact of Event

Scale; RS = Resolution Scale; CAMS = Classification of Affective Meaning States; ES =

Effect Size. * Findings support hypotheses.

CHAPTER 5

DISCUSSION

The purpose of the present study was to test a model of change in emotional processes over the course of Emotion Focused Therapy for Trauma (EFTT). Previous research (Paivio et al., 2010) reported significant pre-posttreatment improvement on both outcome dimensions used in the present study (trauma symptoms and abuse resolution).

The present study used the Classification of Affective Meaning States (CAMS; Pascual-Leone & Greenberg, 2005) to examine qualitative changes in emotional processes during in-session client trauma narratives in early and late sessions of EFTT. The CAMS specifies a sequential shift from maladaptive unproductive processes (i.e. global distress, fear and shame, and rejecting anger), through negative evaluation and expressing unmet needs, to adaptive and productive processes (i.e. hurt and grief, self-compassion, assertive anger, and acceptance and agency). It was hypothesized that there would be shift from unproductive to productive processes during trauma narratives over the course of therapy and the proposed sequence would be associated with good treatment outcome. It was also hypothesized that the shift in affective processes would follow the sequence as presented in the CAMS.

Client Characteristics

Clients in the present sample reported experiencing severe childhood trauma (mostly sexual abuse at the hands of a father) and moderate post-traumatic symptoms and rates of personality disturbances comparable to that reported in other clinical studies (Kramer, Pascual-Leone, Despland, & de Roten, 2014; Pascual-Leone, 2009). Additionally, the present sample is comparable to the sample from original study despite

excluding some clients (Paivio et al., 2010).

Affective Processes in Early and Late Session Trauma Narratives

Overall, the findings show a significant increase in productive processes from early to late narrative sessions. Global Distress, which is an unproductive process, had a significantly higher frequency in early narratives compared to late narratives. In contrast, Self-Compassion, Assertive Anger, Grief/Hurt, and Acceptance/Agency, which are all productive processes, were all significantly more frequent in late narratives compared to those in early sessions. These findings suggest that clients likely progressed to higher levels and more productive processes as they explored their traumatic experiences and made an effort at resolving them during therapy. However, Fear/Shame, Rejecting Anger, Negative Evaluation, Existential Need, and Relief showed no significant early-late narrative differences in the frequencies of occurrence.

The frequencies of affective processes were further examined after categorizing them into four levels: (1) Global distress, (2) Fear/Shame, and Rejecting Anger, (3) Negative Evaluation, and Need, (4) Hurt/Grief, Self-Compassion, Assertive Anger, and Acceptance/Agency (Figure 1). Present results showed lower frequencies for Level 1 processes in late session narratives compared to early narratives. Additionally, there were significantly higher frequencies of Level 4 processes in late session narratives compared to those in early sessions. These findings were also consistent with the hypothesis and indicate that clients progressed to higher levels of affective processes during trauma exploration throughout therapy. However, there were no significant difference in the frequencies of Level 2 and Level 3, indicating that some of moderate levels of the affective processes that occur in early session narratives continue to be present in later

narratives.

The affective processes were also examined after categorizing them based on productiveness. Unproductive processes include Global Distress, Fear/Shame, Rejecting Anger, and Negative Evaluation. Productive processes include Existential Need, Self-Compassion, Assertive Anger, Grief/Hurt, Relief, and Acceptance/Agency. As predicted, the results showed that there were significantly higher frequencies of productive processes in late session narratives compared to those in early sessions. Although there were no statistically significant differences in unproductive processes between early and late session narratives, results were in the predicted direction.

This finding indicates that clients experienced unproductive emotions while exploring trauma material in early narratives and continued to experience them in late narratives as well. The difference between early and late narratives was in the increased frequency of productive processes. This may be due in part to the nature of EFTT that focuses on the exploration of particularly traumatic experiences, which by definition involve negative feelings. Similarly, findings from a study conducted by Mundorf & Paivio (2011), suggests that the ability to express negative emotions is linked to resolution. Notably, the study did not differentiate between productive and unproductive negative emotions.

These findings are also consistent with a study conducted by Pascual-Leone (2009), which showed that clients experience ongoing fluctuations throughout emotion-focused therapy and client-centered therapy for depression and ongoing interpersonal problems. Transitioning back and forth between productive and unproductive affective processes may represent those regressive changes or collapses that occur during

humanistic therapies regardless of client problems.

A case example that represents the increase in productive affective states is a client who experienced childhood sexual abuse by a priest. During an early session his predominant affective process was Fear and Shame as he stated: “That is the most degrading thing. I still don’t understand why I didn’t do something; he was close to my family...I always blamed myself. Why did I go back to church?” In comparison, during a late session he expressed Assertive Anger as he stated: “Darkness came over my life, it started the day you molested me. I questioned myself. I realized that it was not my fault. You are 100% to blame.” On the other hand, the client frequently regressed to unproductive affective processes in late sessions and experienced Rejecting Anger, stating: “Until the day I die I will have hatred towards you. May you spend eternity in hell.”

Affective Processes in Good and Poor Outcome Cases

The study predicted that productive affective processes would be present at a higher frequency during trauma narratives in good outcome cases (clinically recovered on both dimensions) compared to poor outcome cases (i.e. clinically unchanged on one or both dimensions). The affective processes were categorized into four levels and were examined in relation to treatment outcome (Figure 1). The results indicated that the levels of processes together were reliable in predicting treatment outcome, but none of the levels were statistically significant separately.

Notably, the frequency of the first level (Global Distress) and second level (Fear/Shame, Rejecting Anger) during trauma exploration were not significantly different in good outcome cases compared to poor outcome cases. This finding is consistent with

previous findings that there are no significant differences in the frequency of unproductive affective states between good and poor treatment outcome groups in emotion-focused therapy and client-centered therapy for depression and ongoing interpersonal problems. This is because the key factor in differentiating treatment outcome is whether unproductive processes are followed by articulation of an existential need and more advanced processes, which are the model components that lead to progress in therapy (Pascual-Leone & Greenberg, 2007). Although the higher frequency of the third level (Negative Evaluation, Need) and fourth level (Hurt/Grief, Self-Compassion, Assertive Anger, Acceptance & Agency) in good outcome cases did not reach statistical significance in the present study, the association approached significance. These findings are consistent with the model of change, which suggests increased productive affective processes for clients who do better in therapy (Kramer, Pascual-Leone, Despland, & de Roten, 2014). The failure to meet significance criteria in the present study may have been partly due to the small sample size. However, further analyses showed that the fourth level of affective processes contributed to treatment outcome over and above all the lower affective processes.

These findings might indicate that good treatment outcome clients can be differentiated by their ability to experience higher levels of the affective processes while exploring trauma material. This is consistent with the EFTT treatment model (Paivio & Pascual-Leone, 2010). Pascual-Leone (2009) found that clients might experience positive changes that reemerge during treatment (i.e. experiential therapy for depression and ongoing interpersonal problems) and become more sustained in later sessions. This is consistent with the model of change proposed by the CAMS. Similarly, findings from the

present study are consistent with previous research which found that productive affective processes are linked to good treatment outcome, but no significant differences in frequency of unproductive affective processes between good and poor treatment outcome groups in experiential therapy for depression (Pascual-Leone & Greenberg, 2007).

The following two case examples demonstrate the difference in affective processes in good and poor treatment outcome cases. The first case example, which is a good treatment outcome case, is a client who experienced physical abuse by his stepfather. During an early episode, he expressed global distress and fear/shame, as he stated: “Dad measured food before going to bed, everything was his. If anything was down, we would be beat... it would go on until you wouldn’t feel anymore...you grow up thinking this is the way it is, so you don’t know any different. I think it hurt more when we started realizing...that’s my disappointment in myself, not realizing things sooner.” In contrast, during a late episode, he expressed assertive anger as he stated: “Now I don’t think I deserved it. There was no reason for it, nobody deserved it, I didn’t deserve it. I couldn’t make sense of it, it has nothing do with me...the realization that there was no sense to anything done...I am fine, it’s not me, it was never me. I beat myself up for this all my life.”

The second case example represents a poor outcome case of a client who experienced physical abuse and neglect by her stepmother. During an early episode, she expressed global distress and fear/shame as she stated: “I was scared of her, I was terrified of this woman...she’s controlling, she’s got to dominate. I hated it, I wanted to die, I wish I was never born...I was worthless to her, she only put up with me because she married my dad, I hated it there.” Similarly, during a late episode she continued to

experience unproductive affective states (i.e. fear/shame, negative evaluation), as she stated: “I was basically an outsider, I was stupid, I did everything wrong...I want to be myself, I will never be like you, you are an ugly terrible person...everything makes me feel that I am stupid. I needed help and I never got it...she would say I was never good enough for her.”

Change in Affective Processes from Early to Late Sessions in Relation to Treatment Outcome

It was predicted that a greater change in the productiveness of affective processes from early to late session narratives would be present in good outcome cases compared to poor outcome cases. As expected, the results supported this hypothesis. In contrast, there was no significant reduction in the frequency of unproductive processes (i.e., Global Distress, Fear/Shame, Rejecting Anger, Negative Evaluation) while exploring trauma material from early to late narratives in relation to treatment outcome. This finding supports previous literature suggesting that clients in both treatment outcome groups experience distress as a result of childhood trauma and have unprocessed trauma material. Pascual-Leone (2009) found that during sessions of experiential therapy for depression and ongoing interpersonal problems, clients’ affective processes fluctuate in level of productiveness, and clients frequently experience “emotional collapses” after reaching higher level affective processes. On the other hand, it also appears that the increased frequency of productive processes during trauma exploration differentiated good from poor treatment outcome. This is consistent with the CAMS and EFTT treatment model.

Another finding that merits discussion is the significant interactions between

unproductive and productive affective processes during trauma narratives in relation to predicting treatment outcome. The interaction indicates that a one minute increase in productive processes while exploring trauma material from early to late session doubles the likelihood of having a good treatment outcome. However, in cases that have increases in both productive and unproductive processes during trauma exploration from early to late sessions, the likelihood of having a good treatment outcome increases by only 4%. It appears that the increase in productive processes from early to late sessions in the good treatment outcome group is associated with exploring trauma material and reaching resolution (Mundrof & Paivio, 2011; Pascual-Leone, 2009), but this finding can be offset by an increase of unproductive processes (i.e. no reduction in emotional collapses) (Pascual-Leone, 2009).

Sequence of Change in Affective Processes

It was expected that the qualitative changes in emotional processes during trauma narratives would follow the sequence proposed in the CAMS model. The affective processes were grouped into four sequential categories: (1) Global Distress, (2) Fear/Shame, Rejecting Anger, (3) Negative Evaluation, Existential Need, (4) Self-Compassion, Assertive Anger, Grief/Hurt, and Acceptance/Agency (Figure 1). Clients have the possibility to transition three times between the four levels of the processes. It was predicted that each process is significantly more likely to appear for the first time if it was preceded by processes from each one of the lower levels.

In early session narratives, the results of transitioning between levels of processes were as predicted. Clients were significantly more likely to be concordant with the proposed sequential shift for the first transition (i.e. between the first and second

occurring processes) and second transition (i.e. between the second and third occurring processes). However, clients did not reach higher levels of affective processes in early session narratives, therefore there are no data for the third transition.

In regards to late narratives, the results of transitioning between levels of processes were also as predicted. Clients were significantly more likely to follow the proposed sequential shift in their first transition (i.e. between the first and second occurring processes). However, the results for the second and third transition between processes were not more likely to be concordant with the model. One possibility for this finding is that higher-level affective processes occur at a lower frequency, which makes it difficult to produce significant results. Another possibility is that clients might go through the levels in sequence over the course of therapy, but not necessarily within the same trauma narrative episode. This might be due to clients transitioning from unproductive to productive processes at some point in therapy and no longer experiencing highly distressing symptoms as a result of childhood trauma, which is consistent with sustained improvement (Pascual-Leone, 2009). As such, the lack of support for the hypothesis in late episodes might be due to the episode selection procedure. Specifically, clients in the termination phase might have already experienced symptom reduction and reached abuse resolution so that they no longer experience lower level processes and move in sequential order to higher levels. Nonetheless, late episodes were most commonly selected from the second to last session, which suggests that the majority of clients were still processing trauma material during the selected episodes.

Findings from the present study provided partial support for the sequential change in affective processes as proposed in the CAMS model (Pascual-Leone & Greenberg,

2007). Findings also supported the CAMS model of change, which states that processes in the second level (i.e. Negative Evaluation and Needs) acted as a transitioning point from lower level unproductive processes to higher level productive processes.

Specifically, in approximately half of the cases, clients transitioned from unproductive affective processes (i.e. Global Distress, Fear/Shame, Rejecting Anger) to productive affective processes (i.e. Self-Compassion, Assertive Anger, Hurt/Grief, Acceptance and Agency) by exploring Negative Evaluations about oneself and expressing unmet Existential Needs, as those processes promote progression through the model (Pascual-Leone & Greenberg, 2007).

The following case example demonstrates the sequence of change in affective processes over the course of therapy. The client experienced childhood maltreatment in the form of neglect by her mother. Initially the client expressed global distress (Level 1): “I have been going through the motions for the last 20 years. Before that, I think I believed I wasn’t real.” The client also expressed rejecting anger (Level 2): “I was treated bad, going to school hungry, dirty, laughed at, picked on. She didn’t care, she was mean, not a nice person, yucky...I don’t think I want that mother, I don’t want her near me.” Subsequently, the client explored negative evaluations of herself and expressed unmet needs: “you told me I was worthless and I was nothing. I can’t see myself as anything more than nothing...I needed somebody to love me.” Finally, the client progressed to productive affective processes, particularly assertive anger: “Everything you did was unacceptable...I have the right to distance myself from you... God has other plans for me. I don’t want any part of this, I deserve better.”

Strengths and Limitations of the Present Study

In terms of limitations, the small sample size ($N = 38$) was a concern in the present study. The rule of thumb is to have between 10 and 15 participants for each predictor (Field, 2009) in order to have adequate power. Therefore, the affective processes were categorized into four levels, which increased the number of participants per predictor, but the sample size was still slightly less than the recommended number. The sample size thus reduced power for the analyses and increased difficulty in finding significant results.

Another limitation in the present study is that some of the variables did not meet the assumptions that are required to conduct the analyses. Particularly, the Resolution Scale at the post-treatment time point did not meet the assumption of homogeneity of variance, and it was not possible to correct the variable through transformation. Additionally, the independence of errors assumption was violated because the same clients were assessed at different time points. Using alternative analyses that do not require meeting this assumption was not possible due to the small sample size. These methodological limitations can lead to uncertainty in drawing conclusions from this study.

Another limitation of the present study concerns generalizability of results to other therapeutic approaches for complex trauma. EFFT has several unique properties that do not necessarily comprise other types of therapy for trauma. For example, EFFT focuses on promoting experiencing, empathic responding, and resolution of past abuse issues with specific perpetrators (Paivio & Pascual-Leone, 2010). Furthermore, clients were excluded on the basis of receiving other therapy, recent dosage change in

psychoactive medication, substance abuse, currently involved in an abusive relationship, have co-morbid psychiatric diagnoses, or at risk for suicide. All of these features are commonly observed among child abuse survivors (Paivio & Pascual-Leone, 2010). Thus, the exclusion criteria of the present study might limit generalizability of the findings to clients with trauma history in the general population.

Despite limitations, the present study was the first to use the Classification of Affective Meaning States (CAMS; Pascual-Leone & Greenberg, 2005) to examine qualitative changes in emotional processes specifically during in-session exploration of trauma material from early to late sessions in EFTT. It is essential to explore emotional processes during therapy in order to understand the mechanisms of change for clients, identify the factors that differentiate good from poor treatment outcomes, and establish guidelines for therapists to follow while working with clients presenting with similar concerns.

Another strength of the present study was use of a sample that is representative of adults with history of childhood maltreatment in the general population (Scher et al., 2004). The sample included men and women, various types of child maltreatment (i.e. sexual, physical, emotional, neglect), and a range of severity. This potentially allows the findings to be generalized to a broad range of clients seeking treatment for complex trauma.

The CAMS measure used in the present study has demonstrated reliability (Pascual-Leone & Greenberg, 2005) and its use in other studies allows for comparisons across studies of different therapies (e.g. short-term dynamic therapy and experiential therapy) and client groups (e.g. adjustment disorder and depression) (Kramer et al., 2014;

Pascual-Leone & Greenberg, 2007). The outcome measures, which include the Impact of Event Scale and Resolution Scale, also have established reliability (Singh, 1994; Horowitz, 1986). The multiple measurement perspectives strengthen confidence that the results are not due to shared method variance.

Furthermore, this study has supported and contributed to the EFTT theory for treatment of clients with complex trauma by identifying the in-session processes that are associated with treatment outcome. This study also added to the understanding of emotional processes during trauma exploration over the course of treatment. Specifically, it identified that qualitative changes, from differentiating global distress into expressions of specific maladaptive fear and shame early in therapy to more frequent expressions of adaptive anger and sadness, for example, are related to progressing in treatment and good treatment outcome. It also demonstrated that exploring negative views of the self and expressing unmet needs associated with maladaptive emotions can contribute to the emergence of productive affective processes (e.g. assertive anger, hurt/grief) and eventually trauma resolution.

Theoretically, this shift occurs because emotional processing, through exploring negative self-appraisals and expressing unmet needs, helps in restructuring negative feelings and reinterpreting raw experiences. Thus, intense and undifferentiated processes have the potential to develop into meaningful emotions that promote healing and resolution (Pascual-Leone & Greenberg, 2007). Therapists can help clients access adaptive emotions through interventions that focus on emotion regulation, gradual exposure to feared or denied emotions, exploring maladaptive emotions, offering a safe environment, providing validation, and strengthening clients' sense of self (Paivio &

Pascual-Leone, 2010). Finally, the importance of process-outcome research, particularly the present study, is informing clinical practice in working with survivors of trauma. Specifically, by identifying the productive in-session processes that are associated with reduction in symptoms and abuse resolution, they can be readily adopted by clinicians and they can facilitate the therapy process by guiding clinicians towards good treatment outcomes

Recommendations for Future Research

This study raises several opportunities for further explorations through future research. Research could focus in greater detail on the factors that facilitate or prevent the process of moving towards more productive affective processes. For example, research could explore the contribution of the therapeutic alliance, engagement in therapy, and depth of client experiencing. Findings from the present study have shown that increased severity of personality pathology and taking psychoactive medication are linked to poor treatment outcome in terms of trauma symptoms and abuse resolution. Accordingly, future research could focus on specific client and therapist factors that account for variation in in-session processes and treatment outcome.

Another possible research focus is to assess change in emotional processes over the course of therapy in relation to other areas of improvement, such as self-esteem, and interpersonal problems. Findings from such studies can emphasize the importance of emotional processes in therapy and generalize positive changes for clients to other aspects of their mental health and well-being.

Additionally, future research could explore whether clients are more likely to go through the sequence of processes proposed by the CAMS model over the course of

therapy, rather than following the sequence within just one trauma narrative episode. Findings from the present study provided partial support for the sequence as proposed in the CAMS. The partial support might be due to fluctuations between affective processes over the course therapy but they may have been sustained within one session. In other words, episodes selected from the termination phase (most commonly second to last sessions were selected), might have limited the range of affective processes experienced by clients. Thus, examining and comparing the changes in affective processes in various durations and selecting episodes from earlier phases can provide additional insight into emotional processes during therapy.

Finally, it is recommended to replicate this study with a larger sample, which would potentially increase confidence in findings from the present study and possibly provide additional support to findings that approached but did not achieve statistical significance due to the small sample size.

Implications and Conclusions

The findings from the present study support the theoretical model proposed by Pascual-Leone and Greenberg (2005) and the underlying CAMS measure. The proposed qualitative changes in emotional processes occurred over the course of therapy, were related to treatment outcome, and to some extent followed the proposed sequence.

In terms of therapy for complex trauma, research studies that investigate the process and outcome of treatments for complex trauma at an in depth level are not common. Thus, findings from this study can contribute to theory and empirical evidence in support for EFTT as well as contribute to research concerning emotional processing of trauma material. Particularly, this study has helped to identify the emotional processes

that are related to good treatment outcomes as well as the sequence in progressing through affective processes. This study also highlighted the dramatic impact of helping clients experience and express productive emotions and affective processes (i.e. expressing existential needs, self-compassion, assertive anger, hurt and grief, and acceptance and agency). Specifically, only one minute of productive affective processes in therapy can double the chances of having a good treatment outcome. Additionally, this study has shown that unproductive affective processes can counteract the positive effects of productive processes, which emphasizes the importance of minimizing emotional setbacks during therapy. The unique contribution of this study is that it helped identify the specific emotional processes that account for good outcomes during trauma narratives in EFTT. This has implications in terms of guiding productive clinical practice and facilitating trauma recovery.

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APPENDICES

Appendix A

Consent for Therapy and Research Participation

You are being asked to participate in a research study being conducted by Dr. Sandra Paivio who is a faculty member in the Psychology Department at the University of Windsor and a Registered Psychologist in the Province of Ontario. If you have any questions or concerns about the research please feel free to contact Dr. Paivio at 519-253-3000 ext 2223.

The main purpose of the research is to understand how people in therapy resolve issues related to childhood abuse. You will be receiving approximately 16 weekly sessions of individual psychotherapy in exchange for research participation. A requirement of participation is video and/or audiotaping of all therapy sessions and weekly review of tapes by the supervisor and other therapists in the program. Taping in necessary (a) to monitor the quality of service, and (b) for future research and educational purposes. The following outlines things that will be requested of you.

(1) Retention of tapes until therapy termination at which time segments of tapes will be reviewed by researchers to assess your therapist's compliance with therapy guidelines. This review of tapes will be completed within a few weeks of therapy termination.

(2) Assessments at the beginning, middle, and end of therapy, and six months following termination of your therapy. These involve participation in an interview and completion of 8 questionnaires concerning your experiences of abuse and current problems that bother you. These will take approximately 90 minutes, each time, to complete. You will be paid \$25 for completion of the entire follow-up assessment.

(3) Completion of brief questionnaires following each therapy session. These will concern your experience of therapy during the preceding session and will take approximately 15 minutes, each time.

(4) In addition, after completion of your therapy, you will be asked to consent to future use of your therapy tapes for research and/or education purposes.

Potential risks of participation include discomfort from confronting child abuse memories and a temporary increase in symptom distress in the early stages of therapy. These potential risks are minimized in the following ways. Therapists have been trained to help clients deal with these problems and all sessions are monitored by the supervisor who provides guidance and is available to intervene in the case of a crisis. As well, a primary focus of therapy is to provide a safe environment in which clients have maximum control over the process of therapy. Clients make decisions about how and how often they confront trauma material and have flexibility in terms of termination.

Potential benefits of participation include reduced distress and lasting improvements in functioning. As well results of the research will provide guidelines for professionals and trainees and thus potentially benefit large numbers of individuals.

Information disclosed in your therapy sessions is strictly confidential. However, confidentiality will be broken if ongoing child abuse or risk of harm to yourself or others is disclosed. As well, the College of Psychologists of Ontario has the right to periodically

inspect clinical records.

Your tapes and questionnaires also will be kept in strict confidence and used only for this research. Materials will be used under the supervision of Dr. Paivio and only seen by members of her research team and therapists taking part in the program. Identifying information will not appear on your materials.

At any time you can withdraw your consent for use of any part or all of your materials. In this case you will be able to continue your therapy with the same or another therapist. If you have questions regarding your rights as a research participant contact:

Research Ethics Co-ordinator
University of Windsor
Windsor, ON N9B 3P4

Phone: 519-253-300 ext. 3916
email: ethics@uwindsor.ca

I understand the information provided about the research study described herein. My questions have been answered to my satisfaction and I agree to participate in this research program. I have been given a copy of this form.

Name of Client

Address, Phone Number

Signature of Client

Date

Appendix B

Consent to Wait for Therapy and Research Participation

You are being asked to participate in a research study being conducted by Dr. Sandra Paivio who is a faculty member in the Psychology Department at University of Windsor and a Registered Psychologist in the province of Ontario. If you have any questions or concerns about the research please feel free to contact Dr. Paivio at 519-253-3000 ext 2223.

The main purpose of the research is to understand how people in therapy resolve issues related to childhood abuse. You have been randomly assigned to a wait condition and will have to wait approximately 6 months to begin therapy until a therapist is available. Once a therapist is available you will be offered approximately 20 weekly sessions of individual psychotherapy in exchange for research participation.

You are being asked to complete a number of questionnaires which deal with your experiences of abuse and current problems that bother you. This will take place at the beginning and end of the wait period and will take approximately 90 minutes each time. You will receive \$25 for completion of the entire post-wait assessment.

Once you begin therapy, all sessions will be tape recorded. You also will be asked to complete assessments and answer questionnaires over the course of therapy. Once your therapy is completed, you will be asked to consent to future use of your tapes for research and educational purposes.

A potential risk of participating in the wait condition is that circumstances may arise whereby it is in your best interests to receive therapy before completion of the wait. In this case, feel free to contact Dr. Paivio and appropriate referrals will be found. Benefits of participating in the wait condition include assurance of receiving therapy at the end of a specified wait period and contribution to knowledge.

Your questionnaires will be kept in strict confidence and used only for this research. Identifying information will not appear on test materials. Any use of your materials other than for this research program will not be made without your written consent. At any time, you can decide not to take part in the research and can withdraw consent for use of any part or all of your materials. If you have questions regarding your rights as a research participant contact:

Research Ethics Co-ordinator
University of Windsor
Windsor, ON N9B 3P4

Phone: 519-253-300 ext. 3916
email: ethics@uwindsor.ca

I understand the information provided about the research described herein. My questions have been answered to my satisfaction and I agree to participate in the wait condition of this research program. I have been given a copy of this form.

Name

Address, Phone Number

Signature

Date

Appendix C

Release of Therapy Audio/Videotapes

You are being asked to give permission for use of audio and/or videotapes of your therapy sessions for research and educational purposes, that is, for the training of professionals. These tapes will be used under the supervision of Dr. Sandra Paivio who is a faculty member in the Psychology Department at the University of Windsor and a registered psychologist in the province of Ontario. If you have questions or concerns about use of these tapes please feel free to contact Dr. Paivio at 519-253-3000 ext 2223.

Segments of your tapes will be reviewed by members of Dr. Paivio's research team who are bound by professional ethical standards of confidentiality. They will not be viewed or heard by anyone who knows you personally. Tapes are securely stored and names and other identifying information will not appear on tapes.

Segments of your tapes also will be viewed by professionals and professionals-in-training who again are bound by professional ethical standards of confidentiality. This will not be for mass viewing or distribution. Every effort will be made to ensure that your tapes will not be viewed or heard by anyone who knows you personally.

Additionally, anonymous excerpts of your therapy session transcripts may be published where, again, all identifying information will be changes or deleted.

You can agree to all or any part of the above conditions and can, at any time, withdraw permission for use of all or any part of your materials. Should you withdraw permission, all tapes will be erased.

If you have questions regarding your rights as a research participant contact:

Research Ethics Co-ordinator
University of Windsor
Windsor, ON N9B 3P4

Phone: 519-253-300 ext. 3916
email: ethics@uwindsor.ca

I understand the information provided about the research use of my therapy tapes described herein. My questions have been answered to my satisfaction and give permission for use of the audio and/or videotapes and transcripts of my therapy sessions for the above purposes.

Client Name

Signature of Client

Date

Appendix D

Information About Psychotherapy Research Program

The goals of this research are to better understand how people come to terms with experiences of childhood abuse. Clients' contributions to this research are essential. This will help in developing and refining effective therapies for these painful issues and provide guidelines for professionals and trainees. Researchers and clinical supervisors in the program are faculty members in the Psychology Department at the University of Windsor and Registered Psychologists in the province of Ontario. Therapists are practicing professionals and senior graduate students in Clinical Psychology. All have experience with these client problems and all therapies will be monitored to ensure quality of service. Although this program has a research component, meeting clients' therapy needs is our first concern. We are interested in helping real people in real therapy come to terms with real life problems. We are interested in learning from clients' experiences and feedback.

Because we cannot see everyone immediately, participants may be randomly assigned to a wait condition until a therapist becomes available. Once a therapist is available, participants who wish to continue in therapy will be randomly assigned to one of two therapy approaches. Both approaches have been found to be effective. Once therapy begins, all sessions will be tape recorded (video and/or audio) and parts of these tapes will be reviewed by the therapist and his/her supervisor. Other therapists in the program also will review parts of these tapes as part of their training. This will ensure that all clients get the best possible service throughout the program. Tape recording also is necessary for future research on helpful aspect of therapy and to aid in the training of professionals.

The following things will be requested of participants as part of the research (1) Completion of questionnaires about abuse experiences and current problems before and after the wait period, at the beginning, middle, and end of therapy, and six-months follow-up; (2) retention of sessions tapes until therapy completion at which time segments will be reviewed by researchers to ensure therapy was conducted according to guidelines; (3) completion of brief questionnaires following therapy sessions; (4) future use of session tapes for research to determine how certain therapy experiences are helpful and training of professionals.

All materials will be kept in strict confidence and used only with participants' written consent. Identifying information, such as names, will not appear on materials. All clinical supervisors, therapists, researchers, and trainees who hear or view therapy session tapes are bound by professional ethical standards of confidentiality.

This is a large project which will take three to five years to complete. However, feedback about the results of this program will be available once it is summarized. If you have any questions or concerns about participating in this program please contact Dr. Sandra Paivio at 519-253-3000 ext 2223

Appendix E

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 F

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 H

Childhood Trauma Questionnaire (CTQ)

Instructions: These questions ask about some of your experiences growing up as a child and a teenager. For each question, circle the number that best describes how you feel. Although some of the questions are of a personal nature, please try to answer as honestly as you can. Your answers will be kept confidential.

1. When I was growing up, I didn't have enough to eat.
1 2 3 4 5
Never True Rarely True Sometimes True Often True Very Often True
2. When I was growing up, I knew that there was someone to take care of me and protect me.
1 2 3 4 5
Never True Rarely True Sometimes True Often True Very Often True
3. When I was growing up, people in my family called me things like "stupid," "lazy," or "ugly."
1 2 3 4 5
Never True Rarely True Sometimes True Often True Very Often True
4. When I was growing up, my parents were too drunk or high to take care of the family.
1 2 3 4 5
Never True Rarely True Sometimes True Often True Very Often True
5. When I was growing up, there was someone in my family who helped me feel that I was important or special.
1 2 3 4 5
Never True Rarely True Sometimes True Often True Very Often True
6. When I was growing up, I had to wear dirty clothes.
1 2 3 4 5
Never True Rarely True Sometimes True Often True Very Often True
7. When I was growing up, I felt loved.
1 2 3 4 5
Never True Rarely True Sometimes True Often True Very Often True
8. When I was growing up, I thought that my parents wished I had never been born.
1 2 3 4 5
Never True Rarely True Sometimes True Often True Very Often True

9. When I was growing up, I got hit so hard by someone in my family that had to see a doctor or go to the hospital.
- | | | | | |
|------------|-------------|----------------|------------|-----------------|
| 1 | 2 | 3 | 4 | 5 |
| Never True | Rarely True | Sometimes True | Often True | Very Often True |
10. When I was growing up, there was nothing I wanted to change about my family.
- | | | | | |
|------------|-------------|----------------|------------|-----------------|
| 1 | 2 | 3 | 4 | 5 |
| Never True | Rarely True | Sometimes True | Often True | Very Often True |
11. When I was growing up, people in my family hit me so hard that it left me with bruises or marks.
- | | | | | |
|------------|-------------|----------------|------------|-----------------|
| 1 | 2 | 3 | 4 | 5 |
| Never True | Rarely True | Sometimes True | Often True | Very Often True |
12. When I was growing up, I was punished with a belt, a board, a cord, or some other hard object.
- | | | | | |
|------------|-------------|----------------|------------|-----------------|
| 1 | 2 | 3 | 4 | 5 |
| Never True | Rarely True | Sometimes True | Often True | Very Often True |
13. When I was growing up, people in my family looked out for each other.
- | | | | | |
|------------|-------------|----------------|------------|-----------------|
| 1 | 2 | 3 | 4 | 5 |
| Never True | Rarely True | Sometimes True | Often True | Very Often True |
14. When I was growing up, people in my family said hurtful or insulting things to me.
- | | | | | |
|------------|-------------|----------------|------------|-----------------|
| 1 | 2 | 3 | 4 | 5 |
| Never True | Rarely True | Sometimes True | Often True | Very Often True |
15. When I was growing up, I believe I was physically abused.
- | | | | | |
|------------|-------------|----------------|------------|-----------------|
| 1 | 2 | 3 | 4 | 5 |
| Never True | Rarely True | Sometimes True | Often True | Very Often True |
16. When I was growing up, I had the perfect childhood.
- | | | | | |
|------------|-------------|----------------|------------|-----------------|
| 1 | 2 | 3 | 4 | 5 |
| Never True | Rarely True | Sometimes True | Often True | Very Often True |
17. When I was growing up, I got hit or beaten so badly that it was noticed by someone like a teacher, neighbor, or doctor.
- | | | | | |
|------------|-------------|----------------|------------|-----------------|
| 1 | 2 | 3 | 4 | 5 |
| Never True | Rarely True | Sometimes True | Often True | Very Often True |
18. When I was growing up, I felt that someone in my family hated me.
- | | | | | |
|------------|-------------|----------------|------------|-----------------|
| 1 | 2 | 3 | 4 | 5 |
| Never True | Rarely True | Sometimes True | Often True | Very Often True |

19. When I was growing up, people in my family felt close to each other.
 1 2 3 4 5
 Never True Rarely True Sometimes True Often True Very Often True
20. When I was growing up, someone tried to touch me in a sexual way or tries to make me touch them.
 1 2 3 4 5
 Never True Rarely True Sometimes True Often True Very Often True
21. When I was growing up, someone threatened to hurt me or tell lies about me unless I did something sexual with them.
 1 2 3 4 5
 Never True Rarely True Sometimes True Often True Very Often True
22. When I was growing up, I had the best family in the world.
 1 2 3 4 5
 Never True Rarely True Sometimes True Often True Very Often True
23. When I was growing up, someone tried to make me do sexual things or watch sexual things.
 1 2 3 4 5
 Never True Rarely True Sometimes True Often True Very Often True
24. When I was growing up, someone molested me.
 1 2 3 4 5
 Never True Rarely True Sometimes True Often True Very Often True
25. When I was growing up, I believe that I was emotionally abused.
 1 2 3 4 5
 Never True Rarely True Sometimes True Often True Very Often True
26. When I was growing up, there was someone to take me to the doctor if I needed it.
 1 2 3 4 5
 Never True Rarely True Sometimes True Often True Very Often True
27. When I was growing up, I believe I was sexually abused.
 1 2 3 4 5
 Never True Rarely True Sometimes True Often True Very Often True
28. When I was growing up, my family was a source of strength and support.
 1 2 3 4 5
 Never True Rarely True Sometimes True Often True Very Often True

Appendix I

Personality Diagnostic Questionnaire-Fourth Edition (PDQ-4)

The purpose of this questionnaire is for you to describe the kind of person you are. When answering questions, think about how you have tended to feel, think, and act over the past several years. To remind you of this, on the top of each page you will find a statement: **“Over the past several years...”**

Please answer either **True** or **False** to each item...

Where:

T (True) means that the statement is generally true for you.

F (False) means that the statement is generally false for you.

Even if you are not entirely sure about the answer, indicate “T” or “F” for every question.

For example, for the question:

xx. I tend to be stubborn. T F

If, in fact you have been stubborn over the past several years, you would answer True by circling T.

If, this was not true at all for you, you would answer False by circling F.

Over the past several years...

1.	I avoid working with others who criticize me.	T	F
2.	I can't make decisions without the advice, or reassurance, of others.	T	F
3.	I often get lost in details and lose sight of the “big picture.”	T	F
4.	I need to be the center of attention.	T	F
5.	I have accomplished far more than others give me credit for.	T	F
6.	I'll go to extremes to prevent those who I love from ever leaving me.	T	F
7.	Others have complained that I do not keep up with my work or commitments.	T	F
8.	I've been in trouble with the law several times (or would have been if I had been caught).	T	F
9.	Spending time with family or friends just doesn't interest me.	T	F
10.	I get special messages from things happening around me.	T	F
11.	I know that people will take advantage of me, or try to cheat me, if I let them.	T	F
12.	Sometimes I get upset.	T	F
13.	I make friends with people only when I am sure they like me.	T	F
14.	I am usually depressed.	T	F
15.	I prefer that other people assume responsibility for me.	T	F
16.	I waste time trying to make things too perfect.	T	F
17.	I am “sexier” than most people.	T	F

Over the past several years...

18.	I often find myself thinking about how great a person I am, or will be.	T	F
19.	I either love someone or them, with nothing in between.	T	F
20.	I get into a lot of physical fights.	T	F
21.	I feel that other don't understand or appreciate me.	T	F
22.	I would rather do things by myself than with other people.	T	F
23.	I have the ability to know that some things will happen before they actually do.	T	F
24.	I often wonder whether the people I know can really be trusted.	T	F
25.	Occasionally I talk about people behind their backs.	T	F
26.	I am inhibited in my intimate relationships because I am afraid of being ridiculed.	T	F
27.	I fear losing the support of others if I disagree with the,	T	F
28.	I have many shortcomings.	T	F
29.	I put my work ahead of being with my family or friends or having fun.	T	F
30.	I show my emotions easily.	T	F
31.	Only certain people can really appreciate and understand me.	T	F
32.	I often wonder who I really am.	T	F
33.	I have difficulty paying bills because I don't stay at any one job for very long.	T	F
34.	Sex just doesn't interest me.	T	F
35.	Others consider me moody and "hot tempered."	T	F
36.	I can often sense, or feel things, that other can't.	T	F
37.	Others will use what I tell them against me.	T	F
38.	There are some people I don't like.	T	F
39.	I am more sensitive to criticism or rejection than most people.	T	F
40.	I find it difficult to start something id I have to do it by myself.	T	F
41.	I have a higher sense of morality than other people.	T	F
42.	I am my own worst critic.	T	F
43.	I use my "looks" to get the attention that I need.	T	F
44.	I very much need other people to take notice of me and compliment me.	T	F
45.	I have tried to hurt or kill myself.	T	F
46.	I do a lot of things without considering the consequences.	T	F
47.	There are few activities that I have any interest in.	T	F
48.	People often have difficulty understanding what I say.	T	F
49.	I object to supervisors telling me how I should do my job.	T	F
50.	I keep alert to figure out the real meaning of what people are saying.	T	F
51.	I have never told a lie.	T	F
52.	I am afraid to meet new people because I feel inadequate.	T	F
53.	I want people to like me so much that I volunteer to do things that I'd rather not do.	T	F
54.	I have accumulated lots of things that I don't need but I can't bear to throw out.	T	F
55.	Even though I talk a lot, people say that I have trouble getting to the point.	T	F

Appendix J

PTSD Symptom Severity Interview (PSSI)

TRAUMATIC STRESS SYMPTOMS

Note: current effects of childhood abuse experiences, motivation for seeking therapy--i.e., why now; significant distress or impaired functioning.

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

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

Rating Scale (ratings made over the last two weeks)

0 = not at all

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

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

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

Reexperiencing Symptoms (need one)

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

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

___ 3. Have you had the experience of suddenly reliving the early traumatic/abusive experiences, flashes of being in the situation, acting or feeling as if it were reoccurring?

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

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

Avoidance Symptoms (need three)

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

___ 7. Have you persistently been making efforts to avoid activities, situations, or places that remind you of the early abusive situations (e.g., avoiding contact with certain people, family members; watching certain movies, television shows)?

___ 8. Are there any important aspect of those early traumatic/abusive experiences that you still cannot remember?

___ *9. Have you markedly lost interest in free time activities since those early abusive experiences? chronic? frequency within the last two weeks?

___ *10. Have you felt detached or cut off from others around you since these early experiences? chronic? within the last two weeks?

___ *11. Have you felt that your ability to experience emotions is somehow diminished?

___ 12. Have you felt that any future plans or hopes have changed because of those early abusive experiences?

Arousal Symptoms (need two)

___ 13. Have you been having persistent difficulty falling or staying asleep?

___ 14. Have you been continuously irritable or having outbursts of anger?

___ 15. Have you been having persistent difficulty concentrating?

___ *16. Are you overly alert since those early abusive experiences? chronic? frequency within the past two weeks?

___ *17. Have you been jumpier, more easily startled, since those early experiences? chronic? frequency within the past two weeks?

Meets criteria for PTSD diagnosis? _____

Chronic or Delayed Onset

Severity rating _____

Other Diagnosis _____

Appendix K

Impact of Events Scale (IES)

The “event” refers to the early experiences of childhood trauma/abuse for which you sought therapy. Below is a list of comments made by people after stressful life events. Please read the list below, and for each item, circle the number indicating how frequently these comments were true for you *during the past seven days*. If they did not occur during that time, please mark the ‘not at all’ column.

- 0 = Not at all
- 1 = Rarely experienced
- 2 = Sometimes experienced
- 3 = Often experienced

1. I thought about it when I didn’t mean to..... 0 1 2 3
2. I avoided letting myself get upset when I thought about it or was reminded of it..... 0 1 2 3
3. I tried to remove it from memory..... 0 1 2 3
4. I had trouble falling asleep or staying asleep..... 0 1 2 3
5. I had waves of strong feelings about it..... 0 1 2 3
6. I had dreams about it..... 0 1 2 3
7. I stayed away from reminders of it..... 0 1 2 3
8. I felt as if it hadn’t happened or wasn’t real..... 0 1 2 3
9. I tried not to talk about it..... 0 1 2 3
10. Pictures about it popped into my mind..... 0 1 2 3
11. Other things kept making me think about it..... 0 1 2 3
12. I was aware that I still had a lot of feelings about it, but I didn’t deal with them..... 0 1 2 3
13. I tried not to think about it..... 0 1 2 3
14. Any reminder brought back feelings about it..... 0 1 2 3
15. My feelings about it were kind of numb..... 0 1 2 3

Appendix M

CAMS Coding Criteria

Coding criteria at a glance		Global Distress	Fear & Shame	Rejecting Anger
<i>Emotion</i>	A. <i>Emotion/Action</i>	Vague, whining, hopeless, pain, self-pity, irritable, confusion	withdraw/ close down: fear, shame, lonely, empty	distance/ destroy: frustration, hate, disgust
<i>Involvement</i>	B. <i>Arousal</i> C. <i>Voice</i>	high, >4 emotional; focused	. emotional; focused	high, >4 emotional; external
<i>Meaning</i>	D. <i>Stance</i> E. <i>Specificity</i>	non-agentic, no direction unknown, avoid, minimal	deep & enduring pain clear & specific	protector stress wrongdoing not Self
		Negative Evaluation		Need
<i>Emotion</i>	A. <i>Emotion/Action</i>	"I am...unlovable/worthless/ ... abandoned/destroyed		"I need... recognition/support/ approval/affection/autonomy...
<i>Involvement</i>	B. <i>Arousal</i> C. <i>Voice</i>	. emotional; focused		. focused
<i>Meaning</i>	D. <i>Stance</i> E. <i>Specificity</i>	absolute, internally attrib., stable .		simple, internally attrib., stable need is unmet, observation
		Self-Soothing	Assertive Anger	Hurt/Grief
<i>Emotion</i>	A. <i>Emotion/Action</i>	caring/tenderness/nurturing reflexive, imaginary, attributed	Anger: self/rights -affirmation, entitlement, boundary setting	Hurt: recognizing one's hurt Grief: sadness over loss
<i>Involvement</i>	B. <i>Arousal</i> C. <i>Voice</i>	. emotional; focused	moderate-high, >3 emotional; focused	high, >4 emotional; focused
<i>Meaning</i>	D. <i>Stance</i> E. <i>Specificity</i>	adaptive & healthy action refers to Self	agentive, entitlement position clear & specific	wound Impact/Say goodbye clear & specific

	Mixed/Uncodable	End Coding
A.	Presence of emotional state <ul style="list-style-type: none"> not sufficient info for id no 2 coherent statements potential codes, w no certainty 	Absence of emotional state <ul style="list-style-type: none"> drop in arousal, and evocativeness
B.	A code must be made for continuity	<ul style="list-style-type: none"> change in topic, not evocative OR
C.	List potential codes	<ul style="list-style-type: none"> change in level of analysis, not evocative

- I.e.
- o Process interrupted,
 - o Blending states.

- I.e.
- o Psycho-educational discussions,
 - o Unfocused intellectualization,
 - o Humour dissipates a state of high arousal,
 - o therapist begins to end the session.

Appendix N

Examples of Affective Processes Codes

1. Global Distress

"I feel uneasy, queasy feeling. There are pictures flashing through my mind right now."

"Scream whenever you can...you never feel it, it's just numb. It's too much."

2. Fear/Shame

"I was scared to death. It was a time when we didn't have people living there. That was one of the scariest things."

"I was embarrassed to have people over. I felt very unnormal."

3. Rejecting Anger

"I hate your guts, I hated when you told me stuff. I was pissed off at everything."

"I really don't want to see you, because you pretty much damaged our relationship."

4. Negative Evaluation

"It was like I didn't exist. I was this bad seed."

"I wasn't worthy of living in that family, I wanted to get hit by a truck. I wasn't as smart as them, they made me feel stupid."

5. Existential Need

"Maybe now I can get some closure, I just needed to get that out. I needed you to understand, I just needed you to understand where I am coming from."

"I want to be free with myself, want closeness with my family or anyone. I hope I could be more myself."

6. Self-Compassion

"I want to embrace that child and say I am here, and I am trying to protect you."

"I always believed that there is something special in me. I would like to find it."

7. Assertive Anger

“You just don't do that to people, especially to kids. I don't want this, I am not willing to wait around and be influenced by your toxicity.”

“If what you are doing now is not working for you then change, I'm done. I have my boundaries. You're going to respect what I have to say.”

8. Grief/Hurt

“I am seeing her for what she is. I accept the way she is. That's an inability in her. I am not injured, I am a little sad.”

“I really get the picture of what happened to me. It is a good feeling to know that I deserve better. At the same time I feel that I lost all those years.”

9. Relief

“Feeling a little better, it's almost like a little weight gone.”

“The first meeting I had here, I went home and I felt the weight of the world off my shoulder...I left feeling so good.”

10. Acceptance/Agency

“I forgive you. It's a relief and feels genuine. I wish you the best of luck and hope you are taken care of.”

“Feels good, I can focus on other things in life. That was a big block.”

VITA AUCTORIS

Ula Khayyat-Abuaita was born in 1986 in Jerusalem, Palestine. She was raised in Bethlehem, Palestine and graduated from Collège-des-Frères High School in 2004. At the age of 18, she moved to the Republic of Cyprus and attended the European University Cyprus (Cyprus College) earning her Bachelor degree in Social and Behavioral Sciences with a major in Psychology. Subsequently, she moved to New York, NY and earned her Masters degree in Psychology from Pace University. In September of 2010, she moved to Windsor, Ontario and started her studies in the Doctoral program in Adult Clinical Psychology. During the course of her studies, she gained tremendous experience in conducting research, teaching, and clinical work. Ula will graduate and earn her PhD in October 2016.