Examining Autobiographical Memory Specificity, Expressed Emotional Arousal and Client Experiencing in Emotion-focused and Client-centered Treatments of Depression: A Process-outcome Analysis.

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A DISSERTATION SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

GRADUATE PROGRAM IN CLINICAL PSYCHOLOGY

YORK UNIVERSITY

TORONTO, ONTARIO

OCTOBER, 2014

Abstract

Research has consistently demonstrated that clinical depression is associated with a propensity toward generic, nonspecific autobiographical memory (ABM) recall (for a review see Williams, Barnhofer, Crane, Hermans, Raes, Watkins, et al., 2007). A recent study demonstrated that although increasing degree of ABM specificity was not independently related to treatment outcome in experiential therapy for depression, a relationship between higher levels of expressed emotional arousal and more specific memory narratives existed in clients who demonstrated positive therapeutic outcome (Boritz, Angus, Monette, Hollis-Walker & Warwar, 2011). The purpose of the present study was to extend the research of Boritz et al. (2011) by examining the relation between expressed emotional arousal, ABM specificity, and client experiencing in a significantly larger depressed sample than was utilized in the original study.

To this end, data from the York I & II Depression Studies of 72 depressed clients undergoing manualized psychotherapy treatment for depression was analyzed. Therapy transcripts from early, middle and late sessions were analyzed to evaluate ABM specificity, client experiencing (i.e. level of client self-reflection) and client expressed emotional arousal. Treatment outcome groups (Recovered, Unchanged) were classified based on the Beck Depression Inventory (BDI) using clinically significant change criteria identified by Jacobson and Truax (1991). Four primary findings were as follows: (1) increasing degree of ABM specificity with the

progress of therapy *did* independently predict membership in the Recovered group at treatment end; (2) no relationship was evidenced between ABM specificity and expressed emotional arousal that distinguished clients who were Recovered vs. Unchanged; (3) there was no evidence found supporting a relationship between ABM specificity and client experiencing in predicting outcome; and (4) level of expressed emotional arousal and level of client experiencing were positively related in the Recovered group at all three phases of therapy. The findings hold clinical implications for the treatment of depression and theoretical implications for understanding the relationship between depression, memory, emotion and experiencing.

Acknowledgements

I would like to thank everyone who has supported me in the completion of this paper. To my parents, Lynn and Margaret who tried to walk the fine balance of supporting me and also leaving me alone when required. To Abbey, who has sat next to me this whole ride. To my grandmother, Mary Elizabeth Hilborn whose love and warmth I feel every single day. To Fern Kagan, who both held my hand and blazed a path for me to follow. To my pal, James Watson-Gaze for long days watching therapy videos together and for the many times he talked sense to my panicked face. To Carrie Smith, a real-life statistics warrior. To my supervisor, Lynne Angus for her belief in the project and, in me. To Alberta Pos, for her thoughtful edits, intellect, and touching support during the final hours of this process. To Karen Fergus, Lisa Farley, Myriam Mongrain and Rhonda Goldman for their efforts in this endeavor. And finally, to Barry Lynn whose strength and love have changed my life. This paper is for Oscar Bear, who held the sign when I came out of the room.

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A robust body of psychotherapy research that has developed over the past 70 years has shown that the therapeutic ingredients common across disparate orientations account for a significantly greater proportion of positive client change than specific techniques alone (Ahn & Wampold 2001; Drisko, 2004; Lambert & Bergin 1994). These shared therapeutic ingredients are referred to as common factors of psychotherapy. Psychotherapy process research has investigated prospective common factors with the aim of identifying how and why therapy works, a critical task to inform productive clinical interventions. Common factors that have been consistently identified in theory and research as active ingredients in treatment include: a strong therapeutic relationship (Orlinsky & Howard, 1994; Safran & Murin, 2000), increasing client awareness (Goldfried, 2004; Lewin, 2011), emotional processing including emotional exploration, elaboration, engagement and differentiation (Burum & Goldfried, 2007, Carryer & Greenberg, 2010; Freud & Breuer, 1895; Greenberg, 2008; Rice & Greenberg, 1984), autobiographical memory (ABM) disclosure (Albuquerque, Paul & 2009; Freud & Breuer, 1895; Goldfried, 2003; Goncalves, 2012; Greenberg & Angus 2004; Luborsky, 1990), and reflection and meaning-making in therapy (Angus & McLeod, 2004). This study will investigate three client processes - expressed emotional arousal, autobiographical memory disclosure, and client depth of experiencing - in the context of therapy sessions drawn from client-centered and emotion-focused treatments of depression.

Research has consistently demonstrated that clients with clinical depression demonstrate a propensity toward generic, nonspecific ABM recall (for a review see Williams et al., 2007; Williams, 2006). To date, the study of ABM specificity in psychotherapy treatment has been minimal. A recent study, demonstrated that although a main effect of increasing degree of ABM specificity was not independently related to treatment outcome in experiential therapy, a relationship between higher levels of expressed emotional arousal and more specific memory narratives did exist for those clients who demonstrated positive therapeutic outcome (Boritz, et al., 2011).

The central aim of this study is to extend the research by Boritz et al. (2011) by examining the relation between expressed emotional arousal and ABM specificity in a depressed sample that will more than double the size of the sample originally studied, from 32 to 72 clients. Boritz (2008) identified sample size as a major limitation to her findings given that their outcome groups were highly unbalanced and there were only seven individuals comprising the outcome group that remained unchanged at termination. The substantial sample increase proposed here will provide greater power, allowing reliable relationships to be uncovered in the data that may have been occluded by the smaller sample size in the previous research.

Second, potential correlates that may impact the established relation between expressed emotional arousal, ABM specificity and therapy outcome will be explored. In particular, the relation between level of client experiencing in session

will be independently examined in relation to both ABM specificity and emotional arousal. Given that level of client experiencing reflects in-the-moment engagement and stages of arriving at new syntheses of emotional and somatic experiences, it is anticipated that it will serve as an important process variable in predicting outcome, i.e. heightening experiencing in conjunction with increasing narrative specificity may work together to support better outcomes. Despite decades of study focused on individual process variables much still remains to be understood about how narrative, self-reflexivity and emotion interplay in successful or unsuccessful treatment of depression. A central goal of this study is to address this gap in the psychotherapy research literature.

Experiential theory holds that specific memory recollection may be a building block in productive therapy allowing for heightened emotional activation, awareness, and reflection (Greenberg, Rice, & Elliot, 1993; Angus & Greenberg, 2011). As such, it is anticipated that memory specificity will be positively related to both expressed emotional arousal and client experiencing in good compared to poor therapeutic outcomes . Given that emotion must be tolerated in order to be deeply explored and reflected upon (Greenberg, Rice, & Elliot, 1993; Pos & Greenberg, 2007), it is also anticipated that expressed emotional arousal will be related to client experiencing in good outcomes of therapy only.

The literature review will focus on evidence relating these process variables to psychotherapy treatment primarily in experiential treatments for depression.

First, evidence indicating that emotional processing (including expressed emotional arousal), level of client experiencing and ABM specificity are each core therapeutic processes will be discussed. Next, the inter-relationship between ABM and emotional arousal in depression will be discussed. This will be followed by an examination of the intersection of level of client experiencing, ABM specificity and emotional arousal in experiential treatment. Finally the present investigation will be reviewed and discussed.

Literature Review

Emotional processing in therapy

Emotion in treatment: Evidence for a core therapeutic ingredient Client engagement in emotional processing (where "emotional processing" broadly refers to therapeutic attention to, and engagement with emotion experiences) is considered to be a fundamental task in psychotherapy across therapeutic orientations (Angus & Greenberg, 2011; Beck, 1996; Freud & Breuer, 1895; Greenberg, Rice, & Elliot, 1993; Mc Williams, 2004; Teasdale, 1999). Whether emotional processing is achieved through identification and evaluation of emotions on a thought record in Cognitive Behavioural Therapy (CBT) or through a client's focus on internal experiences and bodily-felt sense in experiential therapies the process of attending to, differentiating and accessing emotion is fundamental to effecting change in psychotherapy (Greenberg & Pavio, 1997). In the experiential tradition in particular, exploring, experiencing, expressing and differentiating

emotion is believed to afford clients access to important aspects of their self, and provide a crucial source of information necessary to interact with, and function effectively in the world (Greenberg, Rice & Elliot, 1993).

Historically, client emotional processing has been considered a central component of therapy dating to the earliest traditional Psychoanalytic therapies. Freud believed that emotional processing in therapy should essentially *be* the treatment: "we remain on the surface so long as we only treat memories and ideas. The only valuable thing in psychic life are, rather, the emotions" (Freud, 1921, pp. 196). In particular, uncovering and processing subconscious emotion was considered to be the central change process (Freud & Breuer 1895; Freud, 1914). Breuer's theory of emotional catharsis highlights this. Breuer observed that when hypnotized patients recalled traumatic events, which had previously been inaccessible to consciousness, a relief of hysterical symptoms occurred (Freud & Breuer, 1895). Freud and Breuer posited that the hysterical symptoms clients presented (e.g. pain, paralysis) functioned to relieve psychic anxiety related to socially unacceptable drives, experiences and emotions. They asserted that in order to remove the symptoms, the experience and emotion must be expressed and interpreted.

This theory still holds true for many contemporary psychoanalysts who also believe that observing, experiencing, interpreting and bringing emotions to consciousness facilitates insight and therapeutic change (Luborsky, 1990; Mc

Williams, 2004). Curtis & Hirsch (2003) suggested that in contemporary analytic therapy the client is encouraged to access emotionally powerful, often uncomfortable emotions and experiences which the client has coped with by concealing them from awareness. They argue for the psychoanalyst helping clients to disclose and bring to awareness painful, emotionally destabilizing material so it can be tolerated, more fully experienced, explored, and interpreted; and that this is a curative task in therapy (Curtis & Hirsch, 2003). It is through this disclosure of emotion and personal story that distressing symptoms and psychic unrest can be expressed, considered, understood and eventually fall away. As McWilliams (2004) succinctly states "(psychosymptomology) does not need to express what the mind can encompass" (p. 246). Psychosymptomology occurs when one is unable to wholly integrate distressing information (experiences, emotion, thoughts) and thus, relief from symptoms occur when one more fully experiences, reflects and represents this information.

In contrast to the central role of emotion in psychodynamic therapies, traditional cognitive therapies maintain that emotion is secondary to how an individual perceives and interprets their world (Beck, 1979). Within this tradition thought determines emotion, and emotional processing in and of itself is not considered to be the chief treatment target in cognitive therapy. Instead, altering the way in which the client interprets the world is what is targeted as the primary

process of change, accomplished by challenging core beliefs and assumptions (Beck, 1979).

Emotional work, such as identification, exploration and integration of emotion, while secondary, *is* considered an important task in producing cognitive change and relief from emotional distress in cognitive therapy (Reinecke & Freeman, 2003; Greenberger & Padesky, 1995). For example, tasks in session such as assisting a client to better identify and label emotion and its somatic correlates are considered important, as is exploring and labeling emotional experiences and their related cognitions through the identification of "hot thoughts" (Greenberger & Padesky, 1995). Contemporary cognitive theorists have increasingly placed greater emphasis on the role of emotion in an individual's psychological makeup and consider emotion's role in psychological treatment to be more complex and fundamental than was historically credited in cognitive therapy (Beck, 1996; Greenberg & Pavio, 1997).

In Experiential therapies, a stance of openness to all aspects of the self, experiential awareness and knowing, and integration among all of an individual's faculties and experiences is thought to denote psychological health. This includes emotional processing. Client-centered (Rogers, 1951), gestalt (Perls, 1969) and emotion-focused (Greenberg, L. S., Rice, L., Elliot, R., 1993) therapies all fall within the humanistic and experiential traditions. Within these modalities, a strong therapeutic relationship grounded upon the therapist's communication of empathy,

unconditional positive regard, and genuineness is considered a cornerstone of treatment (Rogers, 1951). Experiential theorists argue that it is within this secure relational base that clients experience the safety to explore disconnected and potentially threatening parts of themselves and experiences. By following the therapist's lead towards deeper emotional and reflective processing the client can articulate or make new meaning and views of self (Greenberg, et al., 1993; Pos & Greenberg, 2007). In experiential orientations emotion is broadly viewed as potentially both a problematic experience as well as a valuable source of information about the self. Experiencing and understanding emotion is therefore considered essential for adaptive and healthy functioning (Greenberg, et al., 1993; Bohart, 2003).

EFT treatments in particular target emotion as a means towards emotional and self transformation (Greenberg, et al., 1993; Pos & Greenberg, 2007). Tasks such as activating and expressing emotion, as components of emotional processing, are considered important in emotion-focused treatment, however, they are not considered to be sufficient to produce lasting client change. Deeper, integrated processing is assumed to be required. In EFT, clinicians facilitate activation of emotionally salient material (emotion schemes) through various methods including: use of specific, emotionally evocative language (Rice, 1974), maintaining attunement to client's emotional and bodily experiences (Gendlin, 1961; Greenberg, et al., 1993), utilizing empathic attunement to encourage clients to

deepen engagement with their emotions (Pos & Greenberg, 2007; Rice, 1974; Rogers, 1951) and emotionally evocative tasks (Greenberg et al., 1993). Clients are encouraged to identify, differentiate, explore and transform emotions, and reflect on them within a dynamic, fluid therapeutic process (Greenberg, et al., 1993). What results is the client's reflection and symbolization of inner experiences, leading to construction of new meanings and understandings of the self in the world. In this way emotion schemes and cognitive schemes together necessarily must be accessed, processed and integrated in a fluid, moment-by-moment, therapeutic unfolding (Greenberg & Angus, 2004).

Emotional expression in experiential therapy: Theory and research

Client-centered and emotion-focused therapies both share a similar goal of client engagement in emotional processing, however, the means by which they reach the goal differs in the two treatment approaches. CCT focuses on emotional processing in so far as moment-by-moment openness, awareness and processing of all available human faculties (emotional, cognitive, somatosensory, felt sense) are considered to be healthy and adaptive and thus are facilitated in therapy. Rogers (1961) highlighted emotional experiencing as a process to be encouraged in therapy wherein therapy encourages "richly differentiated reactions, by immediate experiencing of personal feelings which are felt as deeply owned and accepted" (p. 33). Emotional expression in CCT may be seen as a general marker for client openness and immediate emotional experiencing.

In EFT treatment, a much stronger and directed emphasis is put on explicitly targeting emotion in therapy. In EFT emotion is targeted within a therapeutic relationship through emotional evocation, exploration, and transformation in the context of engaging in EFT treatment tasks (Pos & Greenberg, 2007). Emotional arousal and expression are considered to be central components of emotional processing in EFT (Greenberg, 2002; Greenberg & Pascual-Leone, 2006; Whelton, 2004). Greenberg & Foerster (1996) found that following the empty chair tasks in experiential treatment "intense expression of feeling" (p. 444) was nearly always present in good outcome EFT cases compared to poor outcome EFT cases in which it was rarely present. It is important to note that despite significant overlap, emotional arousal (intensity of emotion a person experiences) and expressed emotional arousal (intensity with which a person expresses emotion experienced in voice, body, or language) are distinct types of emotional engagement. In psychotherapy process research, expressed emotional arousal tends to be better investigated as it can be evaluated readily by an observer.

The value of expressed emotional arousal in EFT and CCT treatments remains unclear despite the wealth of research investigating the topic that have embraced a range of research measures. To date, psychotherapy process-outcome research studies have shown that emotional expression alone does not universally lead to productive change nor does it necessarily reduce client distress (Bohart, 1977; Greenberg, Auszra & Heerrmann, 2007; Kennedy-Moore & Watson, 1999). A large

body of research examining the impact of expressed emotional arousal on outcome in CCT and EFT treatment for depression has been mixed. While some investigators have demonstrated a positive association between heightened levels of in-session expressed emotional arousal and outcome (Boritz, et al., 2011; Greenberg & Malcolm, 2002; Warwar & Greenberg, 2000; Warwar, 2004) others have not (Greenberg, et al., 2007). This may be related to different research questions posed and the methods utilized to evaluate level of expressed emotional arousal in various studies. Greenberg, et al., (2007) have attempted to account for discrepant study findings regarding expressed emotional arousal and outcome by proposing that only some types of expressed emotional arousal are productive (i.e. "working through emotion") and other forms of expressed emotional arousal may be simply unproductive or even maladaptive (i.e. rumination). Further, emotion may be chronically and rigidly over-regulated or under-regulated by the client, both of which can be maladaptive and unproductive (Greenberg et al., 2007). Greenberg et al. (2007) suggest that although activation and expression of affect may be necessary in therapy, it may be "the manner in which the emotional experience is processed, once it is activated, that is important in producing emotional change" (p. 483). A classic example of unproductive emotional processing is seen in individuals suffering from Posttraumatic Stress Disorder who are stuck in a chronic emotionally primed and activated state with difficulty utilizing the emotion in any meaningful way (Pavio & Pascual-Leone, 2010). Therefore, what constitutes productive emotional work is clearly in need of further study.

Alternately, other researchers have suggested that there may be an optimal amount of expressed emotional arousal associated with positive change in therapy. Carryer & Greenberg (2010) showed that a nonlinear pattern of expressed emotional arousal predicted outcome over and above the therapeutic alliance in a sample of 38 depressed clients who underwent experiential therapy. The authors found that spending approximately 25% of the session expressing high levels of emotion was associated with more positive therapeutic change. Frequency of expressed emotional arousal that was too high (client demonstrating high levels of expressed emotional arousal substantially more than 25% of the session) or too low (client demonstrating high levels of expressed emotional arousal for substantially less than 25% of the session) were associated with poorer therapeutic outcome. This inverted "U"-shaped optimal arousal curve has long been described in cognitive arousal research which has consistently shown that for performance and learning tasks, conditions of too much or too little arousal both interfere with problem solving, attention and memory performance (Yerkes & Dodson, 1908). This relationship between arousal and cognition is so robust it has come to be called the Yerkes-Dodson Law. Clearly, further study evaluating emotional arousal level, productivity and outcome is required.

Given inconsistencies in results from investigations of emotional arousal and outcome it has been argued that measuring the degree of expressed emotional arousal (a method which a large number of emotion-outcome studies have applied)

may be measuring emotional expression in a manner "too general to be a valid indicator of productive emotional experience in therapy" (Greenberg et al., 2007; p. 484). As such, modifications to the traditional measures focused on overall expressed emotional arousal levels are necessary to refining our understanding of the connection between emotional activation and treatment outcome. Capturing qualitative aspects of emotional expression in addition to quantitative measures of arousal may provide a fuller explanation of the role of emotional arousal in therapy. Examples of qualitative characteristics that could be investigated are varied and include: emotional valence (e.g. positive/negative affect), match between emotion expressed and material discussed, helpfulness to the client, novelty of the expression or emotion, and the timing and variability of emotional intensity. It may be that these process-oriented characteristics of the arousal are key in distinguishing what aspects of emotional arousal are most helpful, or which arousal processes lead to emotional expression that promotes positive outcomes. EFT theory supports this more differentiated proposition as therapeutic change occurs through means beyond simple affect activation and expression. Experiencing, elaboration, symbolization and synthesis are all considered to be ingredients necessary for producing lasting psychological change (Greenberg, et al., 1993; Pos & Greenberg, 2007).

Additionally, varied quantitative analyses may also be helpful in explicating the relation between emotional arousal and treatment outcome. For example, most

research to date has only evaluated the mean level of emotional arousal (high, medium, low) that clients display in relation to outcome. Research expanding this variable should include frequency/duration of emotional expression and even individual variability in aroused emotion over time (i.e. how much the individual seems to increase/decrease arousal intensity level over time which could signify maladaptive chronic over/under-regulation). This sort of more refined exploration could further enhance our understanding of emotional expression as a core factor in therapy.

A particularly relevant and different technique that could provide new insights into our understanding of expressed emotional arousal in treatment springs from a recent body of research showing that increased individual cognitive variability across both time (e.g. seconds, minutes) and varying tasks is related to poorer cognitive function and outcome for various clinical populations including the elderly and individuals with neurodegenerative disorders and schizophrenia (Bielak, Hultsch, Strauss, McDonald & Hunter, 2010; Cole, Wineburger & Dickinson, 2013; Hilborn, Struss, Hutltsch, & Hunter, 2009). Cognitive variability has been measured based on reaction-time tasks (i.e. variability within a single reaction-time task across seconds and minutes) as well as across higher level cognitive tasks (i.e. variability across different tests of various cognitive functions including verbal, memory and visuospatial abilities). In these studies, cognitive variability is assessed by creating a measure of the degree of variability (typically a standard

deviation) within a person's performance across the tasks which provides a measure of the degree of spread in an individual's performance across the tasks. Research has demonstrated that both cognitive variability across time and across tasks predicts cognitive function (Bielak, Hultsch, Strauss, McDonald & Hunter, 2010; Hilborn, Struss, Hutltsch, & Hunter, 2009). Whereby individuals with more peaks and valleys in their performance (i.e. more uneven performance across tasks, various highs and lows) typically display poorer cognitive functioning overall and individuals displaying a more steady performance across tasks typically display better cognitive functioning. Further, higher levels of cognitive variability are believed to represent a psychological vulnerability related to future cognitive decline and negative health consequences (Bielak,et al., 2010; Hilborn, et al., 2008;).

The relation between *emotional* variability and psychological health, however, is less clear. To date there have been dissenting theoretical views and research findings as to whether higher levels of variability in emotional intensity across time represents a negative psychological health attribute (as has been found in cognition-variability research) or a positive one. One perspective posits that emotional stability (as evidenced by a lack of significant variability in emotional intensity over time) is a marker of psychological health (Kabat Zinn 1982, Linehan, 1993). This is highlighted in Buddhist, mindfulness and emotion regulation philosophies which promote emotional steadiness, reflection and calm (Kabat Zinn

1982, Linehan, 1993). From this view, maintaining a stable emotional base and experiencing a relatively small number of emotional peaks and valleys (despite continually shifting situational contexts) is believed to be indicative of positive psychological health.

In contrast, the opposite relation has also been proposed, namely that higher levels of emotional variability are indicative of better psychological health (Kashdan & Rottenberg, 2010). From this framework, individuals who display greater variance in emotional intensity are considered to possess an emotional flexibility allowing them to move freely between higher and lower intensity emotional levels as the context warrants. In this model emotional fluidity is seen to represent a type of emotional resilience (Kashdan & Rottenberg, 2010; Waugh, Fredrickson & Taylor, 2008).

Research examining these opposing theoretical perspectives has been mixed (Kashdan, 2010; Mikaloajczak, 2010; Nicolson, 2006; Peeters, Berkhoff, Delespaul, Rottenberg & Waugh et al., 2011). However, several recent studies investigating variability of emotion reported that high levels of variation in emotional intensity is associated with increased depressive symptoms (Gruber, Kogan, Quoidbach & Mauss, 2013; Peters et al., 2006), increased anxiety symptoms and lower daily satisfaction and happiness (Gruber, et al. 2013). Interestingly these findings have been observed for both variability in negative emotion (Peeters et al., 2006) and positive emotion (Gruber et al., 2013), the latter findings prompting the authors to

name the title of a recent paper “Happiness Is Best Kept Stable” (Gruber et al., 2013).

With respect to psychotherapy, there have been no published studies to date addressing the relation between variability in emotional intensity and psychotherapy treatment outcome. Given that therapy, especially EFT, encourages emotional exploration and deepening, it is unclear whether increased variability in the intensity of emotion expressed in session (more peaks and valleys in intensity of emotion) is related to positive or negative outcome. It may be that individuals who are able to more fluidly move to higher and lower arousal states as the material being explored demands may be better able to make therapy constructive as they are able to access and express emotion but they aren’t overwhelmed by it or ‘stuck’ in it. Conversely, if there is an optimal level of emotional arousal for therapy to flourish, then it may be that more steady emotional expression from moment to moment, one with fewer peaks and valleys, allows for a productive emotional process and thus predicts positive therapeutic outcomes.

Client depth of experiencing: Evidence for a core therapeutic ingredient

Client experiencing refers to the manner and depth with which clients attend to and utilize their internal experience to construct new meanings and resolve problems in psychotherapy (Klein, Mathieu, Gendlin, & Kiesler, 1969). Deepening of experiencing involves fluid, deepening, moment-by-moment integration of somatic, emotional, and cognitive processes (Gendlin, 1997). This deepening experiencing

is a therapeutic task typically associated with experiential therapies including Emotion Focused Therapy (EFT) and Client Centered Therapy (CCT). Other therapies including psychodynamic and CBT encourage aspects of these dynamic, integrative and reflexive processes to foster change as well.

Investigators attempting to evaluate experiencing as a therapeutic construct have predominantly applied the Experiencing Scale (EXP; Klein, Mathieu-Coghlan & Kiesler, 1986) to operationalize depth of client emotion focused self-reflexivity in session. The EXP scale is a reliable, widely used research measure designed to evaluate the degree to which clients attend to their internal experiencing of emotions, thoughts and somatosensory feeling and incorporate them into meaning making and new understandings (Klein, Mathieu-Coughlan, & Kiesler, 1986; Pos, Greenberg, Goldman & Korman, 2003; 2006; Warwar, 2003). The EXP scale is a 7-point, observer-rated, ordinal scale. The lower levels of the scale (i.e. Levels 1, 2) reflect objective/behavioral, intellectualized, vague or depersonalized accounts of events or experiences. Increasingly higher levels of the scale reflect more personalized, emotionally present and elaborated experiences exhibiting integration of cognition and affect that are tied to construction of new personal meanings. The highest levels of the scale (i.e. Levels 5-7) reflect client accounts that involve fluid, dynamic, unfolding exploratory movement between internal self-referents and new personal constructions and understandings (Klein, et al., 1969 as referenced in Hendricks, 2002).

Investigation on depth of client experiencing in psychotherapy over the past 40 years has consistently shown that higher levels of client experiencing predict positive outcome (for a review see Hendricks, 2002; Goldman, Greenberg & Pos, 2005; Pos et al., 2003; 2009; Warwar, 1996). This finding is robust; it has been demonstrated across therapeutic orientations including experiential (Gendlin, Beebe, Cassens, Klein, & Oberlander, 1968; Klein, et al., 1986), EFT (Missirlian, Toukmanian, Warwar & Greenberg, 2005; Pos, 2006), psychodynamic (Silberschatz, Fretter & Curtis, 1986), and cognitive therapies (Castonguay, Goldfried, Wiser, Raue, & Hayes, 1996). The relationship has also been demonstrated across a variety of client samples including individuals with depression (Missirlian, Toukmanian, Warwar & Greenberg, 2005; Pos, 2006; Warwar, 1996), anxiety (Gendlin et al., 1967; Tomlinson & Stoller, 1967) and schizophrenia (Gendlin, et al., 1968; Tomlinson & Stoller, 1967). Converging evidence indicates that clients demonstrate deepening experiencing over the course of therapy (Goldman, Greenberg & Pos, 2005; Pos, et al., 2003; Warwar, 1996) suggesting it is an effect of psychotherapy treatment. In sum, there is strong evidence indicating that experiencing is a core psychotherapeutic ingredient.

However, in the past some theoretical arguments have been made by researchers proposing that experiencing is a universal change process that is better characterized as an individual client variable, not as a therapy process because it may be an aptitude which only some clients possess and make use of in therapy. In

fact, early research indicated that clients' capacity for engaging in experiencing at the onset of therapy may account for a significant proportion of the positive change observed at outcome (Orlinsky & Howard, 1986). As such, it had been suggested that experiencing is best considered a client trait and not necessarily a more universal therapeutic change factor. However, more recent evidence indicates that although client experiencing may be both a change process and a client trait to some degree, experiencing processes during later phases of therapy best predict outcome (Goldman, Greenberg & Pos 2005; Pos, et al., 2003; Pos, et al., 2009).

Pos et al. (2003) conducted a series of investigations aimed at elucidating this issue. The researchers evaluated experiencing during emotion narratives or episodes (labeled "emotional processing"; p. 1007) in early and late phases of therapy with a sample of 34 clients receiving EFT and CCT psychotherapy for depression in the York I Depression Study. The researchers evaluated narrative segments of therapy within which emotional processing was identified by emotion words or action tendency (i.e. covering one's face in response to feelings of shame) termed emotion episodes (EEs). Results showed that higher levels of client experiencing in early and late stages of therapy phases were both predictive of positive outcome. However, hierarchical regression analyses demonstrated that only late experiencing levels predicted outcome independently, and further, late experiencing mediated the relationship between the early experiencing capacity and reduction in symptoms and increases in self esteem.

In a follow-up investigation, which included a larger sample of 74 clients receiving CCT and EFT psychotherapy for depression, the researchers again showed that increases in client experiencing levels during the working/middle phase of therapy predicted outcome over and above any early experiencing abilities (Pos et al., 2009). Further, results showed that increases in EXP scores over the course of therapy from early, to middle and late stages of therapy predicted outcome (Pos et al., 2009). Taken together, the evidence demonstrated that the deepening of experiencing that occurs with the progression of therapy predicts positive outcome independent of client's initial experiencing proclivity, supporting the proposition that higher levels of client-experiencing emerges as part of a therapeutic change process.

To date, the entire corpus of research on client levels of experiencing has been limited to some extent by inconsistent methods used to sample therapy session transcripts. At present, there is no proscribed, standardized method for identifying the unit of analysis, or segments of therapy sessions for reliable application using the client EXP scale. Some researchers have applied the scale to randomly chosen set time segments in a session (Castonguay et al., 1996; Watson & Bedard, 2006) while others have applied the scale based on content areas like expressed core themes (Goldman, et al., 2005). A network of labs at York University has chosen to identify therapy segments to be examined for experiencing based on identified emotional episodes within sessions (EEs; Korman, 1991; Greenberg & Korman,

1993). EEs are identified segments of a therapy session in which an emotional response (expressed through emotion words or behavioral actions) is identified in relation to a specific, real or imagined autobiographical memory or event. Identification of the following five elements represents a complete EE description: a) a situation (e.g., in a loveless marriage); b) an emotional response (e.g., sadness, hopelessness); c) an action tendency toward a particular behaviour that is associated with emotion (e.g., crying); d) an appraisal of self or situation (e.g., "I am unlovable"); and e) a related concern or need (e.g., to be loved). However, the minimum amount of information needed to be identified to constitute an EE is identifying a) a situation and the accompanying b) emotional response or action tendency.

The application of the EXP scale to EEs has been described broadly as a measure of emotional processing (Pos et al., 2003; Pos et al., 2009). To date, studies utilizing the EE method to evaluate experiencing have been conducted primarily in CCT and EFT treatment for depression. Research utilizing the EE-EXP scale method has been praised for producing a more systematic, reliable and refined examination of the relationship between experiencing and outcome (Whelton, 2004).

Autobiographical memory in therapy: Evidence for a core therapeutic ingredient?

Autobiographical memory: Theoretical conceptualizations.

Autobiographical memory (ABM) has been described as a "personal, indeed intimate part of one's consciousness (as well as one's unconscious), a deeply affective thread of the fabric of one's self, like a line from a poem, a musical theme, or a narrative drive that links us with the world of dreams, forebodings and early experiences" (Brockmeier, 2010, p. 6). Autobiographical memory serves as a backdrop of interpreted experiences that orient individuals to 'who' they are in the world. ABM serves as a stable self-system within which to organize incoming information and therefore is considered to be fundamental in identity development (Conway & Rubin, 1993; Conway, 1997; Fitzgerald, 1988, 1996). Autobiographical memory includes memories of events and experiences as well as the meaning ascribed to them, which may change over time. This sense of self borne out of our personal memory orients us to our core beliefs and values, and serves to motivate us towards future goals and desires. As such, it can be expected to be a core ingredient evoked in psychotherapy. In the current study, ABM refers to personal memory disclosures within the therapy session.

In the 1960s memory theorists hypothesized that memory processing took place in discrete and linear memory systems which worked with a series of cemented inputs and outputs (Atkinson & Shiffrin, 1968). Since that time memory models have evolved, and today memory processing is conceptualized as a dynamic and reconstructive process (Conway & Pleydell-Pearce, 2000; Schwarzel & Mulluer, 2006). Memory is thought to be *constructed.* This construction occurs not only at

the time of encoding, but also over time, during each unique moment of retrieval. As such, it is now clear that memories are actually modified over time (Conway & Pleydell-Pearce, 2000; Loftus & Palmer, 1974). For example, it has been demonstrated that memory processing and recollection is influenced by mood states, arousal, environment and past and present experiences (Eich, 1980; Elliotson, 1835; Jude & Rickard, 2010; Mather, 2007; Tulving and Thomas, 1973). Conway & Pleydell-Pearce (2000) describe autobiographical memories in particular as "transitory dynamic mental constructions" (p. 261). This view has important clinical applications as it means that autobiographical memory and personal stories are likely to be transformed and changed in psychotherapy.

Cognitive theory and research has represented memory processing within various cognitive systems which correlate to, but are not necessarily restricted to, particular neuroanatomical regions. Some of the memory systems that have beenproposed include: unconscious (implicit/non-declarative) vs. conscious (explicit/declarative; Tulving, 1972; 2002), verbal vs. nonverbal (Baddeley, 2003), and episodic vs. semantic (Conway, 2000; Tulving, 1972). Current research models suggest that declarative and non-declarative models highlight an important distinction in memory systems (Squire, 1991; Tulving, 2002). Declarative memory refers to information that can be consciously recalled and non-declarative memory refers to unconscious memories including skills and procedural tasks. Within this model autobiographical memory (also termed episodic memory) has historically

been considered a type of conscious, declarative memory. However, ABM also necessarily has non-declarative aspects such as feelings and a sense of knowing that are not consciously known and do not lend themselves to articulation or study; for this reason non-declarative aspects of ABM are poorly researched and understood.

Neurologically, although different brain structures are associated with different aspects of memory processing/systems, memory representations and associated processes are diffusely distributed in the brain and are not localized exclusively to one structure or area (Raaijmakers & Shiffrin, 1992). Further, distinct memory systems (i.e. declarative and non-declarative) may or may not be activated simultaneously though parallel memory processing. The neurological embodiments and theoretical conceptualizations of memory point to important implications for therapy practice. Exploring memory wholly in a rich manner, relying on parallel processing, which includes simultaneous use of various memory modalities (i.e. verbal, non-verbal; declarative, non-declarative) allows for a broad range of information to be accessed, allowing for the potential of deeper reconstruction, integration and synthesis.

ABM narratives in psychotherapy: A case for episodic memory specificity as a core therapeutic ingredient. Across many psychotherapy modalities, the disclosure and exploration of autobiographical memories *is* considered a fundamental task in treatment (Angus & Greenberg, 2011; Beck, Rush, Shaw, &

Emery, 1979; Brewin, 2005; Goldfried, 2003). The recollection, expression, exploration and elaboration of specific, personally meaningful autobiographical memories in therapy facilitates one's understanding of self in the past and present state, to motivate, direct and create change as well as facilitate reflection on changes made. In the context of the therapeutic alliance, a client's recollection of specific, vivid, emotionally-salient and meaningful memories allows the therapist to identify core client issues and values, and fosters the therapist's empathic attunement through the creation of a shared and enriched framework in which to understand and connect with the client (Angus, Lewin, Bouffard & Rotondi-Trevisan, 2004; Angus & Kagan, 2007; Boritz, Bryntwick & Angus, 2008). Additionally, a series of studies has established that clients disclose 6-8 ABM narratives per therapy session in brief psychodynamic-supportive, client-centered and emotion-focused therapy for depression (Angus, Lewin, Rotondi-Trevistan & Bouffard, 2004). Thus, ABM disclosures appears to be a regular and frequent event in psychotherapy

Research studies to date provide strong support for the proposition that working with autobiographical memory in therapy benefits a client's wellbeing. For instance, Pennebaker & Segal (1999) showed that talking and writing about emotionally traumatic experiences caused an immediate drop in physiological stress symptoms including skin conductance and blood pressure. The writing exercise was also associated with improved health and immune function, and improved mood when measured at a 2 week follow-up. The researchers posit that writing about a

distressing experience facilitates de-centering from the impact of the event and allows people to reorganize their thoughts, emotions and actions within a coherent, sequential narrative. Subjects participating in the study confirmed this view with their commentary, reporting that the process of writing made them think things out and look at themselves from outside, from a self- reflexive position. The results suggest that specific memory recollection fosters client reflexivity and meaning making, and yields important psychological and physiological health benefits.

Although there is agreement across psychotherapeutic orientations on the value of memory recollections to the therapeutic process, the precise relationship between personal memory, symptomology and treatment process is conceptualized very differently within each psychotherapy school. In psychodynamic therapy, internalizations of early childhood relationships and experiences are thought to determine clients' psychological composition and vulnerabilities (Wolitzky, 2003). As such, the recollection and expression of memory, remote memory in particular, is a fundamental focus during the therapy hour. Classical dynamic theory posits that behavior is predominantly determined by implicit, unconscious memories. Because both personal and societal expectations render these memories emotionally threatening, they are kept from awareness by the self-protective operation of one's defenses (Freud, 1914; Wolitzky, 2003).

Within this framework, psychiatric symptoms are thought to emerge via the insufficient or ineffectual application of psychological defenses, the failure of which allow previously unconscious internal distress to become salient to us (McWilliams, 2004). In fact, a central therapeutic goal in dynamic therapy is to loosen the client's defenses in order to bring important distressing unconscious experiences, event memories and feelings to the client's awareness within the safety of the therapeutic environment. The more richly the client is able to engage in personal memory exploration and to experience it, the more potentially therapeutic the process becomes as more information is brought into conscious awareness. Deeper memory processing is facilitated by the psychoanalyst creating a safe relational environment, directing focus on memory, and interpreting the memory material raised.

Cognitive therapists also regard vulnerability to psychopathology to be borne out of memory representations, in the form of negative self-schemas activated in the present (Beck, et al., 1979; Brewin, 2006). There is a theoretical debate as to whether therapeutic change occurs as a result of fundamentally modifying the negative memory representations, or alternatively, whether the process of therapy causes the negative structures to be deactivated and more realistic and positive representations to be accessed and mobilized (Barber & DeRubeis, 1989; Brewin, 1989; 2006).

Cognitive therapists also regard memory recollection or personal memory disclosures as an important therapy task necessary for the identification of negative memory representations, core beliefs and automatic thoughts (Beck et al., 1979; Greenberger & Padesky, 1995). For example, a widely utilized cognitive behavioral technique is the construction of thought records to identify and target negative core beliefs. The creation of thought records requires clients to recall a detailed situation in which they felt distressed and to expand the recollection to include related somatic experiences, emotional states, thoughts and beliefs. In this way, specific memory recollection and elaboration are facilitated in session in order to identify and access over-arching memory representations which are targeted for change (Beck, 1979; Greenberger & Padesky, 1995). Change is thought to be achieved through modification or deactivation of schema through tasks including systematic cognitive exploration and reasoning, and exposure (Beck, 1979; Wolitzky, 2003; Brewin, 2006; Greenberger & Padesky, 1995).

In EFT the recollection and deepened exploration of specific autobiographical memories is viewed as a particularly important task given the intrinsic interconnectedness assumed between personal memory and the experience of the self. In fact, the connection is seen to be so intimate that some theoreticians consider memory to be a part of the self (Conway & Tacchi, 1996). Personal memory disclosure in EFT serves as a fundamental means of facilitating experiential and emotional activation and engagement with one's self and past

experiences which is considered to be necessary for change. For instance, Angus and Greenberg (2011) argue that the construction of ABM narratives is a universally human organizing process wherein "in order to better understand themselves, people continually symbolize, story and explain themselves to themselves -- and in so doing construct an ongoing, emergent self-narrative that organizes our personal stories and provides a sense of self coherence" (p. 345). The authors argue that the unfolding, interplay between emotion and narrative is fundamental, automatic and dynamic, and further, that the disclosure of specific, emotionally salient personal narratives is integral to psychotherapeutic change. An important aim in a narrative-informed approach to EFT treatment (Angus & Greenberg, 2011) is therapists' aim to maintain specific attunement to client narrative and emotional disclosures in order to help clients integrate and deepen understandings of their inner (physiological, emotion, cognition) self, life experiences and their broader self (Angus & Greenberg, 2011).

While the clinical importance of specific ABM disclosure for therapeutic success has been discussed widely in the psychotherapy process literature, few empirical studies have yet to specifically examine the relationship between quality of autobiographical memory expression over the course of therapy and therapeutic outcome. Such a line of empirical research could elucidate a more refined, cohesive and empirically supported model of the contributions of specific, personal memory disclosure for the achievement of positive therapeutic outcomes.

Mixing Ingredients: Autobiographical Memory, Emotional Arousal, and Depression

Memory and emotion are intimately connected in the mind, brain and body of humans; this has been demonstrated extensively both neurologically and psychologically (Bluck & Habermas, 2000; Conway & Rubin, 1993; Damasio, 1999; Nelson & Fivush, 2004). Neurologically, the function of the amygdala demonstrates this fundamental connection. The primary function of this limbic structure includes the processing, formation, and storage of emotionally salient personal experiences (Markowitsch & Staniloiu, 2011; Paré, D., Collins, D. R., & Pelletier, 2002).

A number of cognitive researchers view emotional experience as a fundamental feature of ABM processing. For instance, memory researchers Rubin & Berntsen (2003) state that "emotional experience (is a) critical phenomenological characteristic of episodic autobiographical memory retrieval. Hence, the subjective sense of remembering almost invariably involves some sort of emotional re-experiencing of an event" (p. 2315).

The powerful relationship between ABM and emotion is well established in the cognitive research literature. For example, "mood congruent bias" is a term that describes the finding that an individual's mood impacts the type and generation speed of memories recalled. It has been shown that individuals in a sad mood tend to recall sad events more quickly than happy events (Clark & Teasdale, 1982; Lloyd

& Lishman, 1975). This has found to be true of individuals with both naturally occurring low mood states (Lloyd & Lishman, 1975) and in those in which a low mood was experimentally induced (Clark & Teasdale, 1982).

A benchmark investigation by Williams & Broadbent (1986) showed that mood also impacts the form of memory recall: specifically, level of specificity of recalled memories. The researchers examined a group of suicidal patients and controls and asked them to recall specific personal memories in response to positive and negative emotional cue words (e.g. happy, safe, lonely, clumsy). Results showed that suicidal patients exhibited a deficit in providing specific memories for both positive and negative word cues. These suicidal subjects tended to provide more general memories (i.e. "I used to walk the dog every morning" as opposed to "one morning I was walking the dog and she ran away") to both types of word cues compared to community and hospital controls. Importantly the findings were not accounted for by a strict cognitive processing deficit as participants performed equal to controls on a series of memory tests (Williams, 2007). These findings have since been replicated in several follow-up studies (Evans, Williams, O'Loughlin & Howells, 1992; Williams & Dritschel, 1988).

The evolution of research on ABM specificity and mood has resulted in a robust body of research consistently indicating that clinical depression is associated with a propensity toward generic, nonspecific ABM recall (for a review see Williams, Barnhofer, Crane, Hermans, Raes, Watkins, et al., 2007; Williams,

2006). Of the dozens of studies undertaken to investigate this phenomenon, there have been very few that have not yielded evidence to support the phenomenon (Williams, 2007). Recently, two separate meta-analyses evaluating research on the existence of over-general memory (OGM) in depression yielded large effect sizes (Liu, Li, Xiao, Yang & Xiangq, 2013; Williams, 2007). The studies have generally used the word-cue task methodology as was used in Williams & Broadbent (1986), though a few have used a free recall method (Williams, 2007).

It is unclear whether the over-general memory phenomenon associated with depression is a mood state marker which occurs as a result of depression or whether it may be a more enduring individual character trait which may underlie one's vulnerability to depression, or some combination of the two. Some research has shown that having a personal tendency towards over-general memory recall predicts course of depression (Brittlebank, Scott, Williams & Ferrier, 1993; Dalgleish, Spinks, Yiend, & Kuyken, 2001; Harvey, Bryant & Dang, 1998; Williams et al., 2007) suggesting that OGM may be a relatively stable individual trait. Brittlebank et al. (1993) examined 22 patients diagnosed with Major Depressive Disorder (MDD) longitudinally over a period of 7 months. The patients were receiving pharmacological intervention, but no formal therapy intervention. They found that a client's initial degree of over-general memory recall was highly correlated with failure to recover from depression at follow-up 3 and 7 months later. Results also showed that lack of memory specificity was associated with

failure to benefit from antidepressant treatment, suggesting that a lack of specific memory recall is a client trait that is associated with poorer prognosis.

Brittlebank et al., (1993) hypothesized that non-specific recall corresponds to an individual's tendency to process information in a more broad and general manner and that the lack of specificity may lead to difficulties solving life problems effectively which could impact relationships, employment and daily functioning in the world, potentiating depression. One can argue that it is individuals with this memory processing style who would be most likely to struggle with mood problems for prolonged periods of time. This is supported by research showing that over-general ABM in depression is associated with additional deficits in cognitive functioning including significant impairments in problem solving abilities (Evans, Williams, O'Loughlin, & Howells, 1992; Scott, Stanton, Garland & Ferrier, 2000) and impairments in imagining future events (Williams et al, 1996).

The cognitive mechanisms underlying lack of memory specificity in depression have yet to be definitively determined. OGM in depression may occur either as a result of a deficit in memory retrieval or as a deficit in encoding the memory to begin with. Some researchers have argued that the OGM phenomenon occurs because of insufficient encoding at the onset of memory formation (Conway & Pleydell-Pearce, 2000), however, most researchers implicate impaired memory retrieval processes. Given the power of specific memories to evoke experience and emotion, several OGM researchers have argued that the tendency towards

expression of over-general ABM in depression is the result of an affective avoidance strategy utilized to protect against the activation of more specific, emotionally threatening and distressing memories (Borkovec, Ray & Strober, 1998; Williams et al., 1996).

Conway & Pleydell-Pearce (2000) presented a multifaceted, inclusive model of memory which when applied to the OGM phenomena implicates a deficit in memory retrieval. This model which they termed the "self memory system" proposed that ABM represents a component of a broad system that functions to maintain a record of experience in order to direct future goals and behavior and to maintain a stable and consistent sense of self, experience and goals.

They suggest that the information in the "self-memory system" is stored within a temporally hierarchal 3-level system with the highest, most abstract level representing life periods with the widest temporal span (i.e. "when I was in high school"). The next level down corresponds to events in an abstract manner (i.e. "going to a dance") or repeated events ("gymnastics practice on Wednesdays") which correspond to a shorter temporal span. The most basic level is the most specific and time limited; it is termed "event specific knowledge" and corresponds to single-event memories. It is believed that these memories are stored in specific, primarily perceptual-sensory format and do not include more abstract, summarized representations that occurs at the higher processing levels.

Conway & Pleydell-Pearce (2000) suggest that the memory system is constantly transitioning as memories (feeling states, facts, imagery, sensations, etc.) are activated by internal and environmental cues. When memories are retrieved they must be accessed through a top-down process passing through the abstract, broad representation to the specific sensory representations. The memory system is seen to exist within the context of the individual, dynamically interacting with representations of current goals and views of the self. In relation to the OGM specificity phenomenon, they suggest that OGM occurs as a result of "inhibitory control of memory " (Conway & Pleydell-Pearce, 2000; p. 282) wherein top-down memory generation retrieval is restricted to higher, more abstract representations to avoid or suppress emotional threats that could occur with continued, lower level, specific, somatic memory processing. For Conway & Pleydell-Pearce (2000) emotional threat is defined as experience in the context of emotionally distressing episodic material or material that evokes self-representations that are inconsistent with the current view of the self (Conway & Pleydell-Pearce, 2000; Williams, 2007). Further, they argue that when accessed, emotion suddenly and broadly consumes a great deal of attentional resources which can be a threat to the maintenance of other cognitive functions such as memory and executive functions. As a result, lower level, specific episodic memories which involve experiential, sensory-perceptual representations are not retrieved, or are avoided, in order to preserve emotional stability and conserve attentional resources. This model suggests that experiential emotional avoidance is driven by memory processes.

New neurological evidence supports the proposition that OGM memory is the result of abnormalities in inhibitory control (Whalley, Rugg & Brown, 2012). In the first known study examining the neurological correlates of ABM deficits researchers asked depressed and control participants to write out a narrative of a distressing personal event. At a later session the participants viewed words or segments of their narrative during an fMRI (Functional Magnetic Resonance Imaging) scanning procedure. The groups displayed similar activity in nearly all brain regions associated with ABM retrieval including areas of the parietal, temporal, occipital lobes, as well as the amygdala, caudate and putamen. This suggested that the memory system in the individuals in the depressed group was intact. Interestingly, the groups differed on activity in areas of the prefrontal cortex, an area associated with monitoring, emotion regulation and inhibition. Specifically the depressed group showed less activation in these areas (Whalley, Rugg & Brown, 2012). The authors hypothesized that the subjects suffer from OGM because of failure to inhibit task irrelevant material and mobilize task relevant information.

Recent research has shown that OGM can be targeted therapeutically for the purpose of increasing memory specificity. OGM has been found to improve in depressed patients undergoing mindfulness based cognitive therapy (Williams, Teasdale, Segal & Soulsby, 2000) and EFT and CCT (Boritz et al., 2011). In addition, preventing depressed patients from ruminating has been shown to improve specificity in memory recall (Watkins & Teasdale, 2001; 2004). The finding that

memory specificity is improved through intervention suggests that lack of specificity in depression is not the result of an impairment in encoding, because these memories would not be available for retrieval following the treatment if the phenomenon were the result of ineffective encoding. Instead these results suggest that OGM corresponds to a deficit in retrieval and is amenable to treatment intervention.

The research findings addressing OGM in clinical samples as well as the theoretical importance placed upon the therapeutic usefulness of specific ABM recollection both have important clinical implications for psychotherapy treatments of depression. To date it has been shown that over-general ABM can be made more specific through several therapeutic interventions, including mindfulness, CCT, EFT and CBT inhibition training (Boritz et al, 2008; Williams et al., 2000). Given that the OGM deficit is proposed to result from a truncated top-down memory retrieval and an excess of abstract representations (Conway & Pleydell-Pearce, 2000) it may be the case that activating more specific memory recollections can best be achieved through therapeutic mobilization of bottom-up memory processing. For example, an EFT approach in particular may support accessing more specific memories allowing for a wider array of information, including emotional experiencing, to be accessed in order to facilitate therapeutic change. Access to these specific, perceptually-based memories in particular is considered important for change in EFT as they hold unique and valuable information (Greenberg, et al., 1993). In sum, given that mood

impacts memory, it can be argued that increasing memory specificity may reciprocally impact mood. Theoretically, exploring specific vivid memories has been considered a valuable task in a range of therapeutic approaches including EFT (Angus & Greenberg, 2011; Elliot & Watson, 2007). The connection between increasing memory specificity and mood in therapy has yet to be supported in research, as there has been minimal study of the connection between memory specificity over the course of therapy and outcome.

One study has evaluated changes in the expression of ABM specificity within the context of therapy for depression in the York I Depression Study. Boritz et al. (2008) investigated degree of specificity of ABM across beginning, middle and late sessions of 34 clients undergoing EFT or CCT therapy. The researchers examined ABM specificity in the context of EEs. Results showed that progress across therapy was associated with greater ABM specificity as significant increases in ABM specificity were observed over the course of therapy from early to late therapy sessions ($p = 0.047$) and from middle to late therapy sessions ($p = 0.019$). Given the findings, the researchers concluded that personal proclivity of ABM specificity is tractable in therapy.

With respect to outcome, surprisingly, the findings did not indicate that greater ABM specificity alone accounted for the difference between good and poor outcome cases at treatment end as was postulated. The researchers interpreted the increase in ABM specificity to be a common effect of the therapy process and

surmised that the process of talking and exploring in therapy encourages a greater degree of specificity that does not in and of itself act as a determinant of successful treatment. However, given the robust findings linking clinical depression and the over-general memory phenomena the authors did *not* conclude that ABM specificity is unrelated to outcome. Instead, the researchers suggested that increased ABM specificity that was elicited in clients during therapy may act to facilitate various psychotherapy process factors yielding positive clinical outcomes. Enhanced emotional processing was one suggested process variable which may be impacted by ABM specificity.

Boritz et al., (2011) undertook a follow-up study to further explicate their findings, by examining the relationship between expressed emotional arousal, memory specificity and therapeutic outcome. They used the same sample of 34 clients in the York I Depression Study to investigate the role of emotional arousal in relation to ABM specificity identified within EEs and treatment outcome. For this study, clients were assigned to outcome groups based on clinically significant change analyses using BDI cutoff scores identified by Seggar, Lambert & Hansen (2002). According to this method clients were classified by the Beck Depression Inventory (BDI) as being clinically symptomatic (depressed) or clinically asymptomatic (non-depressed) based on the clinically significant cutoff score identified in their research (BDI=14.29).

Using Hierarchical Linear Modeling (HLM) statistical procedures, results showed that neither ABM specificity nor degree of expressed emotional arousal identified within EEs alone predicted treatment outcomes. Specifically, results showed that a higher proportion of more specific or single event ABM's were related to *higher* expressed emotional arousal scores for clients who were considered to have recovered by the end of treatment ($p = 0.016$; 95% CI: 0.023 to 0.233). In contrast, there was no significant relationship observed between proportion of ABM types (generic or specific) and treatment outcome and degree of expressed emotional arousal scores and treatment outcomes in clients who were classified as unchanged at treatment termination (95% CI: -0.438 to 0.076). These findings show the relationship between expressed emotional arousal and ABM specificity to be a complex one requiring further study. The results suggest that the expression of emotional arousal in combination with increased memory specificity identified within EEs both likely contribute to producing positive therapy outcomes for depressed clients undergoing CCT and EFT treatments. These findings correspond to EFT theory in particular, whereby accessing and disclosing specific autobiographical memories is integral for accessing and integrating emotional experience and gaining new insights and understandings (Greenberg & Angus, 2004). However, little is known about *how* this process specifically happens in therapy treatments.

Mixing Ingredients: Experiencing, Autobiographical Memory and Emotion

Experiencing may be an important process variable to consider in relation to the interesting findings relating ABM specificity and expressed emotional arousal to outcome in therapy as noted above. Results from recent studies using multi-level modeling analyses have demonstrated that neither increased ABM specificity nor expressed emotional arousal alone strongly and consistently predicts outcome in the York I Depression Study (Boritz et al., 2008; 2011). Given robust psychotherapy theory highlighting the importance of both emotional processing and accessing specific narratives to successful therapy, these null findings may indicate that the positive impact of ABM specificity and emotional arousal on outcome is likely mediated by other therapeutic process factors. In fact, recent findings establishing a link between greater emotional arousal and ABM specificity in predicting outcome identifies experiencing as one possible mediator in this relationship (Boritz et al., 2008; 2011).

Theory from various therapeutic orientations including psychodynamic and experiential, all support this hypothesis. Therapists are encouraged to use specific language and encourage specific remembering as lingual specificity is considered to facilitate and activate emotion (Greenberg, Rice & Elliot, 1993; Martin, 2011; Rice, 1974). From an experiential perspective, the converse is also true. A therapeutic focusing on internal experiences or senses, and a deepening of this focus fosters reflexivity and the development of a more complete and integrated narrative

(Greenberg & Angus, 2011). This dynamic process of emotional experiencing, reflexive processing and narrative creation are not only deeply intertwined but actually directly influence each other in a moment-by-moment building and unfolding.

Warwar et al. (2003) investigated the power of experiencing and expressed emotional arousal, within EE episodes, to predict outcome using 32 clients undergoing CCT and EFT from the York Depression Study. Hierarchical regression analyses showed that emotional arousal and client experiencing were not uniquely predictive of outcome when considered together in a model based on residual gain score analysis of the BDI. However, the combination of emotional arousal and experiencing predicted outcome on the BDI better than either emotional arousal or experiencing independently. Although both are measures of different modes of emotional processing, emotional expression and the symbolization and reflection on emotion appear to act in concert to contribute to good outcomes. Theoretically, this is supported by a strong body of theory from the experiential tradition proposing that therapeutic change occurs through the activation of emotional schemes which serves to make them accessible to awareness, reflection and symbolization processes (Greenberg, et al., 1993).

New research from the York I Depression Study has reanalyzed Warwar's (2003) data utilizing path analyses to directly examine the relationship among arousal and experiencing within therapy phases and final outcomes. These results

showed that expressed emotional arousal and client experiencing are intimately related in therapy, as the effects associated with expressed emotional arousal on outcome were demonstrated to be mediated by client experiencing within phases of therapy (Pos, Paolone, Smith & Warwar, under review). The mediation was found to be particularly complete during the working phase of therapy where experiencing mediated nearly the entire effect of middle phase arousal on final reductions in BDI scores. The results suggest that when emotion is activated it is utilized in the service of deeper experiencing. The authors argue that experiencing, then, can be considered to serve as an "implicit measure of optimal arousal, and that explicitly measuring arousal is not as important as measuring the process of Experiencing" (Pos et al., under review, p. 19).

In separate studies, emotional arousal in combination with both client experiencing and ABM specificity have been found to predict therapy outcome with depressed individuals better than either therapy process factor alone (Boritz et al., 2011; Warwar et al., 2003). However, to date no research has examined the relation between level of client experiencing and ABM specificity. One would expect this relationship to exist, partially because some overlap does exist between the client experiencing and ABM specificity constructs. Lower levels of the client experiencing scale (i.e. level 2, 3, 4) require increasing degrees of memory specificity in order to reach higher levels (i.e. to move from level 3 to 4). Therefore, much like the proposition that experiencing may act as an implicit measure of

optimal arousal as proposed by Pos et al. (Under Review), experiencing may also serve as an implicit measure of ABM specificity to some degree. Given this, we would expect these two variables to be related.

Given that client experiencing signifies level of client involvement, activation and flexibility in therapy it may well be that experiencing in conjunction with ABM specificity (i.e. narrative activation along with emotional, somatic and reflexive activation and flexibility) also predicts therapeutic outcome. This is supported by client accounts that recalling an event specifically activated a de-centering reflexive mode of processing that the clients found to be helpful and corresponded to positive psychological and health outcomes (Pennebaker & Segal, 1999).

The Present Study

The current investigation aims to build on the previously established findings in our lab by further examining the relation between ABM specificity and other psychotherapy process variables in predicting treatment outcome in two major ways. First, our research will extend research by Boritz et al. (2011) by examining the relation between emotional arousal and ABM specificity in a depressed sample that will more than double the size of the sample originally studied, from 32 to 72 clients. Boritz et al. (2008) identified sample size as a major limitation to their findings given that their outcome groups were highly unbalanced and there were only seven individuals comprising the outcome group that remained unchanged at termination. The substantial sample increase we propose will provide greater

power allowing us to uncover reliable relationships in the data that may have been occluded by the smaller sample size in the previous research.

Second, potential correlates that may impact the established relation between expressed emotional arousal, ABM specificity and therapy outcome will be explored. In particular, the relation between level of client experiencing in session will be examined in relation to ABM specificity and emotional arousal. Given that level of client experiencing reflects engagement and flexibility in emotional somatic and reflexive processing it is anticipated that it will serve as an important process variable in predicting outcome when heightened in conjunction with narrative specificity. Exploring experiencing in this context is of particular importance because the relationship between experiencing and ABM specificity has not been addressed in any previous studies. Examining experiencing in relation to ABM specificity and emotional arousal will address directly interactions between therapy process variables of memory, emotion, reflexivity and outcome.

With a goal of exploring the relation between ABM specificity, emotional arousal and client experiencing, data from York I & II Depression Studies of 72 depressed clients undergoing manualized psychotherapy treatment for depression were analyzed. Treatment in the study consisted of between 16-20 weekly, hour-long sessions of client-centered or emotion focused therapy. Therapy transcripts from early, middle and late sessions were analyzed to evaluate ABM specificity, client experiencing (i.e. level of client self-reflection) and client expressed

emotional arousal, all measured while occurring during emotion episodes. Treatment outcome groups were classified based on the Beck Depression Inventory (BDI) using clinically significant change analyses identified by Jacobson and Truax (1991) and utilized by Boritz et al (2008). This method is a conservative one, requiring two steps in determining outcome. First, a cut-off score is established for the outcome measure of interest (BDI) based on the sample's outcome scores to determine the sample based criterion for clinically significant change. Second, the reliable change index (RCI) is calculated to determine whether changes in the client's outcome scores are significant and reliable. Based on these two criteria, clients were classified in Boritz et al., (2008)as 'Recovered' (i.e. achieved the cutoff and RCI criteria), 'Improved' (i.e. achieved the RCI criteria but not the cutoff), 'Depressed' (achieved the cutoff but not the RCI criteria) or 'Unchanged' (i.e. achieved neither criteria). This Jacobson & Truax (1991) outcome method was selected to identify outcome groups in the current study for two important reasons. First, it is the method which was utilized by Boritz et al (2008) in the original study examining ABM in psychotherapy. Second, given that the current study is directly evaluating the phenomenon of over-general memory during psychotherapy intervention in a clinically depressed sample, determining post-treatment whether individuals are classified as depressed or not is necessary. Hierarchical Linear Modeling (HLM) was chosen as the optimal analyses as it best represents the longitudinal, nested and multi-level structure of the data (i.e. sessions within dyads, emotion episodes within sessions).

Hypotheses. The aim of the present study is to: (a) examine changes in proportions of single-event (specific) ABM narratives, level of emotional arousal, and degree of client experiencing each independently across therapy for the entire sample as a whole; (b) examine differences in the proportions of single-event ABM specificity subtypes, level of emotional arousal, and degree of client experiencing across early, middle, late phases of therapy for clients identified as Recovered vs. Unchanged at therapy termination; and (c) investigate the relationship between degree of ABM specificity and expressed emotional arousal by stage of therapy and overall treatment outcome (Recovered vs. Unchanged); and (d) investigate the relationship between degree of ABM specificity and level of client experiencing by stage of therapy and overall treatment outcome (Recovered vs. Unchanged).

Question 1: Do Autobiographical Memory Specificity Trajectories Change over the Course of Treatment by Outcome Group and Treatment Type?

Expected Findings Related to Question 1:

1a) Proportion of single event ABMs will increase over the course of therapy from early through working and late phases of therapy.

Given empirical evidence established by Boritz et al. (2008) it is expected that there will be a significant increase in ABM specificity for the whole sample from early to middle and early to late phase sessions of the sample of York 1 and 2 clients.

1b) The recovered group will display a greater proportion of single-event ABM specificity in the working and late phases of therapy compared to the Unchanged group, irrespective of treatment type (EFT vs. CCT).

Boritz et al. (2008) reported no significant difference in ABM specificity across therapy phase in clients identified as Recovered compared to Unchanged at treatment termination. These results held when including treatment type (EFT vs. CCT) into the model, indicating that there was no observed difference in the trajectory of ABM specificity subtypes across therapy by outcome group and treatment type. However, a strong body of theoretical evidence indicates that engaging in specific memory narratives is an important process in productive psychotherapy treatment (Angus & Greenberg, 2011; Beck, Rush, Shaw, & Emery, 1979; Brewin, 2005; Goldfried, 2003). In addition, Bortiz et al. (2008) identified sample size as a major limitation to their findings, in particular, it was proposed that the small sample size of the Unchanged subgroup (N=7) held little power to detect any significant relationships therein. Given the theoretical body of evidence, and that the current investigation utilized a sample size that more than doubles that previously investigated by Boritz et al. (2008), significant findings relating ABM to outcome are anticipated. Specifically, it is anticipated that the Recovered group will evidence a greater proportion of single-event ABM specificity in the working and late phases of therapy compared to the Unchanged group.

1c) No treatment differences (EFT vs. CCT) in proportions of single-event ABM's will be found within phase of therapy.

Given that both therapy treatments equally stress the importance of specific ABM narrative disclosure of clients, it is expected that the trajectories of proportion of single-event ABMs will not differ between the two treatments. Experimental support for this comes from the study by Boritz (2008) which reported no difference between CCT and EFT treatment group trajectories for level of memory specificity across time. As such, it is expected that the treatment groups will be equivalent for ABM specificity over the course of therapy.

Question 2: Do Expressed Emotional Arousal Trajectories Change over the Course of Treatment by Outcome Group and Treatment Type?

Expected Findings Related to Question 2:

2a) Degree of expressed emotional arousal will increase significantly from early through to late phases of therapy, for the sample as a whole.

Based on previous research findings (Boritz et al. 2011; Warwar, 2003), as well as the focus of experiential therapy theory on emotional activation and expression in therapy, it is expected that the degree of expressed emotional arousal will increase from early therapy to late therapy, for the sample as a whole.

2b) The Recovered outcome group will display an increase in level of expressed emotional arousal from early to late phase treatment while the Unchanged group will not. These patterns will occur irrespective of treatment type.

Given previous findings from the York I Depression Study (Boritz et al., 2011) and the assumed importance of increasing expressed emotional arousal to emotional processing and outcome in experiential therapies, it is expected that the degree of expressed emotional arousal in the working and late phases of therapy will be significantly higher in clients identified as Recovered compared to Unchanged, at treatment termination.

2c) EFT clients, as a whole, will exhibit significantly higher expressed emotional arousal during the working phase of therapy compared to CCT clients.

Theory predicts that arousal levels will differ between the two treatment groups during the working phase given that the specific emotion-focused tasks which pull for heightened emotional arousal and generally occur during the working phase are used in EFT. Boritz (2008) and Walker (2005) both observed significantly increased emotional arousal for EFT treatment in middle versus early phases of therapy, whereas CCT dyads demonstrated significantly increased emotional arousal in late versus early phases of therapy. We expect to find similar results; we expect that the EFT group will exhibit greatest arousal levels in the working phases of therapy and level off at the end, while the CCT trajectory will

evidence an increase in arousal scores across therapy with greatest arousal levels at the end of therapy.

2d) The Recovered outcome subgroup will evidence significantly less expressed emotional arousal variability (when controlling for overall level of arousal) than the Unchanged group during the working and late phases of therapy.

Given that overall level of expressed emotional arousal has not been consistently related to outcome to date (see Greenberg, Auszra & Herrman (2007)) the present investigation attempted to explore expressed emotional arousal in a new way, testing whether results from cognitive research related to the factor of variability will generalize to the arena of emotional processes. For this reason, and in light of a new body of research that has developed relating variability in emotional intensity to psychological functioning (Gruber et al., 2013; Kashdan & Rottenberg, 2010; Peters et al., 2006; Waugh, et al., 2008) variability in expressed emotional arousal was investigated. Given some research suggesting that a lack of variability in emotional intensity, whether negative or positive, is associated with better psychological health (Gruber et al., 2013; Peters et al., 2006) we predicted that the Recovered group would evidence less emotional variability during the working and late phases of therapy compared to the Unrecovered group.

Question 3: How do Degree of ABM Specificity, Expressed Emotional Arousal and Client Experiencing Interplay across Phase of Therapy in Predicting Therapeutic Outcome?

Expected Findings Related to Question 3:

3 a) In the Recovered group, higher levels of expressed emotional arousal will be related to a greater proportion of specific ABMs at all three phases of therapy. This relationship will not exist in the Unchanged group.

Strong theoretical assumptions indicate that memory and emotional processes work together in experiential therapy whereby accessing and disclosing specific autobiographical memories is integral for accessing and integrating emotional experience and gaining new insights and understandings (Greenberg & Angus, 2011). Further, empirical evidence, with half the present sample, has already shown that higher levels of expressed emotional arousal were related to greater proportions of specific ABMs in individuals with positive therapeutic outcome at all three phases of therapy but that these processes were unrelated in clients with poor therapeutic outcome (Boritz et al., 2011). Given this theoretical and empirical evidence, it is anticipated that a positive relationship between ABM specificity and expressed emotional arousal will be observed in individuals identified as Recovered during working and late therapy. No relationship between these process variables in individuals identified as Unchanged is expected.

3 b) In the Recovered group, higher levels of client experiencing will be related to a greater proportion of specific ABMs at all three therapy phases. This relationship will not exist in the Unchanged group.

This is the first examination of this issue for experiential therapy yet one that is also strongly assumed by theory. No previous empirical studies have evaluated

the relationship between client experiencing and ABM specificity. Theoretically, given that client experiencing signifies level of client involvement, emotional activation and flexibility in therapy it is expected that client experiencing will be positively related to ABM specificity (i.e. narrative activation along with emotional, somatic and reflexive activation and flexibility) during working and late phases of therapy in individuals with good therapeutic outcome. Given that a dynamic between memory and emotional activation, embodiment and reflection is thought to be therapeutic, it is not expected that ABM specificity and client experiencing will be related in individuals with poor outcome.

3c) In the Recovered group, higher levels of expressed emotional arousal will be related to a higher levels of client experiencing within all three phases of therapy. This relationship will not exist in the Unchanged group.

Theoretically, a strong body of work from the experiential tradition proposes that therapeutic change occurs through the activation of emotional schemes which once activated are made accessible to awareness, reflection and symbolization processes (Greenberg et al., 1993). As such, it would be expected that expressed emotional arousal and client experiencing are related in predicting outcome. Empirical evidence supports this proposition: Warwar (2003) demonstrated through hierarchical regression analyses that emotional arousal and client experiencing were not uniquely predictive of outcome when considered together in a model based on residual gain score analysis of the BDI. However, the

combination of emotional arousal and experiencing predicted outcome on the BDI better than either emotional arousal or experiencing independently. The results suggest that emotional expression and the symbolization and reflection on emotion each add something important to the other in psychotherapy.

The work by Warwar (2003) expanded on recently by Pos et al. (Under Review) using path analyses of the York I Depression Study data demonstrates that client experiencing actually mediated the significant indirect relationship between expressed emotional arousal and outcome. These results support experiential theory that posits that activating emotion makes it salient to awareness and allows it to be explored and reflected on through the process of experiencing.

Given this theoretical and empirical evidence, a positive relationship between level of client experiencing and expressed emotional arousal in clients identified as Recovered is expected during working and late phases of therapy. No relationship is anticipated between these variables for the Unchanged clients, as it is not expected that these clients will be able to activate emotion in service of further exploration, insight and synthesis.

Method

The data that was used for the current investigation comes from the York I (Greenberg & Watson, 1998) & II Depression Studies (Goldman, Greenberg & Angus, 2006), two outcome studies at the York University which compared two

experiential therapies for depression. Both investigations have yielded considerable experiential psychotherapy process research that has tested assumed experiential principles of change for experiential treatment of depression.

Participants

The clinical sample for this study consisted of therapy transcripts selected from 72 clients who received experiential therapy (Client Centered or Emotion Focused Therapy) for depression. Of the 72 participants 34 were treated in the York I depression study and 38 in York II depression study. Subjects were recruited through advertisements in local newspapers, national radio announcements, posters in local mental health centers, and through flyers distributed at York University. Initial inclusion criteria included having experienced depressive symptoms lasting more than two weeks (meeting DSM- IIIR or DSM-IV criteria for a current episode of major depression), being 18 to 65 years of age, and having no current involvement in psychotherapy or psychopharmacological treatment for depression.

Client demographics. The age range for clients spanned from 22 to 63 (M = 39.93, SD = 10.96) years. Females made up 66% and males made up 34% of the current sample. In terms of marital status, 24.3% clients were married, 20.3% were separated or divorced, 2.7% were remarried, 10.8% were widowed, and 41.9% were single. Educational status ranged from high school completion to some postgraduate experience, with 37.8% clients having completed high school, 31.1%

clients being college graduates, and 31.1% having had some postgraduate experience. There was no difference between treatment groups in terms of age, education, or gender; however, marital status differed between the two therapy groups, with 67% of single subjects receiving CCT and only 33% receiving EFT. The opposite pattern emerged for married clients with 65% of married subjects receiving EFT and the other 35% receiving CCT. It is important to note that no significant differences on any pre or post process or outcome measures were detected, and no between-treatment difference regarding marital status was found. As such, noted assignment differences in marital status between treatment groups were not considered problematic and thus were not taken into account with subsequent analyses.

Assessment. The assessment of potential subjects for both York 1 and II studies was conducted by advanced graduate students in clinical psychology and occurred in three stages: an initial telephone screen followed by two separate face-to-face interviews. Exclusion criteria for the study included: being currently in psychotherapy treatment or on psychotropic medication; having a Global Assessment of Functioning Scale (GAF) score less than 50; a history of incest; attempted suicide or loss of a significant other in the past year; being involved in physically violent relationships; having a substance abuse problem; diagnosis of an eating disorder, antisocial, or borderline personality disorder, or a bipolar or

psychotic disorder; or having three or more prior episodes of Major Depressive Disorder (MDD).

The initial telephone screen was conducted to assess each individual's level and severity of current depression. Participants who met the initial screening criteria were invited for a screening interview and assessment session. The Structured Clinical interview for DSM–IV (SCID, Spitzer et al., 1989), the Beck Depression Inventory (BDI, Beck et al., 1988; Beck et al., 1961), the Symptom Checklist–90–Revised depression scale (SCL–90–R; Derogatis et al., 1979), and the Global Assessment of functioning Scale DSM–II–R (American Psychological Association, 1987) were used to establish a brief individual history and assess for current depressive symptomology. Those who met criteria for current major depression according to the SCID, who scored above the 30th percentile on the SCL–90–R, a BDI score of 16 or greater, and who scored at least 50 on the GAS scale were then invited for a second interview. The second screening and assessment session included assessment of DSM–III–R, Axis I disorders (SCID, Form I, Spitzer et al., 1989) and DSM–III–R, Axis II personality disorders (SCID, Form II, Spitzer et al., 1989). Exclusionary criteria for the second interview were the following: a) did not obtain a formal MDD diagnosis; b) had experienced three or more depressive episodes; or c) obtained a score of less than 50 on the GAS.

Those who met study criteria as a result of the two screening interviews were invited to participate in the study. Subjects were then randomly assigned to one of two therapy treatments which consisted of 16-20 sessions of client-centered

or emotion-focused therapy, and were matched on their SCL-90-R depression subscale scores. All sessions were conducted at the York University Psychotherapy Research Clinic, were approximately 50-minutes, and were audio and videotaped. Pre– and post–treatment results were utilized to establish relative outcome. Pre-treatment measures were completed at least one week prior to the first session. Outcome measures were completed one week following the final session. All clinical work in the study was supervised by registered psychologists.

Therapists and training. A total of 22 therapists participated across both phases of the study, 17 females and 5 males. Therapists varied in level of qualifications though all therapists had a minimum of five years professional experience in at least one of the psychotherapy modalities. Each therapist had training in both CC therapy and EFT, and each saw an equal number of clients in both therapy approaches. Therapists served as their own controls by seeing clients in both treatment modalities. Training procedures for all therapists included: at least one year of training in both therapy approaches before formal training for the studies commenced, 24 weeks of manual–based training in both CC and EFT (Greenberg & Korman, 1993; Greenberg, Rice, & Watson, 1994), and supervision with one pilot client prior to project commencement. Therapy adherence was monitored through the rating of four live sessions for each therapist in terms of empathy and adherence to relevant active interventions, and was determined to be achieved and maintained (Greenberg & Watson, 1998). All therapists received weekly supervision.

Treatments

Client-centered therapy. Originally developed by Carl Rogers (Rogers, 1957; 1961), this non-directive approach emphasizes the therapist interventions of providing the relationship conditions of empathy, unconditional positive regard, and genuineness. The ultimate goal in this therapy for the therapist is to communicate felt understanding of the client's message, in order to facilitate clients' deeper internal exploration of thoughts and feelings, and to repair clients' inner incongruence, thereby scaffolding clients' increased integration, growth and well-being (Rogers, 1951; 1957; 1959). In this study, therapists were trained in client–centered therapy using manuals developed specifically for this purpose (Rice & Greenberg, 1990; Greenberg et al., 1994 as cited in Greenberg & Watson, 1998) and were provided clinical supervision.

Emotion-Focused Therapy. Emotion-focused therapy (EFT; Greenberg et al., 1993) is an experiential therapy which, on a foundation of therapist provided client-centered therapeutic conditions also employs active, process-guided interventions [e.g., empty or two-chair dialogues, focusing techniques] each of which is employed in response to specific client-expressed markers of their particular emotional processing difficulties (Greenberg et al., 1993). The ultimate goal of therapy is the evocation and restructuring of maladaptive emotional schemes that are considered to be the source of distress (Greenberg et al., 1993) using the clients' own adaptive emotional resources (i.e. changing emotion with

emotion). Therapists were trained to use and adhere to the manual for EFT (Rice & Greenberg, 1990; Greenberg et al., 1994 as cited in Greenberg & Watson, 1998).

Measures

Unit of Analysis

Emotion Episodes (EEs; Greenberg et al., 1993; Korman, 1991). The emotion episodes (EE) method was used to select segments of therapy sessions and were the unit of analysis for all examined processes. Based on emotional saliency (Greenberg & Korman, 1993; Korman, 1991), EEs are in–session segments in which a client expresses having experienced an emotional response, or demonstrates an action tendency in relation to a real or imagined situation (Korman, 1991). For any segment of therapy to be counted as an EE two components must be present: the situation and an emotional response or an action tendency associated with the emotional response. A more complete EE will contain the following five elements: a) a situation (e.g., in a loveless marriage); b) an emotional response (e.g., sadness, hopelessness); c) an action tendency toward a particular behaviour that is associated with emotion (e.g., crying); d) an appraisal of self or situation (e.g., "I am unlovable"); and e) a related concern or need (e.g., to be loved). However, again, the minimum amount of information needed for a segment to be identified as an EE is that the client has expressed a) a situation and the accompanying b) emotional response or action tendency. The beginning of an EE is identified according to thematic content related to the emotional response, and ends when a new

emotional response emerges or the narrative context ceases to relate to the EE's emotional context (Korman, 1991).

Emotion episodes were identified in the York I and II Depression studies for 5 sessions (one early, two working phase and there late phase sessions) for each the 72 clients in the current study by Pos (2006). Emotion episodes were extracted independently by two trained graduate students for all clients in the York I and II sample. Reliability was based on agreement of both the situation and the emotion, in addition to the location of the EE within the transcript. The average hit rate for agreement on identification of situation, emotion or action tendency was 98.88 % between the 2 graduate raters identifying EES for York 1 session based on a sample of 70 early and late sessions from 18 subjects (Pos, 1998). The hit rate between 2 graduate EE raters for agreement on identification of situation, emotion or action tendency in identified EEs from 120 sessions from early, working and late sessions from York 2 sessions was 92% (Pos, 2006).

Therapeutic Process Measures

Narrative processes coding system (NPCS: Angus et al., 1999). The Narrative Process model (Angus et al., 1999; Greenberg & Angus, 2004) views therapeutic change as an emergent process of dialectic shifts between autobiographical memory (external mode), emotion (internal mode), and reflexive meaning-making (reflexive mode). According to the Narrative Process model of self-change, all forms

of successful psychotherapy involve the articulation, elaboration, and transformation of the client's life story (Angus & Hardtke, 1994; Angus et al., 1999).

The Narrative Process Coding System (NPCS) is a two–step method for the categorical identification of the narrative constructs of interest within psychotherapy discourse, and allows researchers to reliably subdivide therapy transcripts into topic segments, core relational themes, as well as three narrative process types, i.e., external, internal, or reflexive (Angus et al., 1996). External narrative process sequences that capture client's autobiographical memory disclosures was of key interest for the present study (Angus et al., 1999). Several previous studies have demonstrated that the NPCS has consistent inter-rater agreement (Range = 84-89%, Cohen's k = 0.75-0.86) (Angus et al., 1999; Bouffard, 2003; Hardtke, 1996).

Autobiographical Memory Specificity. Autobiographical memory specificity was assessed using Singer and Moffitt's (1992) scoring manual for memory narrative subtypes (i.e., single event, generic, extended), which was adapted for use with psychotherapy transcripts (Angus et al., 1996). Included in the refinements of this method for psychotherapy transcripts was the addition of an initial step in the coding procedure to determine if the ABM in question met criteria for definition of a personal memory related to self (Brewer, 1996). Additionally, the category of the "Not ABM" category was further subdivided into three subtypes: not autobiographical (about someone or something other than the client); not a

memory (autobiographical, but not a memory, e.g., semantic information conjecture, or future plans); and too short to code (less than four lines of client and therapist dialogue). Inter-rater agreement was evaluated three times during the coding process; the Cohen's Kappa ranged from 0.77-0.88.

For the purposes of this study three categories were utilized (single event, generic, and extended). Single event ABM narratives are defined as memory descriptions of a specific time, place, and event which entail a sequence of actions or images, and are identifiable as a unique occurrence. An example of a specific ABM is "yesterday I went to the store." Conversely, generic ABM narratives describe a general memory of non-specific events, and represent a collation of repeated single events that retain some specific identifying markers such as time and place, for instance "every Sunday afternoon my Dad would take us for a walk in the park" (Hollis-Walker, 2005). The third ABM subtype is extended ABMs. In extended ABMs memory narratives non-specific imagery and detail are provided over extended, or sweeping, periods of time. An example of an extended ABM is, "Over the summer we traveled abroad …". In the present study, the single-event ABM subtype represents specific memory, while generic and extended ABM subtypes represent two categories within non-specific memory.

Specific or single-event ABM was the variable studied for the present investigation. It was calculated as the proportion of single-event ABM subtype (as opposed to generic or extended) occurring within EEs.

Client Emotional Arousal Scale III (CEAS III) (Warwar & Greenberg, 1999). The CEAS III is a client process measure designed to categorize emotions and evaluate their emotional intensity. The 7-point ordinal scale was designed to measure the intensity of observable expressed primary emotions as represented by various emotional categories: pain/hurt, sadness, hopelessness/helplessness, loneliness, anger, resentment, contempt/disgust, fear/anxiety, love, joy/excitement, contentment/calm/relief, shame/guilt, pride/self–confidence, anger and sadness at same time, pride and anger together, surprise/shock, and 'other'. The scale is utilized when clients acknowledges having an emotion or through their demonstration of an action tendency in response to an emotion (Warwar & Greenberg, 1999). Scores of 1–3 are considered to represent lower expressed emotional arousal, while scores of 4–7 indicate higher expressed emotional intensity levels. Inter-rater reliabilities for the scale have been reported ranging from .75-.81.

Client Experiencing Scale (EXP) *(*Klein, Mathieu, Gendlin & Kiesler,1969*).* The Experiencing Scale is a 7-point ordinal scale designed as a client process measure to which quantifies the degree to which clients orient to, symbolize and use their internal felt experience as a felt referent of information to explore and solve problems. At lower levels (levels 1-3) client processing is shallow, detached, and descriptive only. At higher levels (levels 4-7) client processing is deeper, more elaborated and exploratory, integrating emotional and experiential information

and as well as meaning making. Excellent inter-rater reliability coefficients have been established for the EXP scale, ranging from .76 to .91 (Klein et al., 1986).

Outcome Measures

Beck Depression Inventory (BDI). The Beck Depression Inventory (BDI) is a 21-item standard measurement of clinical depression (Beck, Ward, Mendelson, Mock & Erbaugh, 1961) and has demonstrated consistent internal (0.82–0.93; Beck et al., 1961), construct (Beck, Steer, & Garbin, 1988), convergent, and divergent validities (Beck et al., 1961). Moderate depression is characterized for those scoring 20-28 out of a total possible 63. Severe depression is characterized for those scoring above 29 (Beck, Steer, Ball & Ranieri, 1996).

Procedure

Transcript selection

The York I and II session database for the present investigation was obtained from Lewin (2011) and was comprised of 170 York I and 190 York II sessions that had been rated for Autobiographical Memory Specificity (Lewin 2011), Experiencing (Pos 1999; 2006) and Expressed Emotional Arousal (Warwar 2003; York I only) in previous studies.

In terms of the York I database, one early phase session was selected which was typically session two. Session one was excluded from being selected as representing early therapy in all cases, as it was assumed that the focus of the first session would primarily address presenting problems and the establishment of

the therapeutic alliance (Bordin, 1994; Horvath, 2001; Safran & Muran, 2000; Watson, 2003).

York I working phase of therapy was identified as occurring after an initial alliance had been established between the client and therapist but before clients were engaged in reflective processing of their personal concerns and the therapy process, which was often characteristic of late phase sessions (Horvath & Bedi, 2002). For the York I session database, the majority of the working phase sessions (86%) were based on Pos (2006) selection criteria: a) highest client ratings on the Helpful Aspects of Therapy Form (HAT: Elliott, Slatick, & Urman, 2001), indicating sessions with the most felt progress; b) sessions with the reported highest degree of change based on the General Session Evaluation Questionnaire (GSEQ: Orlinsky & Howard, 1975); and c) reports of the highest degree of task resolution as measured by the Client Task Specific Measure (CTSM: Greenberg et al., 1993). When a discrepancy arose between measures, priority was given to session outcome criteria b and c. Additionally, a much smaller proportion (14%) of working phase sessions were identified using criteria from Warwar (2003) who selected working phase sessions on the basis of heightened expressed emotional arousal (sessions from the working phase, chosen at random, which displayed at least a level 4 on the CEAS-III for 75% of a session) for her study. Given that a small proportion of the York I working phase sessions included in the present study were selected for heightened expressed emotional arousal, a t-test was conducted to investigate whether differences existed in the degree of expressed emotional

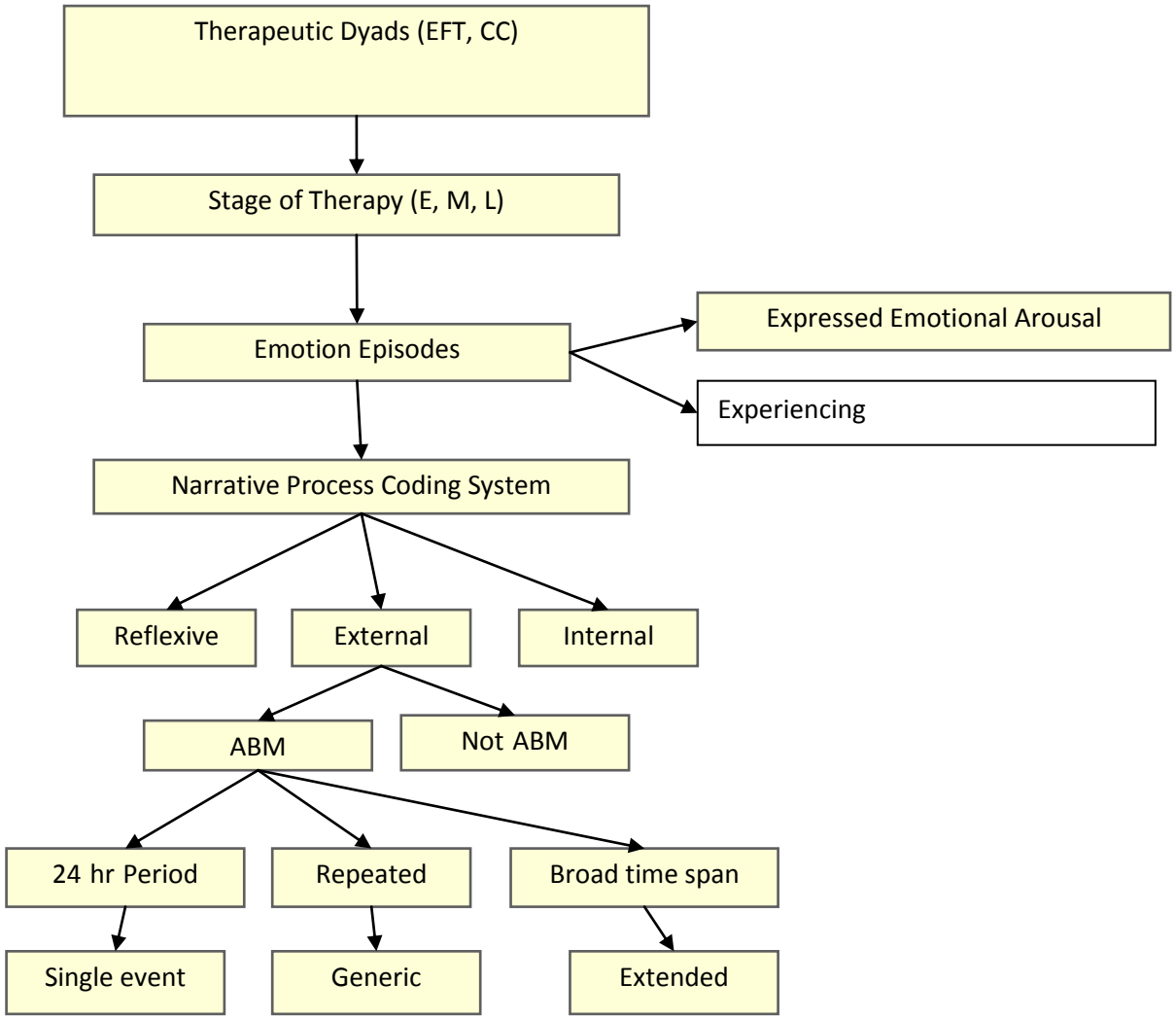
arousal for sessions identified using different selection criteria. Results established that there were no significant differences (t(37)=-1.446, p=0.409) between expressed emotional arousal ratings for working phase sessions selected on the basis of differing criteria. Finally, late phase therapy sessions selected for inclusion in the York I database were typically the second and third last sessions in the therapy progression.

For York II, one early session, usually session two, was included in the therapy session database. Two middle sessions from the York II dataset were selected as working phase sessions using the HAT criteria utilized by Pos (2006) for the York I sessions database (see above). Finally, the second and third last therapy sessions were typically identified as late phase sessions.

Preparation of transcripts for analysis: A three-step process. All data used in the present study were collected and coded within the context of previous studies examining York I and York II transcripts including Pos (1999, 2006), Rotondi-Trevisan (2002), Bouffard (2003), Warwar (2003), Hollis-Walker (2005) Boritz (2008) and Lewin (2011). Please see Figure 1 for a visual representation of the procedure. The first step of analysis involved the identification of EEs and the second step involved obtaining therapeutic process measure ratings including EXP (Klein et al., 1986) and CEAS-III (Warwar & Greenberg, 1999) for each EE. The third step required evaluating memory specificity (Singer & Moffitt, 1992).

Step one: Identifying emotion episodes (EE: Greenberg & Korman, 1993; Korman, 1991). Emotion episodes were developed as a means of selecting specific therapeutic segments on the basis of emotional saliency (Korman, 1991).

Previous research (Pos, 2006; Warwar, 2003) had identified all EEs in the current sample. Emotion episodes were identified by two trained graduate students who received 30 hours of training over a three month period. The primary rater, who had six years experience, identified EEs for all the therapy transcripts (Pos, 2006). Reliability was conducted by the two raters independently extracting EEs for early, middle, and late sessions for clients in both the York I and II samples. Inter-rater reliability was assessed using degree of agreement regarding location of the EE within the transcript and identification of the situation and specific emotional response or action tendency as criteria. Excellent reliability was established. The average hit rate for identified EEs measured against the primary rater was 92 % (Pos, 2006).



Note: Adapted from Hollis-Walker (2005). EFT = emotion-focused therapy; CC = client-centered therapy; E = early, M = middle, L = late; ABM = Autobiographical Memory

Figure 1. Procedure.

Step two: Applying Process Measures- CEAS-III (Warwar & Greenberg, 1999) Rating and EXP (Klein et al., 1969)

CEAS-II. CEAS-III rating for the York I dataset were originally completed by Warwar (2003) for a previous study. CEAS-III ratings were available for the majority- approximately 90% - of the sessions included in the current York I sample. Of the missing 10% of CEAS-III data, most of the uncoded sessions represented the working phase of therapy (n=15) as CEAS-III ratings for these sessions were not available from Warwar's (2003) original study.

All CEAS-III ratings for York II (early, working and late phase) were coded in the context of the current study, utilizing the procedure outlined below.

For the CEAS-III rating procedure, each EE segment was given an expressed emotional arousal rating with the CEAS-III by four independent graduate student raters who were supervised by registered psychologists and blind to outcome. The arousal ratings indicated the highest momentary level of expressed emotional arousal present within the EE. Arousal ratings from York I (slightly less than half the sample) had been completed for a previous research study (see Warwar, 2003). The York II sample (second half of the entire sample) was rated by 2 advanced graduate students who were blind to outcome. The raters completed approximately 30 hours of training on the CEAS-III and conferred with an original rater from the York I ratings for guidance during the training process and during coding when questions arose. Training included "practice" rating previously rated

sessions from the York I study in an attempt to ensure equivalent rating outcomes from the two sets of raters, which was achieved before the students rated the York II sample. During training and actual York II ratings the raters were blind to outcome. For each EE, raters provided a rating describing the highest momentary level of expressed arousal observed. Overall the two raters obtained strong inter-rater reliability for one-third of the total York II sample for the ratings (Cohen's *k*= .77). Reliability ratings were obtained for EEs from all clients at each of the three sampled times of therapy.

EXP. EXP data for York I and II was obtained from Pos (2006). Peak Experiencing ratings indicating the highest momentary level of experiencing within each EE were used in the current study. All ratings were conducted by three graduate raters that were blind to outcome. All EXP raters received 40 hours of training on the EXP scale, and additional training for rating EFT two-chair interventions (Pos, 2006). Previous research (Pos, 2006) has established EXP ratings for all EEs in the current sample. Excellent inter-rater reliability was obtained for peak EXP scores (Cohen's *k* = .82) among raters, which was based on comparing rater responses for one-third of the total sample of EEs.

Step three: Evaluating Autobiographical Memory Specificity. The third step involved identifying external narrative sequences (the only narrative mode of interest to us in this study) in the context of the identified EEs. NPCS coding and ABM specificity evaluation were both rated in the context of previous studies

(Hollis-Walker, 2005). ABM data for York I and II was obtained from Bortiz et al., (2008). Five trained graduate students, blind to outcome, used the NPCS to identify external narrative process sequences within the context of EEs and demonstrating good inter-rater agreement (Cohen's k = 0.88 – 0.95, Hollis-Walker, 2005).

Each external NPCS sequence identified within an EE was then evaluated as to whether it met the definition of a personal memory related to self (Brewer, 1996) or not. If an ABM met criteria, it was further coded for ABM specificity subtype, using the York Narrative Coherence Manual and the ABM coding system (Singer & Moffitt, 1992). ABMs were identified as one of four mutually exclusive categories, including single event, generic, extended, and combination. Whenever the combination category was encountered (e.g., single event and generic), a decision was made based on the prevalence of one category over the other in the combination. This was done so that the data could be integrated with previously coded emotional arousal ratings on the same segment. Agreement on this step determined a mean Kappa of 0.78 (Hollis-Walker, 2005). If no ABM was identified, the external sequence was coded as "Not ABM" according to one of three subtypes: not autobiographical (about someone or something other than the client); not a memory (autobiographical, but not a memory, e.g., semantic information conjecture); and too short to code (less than four lines of client and therapist dialogue). The measure of ABM was calculated as the proportion of single-event ABM narratives identified within each EE.

Statistical analyses: Hierarchical linear modeling (HLM). Hierarchical linear modeling (HLM) was applied to analyze the present dataset. HLM simultaneously conducts both between and within-subject analyses, which is an appropriate and powerful statistical tool for examining psychotherapy process research, when considering the related, sequential, and complex nature of therapy data. HLM is conceptually similar to a multiple regression model, as both approaches calculate estimates of parameters and associated standard errors; however, HLM generates error terms for each random effect included in the model rather than having a single error term as in a standard regression model (Raudenbush & Bryk, 2002). Moreover, similar assumptions based on the same logic for common regression analysis apply to HLM, with differences in assumptions stemming from the fact that HLM has more error terms (Raudenbush & Bryk, 2002). A key benefit of employing the HLM method with the present data is that it does not require that the data be balanced (Raudenbush & Bryk, 2002). HLM is able to capture the richness and complexity of psychotherapy data, and is considered to be one of the most appropriate statistical strategies for psychotherapy data, as it is able to accommodate the longitudinal, multi-level, nested, and unbalanced structure of such data (Georges Monette, personal communication, May 2006).

Structure of the data. The structure of York I and II Depression study data is longitudinal and multi-leveled: sessions are ordered in time within stage of therapy, Emotion Episodes (EEs) are ordered in time within sessions, and ABM

specificity (ABM), expressed emotional arousal (CEAS-III), and experiencing (EXP) are ordered in time within EEs. Therefore the data structure is considered to be nested as measurements at one level are contained within measurements at higher levels (e.g., sessions contain EEs, which contain EXP, CEAS ratings and proportion of ABM specificity). The present data is considered unbalanced because the number of observations varies across and within subjects. The dataset is structured hierarchically with random (dependent) effects for therapists, clients within therapists, sessions within therapy dyads, EEs within sessions, and the process measures (EXP, CEAS-III and proportion of single-event ABM's) within EEs. Treatment type (CCT or EFT), stage of therapy (early, middle, or late) and BDI outcome categorization (i.e., Recovered or Unchanged) are independent or fixed effects.

Results

Outcome Categorization

Treatment outcome groups were classified based on the Beck Depression Inventory (BDI) clinically significant change method identified by Jacobson & Truax (1991). This method is a conservative one, requiring assessment on two criteria in order to determine outcome; the first criteria concerns evaluating clinically significant change and the second evaluates statistically significant change. This Jacobson & Truax (1991) outcome method was selected to identify outcome groups in the current study for two important reasons. First, it is the method which was

utilized by Boritz et al (2008) in the original study examining ABM in psychotherapy. Second, given that the current study is directly evaluating the phenomenon of over-general memory during psychotherapy intervention in a clinically depressed sample, determining post-treatment whether individuals are classified as depressed or not is necessary

The first criteria to evaluate outcome involved establishing a clinically significant BDI change score for the combined York I and II clinical sample. Jacobson & Truax (1991) describe clinically significant change as "the extent to which therapy moves someone outside the range of the dysfunctional population or within the range of the functional population"(p. 14). To characterize this, a BDI cut-off is established by subtracting double the sample's BDI standard deviation from the mean of the sample being studied (i.e. $(\mu - 2\sigma)$). The cut-off score calculated for the current study sample was 12.13. Client scores on the BDI at termination which fell below this value were considered to have demonstrated clinically significant change.

The second criteria involved conducting a reliable change index (RCI) analysis to determine whether the client's change from pre-test to post-test was statistically reliable and not the result of measurement error (McGlinchey, Atkins,& Jacobson, 2002). For the RCI calculations in the present study, a BDI test-retest reliability of .65 (Ogles et al., 1995; Watson & Bedard, 2006) was used which has been applied in similar investigations (Boritz, 2008; Lewin, 2011).

Based on both the clinically significant and reliable change criteria, individuals were classified as recovered (i.e., passed both clinically significant cut-

off and reliable change criteria), improved (i.e., passed reliable change criteria but not the clinically significant cut-off, i.e. still considered depressed), other (passed clinically significant cut-off but not reliable change criteria) and unchanged (i.e., passed neither criteria). The categorization of outcome of the sample, resulted in Recovered (N=48), Unchanged (N=12), Improved (N=8) and Other (N=4). Given the small sample sizes evidenced for the Other and Improved outcome subgroups, only the Recovered and Unchanged subgroups were compared when investigating questions addressing treatment outcomes.

Examining Differences in York I and York II Process Measures

Differences were detected for expressed emotional arousal on the CEAS-III and for proportions of ABM specificity evaluated in EEs when the York I and II databases were compared (see Table 1). The York II expressed emotional arousal ratings across therapy phase were consistently 0.6-0.7 lower on the CEAS-III than the York I expressed arousal ratings. Also, the York II proportion of single-event ABM's identified was consistently 0.1 higher across all three therapy phases compared to York I. Equivalence in the trajectories of the York I and II process ratings is of key importance as it is the primary focus of the present investigation. Given that the differences between the two study cohorts (York I vs. II) were consistent across therapy phase (early, working and late), and all of our analyses examined therapy phase as a factor, the two study cohorts were combined with confidence in the analyses.

As a protection measure against any differences between the two study cohorts, all relationships evidenced in the analyses were examined by study phase in order to identify any differences that may have differed by study cohort. No relationships observed herein differed by study period (York I vs. York II) providing further certainty that any cohort differences between the process variables in York I and II databases did not impact our findings.

Table 1

Means and standard deviations for single-event ABM, expressed emotional arousal and client experiencing by study cohort, treatment type and therapy phase.

Study Cohort							
Treatment type		Process measure					
	N	Single-event ABM		Peak Expressed EA		Peak Experiencing	
		M	SD	*M*	SD	*M*	SD
York 1	17						
EFT							
Early		0.334	0.281	3.45	0.479	3.39	0.289
Working		0.310	0.295	3.74	0.539	3.58	0.471
Late		0.412	0.319	3.60	0.471	3.61	0.409
CCT	17						
Early		0.384	0.225	3.36	0.317	3.33	0.227
Working		0.431	0.190	3.21	0.439	3.33	0.290
Late		0.508	0.254	3.61	0.415	3.56	0.310
		M	SD	*M*	SD	*M*	SD
York 2							
EFT	18						
Early		0.421	0.260	2.86	0.494	3.21	0.203
Working		0.555	0.222	2.97	0.269	3.47	0.148
Late		0.539	0.205	2.85	0.226	3.79	0.271
CCT	20						
Early		0.415	0.272	2.76	0.385	3.12	0.178
Working		0.537	0.245	2.76	0.258	3.33	0.259
Late		0.577	0.424	2.83	0.424	3.36	0.217

Note: EA- Emotional Arousal; *M* = mean; SD = standard deviation; EFT = emotion-focused therapy; CCT = client-centered therapy

Question 1: Do Autobiographical Memory Specificity Trajectories Change over the Course of Treatment by Outcome Group and Treatment Type?

Hypotheses and Findings Related to Question 1

1a) Proportion of single event ABMs will increase over the course of therapy from early through working and late phases of therapy.

To evaluate this hypothesis, a multi-level (hierarchical) regression was conducted using proportion of single-event ABM within EE as the dependent variable and phase of therapy as the independent variable, with random intercepts for dyads and sessions within dyads. Phase of therapy was modeled as a factor, categorizing sessions as early, working, or late (i.e., a three-level factor). The analyses showed that ABM specificity increased significantly for the whole sample at each therapy phase investigated (see figure 2). There was a significant increase in the proportion of single-event ABMs from early (μ*=.391*) to middle (μ*=.472*) phase of therapy [t(137)=2.747, p=0.0068] and from middle to late (μ*=.532*) phases of therapy [t(137)=2.065, p=0.0407]. There was also a significant increase in the proportion of single-event ABM from early to late stages of therapy [t(137)=4.726, p<.001]. These findings support the hypothesis that proportions of single-event ABMs would increase over the course of all stages of therapy for the entire sample and replicate the finding by Bortiz et al. (2011) reported for York I, in this expanded sample.

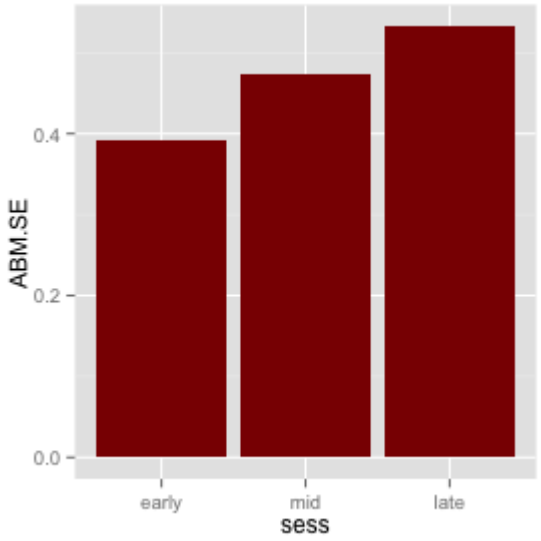


Figure 2. Proportion of ABM single-event across therapy phase for whole sample.

Similar HLM analyses were carried out for proportion of generic event ABM. The results showed that proportion of generic event ABMs decreased significantly for the whole sample at each therapy phase investigated (see figure 3). There was a significant decrease in the proportion of generic event ABMs from early (*μ=.365*) to late (*μ=.282*) phase of therapy [t(137)=2.887, p=0.0045] and from middle (*μ=.343)* to late phases of therapy [t(137)=2.170, p=0.0318].

Similar HLM analyses were again carried out for proportion of extended event ABMs. The results showed that proportion of extended event ABMs decreased significantly for the whole sample at each therapy phase investigated (see figure 3). There was a significant decrease in the proportion of extended event ABMs from

early (*μ=.242*) to middle (*μ=.186*) phase of therapy [t(137)=2.216, p=0.0284] and from early to late (*μ=.131*) phases of therapy [t(137)=2.170, p=0.0317].

Overall, these results confirm our hypothesis and converge with the findings from Boritz et al. (2011). The findings indicate that the progress of therapy is associated with increases in specific memory narratives as evidenced by increases in the proportion of single-event ABMs from early to working and late therapy and decreases in the proportion of generic and extended ABM's.

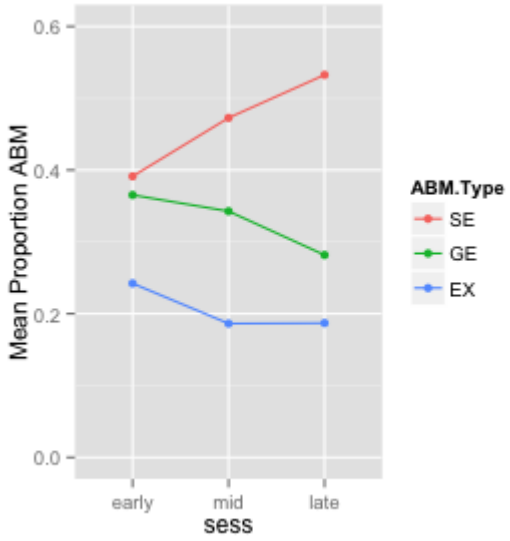
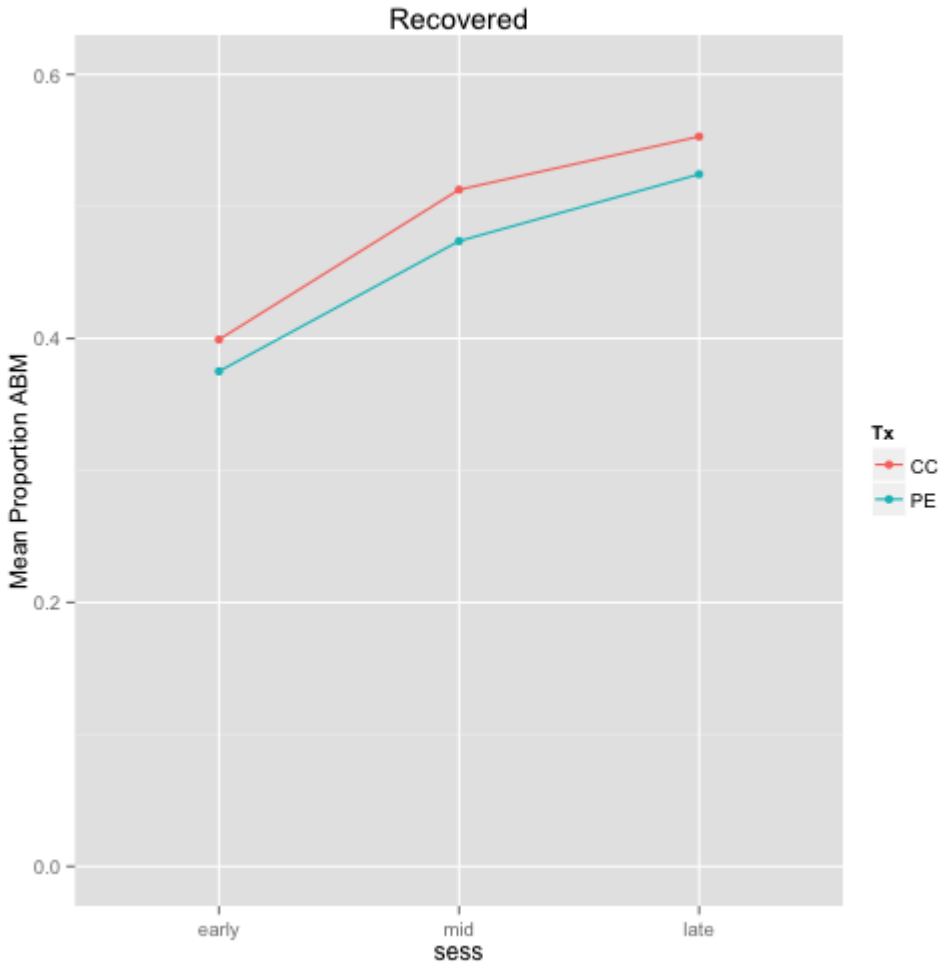


Figure 3. Proportion of ABM subtypes across therapy phase.

1b) Recovered group will evidence a greater proportion of single-event ABM specificity in the working and late phases of therapy compared to the Unchanged group, irrespective of treatment type (EFT vs. CCT).

A set of analyses were conducted to determine whether there were differences in the trajectories of ABM subtypes (change in proportions of ABM subtypes over time) by treatment (CCT vs. EFT) and outcome (Recovered vs. Unchanged). To address this question, an HLM analysis was conducted using proportion of ABM single-event within EEs as the dependent variable and outcome categorization, phase of therapy and treatment type as the independent variables, with random intercepts for dyads and sessions within dyads

The results demonstrated a significant 3-way interaction between outcome group (Recovered vs. Unchanged), treatment type (EFT vs. CCT) and therapy phase (early, working, late) indicating that the trajectory of proportion of single-event ABMs differed between Recovered vs. Unchanged dependent upon treatment type ($F(6, 123)=2.534$, $p = .02391$). Both the CCT and EFT Recovered clients demonstrated a step-wise gain in the proportion of single-event ABMs from early to working to late therapy (see figure 4). In particular, the CCT Recovered subgroup showed significant increases in proportion of single-event ABM from early to working ($F(1, 123)=5.778$; $p=0.0177$) and early to late therapy ($F(1, 123)=10.48$; $p=0.0016$). The EFT subgroup showed this exact same pattern with significant increases in proportion of single-event ABM from early to working ($F(1, 123)=3.974$; $p=0.0484$) and early to late therapy ($F(1, 123)=8.632$; $p=0.0039$). In the Recovered group there was no significant difference between the EFT and the CCT treatments for proportion of single-event ABM at early, middle or late therapy.

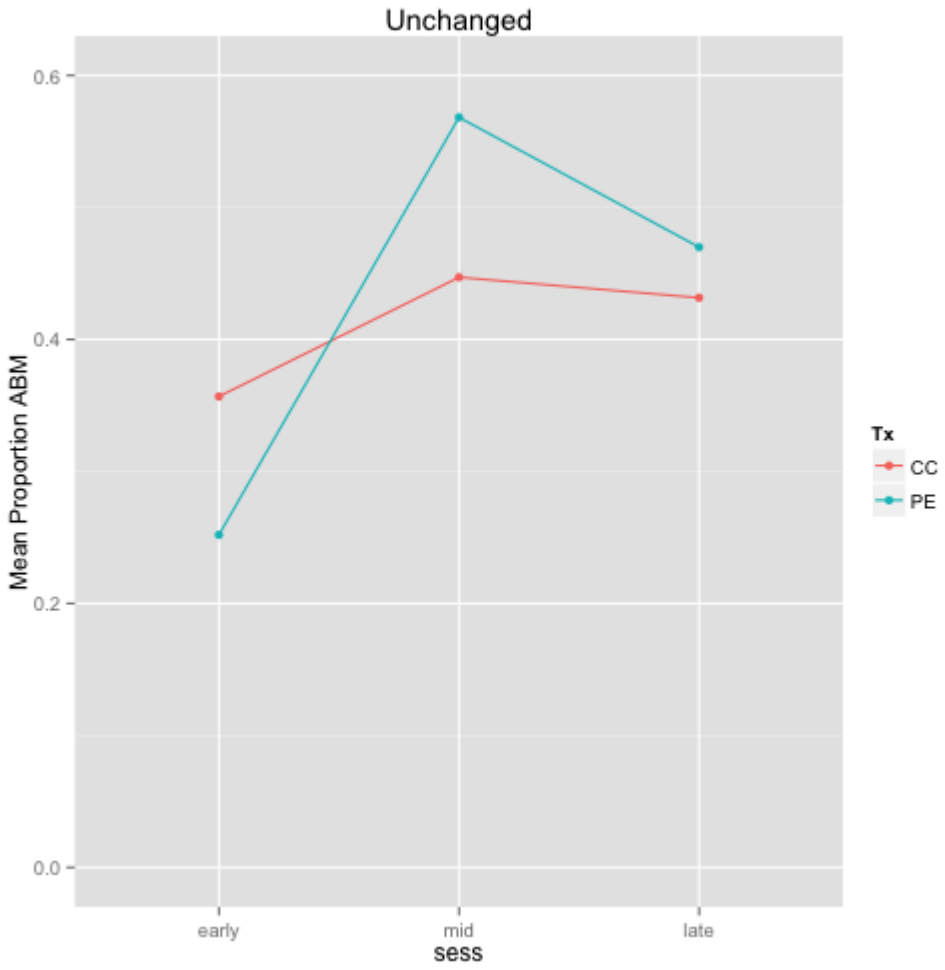


**CC n= 23; PE n=25*

Figure 4. Proportion of single-event ABM by treatment for the Recovered subgroup.

In contrast, the Unchanged EFT group demonstrated a significant increase from early to working therapy only (F(1, 123)=6.973; p=0.0094) while the

Unchanged CCT subgroup demonstrated no significant change across the progression of therapy (see figure 5).



**CC n= 7; PE n=5*

Figure 5. Proportion of single-event ABM by treatment for the Unchanged subgroup.

The results support our hypothesis that the Recovered group would demonstrate increasing ABM specificity with the progress of therapy. The findings do not converge with previous findings in the York I Depression Study that ABM specificity proportions do not differ by outcome group.

1c) No significant differences will be evidenced in proportion of single-event ABM's, for the sample as a whole, by phase of therapy for treatment approach (EFT vs. CCT).

An HLM analysis was conducted to determine whether there were any treatment differences in the trajectories of ABM subtypes (change in proportions of ABM single-event over time). The findings showed no evidence of an effect of treatment type on the proportions of single-event ABM ($F(3,70)=5117$, $p=.6755$) indicating that EFT and CCT clients did not differ in the proportion of single-event ABMs across therapy phase.

This finding supports our hypothesis and converges with previous results of Boritz et al. (2008; 2011).

Question 2: Do Expressed Emotional Arousal Trajectories Change over the Course of Treatment by Outcome Group and Treatment Type?

Hypotheses and Findings Related to Question 2

2a) Degree of expressed emotional arousal will increase significantly from early through to late phases of therapy, for the sample as a whole.

To evaluate this hypothesis, an HLM analysis was conducted using arousal within EEs as the dependent variable and phase of therapy as the independent variable, with random intercepts for dyads and sessions within dyads. Phase of therapy was modeled as a factor, categorizing sessions as early, working, or late (i.e., a three-level factor). Figure 6 graphically represents the results of this analysis. The analysis showed that peak expressed emotional arousal increased significantly for the whole sample from early (*μ=3.100)* to late phase of therapy (*μ=3.214*) (t(134)=2.173, p=.0316). The difference between early and working-phase expressed emotional arousal was non-significant, as was the difference between the working-phase and late.

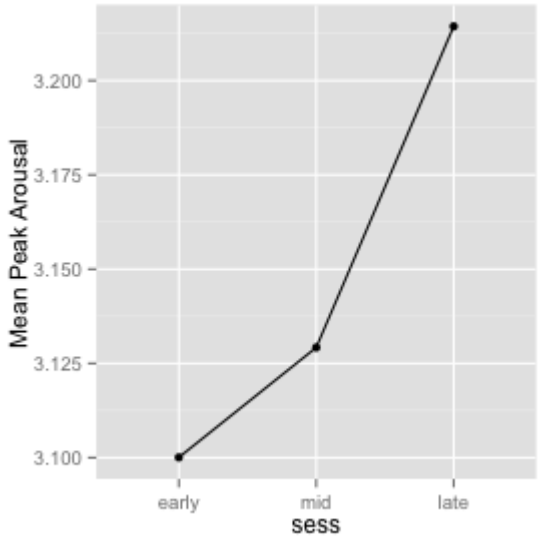


Figure 6. Peak expressed emotional arousal across therapy phase.

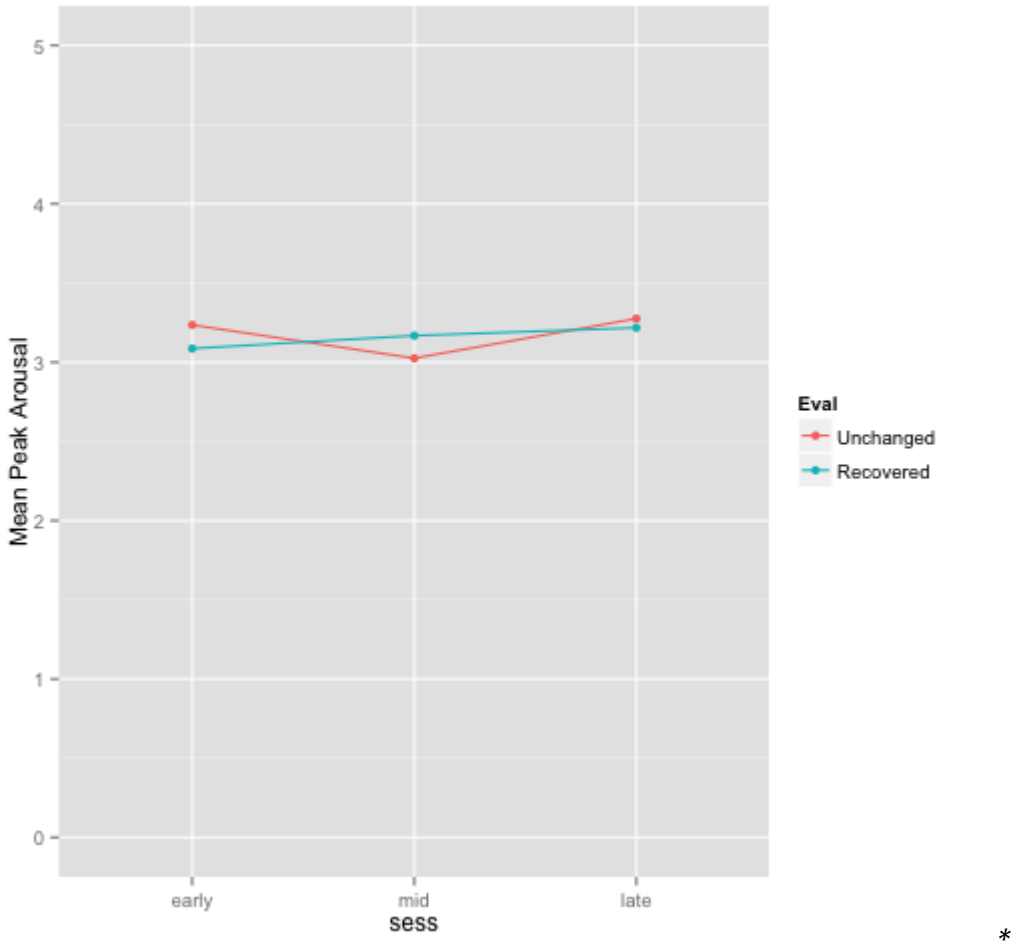
These findings support our hypothesis that level of expressed emotion would increase from early to late therapy. This finding, based on the combined sample of York I and York II Depression Study clients, replicates and extends previous findings established in two studies of the York I Depression Study (Boritz et al., 2011; Warwar, 2003).

2b) The Recovered outcome group will display an increase in level of expressed emotional arousal from early to late phase treatment while the Unchanged group will not. These patterns will occur irrespective of treatment type.

To test this proposition, an HLM analyses was conducted using peak expressed emotional arousal within EEs as the dependent variable and outcome and phase of therapy as the independent variables, with random intercepts for dyads and sessions within dyads. The results evidenced no statistical difference between the Recovered and Unchanged groups for level of expressed emotional arousal over the three phases of therapy treatment ($F(6, 128)=1.353$; $p=.287$) (see figure 7)

Next, we examined whether outcome was related to expressed emotional arousal dependent upon treatment type. The analysis was conducted using expressed emotional arousal within EEs as the dependent variable and outcome (Recovered vs. Unchanged) and phase of therapy (early, working, late) and treatment type (EFT vs. CCT) as the independent variables, with random intercepts for dyads and sessions within dyads. The HLM analysis showed no difference between the Recovered and Unchanged groups for EFT and CCT client in terms of

mean level of expressed emotional arousal over the three phases of therapy treatment (F(6, 120) = 1.114, .3582). These findings do not support our hypothesis and do not converge with the body of evidence from York I Depression Study (Boritz et al., 2011; Warwar, 2003) which reported increased levels of expressed emotional arousal was related to positive therapeutic outcome.



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Recovered n=48; Unchanged n=12

Figure 7. Peak expressed emotional arousal across therapy phase by outcome.

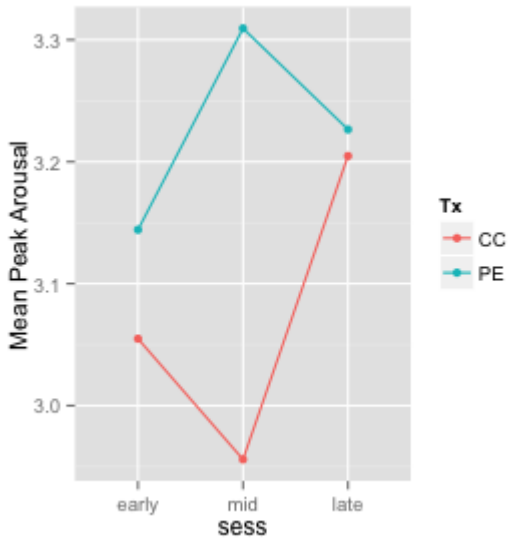
2c) EFT clients, as a whole, will exhibit significantly higher expressed emotional arousal during the working phase of therapy compared to CCT clients.

An analysis was conducted to determine whether there were any treatment differences in the trajectories of level of peak expressed emotional arousal in the EFT vs. CCT clients. For this analysis, expressed emotional arousal within EEs was the dependent variable and phase of therapy and treatment type (EFT vs. CCT) were the independent variables, with random intercepts for dyads and sessions within dyads.

EFT and CCT clients displayed different trajectories in expressed emotional arousal over the course of therapy, providing support for this hypothesis. Figure 8 demonstrates the strikingly different expressed emotional arousal trajectories displayed between the two treatments, with EFT clients evidencing an inverted-U shaped relationship for expressed emotional arousal across phases of therapy, and the CCT clients evidenced a U shaped curve. Specifically, for CCT clients, there was a significant decrease in expressed emotional arousal ratings between early and working therapy phases (-.1499, $t(132)=2.148$, $p=.0335$) and a significant increase from working and late phases (+.2488, $t(132)=3.532$, $p=.0006$). By contrast, within the EFT group there was a significant increase in expressed emotional arousal ratings between early and working therapy phases (+.1651, $t(132)=2.192$, $p=.0335$). The EFT clients displayed significantly higher expressed arousal during the working phase of therapy compared to the CCT group (+.353, $t(132)=2.896$, $p =.0050$). There

were no differences however, between the treatment groups during early and late therapy.

Overall, the results support our hypothesis and are consistent with previous research from the York I Depression Study (Boritz et al., 2011; Walker, 2005).



** CC n=37; PE n=35*

Figure 8. Peak expressed arousal across therapy by treatment group.

d) The Recovered outcome subgroup will evidence significantly less expressed emotional arousal variability (when controlling for overall level of arousal) than the Unchanged group during the working and late phases of therapy.

In order to address this hypothesis an Individual Standard Deviation (ISD) was calculated for each individual from each person's peak expressed emotional arousal scores at the three time points of therapy to represent the amount of expressed emotional variability the individual experienced at each time point. A HLM analysis was modeled using expressed emotional arousal ISD as the dependent variable and phase of therapy and outcome as the independent variable, with random intercepts for dyads and sessions within dyads. The overall level of expressed emotional arousal was controlled for in the model by incorporating mean level of expressed emotional arousal into the model as a covariate.

Results showed the Recovered and Unchanged groups displayed significantly different levels of emotional variability at all three time points of therapy (see figure 9). Specifically, the Recovered group displayed significantly less expressed emotional variability in the early ($t(68)=2.761$, $p=.0074$) and working therapy phases ($t(68)=2.235$, $p=.0287$) compared to the Unchanged group. In contrast, in the late therapy phase the Recovered group displayed significantly greater emotional arousal variability than the Unchanged group ($t(68)=3.092$, $p=.0029$).

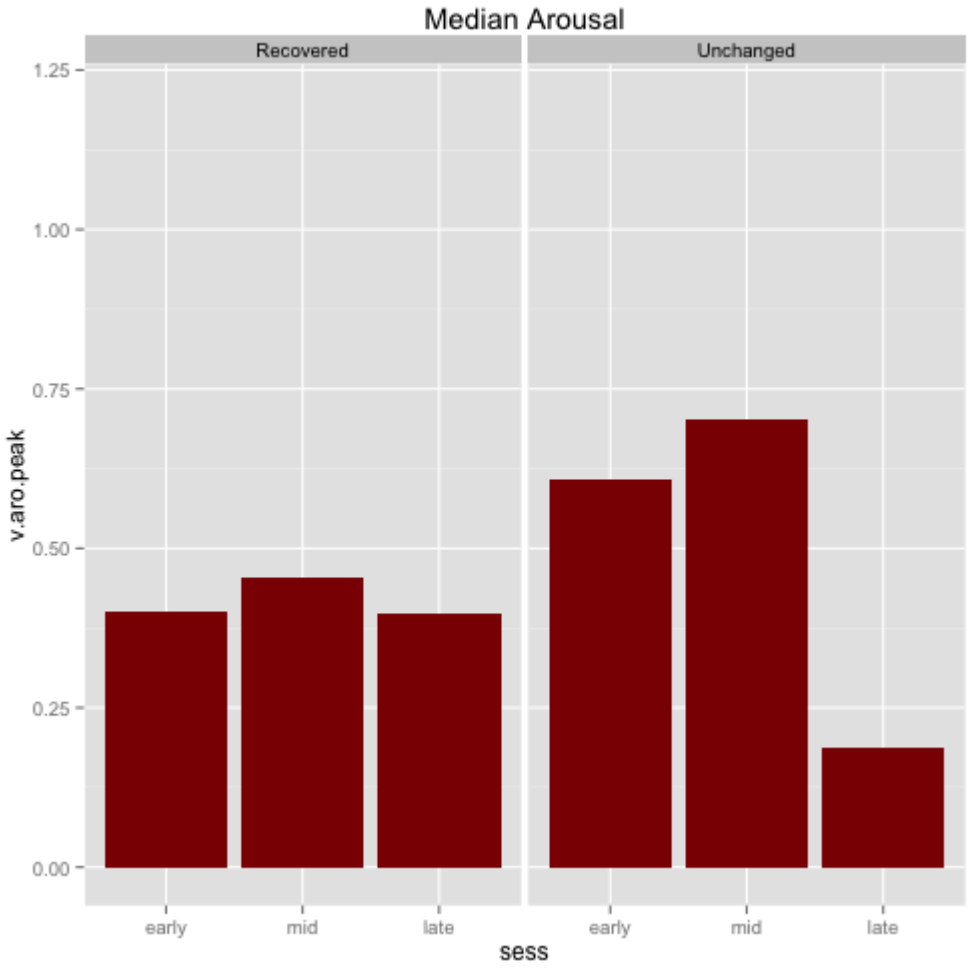


Figure 9. Client variability in peak expressed emotional arousal across therapy phase.

Additionally, the Recovered and Unchanged group evidenced different trajectories of level of expressed emotional arousal variability across therapy. Specifically, the Recovered group displayed no change in levels of expressed emotional variability across early, working and late therapy while the Unchanged group evidenced a significant decrease in expressed emotional variability from early to late ($t(116)=5.116$, $p<.0001$) and from working to late ($t(116)=4.351$, $p<.0001$).

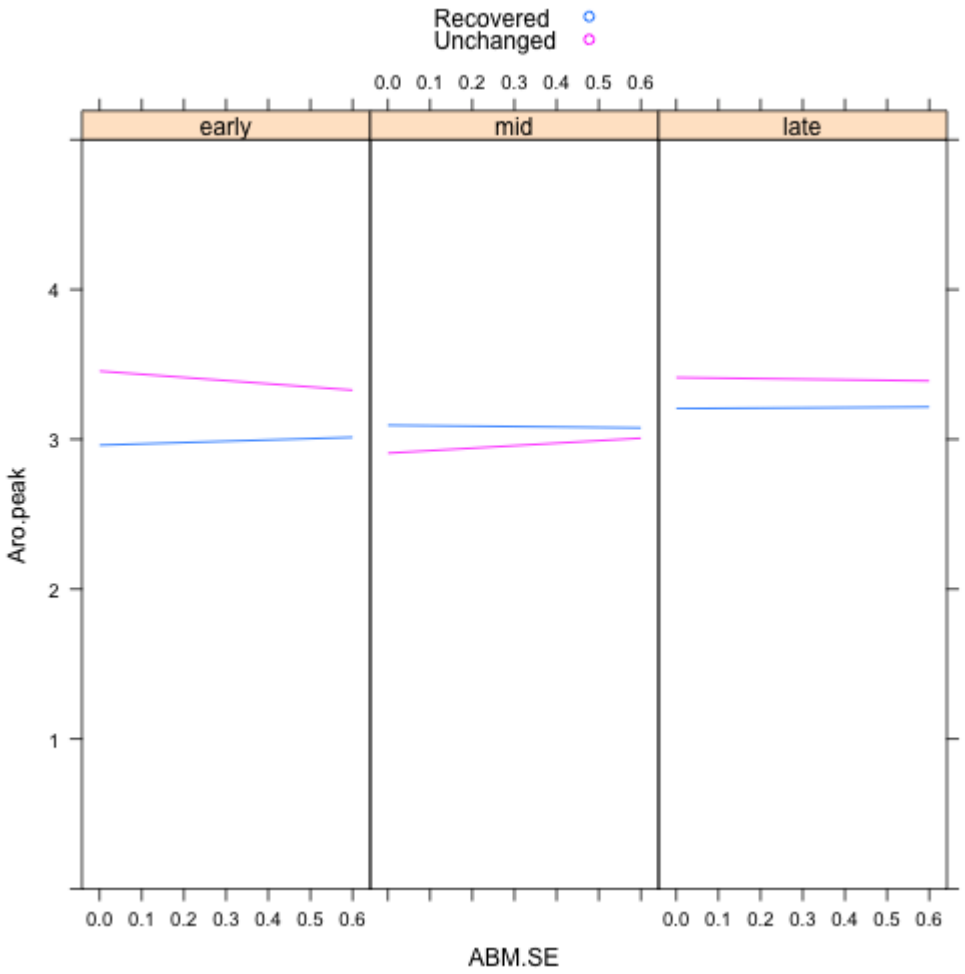
These results partially support our hypothesis as the Unchanged group displayed significantly greater levels of emotional variability in the working phase of therapy than the Recovered group. However, unexpectedly, the Unchanged group also displayed significantly greater levels of emotional variability in the early phase of therapy. Also unexpectedly, in the late phase of therapy the Unchanged group displayed significant less emotional variability than the Recovered group.

Question 3: Investigating the Degree of ABM Specificity, Expressed Emotional Arousal and Client Experiencing Related to Phase of Therapy and Therapeutic Outcome.

Hypotheses and Findings Related to Question 3

3 a) In the Recovered group, higher levels of expressed emotional arousal will be related to a greater proportion of specific ABMs at all three phases of therapy. This relationship will not exist in the Unchanged group.

To test this proposition, an HLM analysis was conducted using proportion of peak expressed emotional arousal as the dependent variable and proportion of single-event (specific) ABM, outcome and phase of therapy as the independent variables, with random intercepts for dyads and sessions within dyads. There was no evidence of a significant statistical relationship between ABM specificity and expressed emotion over sessions in relation to outcome ($F(6.857) = .9133$, $p = .4845$). See Figure 10 for a graphical representation. This finding held across therapy all therapy phases: early ($F(3,272)= .07388$, $p=.5297$), middle ($F(3,298)= .3751$, $p=.8264$) and late therapy phase ($F(3,298)= .4887$, $p=.6904$).



** Recovered n=48; Unchanged n=12*

Figure 10. Relationship between peak expressed emotional arousal and proportions of single-event ABM by stage of therapy and therapeutic outcome.

In addition, an overall effect was tested using proportion of expressed emotional arousal as the dependent variable and single-event (specific) ABM and outcome (e.g. not including phase of therapy) as independent variables. Again, there was no evidence of a significant effect of ABM specificity ($F(4, 865)=.9446$, $p =$

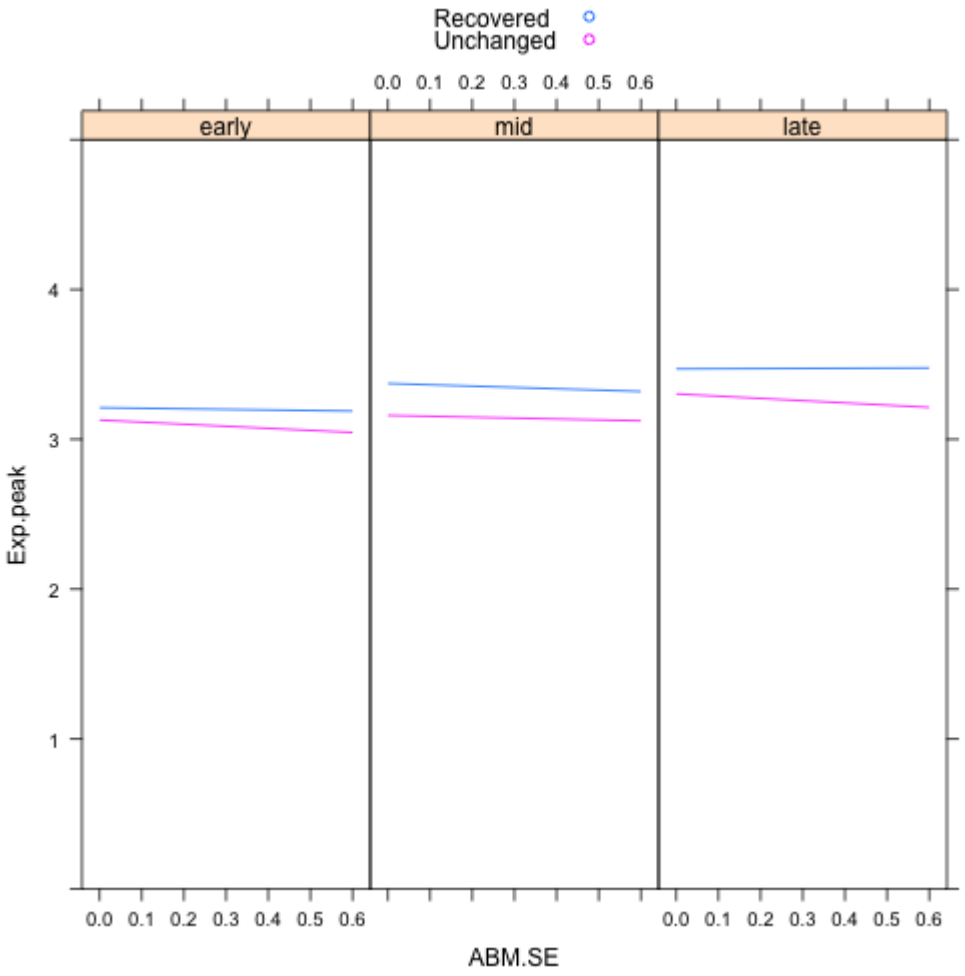
.4374) or an Outcome by ABM specificity interaction effect (F(3, 865) = .9625, p =.4098).

The finding does not support the hypothesis, and fails to replicate Boritz et al. (2011) York I findings which demonstrated a positive relationship between proportions of specific ABMs and expressed emotional arousal in clients characterized as non-depressed at therapy termination.

3 b) In the Recovered group, higher levels of client experiencing will be related to a greater proportion of specific ABMs at all three phases of therapy. This relationship will not exist in the Unchanged group.

Several previous studies have evaluated level of client experiencing in the York I and II Depression study with respect to therapy phase, treatment type and outcome (Goldman et al., 2005; Lewin, 2011; Missirlian**,** et al., 2005**;** Pos, 2006; Warwar, 2003). As such, it was not a focus in the present investigation independent of the other therapy process factors. Replication of these investigations was required given that the sample and statistical analyses utilized in the current investigation differ from previous research studies and previous analyses were confirmed. For a full review of the analyses conducted with respect to client experiencing independent of ABM and expressed emotional arousal please see Appendix 1.

To test this hypothesis, an HLM analysis was conducted using peak level of client experiencing as the dependent variables and proportion of single-event ABM, outcome and phase of therapy as the independent variables, with random intercepts for dyads and sessions within dyads. There was no evidence of a relationship between ABM specificity and level of client experiencing in relation to outcome ($F(6, 1411) = .7013$, $p = .6486$). See Figure 11 for a graphical representation. No relationship was evidenced at early ($F(3, 336) = .2607$, $p = .8537$), middle ($F(3, 532) = .8607$, $p = .4613$) or late therapy phase ($F(3, 298) = 1.058$, $p = .3664$) between proportion of single-event ABM, level of client experiencing and outcome.



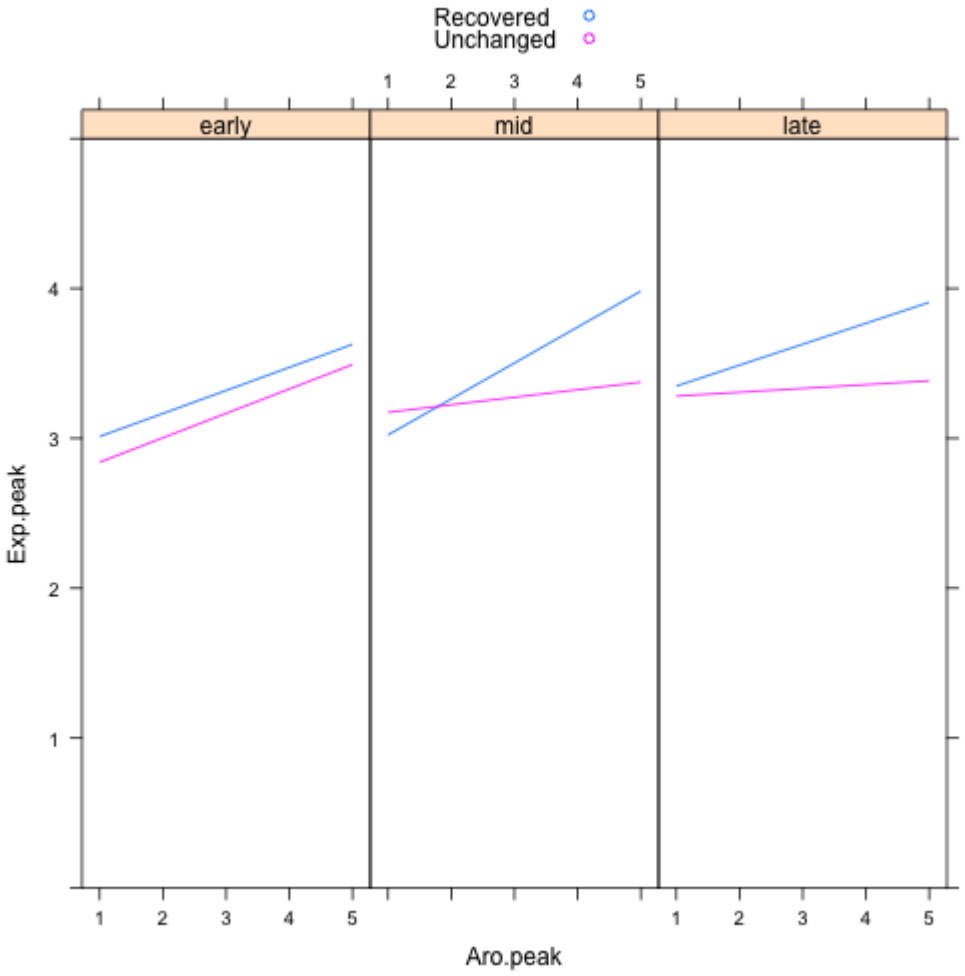
** Recovered n=48; Unchanged n=12*

Figure 11. Relationship between levels of peak client experiencing and proportions of single-event ABM by stage of therapy and therapeutic outcome.

The results did not support our hypothesis that higher levels of client experiencing in combination with greater ABM specificity would predict membership in the Recovered group.

3c) In the Recovered group, higher levels of expressed emotional arousal will be related to a higher levels of client experiencing at all three phases of therapy. This relationship will not exist in the Unchanged group.

To test this proposition, an HLM analysis was conducted using peak client experiencing as the dependent variable and peak expressed emotional arousal, outcome and phase of therapy as the independent variables, with random intercepts for dyads and sessions within dyads. Findings from this analysis demonstrated a significant overall effect of client experiencing on expressed emotional arousal ($F(12, 4064) = 10.78$, $p < .0001$). See figure 12 for a graphical representation of this relationship. There was evidence of a Stage x Outcome interaction between client experiencing and expressed emotional arousal ($F(6, 4064) = 2.202$, $p = .0400$).



** Recovered n=48; Unchanged n=12*

Figure 12. Relationship between peak expressed emotional arousal and peak levels of client experiencing by stage of therapy and therapeutic outcome.

Specifically, there was a significant positive relationship between client experiencing and emotional arousal for both Recovered and Unchanged clients at early phase ($t(4064) = 4.518$, $p < .0001$ and $t(4064) = 5.587$, $p = .0181$ respectively). This indicated that greater levels of expressed emotional arousal were related to

greater levels of client experiencing for both the Recovered and Unchanged groups in the early phase of therapy. There was also a significant positive relationship between expressed emotional arousal and client experiencing for the Recovered group during working ($t(4064) = 7.826$, $p < .0001$) and late ($t(4064) = 4.489$, $p < .0001$) phases of therapy. There was no relationship between expressed arousal and client experiencing for the Unchanged group during working phase ($t(4064) = .6581$, $p = .5105$) and late phase ($t(4064) = .3272$, $p = .7436$).

These findings evidence a positive relationship between level of expressed emotional arousal and client experiencing levels in the Recovered group during working and late therapy supports the hypothesis. Unexpectedly, a positive relationship between expressed emotional arousal and client experiencing was evidenced even in early therapy for both the Recovered and Unchanged group.

These results converge with previous research in the York I Depression Study. Warwar (2003) evidenced through Multiple Regression Analyses that neither higher levels of working phase expressed emotional arousal nor higher levels of working and late phase client experiencing independently predicted outcome but their combined impact did predict positive clinical outcome (Warwar, 2003). Considering the York I and II dataset, the present study further extends these findings using the larger sample size and the more stringent statistical method, HLM, utilized to analyze the data.

Summary of Research Findings

Replication of ABM and expressed emotional arousal findings in the expanded clinical sample. A major goal of the study was to test whether research findings related to ABM specificity and expressed emotional arousal in the York I Depression Study by Boritz et al. (2011), would be replicated within the context of the larger clinical sample. To that end, the analyses in the present investigation established that:

a) ABM specificity (as measured by proportion of single-event ABMs within emotion episodes) significantly increased across all three therapy phases supporting Hypothesis 1a and replicating those of Bortiz et al. (2011) findings in a substantially larger clinical sample.

b) No differences were evidenced, for the sample as a whole, in the trajectory of ABM-specificity over the course of therapy for EFT and CCT clients, supporting the original findings of Boritz et al. (2011) and Hypothesis 1c in the present study.

c) When Recovered vs. Unchanged subgroups were compared in the context of the York I and II sample, as predicted, the Recovered group evidenced an increase in the proportion of single-event ABM's over the three therapy phases. In contrast, the Unchanged group evidenced a trajectory of proportion of single-event ABM's that differed by treatment type. Namely the CCT Unchanged clients demonstrated no change in ABM specificity over the course of therapy while EFT Unchanged clients demonstrated a significant increase in proportion of singe-event ABM's from early

to working phase only. This supports Hypothesis 1b in the present investigation but does not replicate previous findings in Boritz et al. (2011).

d) There was no relationship evidenced between ABM specificity and expressed emotional arousal that distinguished clients who were Recovered vs. Unchanged indicating rejection of Hypothesis 4a and not replication of the findings of Boritz et al. (2011).

Findings replicating analyses related to expressed emotional arousal in the expanded sample are as follows:

a) The sample as a whole demonstrated an increase in expressed arousal from early to late phases replicating previous analyses in the York I Depression Study (Boritz et al. 2011; Warwar, 2003) and supporting Hypothesis 2 predicting that this increase in expressed emotional arousal would be found.

b) The EFT and CCT groups displayed different trajectories of expressed arousal over the course of therapy, with the EFT group displaying significantly more expressed emotional arousal in the working phase of therapy than the CCT group. This finding replicated previous analyses in the York I Depression Study (Boritz et al., 2008) and supports Hypothesis 2c in the current investigation.

c) No difference was observed in the trajectory of expressed emotional arousal for the Recovered vs. Unchanged groups. This finding did not support hypothesis 2b in the present investigation and did not replicate previous findings in the York I

Depression Study detailing that individuals who have good clinical outcome exhibited greater levels of expressed emotional arousal in the working phase of therapy (Warwar, 2003) and late phase of therapy (Boritz et al., 2011).

It is important to note that the sample in the present investigation differs from samples in the previous investigation evaluating ABM and expressed emotional arousal in two important ways. First, the sample in the present investigation is more than twice the size of the samples previously studied in relation to ABM and expressed emotional arousal. Second, the working phase sessions in the present investigation were chosen nearly entirely based on sessions the clients rated as most helpful and productive. In previous investigations by Boritz et al. (2011) and Warwar (2003) working phase sessions were selected based on high degree of the variable being examined, namely expressed emotional arousal, which potentially could confound the findings. For example, the relationship observed by Warwar et al. (2003) that increased expressed emotional arousal in combination with client experiencing in the working phase of therapy predicted outcome may only exist for working phase sessions which are particularly high on expressed emotional arousal.

Variability in expressed emotional arousal findings. Variability in the intensity of emotional expression was examined in relation to outcome. As predicted, the Recovered group demonstrated more moderate levels of expressed emotional arousal that were consistent across therapy phase. The Unchanged group

displayed significantly higher levels of expressed emotional variability in the early and working phase, and very little emotional variability in the late phase of therapy compared to the Recovered group (Hypothesis 2d). This relationship was present when controlling for overall level of arousal.

Experiencing and ABM findings. A major goal of the present investigation was to attempt to clarify the relation between ABM specificity and outcome by examining additional psychotherapy process variables that have not been previously studied in this domain, namely level of client experiencing. Analyses examining level of client experiencing independently (separate from ABM) in relation to treatment progression (early, working, late), treatment differences (EFT vs. CCT) and treatment outcome have all been reported before in previous studies (Lewin, 2011; Pos, 2006; Pos et al., 2009; Warwar, 2003;). The analyses were necessary to report in the present investigation given our interests in the relation between client experiencing and ABM and given that the current sample is different than samples previously investigated.

The present study replicated all the previous findings that were investigated with respect to level of client experiencing. First, a significant increase in level of client experiencing levels across all three therapy phases of therapy was evidenced. Second, greater increases in client experiencing levels related to membership in the Recovered outcome group compared to the Unchanged group. And finally, as predicted, the trajectory of level of client experiencing differed between the CCT and

EFT treatment groups. The EFT group displayed significantly higher levels of client experiencing in both the working and late phases of therapy than the CCT clients.

What is unique to the current investigation is the link between ABM and client experiencing with respect to outcome. Contrary to our exploratory hypothesis there was no evidence of a relationship evidenced between ABM specificity and client experiencing in predicting outcome, indicating that more specific ABM narratives in combination with higher levels of experiencing were not related at any phase of therapy in clients who were Recovered at treatment end (Hypotheses 4b).

Experiencing and expressed emotional arousal findings. Previous studies have evidenced a relationship between expressed emotional arousal and client experiencing in predicting outcome (Missirlian et al., 2005; Warwar, 2003; Pos et al., 2014). However, the present study builds on these findings given the substantially larger sample utilized compared to previous investigations, and given that it utilized HLM analyses (as opposed to Hierarchical Regression Analyses) a statistical technique which is well suited to the unbalanced, nested structure of the York Depression Studies and is considered to be a more conservative statistical method.

Results from the current study provided converging evidence that expressed emotional arousal was related to level of client experiencing in predicting outcome (Hypothesis 4c). Specifically, level of expressed emotional arousal and level of client experiencing were positively related in the Recovered group at all three phases of

therapy. This indicated that greater levels of expressed emotional arousal were related to greater levels of client experiencing in the Recovered group. These variables were related in the Unchanged group only during the early phase of therapy.

Discussion

The discussion will be organized around the psychotherapy process factors examined which corresponded to Hypotheses 1, 2 and 3 by comparing and contrasting the findings from this study to those of the pre-existing body of the research literature. Findings regarding ABM specificity will be discussed first (Hypothesis 1), followed by findings related to expressed emotional arousal (Hypothesis 2), followed by findings regarding client experiencing levels within the therapy treatment (Replication Analyses). Next, the evidence relating ABM specificity to level of expressed emotional arousal and client experiencing within therapy treatment will be discussed (Hypothesis 3). To finish, the clinical applications of the findings, limitations of this study, and future directions in psychotherapy process research, as it relates to this study, will be discussed.

Review of the Study

The present study investigated the contributions of ABM specificity, expressed emotional arousal and level of client experiencing in predicting outcome in emotion-focused and client-centered treatment for depression. One of the

principle aims of this investigation was to replicate and further explicate previously established findings linking ABM specificity and emotional arousal to outcome in the treatment of depression. We sought to do this in two ways. First, our research aimed to extend research by Boritz et al. (2011) by examining ABM specificity, and ABM specificity in relation to expressed emotional arousal within therapy in a depressed sample that more than doubled the size of the sample originally studied, from 32 to 72 clients. Second, a potential variable that may impact the relation between ABM specificity, expressed emotional arousal and psychotherapy outcome was explored in an attempt to more fully understanding the contributions of ABM and expressed emotional arousal to outcome. In particular, level of client experiencing in session was examined in relation to ABM specificity and outcome.

To satisfy study aims, process data from York I & II Depression Studies of 72 depressed clients undergoing manualized experiential psychotherapy treatment (EFT or CCT) for depression was analyzed. Processes occurring across therapy were analyzed within transcripts from early, working, and late sessions, utilizing emotion episodes as the unit of analysis. ABM specificity, level of client experiencing and level of client expressed emotional arousal were all examined within EEs and phase of therapy in relation to outcome. Participants were categorized into outcome groups as either Recovered or Unchanged based on the Beck Depression Inventory (BDI) clinically significant change method identified by

Jacobson & Truax (1991). A series of planned HLM analyses were conducted to examine the relationships between the process variables and outcome.

Autobiographical memory in therapy

ABM x treatment phase: Increased ABM specificity over the course of therapy . The results from the present investigation converge with clinical and experimental literature suggesting that over-general autobiographical memory in depression is amenable to change in psychotherapy treatment (Boritz et al., 2008; Williams et al., 2000). Moreover, increases in ABM-specificity were found to relate to better outcomes. The findings from this study directly replicate and extend the findings of Boritz et al. (2008) which identified increases in ABM specificity across therapy from early to late phases, and working to late phases in the context of the York I Depression Study. However, the converging results from the present investigation extend this research in two important ways. First, using a substantially larger sample size, one that more than doubled the number of participants investigated in Boritz (2008) has allowed stronger evidence to emerge that increasing ABM specificity is a therapy process factor in EFT and CCT therapy for depression. ABM specificity did increase with the progress of therapy in a depressed client sample. Second, when examining the sample as a whole, a significant increase in ABM specificity across all three therapy time points was observed in the present investigation: early-working, working-late and early-late. Boritz et al. (2008) observed only increases from early phases of therapy to working and early to late.

With the larger sample in this study, increase in proportion of single-event ABM's was found to be constant across all 3 phases of therapy.

Beyond Boritz et al. (2008), the findings are also consistent with findings from Williams et al. (2000). The researchers demonstrated a significant decrease in non-specific ABM recall and conversely, increases in specific ABM recall following a Mindfulness-based CBT training intervention, when compared to a control education group. The researchers concluded that OGM observed in depression can be improved by psychotherapy treatment. Our findings are consistent with this.

The study by Williams et al. (2000) examined ABM specificity before and after therapy but not during the therapy process. The current study demonstrates the deepening process of memory specificity across three therapy time points providing a fuller picture of the nature of ABM specificity disclosures within and across therapy. Our findings show that ABM specificity increases in a linear manner across early, working and late therapy phases. Further research should evaluate whether ABM specificity might have continued to increase if the therapy had continued beyond the set session number of 16-20, and also whether the gains made in ABM specificity are sustained following treatment termination. In addition, research examining to what degree engaging in single-event memory is productive would be fruitful. In other words, how much specific memory engagement is enough to produce therapeutic gains?

Williams et al. (2000) selected CBT-mindfulness training intervention in part because there were several homework tasks requiring participants to notice and experience their environment, encouraging skills that were aimed at fostering more productive memory encoding. Our results are important because they suggest that even when memory is not being targeted in a skill-focused way by the therapeutic intervention, specificity is increased in experiential therapy for depression. The means by which ABM specificity is increased may differ depending on the therapeutic modality (i.e. CBT mindfulness vs. experiential); additional research will be required to establish this.

The mechanism or mechanisms of increasing proportion of specific ABM disclosures in experiential therapy remain unclear, especially since neither increases in arousal nor experiencing that co-occur with increases in ABM specificity appeared to significantly predict increases in ABM specificity. One possibility is that the warm, empathic relationship fostered in experiential therapy provides a fertile environment for personal disclosure. Disclosing personally meaningful narratives (meaningful because the client has chosen to disclose a particular one, out of a multitude of memories) requires safety and engagement. In productive therapy, the progress of therapy is associated with deepening feelings of safety and security (Orlinsky, Ronnestad, & Willutski, 2004; Saffran & Muran, 2000) it may not be surprising then that ABM specificity seems to increase in line with the deepening of the therapeutic relationship. Future research investigating the relationship between the therapeutic alliance and ABM may be fruitful.

Another possible mechanism of increased ABM specificity in therapy is that the experiential therapy principles and goals may pull for ABM. Experiential therapy encourages openness to experiencing all facets of the self (Rogers, 1959). Within the treatment clients are encouraged through empathic reflection (and in the case of EFT, also through directed tasks) to acknowledge, explore, embody and reflect on their internal experience and concrete events. It makes clinical sense that specific memory processing would flow from this self-focused method.

ABM x treatment x outcome: Recovery is associated with expression of increasing proportions of specific-event narratives over the course of therapy. Results from the current study showed that the Recovered group in both the EFT and CCT treatments displayed a significant increase in proportion of single-event ABMs across the three therapy phases. The trajectory of ABM specificity in the Unchanged group differed by treatment type. In particular, the Unchanged EFT group demonstrated a significant increase only from early to middle therapy while the Unchanged CCT subgroup demonstrated no significant change across the progression of therapy. These results do not converge with the findings of Boritz et al. (2011) likely because the previous analyses lacked the power to discriminate these relationships.

These results suggest that a steady increase in ABM specificity over the course of therapy is associated with recovery from depression. The association between increasing ABM specificity and positive outcome was true for both treatment groups suggesting that it may be a dynamic common to both therapies or a dynamic

common to client's who benefit from experiential therapy. The findings provide new evidence that increasing the proportion of specific ABM narrative disclosures within the context of therapy may be an effective therapeutic process in experiential therapy for depression.

The present findings converge with research that has identified that the expression of significant personal narratives is related to improved psychological health, physical health and well-being (Bohlmeijer, Smit & Cuijpers, 2003; Pennebaker & Segal, 1999). Bohlmeijer et al. (2003) demonstrated in a meta-analysis that a therapeutic life-review (whereby an individual within a therapeutic relationship reflects on events in their life and the meanings) is an effective treatment for depression in older adults. The present research adds to this clinically valuable body of research highlighting the potential therapeutic benefits of specific memory engagement in therapy.

These findings provide further evidence to experiential therapy theory that maintains that accessing and exploring personal memories through specific, personal disclosures in therapy is an important therapeutic process (Angus & Greenberg, 2011). Recalling and exploring significant life events is thought to benefit psychological well-being by: strengthening identity (Giddens, 1991), increasing meaning and coherence in life (Angus & Greenberg, 2011; Reker & Wong, 1988) and promoting reconciliation and acceptance of conflicts and disappointments (i.e. mourning, letting go) (Garland & Garland, 2001; Silver, 1995).

In contrast, the EFT Unchanged group displayed increases in the proportion of single-event ABM specificity only in the working phase, while in the CCT unchanged group no increase in proportion of single-event ABM specificity was demonstrated. For individuals in the EFT Unchanged group, although they displayed increased ABM specificity in the working phase of therapy it was not sustained to later therapy. This may suggest that the increase in ABM specificity may be the result of specific ABM eliciting tasks in EFT which tend to occur during the working phase of therapy (i.e. evoking a specific memory in relation to painful or unfinished business). The results suggest that increasing memory specificity alone in EFT during the working phase may not be sufficient to produce emotional change and that other processes are likely involved, like for example, productive emotional engagement with the memory material which may not have occurred in these individuals.

Given the discrepancy between the Unchanged CCT and EFT memory specificity trajectories it is possible that the mechanism of accessing specific memory disclosures works differently in the two treatments. For those who recovered, within the context of the secure, non-directive CCT environment, it may be that specific memory processing is curative in and of itself, in some ways, for individuals who are motivated and able to utilize and engage with specific memory in an organic, self-directed way (given the absence of therapist directed tasks). It is possible that individuals in the CCT treatment who are able to engage spontaneously

in increasingly specific memory disclosure, while supported and deepened through empathy and attunement, tend to improve from depression, and those who do not engage with specific memory do not improve. In EFT, however, the results suggest that increasing memory specificity alone is not sufficient to produce change and other processes are likely involved (i.e. engaging with emotion, working through emotion). One possibility is that these individuals are not prepared to engage in a deeper manner, as the clients in the Recovered CCT group, who can arguably be described as more motivated in this way, given the self-directed increasing memory specificity demonstrated in treatment in this group. Thus, in the EFT group tasks eliciting memory specificity (as in the EFT Unrecovered group), when not married with an allowance of, or motivation for, deeper processing (emotional, reflective, somatic) increasing memory specificity may not be useful.

One could also argue that given the similar trajectories of ABM specificity in the Recovered CCT and EFT groups, it is possible then that what is common to EFT and CCT therapeutic treatments may be a mechanism that underlies increasing autobiographic memory disclosures in psychotherapy. For example, a warm, empathic therapeutic relationship coupled with a focus on emotional experiencing is considered a fundamental goal in both treatments and often emerges from the disclosure of emotionally salient personal stories (Angus and Kagan, 2007; Angus & Greenberg, 2011). A strong therapeutic alliance then may be a dynamic underlying increased memory specificity in treatment.

Emotion in therapy

Expressed emotional arousal x treatment phase: Increased expressed emotional arousal over the progress of therapy. The present study demonstrated significant increases in expressed emotional arousal from early to late therapy stages for the sample as a whole. This finding further extends previous research in the York I Depression Study which has reported significant increases in expressed emotional arousal from early to late therapy phases (Boritz et al., 2011; Warwar, et al., 2003) as this investigation has more than doubled the sample size of the previous studies investigating these variables.

While the increase in expressed arousal that clients displayed over the course of therapy was statistically significant, the absolute value of the CEAS-III only increased from an average rating of approximately 3.10 (σ=.51) in early sessions to 3.25 (σ=.54) in the late sessions. This finding indicates that in later sessions clients were evidencing relatively fewer low level scores (i.e. level 2) and more moderate level arousal scores (i.e. level 4, 5) in late phase therapy sessions. Despite the fact that the overall increase in expressed emotional arousal over the course of treatment appears small, it has clinical significance. The average client moving from evidencing few EEs rated as level 4 (where emotion is observed to be moderate in voice and body) early in therapy to significantly more in late therapy is a considerable change (see Appendix 2 for an example of CEAS-III ratings and Appendix 3 for the full rating scale criteria for the CEAS-III). And, if increasing levels of expressed emotional arousal are productive to therapy, then the shift may

represent an important emerging process within the client of being able to access emotion in order to work with it therapeutically.

However, it is remains unclear what the rise in expressed emotional arousal level over treatment phase can be attributed to. One possibility is that the therapeutic relationship, being the foundation of experiential treatment, underlies the heighted expressed emotion observed with the progress of treatment. It may be that within the therapeutic relationship clients feel safe and secure enough to explore, experience and tolerate emotion that otherwise would not be processed. Further, the association between the progress of treatment and expressed emotional arousal may signify that clients become more open to, comfortable with, and adept at embodying and tolerating their emotions, and as a result they were more likely to express emotion with the progress of therapy. This proposal is supported by a wealth of research indicating that measures of the therapeutic alliance increase over the course of therapy in the York I and II Depression Studies (Lewin, 2011; Pos, 2006; Pos et al., 2009). This explanation may be particularly plausible given the affective blunting typical to individuals struggling with depression.

However, it may also be possible that the increase in expressed emotion at the end of therapy may be in part explained by increased feelings of anxiety or sadness that the client is experiencing in relation to the imminent and uncontrollable termination of treatment. This may be particularly so given that the therapeutic ending in most research studies, certainly in the present investigation, is

determined before therapy begins and does not allow for client needs or preferences to dictate termination. Further research examining the content of the emotional expression (i.e. sadness, anger, joy, excitement) could address this possibility.

Expressed emotional arousal x treatment: All roads in experiential therapy lead to higher expressed emotional arousal by late therapy. Not surprisingly, clients in the emotion-focused therapy treatment subgroup evidenced significantly more expressed emotional arousal during the working portion of therapy when compared to clients in the Client-centered Therapy treatment group. This result replicates a previous finding from the York I Depression study database (Boritz, 2008) and makes clinical sense given that EFT interventions are implemented with the goal of eliciting and targeting emotion in order to explore and transform it during the working phase of therapy. What is more surprising is the fact that the trajectory of the CCT group shows a significant dip in expressed emotional arousal during the working phase of therapy, a dip below both early and late therapy for the group. It is unclear what this working phase dip in expressed emotional arousal in the CCT group is related to.

Interestingly, despite the working phase discrepancy in expressed emotional arousal between EFT and CCT, the two treatments exhibit no significant difference in expressed emotional arousal during the late phase of therapy. Even though the CCT group did not participate in specific tasks eliciting increased emotion, by the end of therapy they had evidenced an increased shift in emotional expression equal

to that of the EFT group. It appears that increased expressed emotional arousal is common to the therapeutic unfolding across experiential therapies and may not solely rely on the emotion focused tasks particular to EFT. However, it is apparent that EFT tasks along with EFT treatment focus, facilitate clients in accessing their emotional experience more quickly and perhaps more deeply than in CCT treatment. These features of EFT may then function in new meaning making and consolidation of change in later sessions.

Outcome x level of expressed emotional arousal: Expressed emotional arousal does not predict outcome. The present study found no evidence to suggest that expressed emotional arousal (in both overall levels and increases over time) was independently related to outcome. The present finding is supported by research which has found no effect of level of expressed emotional arousal on outcome (Bohart, 1977; Boritz, et al., 2011; Greenberg, et al., 2007; Rosner, 1996). However, the current findings are in contrast to previous investigations utilizing the York I data set which evidenced that increased expressed emotional arousal during the working phase (Warwar, 2003) and late phase (Boritz, 2011) was associated with good outcome.

It is important to note that the results from the present analysis differ from previous investigations in the York I data set in two important ways. First, the current investigation has a substantially larger sample size than has been previously investigated from 34 to 72 clients. Second, the working phase sessions in previous investigations were chosen on the basis of increased expressed emotional arousal

(see Warwar, 2003) and thus may have confounded the findings. Increased expressed emotional arousal was not, for the most part, the criteria utilized in the present investigation and in our investigation this approach is preferable, as the relationships observed in this study are not the result of selecting for elevated levels of expressed emotional arousal during the working phase sessions. For example, it may be that the relationship observed by Warwar (2003) that heightened arousal in the working phase was associated with good outcome is only present during especially highly aroused sessions (that were selected for).

In the current investigation the CEAS-III was utilized to examine intensity of expressed emotional arousal. No consideration was made for whether the emotion expressed was productive (i.e. working through), unproductive, or maladaptive (rumination, chronic under-regulation). Greenberg, et al. (2003; 2007) developed the Productivity Scale in an attempt to distinguish between productive and unproductive emotion. According to the Productivity Scale, productive emotional experience is defined as experiencing primary emotion in the present, in a fluid and mindfully aware manner where the client is not overwhelmed. These features of productive and therapeutic emotional experience were not evaluated in the present study. Therefore, the presence of both productive and unproductive emotional expression in the analysis may be muddying the link between intensity of emotional experience and outcome that experiential theorists would argue for.

Given the conflicting findings in the research literature as to whether heightened levels of expressed emotional arousal in therapy predicts outcome (see

Greenberg et al., 2007) recent investigation into expressed emotion has focused on the issue that emotional expression in psychotherapy is complex and may not be linearly related to outcome (Carryer & Greenberg, 2010; Pascual-Leone, 2009). For example, emotional expression that is too high in level or frequency during the session may be overwhelming and not productive for use in a dynamic between emotion and reflection and meaning making (Carryer & Greenberg, 2010). In relation to the current investigation, expressed arousal ratings of 4-5 (i.e. emotion is moderate in voice and body) may represent a productive range, while higher ratings may be unproductive or potentially maladaptive (e.g. if it represents a chronically under-regulated style). The current investigation then is limited in predicting outcome if moderate and higher expressed emotional arousal expression are markers of two distinct emotional processes, one that is therapeutic and one that is not.

Overall, the current findings add to a body of research indicating that expressed emotional arousal levels, as measured by the CEAS-III, may be too general a measure to reliably predict outcome directly (Carryer & Greenberg, 2010; Greenberg et al., 2007). Further research investigating potential optimal arousal levels, frequency and dynamic change patterns in expressed emotional arousal, and the relation between expressed arousal and emotional productivity should clarify the murky waters of expressed arousal and outcome. Further, if the relation between emotional arousal and outcome is not linear as new research suggests (Greenberg & Carryer, 2010; Pascual-Leone, 2009), then examining the CEAS-III in

ways beyond overall level of expressed emotional arousal may be experimentally fruitful. For example, although overall levels of expressed emotional arousal were not related to outcome in the present investigation, levels of variability in expressed emotional arousal did predict outcome. This finding will be discussed further in the next section.

Variability in expressed emotional arousal x outcome: Moderate and consistent variability is associated with recovery. The present investigation is one of only very few studies to quantify variability of expressed emotional arousal and relate it to outcome in psychotherapy. The results from the current study established that moderate levels of emotional variability that are consistent throughout therapy are associated with recovery from depression in experiential therapy. This was the case even when controlling for overall level of expressed arousal.

Recent research has implicitly indicated that some degree of emotional variability is related to productive therapy (Carryer & Greenberg, 2010). Carryer and Greenberg (2010) showed that variability in the frequency of expressed emotional arousal predicted outcome. The researchers evidenced that clients who demonstrated good outcome (based on outcome measured by residual gain scores on the BDI) displayed higher CEAS-III levels (i.e. 5,6) during approximately only 25% of the first five minutes of the therapy sessions investigated. Expressing high levels of expressed emotional arousal for substantially more or less than 25% of the first five minutes of a therapy session was associated with poorer outcome. Implicit

in this finding is clients' emotional variability, specifically, that clients who display a moderate level of expressed emotional variability (as evidenced by experiencing 25% high arousal and 75% lower arousal) tend to do better in therapy than clients who displayed presumably less variability (less than 25% high arousal) and more variability (more than 25% high arousal). The present investigation supports and these findings by indicating that clients who display moderate levels of expressed emotional arousal tend to exhibit clinically and statistically significant improvement in depressive symptomology (i.e. those in the Recovered group). Importantly, the results of the current investigation also extend the findings of Carryer & Greenberg (2010) as expressed emotional variability in the current investigation was evaluated within the entire session (not simply the first 5 minutes of the session) building stronger support for the relation between moderate levels of expressed emotional arousal in therapy and positive therapeutic outcomes.

In the current investigation Recovered clients, irrespective of treatment type, evidenced a moderate, consistent degree of expressed emotional arousal variability that was evidenced across all three phases of therapy. In contrast, the group identified as Unchanged demonstrated a greater degree of emotional variability than the Recovered group in the early and working phase of therapy. In the late phase of therapy the Unchanged group demonstrated a dramatic drop in expressed emotional variability, to a level lower than that of the Recovered group who maintained consistently moderate levels of emotional variability across the sessions.

These findings have several important implications. First, degree of emotional variability appears to suggest an individual difference that clients exhibit from the beginning of therapy. as evidenced by the difference in expressed emotional arousal variability between the Recovered and Unchanged groups during the early phase of therapy. With respect to the Unchanged group, it is possible that the high levels of expressed emotional arousal variability displayed in early therapy represent a characteristic emotional volatility or reactivity or degree of actual distress which may be unhelpful to the client in experiential therapy.

In the Recovered group the present findings do not suggest that the progress of therapy altered that initial personal tendency towards moderate levels of emotional variability (i.e. therapy progress was not associated with increases or decreases in emotional variability). In contrast, in the Unchanged group the initial tendency towards higher emotional variability, as displayed in the early phase and maintained through to the working phase, showed a dramatic drop in level of expressed emotional variability during the final phase of therapy. It is unclear what caused the drop from initial emotional variability tendency. One possible explanation is that the Unchanged group may be essentially 'giving up' in a manner, in the face of therapy termination, and engaging in whatever emotional intensity represents their status quo, thereby avoiding any increases or decreases in their expressed emotional intensity.

The findings suggest that emotional variability that is neither too high, nor too low throughout therapy, is most predictive of outcome and thus presumably more productive. This makes clinical sense given that a fluidity in emotional experiencing is considered to be adaptive, psychologically healthy and therapeutic (Rogers, 1959; Greenberg, et al., 1994; Greenberg et al., 2007). However, too many large changes in emotional intensity may represent an untethered experience that is ungrounded, unregulated and confused. The present results support evidence that indicates that stability in emotional intensity experience (typically measured by individual's self-report) is related to better psychological health (Peters et al., 2006; Gruber, et al. 2013). The present findings extend previous research as stability in emotional intensity was related to better psychological health even in psychotherapy treatment in which emotional activation is encouraged.

Client experiencing in therapy

Several studies have evaluated client experiencing in a number of innovative ways in the York I and II Depression studies (Goldman et al., 2005; Lewin, 2010; Pos (2006); Pos et al., 2003, 2009); Warwar, 2003). Our study examined experiencing primarily for the purpose of explicating the role of ABM specificity in psychotherapy. Level of client experiencing independent of other process variables was investigated despite the fact that it has been extensively studied in the York I and II Depression Study (Goldman et al., 2005; Lewin, 2010; Pos (2006); Pos et al. (2003; 2009) Warwar, 2003) given that the sample, sessions selected, and analyses are different than in previous investigations. Overall our findings yielded similar

results as previous research endeavors. Analyses related to client experiencing independent of the other process factors can be found in Appendix 1.

ABM specificity x expressed emotional arousal x outcome: No evidenced relationship in predicting recovery.

Contrary to our hypotheses we did not identify a relationship between proportion of single-event ABMs and expressed emotional arousal in predicting outcome. Boritz et al., (2011) demonstrated a positive relationship between proportion of single-event ABMs and expressed emotional arousal in individuals labeled as not-depressed at treatment end during all phases of therapy. There was no relationship evidenced between these variables in the depressed group.

Specific consideration must be made for why the current findings fail to replicate findings from Boritz et al. (2011). One possible methodological reason for the discrepancy in results concerns differences in the outcome criteria applied between the two studies. In the Boritz et al. (2011) study outcome was categorized based on an outcome criteria of Seggar, Lambert & Hansen (2002) utilizing a BDI cutoff score. The outcome categorization in the current investigation was more conservative requiring assessment in relation to a BDI cutoff score (to assess clinical change) and a reliable change score (to assess statistical change). The less strict outcome categorization method used by Boritz et al. (2011) may have captured a different emotion-memory dynamic in relation to outcome.

A wealth of research and psychological theory intimately links emotion and memory processes (Angus & Greenberg, 2011; Bluck & Havermas, 2000; Conway &

Rubin 2003; Damasio, 1999; Nelson & Fivush, 2004). Further, experiential theory posits that a therapeutic focusing on internal experiences fosters the development of a more complete and integrated narrative (Angus & Greenberg, 2011) and conversely, specific memory recollection leads to emotional activation (Greenberg et al., 1993). Although, the current findings did not provide evidence to support this dynamic in predicting outcome it should not be concluded that emotion and memory are not connected in psychotherapy treatment.

Failing to replicate the previous findings by Boritz et al. (2011) might signify that those findings were fragile and did not hold in a different, expanded sample. New evidence that emotional arousal and outcome may not be linearly related (Carryer & Greenberg, 2010; Pascual-Leone, 2009) may point to the reason the HLM analyses evaluating ABM specificity and expressed emotional arousal were not significant. For example, if the therapeutic value of emotional expression depends on optimal arousal levels or frequencies (Carryer & Greenberg, 2010) or whether or not the emotion expressed is a primary emotion or not (Greenberg et al., 2007) then a linear relationship between level of expressed emotional arousal and ABM specificity or outcome would not necessarily be expected. In the present investigation expressed emotional arousal was not evidenced to be related to outcome or ABM in determining outcome, these findings then may add to a growing body of research suggesting that expressed emotional arousal and outcome are not linearly related.

ABM x level of client experiencing x outcome: No evidenced relationship in predicting recovery. Experiential theory posits that emotional experiencing, reflexive processing and narrative creation are not only deeply intertwined but actually directly influence each other in a moment-by-moment building and unfolding process (Greenberg & Watson 2006; Angus & Greenberg, 2011).Given this, it was anticipated that ABM specificity and client experiencing would evidence a relationship within experiential therapy that was predictive of outcome from depression. This study demonstrated no evidence of a relationship between ABM specificity and client experiencing. This is particularly surprising given that increasing levels of both ABM specificity and client experiencing across therapy predicted outcome in this study. The results of the investigation suggest that these two variables do not interplay in predicting outcome. Reasons for this will be considered in the next section.

ABM standing alone as a process variable. Overall, ABM specificity as measured by proportion of single-event ABM seems to stand alone in the results of this study as a process variable in that no relationship was evidenced between ABM specificity and expressed emotional arousal or level of client experiencing in predicting outcome. One possible reason for this is that these psychotherapy processes are not related. However, given the wealth of experiential theory relating the processes other alternatives must be considered.

One possible reason for the lack of statistical relation between ABM specificity and other process variables in this study is that the measure of ABM needs to be

further refined. In this study ABM specificity simply described whether the memory was a single-event occurrence or not. The memory was labeled either as specific or not: 0 or 1. The measure of ABM specificity does not measure the length of the memory (i.e. how long the client recalled the memory within the session), the vividness of the memory, meaningfulness of the memory or any marker of depth of the memory recounted. It is possible that level of client experiencing and expressed emotional arousal would be related to ABM specificity given a more refined measure of ABM specificity corresponding to a measure of depth of specificity.

However, the results of the current investigation indicate that ABM is predictive of recovery which follows a wealth of theoretical evidence indicating that specific narrative disclosures in therapy (Angus & Greenberg, 2011; Beck, Rush, Shaw, & Emery, 1979; Brewin, 2005; Goldfried, 2003). As such ABM specificity, as evaluated in the present investigation, may be a useful indicator of memory processes in therapy. Further, given the important predictive relationship between ABM and outcome, it is possible ABM may in fact be an important indicator of good process in therapy and in that sense may more accurately be considered an outcome indicator as opposed to a process measure in and of itself. Overall, the results indicate that ABM specificity is an indicator that good process within therapy has occurred.

Expressed emotional arousal x level of client experiencing x outcome: Working together in predicting recovery. The findings of this study provide evidence for a positive relationship between level of client experiencing and

expressed emotional arousal across all three therapy time points in individuals who were Recovered at therapy termination. This suggests, given experiential theory, that shifts in increasing emotional arousal are productive when in combination or in service of the deeper emotional processing, integration and meaning making in client experiencing. The finding also converges with new research in the York I Depression Study that shows that experiencing is a significant mediator in the relationship between arousal and outcome, particularly during the working phase of therapy (Pos et al., 2014).

Interestingly, the present findings show a positive relationship between expressed emotional arousal and client experiencing during the early phase for both Recovered and Unchanged groups. This indicated that increased levels of expressed emotional arousal were associated with increased levels of client experiencing from the first moments in therapy. However, during the working and late phases of therapy only the Recovered clients demonstrate a positive relationship between levels of expressed emotional arousal and levels of client experiencing. These results suggest that all clients come into therapy evidencing a dynamic between expressed emotion and client reflexivity whereby greater expressed emotional arousal is associated with greater reflexivity. However, the progress of therapy is associated with a loss of this dynamic in Unchanged clients so that these processes are not related as therapy progresses to working and late phases as evidenced by the lack of any relationship between expressed emotional arousal and experiencing in working and late therapy.

It is unclear what the reason for the loss of the relationship between emotion and experiencing is in Unchanged clients. It is possible that it is an avoidance process whereby emotional expression and emotional reflexivity are divorced as a protection from system change, but much more research is necessary in order to address that proposal.

Limitations of the Study

As in any research study, there are a number of limitations to this investigation. One important limitation concerns the sample used. A sample size was used in this investigation that was much bigger (N=72) than had been previously used to investigate ABM specificity in therapy. The sample size was reasonable for the HLM analyses conducted as HLM is considered a powerful and sensitive statistical approach that is able to effectively capture the wealth of data nested within a psychotherapy sample. However, the outcome categorization processes yielded groups which were unbalanced (Recovered=48: Unchanged=12). The central issue with this is that the Unchanged group remains quite small in spite of doubling the sample size of Boritz et al., (2008). Clinically, this highlights the effectiveness of the therapies in the research study, however, for the purpose of a research study, having so few people who had not improved in a significant way limits the findings in this group. The effect of the small subsample size in the Unchanged group likely made it difficult to detect significant findings in that group. There is also increased variability in the smaller unchanged group, leading to larger

standard errors for that group making comparisons between it and other groups more difficult to detect.

Another limitation relates to therapy process in the context of a research project. Namely, in research projects evaluating short-term psychotherapy, the end of therapy is decided before the process has even begun. This is a fairly arbitrary cutoff and does not reflect whether the client is ready for the end of treatment or not. This has important implications when examining process variable findings across therapy phase. First, we do not know what would have happened with any of the process variables (or the outcome variable) if clients had been seen for a longer time (i.e. until they were ready to end, or there was a longer session limit set). Second, not having a choice in the therapeutic termination is an occurrence that generally does not happen in the 'real world'. Generally in the 'real world' the ending of therapy has a great deal to do with client choice. It is very possible that this imposed ending impacts the process variables in a way that would not be seen in the 'real world'. In this investigation that could be particularly true for expressed emotional arousal.

An additional limit concerns the sampling of early, working and late sessions in the therapy. In sampling sessions, the current investigation assumes that the sessions selected are representative of early, working and late therapy. This assumption is particularly notable in relation to the working phase sessions, from which the session selection could span from session 4 to session 17, representing a

wide range. Future investigation looking at ABM, expressed emotional arousal and client experiencing levels in a more thorough manner (i.e. at each session of therapy, or every other session) could elucidate the relation between memory, emotion and outcome in a more rich manner.

Finally, the generalizability of the findings in the present study is limited. The current study investigated only EFT and CCT therapies. These are experiential therapies which focus on personal client narratives, emotional exploration and reflection processes. Future research evaluating whether the current findings hold up in other treatment orientations (i.e. CBT, relational therapy) would be interesting and may further elucidate the role of these processes across therapies.

Clinical Implications of the Present Findings

A number of valuable implications for clinical practice can be drawn from the present investigation. With respect to memory specificity, the findings validate the clinically held belief that that deepening memory specificity is therapeutic in experiential treatment for depression. This makes clinical sense give that the recollection, expression, exploration and elaboration of specific, personally meaningful autobiographical memories in therapy allows understanding one's self in the past and present state, to motivate, direct and create change and facilitate reflection on changes made.

Findings from the present study evidenced that greater levels of client experiencing in combination with greater levels of expressed emotional arousal was

predictive of good outcome. However, greater levels of expressed emotional arousal were not independently related to outcome. Together this suggests that therapists should be mindful about encouraging emotional activation, as the present study suggests that heightened emotional activation is not universally productive. Emotional activation may only be productive in the service of other process variables like in this case deeper emotional experiencing and reflection. Clinically, a differentiated view of emotion should be considered in therapy including whether emotional processing seems is productive or not.

The findings related to variability of expressed emotional arousal have important clinical implications. First, they suggest that we may be able to predict based on early session variability, which clients are more likely to experience recovery in experiential therapy for depression. It would be useful for clinicians to be aware that individuals with high levels of expressed emotional arousal variability (which may be evidence of emotional dysregulation) may represent require additional treatment attention. Much more study of this variable is required in order to more fully assert these propositions. Second, the current investigation demonstrated that clients exhibiting moderate levels of expressed emotional arousal variability were more likely to be Recovered at the end of treatment. This suggests that movement to higher and lower emotional arousal intensities is productive in therapy, however excessive movement and a lack of variability in emotional intensity may both be unproductive. Exactly what defines moderate,

excessive and limited variability of expressed emotional arousal requires more study.

Directions for Future Research

One of the important and unique findings from this investigation is that an increasing proportion of specific ABMs over the course of therapy was associated with clinical and statistical improvement in depressive symptomology. This was true across experiential treatment groups. It is anticipated that this relationship would hold in other psychotherapy treatments (i.e. CBT, psychodynamic treatments) given that exploration and engagement of specific ABM narratives is a therapy process utilized in a variety of psychotherapy treatments. ABM may be process indicator that sheds light on the process of how narrative change occurs in relation to emotion over the course of therapy.

This study did not yield results speaking to the mechanism by which ABM increases with therapeutic intervention. One possibility relies on involvement of the therapeutic alliance. The warm, empathic relationship fostered in experiential therapy provides a fertile environment for personal disclosure. Disclosing personally meaningful narratives requires safety and engagement. Further, description of personally significant moments can serve to deepen the dynamic bonds in a relationship. In productive therapy, the progress of therapy is associated with deepening feelings of safety and security (Orlinsky, Ronnestad, & Willutski, 2004; Saffran & Muran, 2000). It may not be surprising then that ABM specificity

seems to increase in line with the deepening of the therapeutic relationship. It follows then that the therapeutic alliance may be strongly connected to specificity of ABM disclosure and outcome. This warrants future investigation.

With respect to expressed emotional arousal, the ratings in the current investigation do not address whether the emotion expressed is productive (i.e. working through emotion) or unproductive (i.e. emotional under-regulation, rumination) or even the content of the emotion (i.e. joy, fear, sadness). Future research employing a more refined measure of emotion may better address the relationships between emotional arousal, ABM specificity, client experiencing and outcome if applied in a similar investigation.

The current investigation focused only on peak levels of expressed emotional arousal and experiencing levels. That is, ratings indicating the highest momentary level of arousal/experiencing within each EE. Several previous investigations in the York Depression Studies have looked instead at average level of these variables within EEs. Future research investigating the average emotional arousal and experiencing ratings by utilizing mean ratings of the variables within each EE would provide an assessment of the overall level of these variables within the sessions, providing a richer explanation of these variables in relation to ABM and their interactions in therapy.

An important and unique finding from the current investigation is that very high and low emotional variability in therapy was associated with poorer outcome.

This is the first known study to investigate expressed emotional arousal variability by calculating a standard deviation score and replication is required. Increased emotional variability in the Unchanged group (compared to the Recovered group) was evidenced at the start of treatment indicating that emotional variability may be an individual client trait and further, may serve as a marker of individuals who do not improve from depression in experiential psychotherapy treatment. Investigation into whether emotional variability acts as a broad marker of treatment resistance in depression (whether psychotherapy or pharmacological) would be productive. Future research examining the processes involved in, and the reasons for the dramatic drop in expressed emotional variability at the late phase of therapy could shed light on the emotional processes activated in individuals who do not recover from depression in psychotherapy treatment.

References

Ahn, H. & Wampold, B. (2001). Where, oh where, are the specific ingredients? A meta-analysis of component studies in counseling and psychotherapy. *Journal of Consulting and Clinical Psychology, 48*, 251-257. doi: 10.1037//O022-OI67.48.3.251

American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders* (3rd Ed. Revised). Washington, DC: Author.

Angus, L., & Hardtke, K. (1994). Narrative processes in psychotherapy. *Canadian Psychology, 35,* 190-203.

Angus, L. E., Levitt, H., & Hardtke, K. K. (1996). *Narrative process coding system: Training manual.* Unpublished manuscript, York University, Toronto, Ontario, Canada.

Angus, L. E., Levitt, H., & Hardtke, K. K. (1999). The Narrative Process coding System: Research applications and implications for psychotherapy practice. *Journal of Clinical Psychology, 55*, 1255-1270.

Angus, L. E., Lewin, J., Bouffard, B., & Rotondi–Trevisan, D. (2004). "What's the story?": Working with narrative in experiential psychotherapy. In L. E. Angus, & J. McLeod (Eds.), *The handbook of narrative and psychotherapy: Practice, theory, and research* (pp. 87–101). Thousand Oaks, CA: Sage.

Angus, L. E., & McLeod, J. (Eds.). (2004). *The handbook of narrative and psychotherapy: Practice, theory and research*. Sage.

Angus, L., & Kagan, F. (2007). Empathic relational bonds and personal agency in psychotherapy: Implications for psychotherapy supervision, practice, and research. *Psychotherapy: Theory, Research, Practice, Training*, *44*(4), 371.

Angus, L. E., & Greenberg, L. S. (2011). *Working with narrative in emotion-focused therapy: Changing stories, healing lives*. American Psychological Association.

Atkinson, R. C., & Shiffrin, R. M. (1968). Human memory: A proposed system and its control processes. *The psychology of learning and motivation*, *2*, 89-195.

Baddeley, Alan. "Working memory: looking back and looking forward." *Nature Reviews Neuroscience* 4.10 (2003): 829-839.

Barber, J. P., & DeRubeis, R. J. (1989). On second thought—where the action is in cognitive therapy for depression. *Cognitive Therapy and Research, 13*, 441–457.

Bartlett, F. C. (1932). *Remembering: A study in experimental and social psychology.* London: Cambridge University Press.

Beck, A. T., Steer, R. A., Ball, R., & Ranieri, W. F. (1996). Comparison of Beck Depression Inventories-IA and-II in psychiatric outpatients. *Journal of personality assessment*, *67*(3), 588-597.

Beck, A. T., Steer, R. A., & Garbin, M. G. (1988). Psychometric properties of the Beck Depression Inventory: Twenty–five years of evaluation. *Clinical Psychology Review, 8,* 77–100.

Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). Cognitive therapy of depression. New York: Wiley

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry, 4,* 561–571.

Bielak, A. A., Hultsch, D. F., Strauss, E., MacDonald, S. W., & Hunter, M. A. (2010). Intraindividual variability is related to cognitive change in older adults: evidence for within-person coupling. *Psychology and aging*, *25*(3), 575.

Bluck, S., & Habermas, T. (2000). The life story schema. *Motivation and Emotion*, *24*(2), 121-147.

Bordin, E.S. (1979). The generalizability of the psychoanalytic concept of the working alliance. *Psychotherapy, Theory Research and Practice, 16,* 252-260.

Bordin, E. S. (1994). Theory and research on the therapeutic working alliance: New directions. *The working alliance: Theory, research, and practice*, 13-37.Borkovec T. D., Ray, W. J., & Strober, J., (1998). Worry: A cognitive phenomenon intimately linked to affective, physiological, and interpersonal behavioral processes. *Cognitive Therapy and Research, 6,* 561-576.

Bohart, A. C. (1977). Role playing and interpersonal-conflict reduction. *Journal of Counseling Psychology*, *24*(1), 15.

Boritz, T. (2007). *Autobiographical memory specificity and emotional arousal in brief psychotherapy for depression.* Unpublished Masters Thesis, York University, Toronto, Canada.

Boritz, T. Z., Angus, L., Monette, G., & Hollis-Walker, L. (2008). An Empirical analysis of autobiographical memory specificity subtypes in brief emotion-focused and client-centered treatments of depression. *Psychotherapy Research, 18,* 584-593.

Borkovec, T. D., Ray, W. J., & Stober, J. (1998). Worry: A cognitive phenomenon intimately linked to affective, physiological, and interpersonal behavioral processes. *Cognitive Ther*apy *and Research, 6,* 561-576.

Bryntwick, E., Angus, L., & Boritz, T. (2008). The narrative and emotion integration coding system. *Unpublished manual, Department of Psychology, York University, Toronto*.

Bouffard, B. (2003). *Autobiographical memory in emotion-focused treatment for unfinished bussiness: An exploratory intensive case analysis.* Unpublished master of arts thesis, York University at Toronto, Ontario, Canada.

Brewer, W. F. (1996). What is recollective memory? In David C. Rubin (Ed.), *Remembering our past: Studies in autobiographical memory* (pp. 21–90). Cambridge: Cambridge University.

Brewin, C. R. (1989). Cognitive change processes in psychotherapy. *Psychological Review, 96,* 379–394.

Brewin, C. R. (2006). Understanding Cognitive Behavioral Therapy: A retrieval competition account. *Behavior Research and Therapy, 44,* 765-784.

Brewin, C. R. (2006). Understanding cognitive behaviour therapy: A retrieval competition account. *Behaviour research and therapy*, *44*(6), 765-784.

Brittlebank, A. D., Scott, J., Williams, J. M., & Ferrier, I. N. (1993). Autobiographical memory in depression: State or trait marker?. *The British Journal of Psychiatry*, *162*(1), 118-121.

Brockmeier, J. (2010). After the archive: Remapping memory. *Culture and Psychology, 16*, 5-35.

Burum, B. A., & Goldfried, M. R. (2007). The centrality of emotion to psychological change. *Clinical Psychology: Science and Practice*, *14*(4), 407-413.Carryer & Greenberg (2010).

Clark, D. M., & Teasdale, J. D. (1985). Constraints on the effects of mood on memory. *Journal of Personality and Social Psychology*, *48*(6), 1595.Conway & Rubin, 1993

Conway, M. A., & Tacchi, P. C. (1996). Motivated confabulation. *Neurocase*, *2*(4), 325-339.

Conway, M. A. (Ed.). (1997). *Recovered memories and false memories*. Oxford University Press.

Conway, M. A., & Pleydell-Pearce, C. W. (2000). The construction of autobiographical memories in the self-memory system. *Psychological review*,*107*(2), 261.

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

Curtis, R. C., & Hirsch, I. (2003). Relational approaches to psychoanalytic psychotherapy. In Gurman, Alan S. (Ed); Messer, Stanley B. (Ed), Essential psychotherapies: Theory and practice (2nd ed.). , (pp. 69-106). New York, NY, US: Guilford Press

Dalgleish, T., Spinks, H., Yiend, J., & Kuyken, W. (2001). Autobiographical memory style in seasonal affective disorder and its relationship to future symptom remission. *Journal of Abnormal Psychology*, *110*(2), 335.

Damasio, A. (1999). *The feeling of what happens: Body and emotion in the making of consciousness.* Fort Worth, TX: US: Harcourt College Publishers.

Derogatis, L. R., Rickels, K., & Roch, A. F. (1976). The SCL–90 and the MMPI: A step in the validation of a new self–report scale. *British Journal of Psychiatry, 128,* 280–289.

Drisko, J. W. (2004). Common factors in psychotherapy outcome: Meta-analytic findings and their implications for practice and research. *Families in Society, 85, 1,* 81-90.

Eich, J.E. (2008). The Cue-Dependent Nature of State-Dependent Retrieval. *Memory & Cognition*, *8 (2),* 157–173.

Elliott, R., Slatick, E., & Urman, M. (2001). Qualitative change process research on psychotherapy: Alternative strategies. *Qualitative psychotherapy research: Methods and methodology*, 69-111.

Elliotson, J. (1835) *Human Physiology*. London: Longman, Orme, Browne, Green, and Longman.

Elliott, R., Watson, J. C., Goldman, R. N., & Greenberg, L. S. (2004). *Learning emotion-focused therapy: The process-experiential approach to change*. American Psychological Association.

Evans, J., Williams, J. M. G., O'loughlin, S., & Howells, K. (1992). Autobiographical memory andproblem-solving strategies of parasuicide patients. *Psychological Medicine*, *22*(2), 399-405.

Fitzgerald, J. M. (1988). Vivid memories and the reminiscence phenomenon: The role of a self narrative. *Human Development*, *31*(5), 261-273.

Fitzgerald, J. M. (1996). The distribution of self-narrative memories in younger and older adults: Elaborating the self-narrative hypothesis. *Aging, Neuropsychology, and Cognition*, *3*(3), 229-236.

Freud, S. & Breuer, J. (1895). *Studies on Hysteria*.

Freud, S. (1914). On the history of the psychoanalytic movement. *Standard Edition, 14*, 7-66.

Freud, S. (1921). Psychoanalysis and the war neuroses.Gendlin (1961).

Gendelin, E. T., Beebe, J., Cassens, J., Klein, M. & Oberlander, M. (1968). In J. M. Schlien (Ed). Research in Psychotherapy, Volume 3, pp 217-241. Washington: American Psychological Association.

Gendlin, E. T. (1997). The use of focusing in therapy. In *The evolution of psychotherapy: The third conference* (pp. 197-210).

Goldfried, M. R. (2003) *Review of Integration in Psychotherapy: Models and Methods. Psychotherapy Research,* 13(4), 532-535.

Goldfried, M. R. (2004). Integrating Integratively Oriented Brief Psychotherapy. *Journal of Psychotherapy Integration*, *14*(1), 93.

Goldman, R. (1997). *Change in thematic depth of experiencing and outcome in experiential psychotherapy*. Unpublished doctoral dissertation, York University, Toronto, Canada.

Goldman, R., Greenberg, L. & Angus, L. (2006). The effects of specific emotion-focused interventions and the therapeutic relationship in the treatment of depression: A dismantling study*. Psychotherapy Research, 16(5)*, 527-549 .

Gonçalves, D. C., Albuquerque, P. B., & Paul, C. (2009). Life review with older women: an intervention to reduce depression and improve autobiographical memory. *Aging clinical and experimental research*, *21*(4-5), 369-371.

Greenberg, L. S., & Korman, L. (1993). Assimilating emotion into psychotherapy integration. *Journal of Psychotherapy Integration, 3,* 249–265.

Greenberg, L. S., Rice, L., Elliot, R. (1993). *Facilitating emotional change.* New York: Guilford.

Greenberg, L. S., Rice, L. N., & Watson, J. (1994). *Manual for client–centered therapy.* Unpublished manuscript, York University, Toronto, Ontario, Canada.

Greenberg, L.S., & Foerster, F.S. (1996). Task-analysis exemplified: The process of resolving unfinished business. *Journal of Consulting and Clinical Psychology, 64*, 439-446.

Greenberg, L. S. & Pavio, S. (1997). *Working with emotions*. New York, NY: Guilford.

Greenberg, L.S., & Watson, J. (1998). Experiential therapy of depression: Differential effects of client-centered relationship conditions and process experiential interventions. *Psychotherapy Research*, *8*(2), 210-224.

Greenberg, L. S. (2002). *Emotion-focused therapy: Coaching clients to work with their feelings*. Washington, DC: American Psychological Association.

Greenberg, L. S., & Malcolm, W. (2002). Resolving unfinished business: Relating process to outcome. *Journal of Consulting and Clinical Psychology*,*70*(2), 406.Greenberg, Auszra & Herman, 2007

Greenberg, L. S., & Angus, L. E. (2004). The contributions of emotion processes to narrative change in psychotherapy: A dialectical constructivist approach. In L. E. Angus, & J. McLeod (Eds.), *The handbook of narrative and psychotherapy: Practice, theory, and research* (pp. 331–349). Thousand Oaks, CA: Sage.

Greenberg, L. S., & Pascual-Leone, A. (2006). Emotion in psychotherapy: A practice-friendly research review. *Journal of clinical psychology*, *62*(5), 611-630.

Greenberg, L. S., Auszra, L., & Herrmann, I. R. (2007). The relationship among emotional productivity, emotional arousal and outcome in experiential therapy of depression. *Psychotherapy Research*, *17*(4), 482-493.

Greenberg, L. (2008). Emotion and cognition in psychotherapy: The transforming power of affect. *Canadian Psychology/Psychologie canadienne*, *49*(1), 49.

Greenberger, D., & Padesky, C. A. (1995). *Mind over mood: Change how you feel by changing the way you think*. Guilford press.

Gruber, J., Kogan, A., Quoidbach, J., & Mauss, I. B. (2013). Happiness is best kept stable: Positive emotion variability is associated with poorer psychological health. *Emotion*, *13*(1), 1.

Harvey, A. G., Bryant, R. A., & Dang, S. T. (1998). Autobiographical memory in acute stress disorder. *Journal of Consulting and Clinical Psychology*, *66*(3), 500.

Hendricks, M.N. (2002). Focusing-oriented/experiential psychotherapy. In D. Cain (Ed.), Humanistic psychotherapy: Handbook of research and practice (p. 221-256). Washington: American Psychological Association.

Hilborn, J. V., Strauss, E., Hultsch, D. F. & Hunter, M. A. (2009). Intraindividual Variability Across Cognitive Domains: Investigation of Dispersion Levels and Performance Profiles in Older Adults. *Journal of Clinical and Experimental Neuropsychology, 31(4).*

Hollis-Walker, L. (2005). *Emotional arousal and autobiographical memory specificity within emotional episodes in brief psychotherapy for depression.* Unpublished Masters thesis, Department of Psychology, York University, Toronto, ON.

Horvath, A.O. (2001). The alliance. *Psychotherapy: Theory, practice, training, 38,* 365-372.

Horvath, A.O., & Bedi, R.P. (2002). The alliance. In J.C. Norcross (Ed.), *Psychotherapy relationships at work: Therapist contributions and responsiveness to patients* (pp. 37-69). London: Oxford Press.

Jacobson, N. S. & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology, 59(1),*12-19.

Judde, S., & Rickard, N. (2010). The effect of post-learning presentation of music on long-term word-list retention. *Neurobiology of learning and memory*,*94*(1), 13-20.

Kabat-Zinn, J. (1982). An outpatient program in behavioral medicine for chronic pain patients based on the practice of mindfulness meditation: Theoretical considerations and preliminary results. *General hospital psychiatry*, *4*(1), 33-47.

Kashdan, T. B., & Rottenberg, J. (2010). Psychological flexibility as a fundamental aspect of health. *Clinical psychology review*, *30*(7), 865-878.

Kennedy-Moore, E., & Watson, J. C. (2001). How and when does emotional expression help? *Review of General Psychology*, *5*(3), 187.

Klein, M. H., Mathieu, P. L., Gendlin, E. T., Kiesler, D. J. (1969) *The Experiencing scale: A Research training manual.* Madison, WI: University of Wisconsin Extention Bureau of Audio-visual Instruction.

Klein, M. H., Mathieu-Coghlan, P. L., Gendlin, E. T. & Kiesler, D. J. (1986). The Experiencing scale in L. Greenberg & M. Pinsoff (Eds.) *The Psychotherapeutic process: A Research handbook* (pp. 21-71). New York, NY: Guilford.

Korman, L. M. (1991). *Emotion episodes.* Unpublished Master's Thesis, York University, Toronto, Canada.

Lambert, M. & Bergin, S. (1994). The effectiveness of psychotherapy. In A. Bergin & S. Garfield (Eds.). *Handbook of psychotherapy and behavior change* (4th ed., pp 143-189). New York: Wiley.

Lewin, J. (2010). *The Importance of emotional-reflexive patterns for productive therapy: A Narrative process analysis of emotion-focussed and client-centered psychotherapy.* Unpublished Dissertation, York University, Toronto, Canada.

Linehan, M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. Guilford Press.

Liu, X., Li, L., Xiao, J., Yang, J., & Xiangqi, J. (2013) Abnormalities of autobiographical memory of patients with depressive disorders: A meta-analysis. *Psychology and Psychotherapy: Theory, Research and Practice, 86*, 33-373.

Lloyd, G. G., & Lishman, W. A. (1975). Effect of depression on the speed of recall of pleasant and unpleasant experiences. *Psychological medicine*, *5*(2), 173-180.

Loftus, E. F., & Palmer, J. C. (1974). Reconstruction of automobile destruction: An example of the interaction between language and memory. *Journal of verbal learning and verbal behavior*, *13*(5), 585-589.

Luborsky, L. (1990). The everyday clinical uses of the CCRT. In L. Luborsky & P. Crits-Christoph (Eds.), *Understanding transference: The Core conclictual relational theme model*. New York: Basic Books.

Markowitsch, H. J., & Staniloiu, A. (2011). Amygdala in action: relaying biological and social significance to autobiographical memory. *Neuropsychologia*, *49*(4), 718-733.

Marlatt, G. A., & Kristeller, J. L. (1999). *Mindfulness and meditation.* Miller, William R. (Ed). Integrating spirituality into treatment: Resources for practitioners. , (pp. 67-84). Washington, DC, US: American Psychological Association. doi:10.1037/10327-004

Mather, M. (2007). Emotional Arousal and Memory Binding: An Object-Based Framework. *Perspectives on Psychological Science 2:* 33–52.

Martin, D.G. (2010). *Counseling and therapy skills* (3rd ed.). Long Grove, IL: Waveland.

McGlinchey, J. B., Atkins, D. C., & Jacobson, N. S. (2002). Clinical significance methods: Which one to use and how useful are they?. *Behavior Therapy*, *33*(4), 529-550.

McWilliams, N. (2004). *Psychoanalytic psychotherapy: A practitioner's guide*. New York: Guilford Press.

Mikolajczak, M., Quoidbach, J., Vanootighem, V., Lambert, F., Lahaye, M., Fillée, C., & de Timary, P. (2010). Cortisol awakening response (CAR)'s flexibility leads to larger and more consistent associations with psychological factors than CAR magnitude. *Psychoneuroendocrinology*, *35*(5), 752-757.

Missirlian**,** T. M., Toukmanian, S., Warwar, S. H. & Greenberg, L. S. (2005). Emotional arousal, client perceptual processing, and the working alliance in experiential psychotherapy for depression. *Journal Consulting and Clinical Psychology, 73(5)*, 861-871.

Nelson, K., & Fivush, R. (2004). The emergence of autobiographical memory: a social cultural developmental theory. *Psychological review*, *111*(2), 486.

Ogles, B.M., Lambert, M.J., & Sawyer, J.D. (1995). Clinical significance of the National Institute of Mental Health Treatment of Depression Collaborative Research Program data. *Journal of Consulting and Clinical Psychology, 63*, 321-326.

Orlinsky, D. E., & Howard, K. I. (1975). *Varieties of psychotherapeutic experience: Multivariate analyses of patients' and therapists' reports*. New York: Teachers College Press.

Orlinski D.E. & Howard, K.I. (1986) The Relation of process to outcome in psychotherapy. In S. L. Garfield and A. E. Begins (Eds.). *Handbook of psychotherapy and behavior change: An Empirical analysis* (2nd ed., pp. 238-328). New York: Wiley.

Paré, D., Collins, D. R., & Pelletier, J. G. (2002). Amygdala oscillations and the consolidation of emotional memories. *Trends in Cognitive Sciences*, *6*(7), 306-314.

Paivio, S. C., & Pascual-Leone, A. (2010). *Emotion-focused therapy for trauma treatment model*. American Psychological Association. Chicago.

Peeters, F., Berkhof, J., Delespaul, P., Rottenberg, J., & Nicolson, N. A. (2006). Diurnal mood variation in major depressive disorder. *Emotion*, *6*(3), 383.

Pennebaker, J. W., & Seagal, J. D. (1999). Forming a story: The health benefits of narrative. *Journal of clinical psychology*, *55*(10), 1243-1254.Pos, A. E., (2009). Testing a model of change in the experiential treatment of depression. *Journal of Consulting and Clinical Psychology, 77(6)*, 1055-1066.

Pos, A. E. (1999). Depth of experiencing during emotion episodes and its relationship to core themes and outcome. Unpublished Masters Thesis, York University, Toronto Canada.

Pos, A.E, Greenberg, L.S., Goldman, R.N., & Korman, L. (2003). Emotional processing during experiential treatment of depression. Journal of Consulting and Clinical Psychology, 71, 1007-1016.

Pos, A. E. (2006). Experiential treatment for depression: A Test of experiential theory of change, differential effectiveness, and predictors of maintenance gains. Unpublished Dissertation, York University, Toronto Canada.

Pos, A. E., & Greenberg, L. S. (2007). Emotion-focused therapy: The transforming power of affect. *Journal of Contemporary Psychotherapy*, *37*(1), 25-31.

Pos, A. E., Greenberg, L. S., & Warwar, S. H. (2009). Testing a model of change in the experiential treatment of depression. *Journal of consulting and clinical psychology*, *77*(6), 1055.

Pos, A. E., Paolone, D. A., Smith, C. E. & Warwar, S. H. (Under Review). How does client expressed emotional arousal relate to outcome in experiential therapy for depression. *Journal of Psychotherapy Research.*

Raaijmakers, J. G., & Shiffrin, R. M. (1992). Models for recall and recognition.*Annual review of psychology*, *43*, 205-234.

Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (Vol. 1). Sage.

Reker, G. T., & Wong, P. T. (1988). Aging as an individual process: Toward a theory of personal meaning.

Reinecke, M. A., & Freeman, A. (2003). Cognitive therapy. Gurman, A. S. & Messer, S. B. (Eds). Essential psychotherapies: Theory and practice (2nd ed.), (pp. 224-271). New York, NY, US: Guilford Press

Rice, L. N. (1974). The evocative function of the therapist. *Innovations in client-centered therapy*, 289-311.

Rice, L. N., & Greenberg, L. S. (1990). Fundamental dimensions in experiential therapy: new directions in research. *Client-centered and experiential psychotherapy in the nineties*, 397-414.

Rogers, C. R. (1951). *Client-centered therapy: Its current practice, implications and theory* (p. 491). Boston: Houghton Mifflin.

Rogers, C. R. (1957). The necessary and sufficient conditions of therapeutic personality change. *Journal of consulting psychology*, *21*(2), 95.

Rogers, C. (1959). A theory of therapy, personality, and interpersonal relationships, as developed by the client-centered framework. In S. Koch (Ed.), Psychology: A study of a science (pp. 184-256). New York, NY: MaGraw Hill.

Rogers, C.R. (1961). *On becoming a person.* Boston: Houghton Mifflin Company.

Rosner, R. (1996). *The relationship between emotional expression treatment and outcome in psychotherapy: An empirical study.* Germany: Peter Lang.

Rotondi–Trevisan, D. L. (2002). *Autobiographical memory analysis and micro–narrative coherence in brief experiential psychotherapy for depression: An exploratory analysis.* Unpublished Master of Arts thesis, York University at Toronto, Ontario, Canada.

Rubin, D. C., & Berntsen, D. (2003). Life scripts help to maintain autobiographical memories of highly positive, but not highly negative, events. *Memory & Cognition*, *31*(1), 1-14.

Saffrin, J. D. & Murin, J. C. (2000). *Negotiating the therapeutic alliance: A relational treatment guide.* New York, NY: Guilford.

Schwärzel, M., & Müller, U. (2006). Memory. *Cellular and Molecular Life Sciences CMLS*, *63*(9), 989-998.

Scott, J., Stanton, B., Garland, A., & Ferrier, I. N. (2000). Cognitive vulnerability in patients with bipolar disorder. *Psychological Medicine*, *30*(02), 467-472.

Seggar, L. B., Lambert, M. J., Hansen, N. B. (2002). Assessing clinical significance: Application to the Beck Depression Inventory. *Behavior Therapy, 33*, 253-269.

Silberschatz, G., Fretter, P. B., & Curtis, J. T. (1986). How do interpretations influence the process of psychotherapy?. *Journal of Consulting and Clinical Psychology*, *54*(5), 646.

Silver, M. H. (1995). Memories and meaning: Life review in old age. *Journal of Geriatric Psychiatry*.

Singer, J. A., & Moffitt, K. H. (1992). *A scoring manual for narrative memories.* Unpublished manual, Department of Psychology, Connecticut College, New London, CT.

Singer, J. A., & Moffitt, K. H. (1992a). An experimental investigation of specificity and generality in memory narratives. *Imagination, Cognition, and Personality, 11*(3), 233–257.

Singer, J.A., & Salovey, P. (1993). The remembered self: Emotion and memory in personality. New York, NY: Free Press.

Spitzer, R., Williams, J. M. G., Gibbon, M., & First, M. (1989). Structured Clinical Interview for DSM III-R. Washington, DC: American Psychological Association.

Squire, L. (1987). *Memory and brain* New York ; Oxford : Oxford University Press.

Squire, L. R. (1992). Memory and the hippocampus: a synthesis from findings with rats, monkeys, and humans. *Psychological review*, *99*(2), 195.

Teasdale, J.D. (1999). Emotional processing, three modes of mind and the prevention of relapse in depression. *Behaviour Research and Therapy, 37* (Suppl 1), S53-S77.

Tulving, E. (1972). Episodic and semantic memory. In E. Tulving & W. Donaldson (Eds.), Organization of memory, (pp. 381–403). New York: Academic Press.

Tulving, E., & Thomson, D. M. (1973). Encoding specificity and retrieval processes in episodic memory. *Psychological review*, *80*(5), 352.Raaijmakers & Shiffrin, 1992.

Tulving, E. (2002). *Episodic memory: from mind to brain*. In: Annual review of psychology, 53, p. 1-25.

Tulving E, Thomson D (1973). Encoding specificity and retrieval processes in episodic memory. *Psychological Review, 80*, 352–373.

Watson, J. C., & Bedard, D. L. (2006). Clients' emotional processing in psychotherapy: A comparison between cognitive-behavioral and process-experiential therapies. *Journal of Consulting and Clinical Psychology*, *74*(1), 152.

Warwar, S. (1996). *The Relationship between level of experiencing and session outcome process-experiential and client-centered therapies.* Unpublished Masters Thesis. York University, Toronto, Canada.

Warwar, S. & Greenberg, L. (1999). *Client Emotional Arousal Scale-III-R.* Unpublished manual. York University, Toronto, Canada.

Warwar, S., & Greenberg, L. S. (2000). *Advances in theories of change and counseling*.

Warwar, S. (2003). *Relating emotional processes to outcome in experiential psychotherapy of depression.* Unpublished Dissertation thesis, Department of Psychology, York University, Toronto, ON.

Watson, J. C., & Bedard, D. L. (2006). Clients' emotional processing in psychotherapy: A comparison between cognitive-behavioral and process-experiential therapies. *Journal of Consulting and Clinical Psychology*, *74*(1), 152.Watkins & Teasdale, 2001; 2004

Waugh, C. E., Fredrickson, B. L. & Taylor, S. F. (2008). Adapting to life's slings and arrows: Individual differences in resilience when recovering from an anticipated threat. *Journal of research in* personality 42(4), 1031-1046.

Weerasekera, P., Linder, B., Greenberg, L., & Watson, J. (2003). The working alliance in client–centered and process–experiential therapy of depression. *Psychotherapy Research, 11*(2), 221–233.

Whalley, M. G., Rugg, M. D., & Brewin, C. R. (2012). Autobiographical memory in depression: an fMRI study. *Psychiatry Research: Neuroimaging*, *201*(2), 98-106.

Whelton, W. J. (2004). Emotional processes in psychotherapy: Evidence across therapeutic modalities. *Clinical Psychology & Psychotherapy*, *11*(1), 58-71.

Williams, J. M., & Broadbent, K. (1986). Autobiographical memory in suicide attempters. *Journal of abnormal psychology*, *95*(2), 144.

Williams, J. M. G., & Dritschel, B. H. (1988). Emotional disturbance and the specificity of autobiographical memory. *Cognition & emotion*, *2*(3), 221-234.

Williams, J. M. G. (1996). Depression and the specificity of autobiographical memory. In D. C. Rubin (Ed.), Remembering our past: Studies in autobiographical memory (pp. 244–267). Cambridge, UK: Cambridge University.

Williams, J. M. G., Teasdale, J. D., Segal, Z. V., & Soulsby, J. (2000). Mindfulness-based cognitive therapy reduces overgeneral autobiographical memory in formerly depressed patients. *Journal of abnormal psychology*,*109*(1), 150.

Williams, J. M. G., Barnhofer, T., Crane, C., Herman, D., Raes, F., Watkins, E., & Dalgleish, T. (2007). Autobiographical memory specificity and emotional disorder. *Psychological bulletin*, *133*(1), 122.

Williams, J. M. J., Barnhofer, T., Crane, C., Hermans, D., Raes, F., Watkins, E., Dalgeish, T. (2007). *Psychological Bulletin, 133,* 122-148.

Wolitzky, D. L. (2003). The theory and practice of traditional psychoanalytic treatment. In Gurman, A. S. & Messer, S. B. (Eds). Essential psychotherapies: Theory and practice (2nd ed.) (pp. 24-68). New York, NY, US: Guilford Press.

Yerkes R. M., Dodson, J.D. (1908). The relation of strength of stimulus to rapidity of habit-formation. *Journal of Comparative Neurology and Psychology, 18*, 459–482.

Appendix 1: Client Experiencing Replication Analyses

a) Degree of client experiencing will increase significantly from early through working and late phases of therapy, for the sample as a whole.

A hierarchical regression was modeled using client experiencing scores within EE as the dependent variable and phase of therapy as the independent variable, with random intercepts for dyads and sessions within dyads. Phase of therapy was modeled as a factor, categorizing sessions as early, working, or late (i.e., a three-level factor). The analyses showed that client experiencing increased significantly for the whole sample at each therapy phase investigated (see figure 13). There was a significant increase in the client experiencing levels from early (μ*=3.260)* to working (μ*=3.409)* phases of therapy ($t(142)=3.9144$, $p<.01$) and from working to late (μ*=3.585*) phases of therapy [$t(142)=4.8248$, $p<.01$]. There was also a significant increase in the client experiencing scores from early to late stages of therapy [$t(142)=7.027$, $p<.01$)].

These findings replicate previous research findings that client experiencing deepens at each progressive phase of therapy by Warwar (2003) Pos (2006) Lewin (2011) in the York I and II Depression Studies.

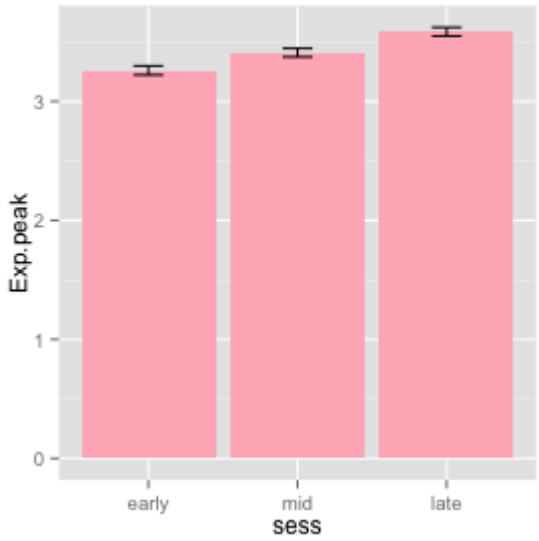


Figure 13. Client experiencing scores across therapy phase.

b) A significant difference will be evidenced in client experiencing level by therapy phase, for treatment approach (EFT vs. CCT). Specifically, the EFT subsample will exhibit significantly higher experiencing levels during the working and late phases of therapy compared to the CCT group.

An HLM analysis was conducted using client experiencing within EEs as the dependent variable, and treatment type and phase of therapy as the independent variables, with random intercepts for dyads and sessions within dyads. As predicted, the EFT subgroup displayed significantly higher levels of experiencing during the working ($t(70)=-2.8116$, $p=.0064$) and late ($t(70)=-3.9658$, $p=.0002$) phases of therapy compared to the CCT subgroup. See figure 14 for a graphical representation of this relationship.

The results replicate previous research in the York I and II Depression Studies (Angus & Levitt, 1999; Pos, 2006; Warwar, 2003; Lewin, 2011).

c) Recovered clients will evidence significantly higher levels of experiencing over the course of therapy than Unchanged clients, irrespective of treatment approach (EFT vs. CCT).

To test this proposition, an HLM analysis was conducted using level of client experiencing within EEs as the dependent variable and outcome and phase of therapy as the independent variable, with random intercepts for dyads and sessions within dyads. The Recovered group displayed significantly higher levels of client experiencing during working ($t(68)=3.884$, $p<.0001$) and late ($t(68)=3.310$, $p=.0015$) therapy phases when compared to the Unchanged group. With respect to trajectory across time, the Recovered group evidenced a significant increase in client experiencing levels from early to working phase ($t(136)=4.574$, $p<.0001$) early to late ($t(136)=7.665$, $p<.0001$) and from working phase to late ($t(136)= 3.306$, $p=.0012$). In contrast, the Unchanged group evidenced a significant increase in level of client experiencing from working to late phases ($t(136)=2.214$, $p=.0285$) only. See Figure 15 for a graphical representation of this relationship.

Next, the relationship between client experiencing and outcome across therapy based on treatment type was examined. An HLM analysis using client experiencing within EEs as the dependent variable and outcome, phase of therapy, and treatment types as the independent variables, with random intercepts for dyads

and sessions within dyads was conducted. The model showed no statistical evidence that therapy treatment type- EFT vs. CCT- significantly impacted the relationship between client experiencing and outcome across treatment ($F(6, 128) = 1.913$; $p = .084$).

The results replicate previous investigations in the York I and II Depression study (Warwar, 2003; Missirlian**,** Toukmanian, Warwar, & Greenberg, 2005**;** Pos, 2006; Lewin, 2011). This finding also converges with a broader body of psychotherapy research indicating that greater levels of client experiencing predict psychotherapeutic outcome (Gendlin et al., 1968).

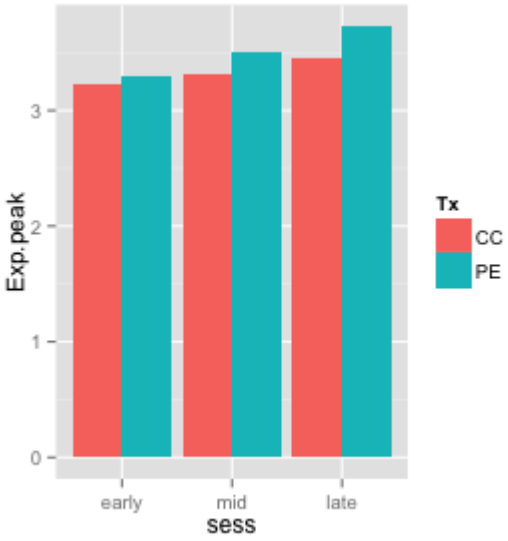


Figure 14. Client level of Experiencing across therapy phase by treatment type.

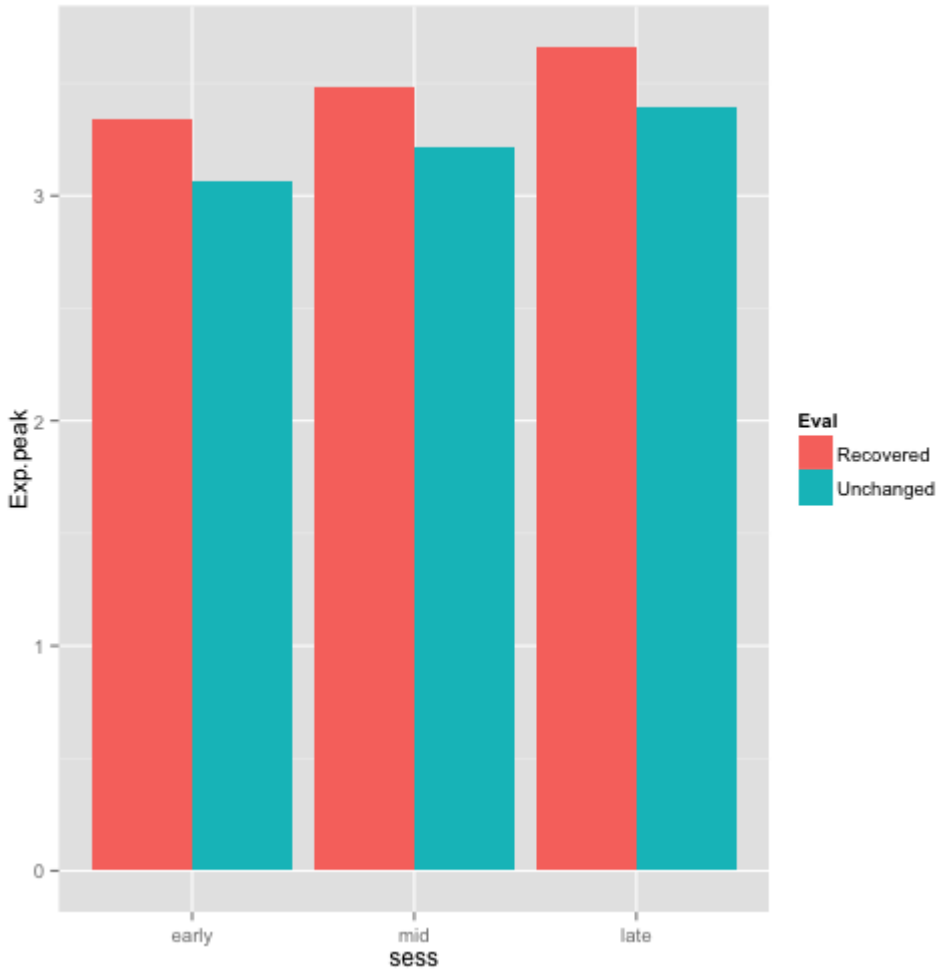


Figure 15. Client level of Experiencing across therapy phase by outcome.

Appendix 2: Examples of Level 2 and 4 Peak Expressed Arousal Rating on the CEAS-III

Example of a Level 2 Rated EE on the CEAS-III

T: and then there's nobody, nothing left for me?

C: - - - - yeah

T: yeah. yeah

C: (incomprehensible) I'm like, yeah

T: so how do you feel, yeah, when you, if you check inside

C: fine.

T: cause its not easy. it's not pleasant

C: no, I feel bad, but

T: but inside somehow you're ok.

C: yeah

T: so, yeah?

C: I said it, yeah, I said it to Jerome last night. I'm like, " all this stuff is going on around me and I'm just like,'ok' " there's really nothing I can do. I can't send her money cause I don't have it.

T: right

C: I can't go out there right now. I'm going to go out there. I could just sit and listen to her.

T: yeah.

C: that's it.

T: and so it's actually a very mature and coping response, right

C: um-hmm

T: I mean, you're handling it, right? and it would be nice if it wasn't this way, but

C: yeah

T: and you're able to talk with Jerome about it? I mean, you get some support?

C: yeah

T: yeah? good!

Example of Level 4 rated EE on the CEAS-III

C: because if I say anything I just think that you're going to react, in a not so nice way.

T: and

C: and he won't do anyth- he won't change. (sniff) he won't change.

T: and this is what leaves you feeling so hopeless and depressed.

C: I just don't know what to do about it.

T: mm-hm. somehow it's like, if I say anything it's not going,

C: it's not going to make a difference.

T: tell him, I feel powerless.

C: I don't know what to do, I can't, I'm afraid if I say anything you'll yell at me, you say I'm wrong. or you just will sh- shrug and say, okay, whatever, don't talk to your mother that way.

T: tell him what you want - - from him. I

C: I'm not sure what I want.

T: I think you know what you want.

C: well, I know I want him to like, I want to have a relationship with him again. I mean, were, we were like good friends. I told him everything. (sniff)

T: tell him how much you lost since you went back to my mother.

C: I lost my dad, I mean like whatever, like, I don't think of his money as being like a bond between the two, I guess he does, I don't. I don't care if like, he

considers himself a father because he's paying my rent every month, you know?

Appendix 3: Client emotional arousal scale- III criteria (Warwar & Greenberg, 1999)

Client Emotional Arousal Scale-III

1	Person does not express emotions. Voice or gestures **do not** disclose any emotional arousal
2	Person may acknowledge emotions, but there is **very little** arousal in voice or body ▪ there is no disruption of usual speech patterns ▪ any arousal is almost **completely restricted**
3	At this level of arousal as well as higher levels, the person acknowledges emotions Arousal is **mild** in voice and body ▪ very little emotional overflow ▪ any arousal is still **very restricted** ▪ usual speech patterns are only **mildly disrupted**
4	Arousal is **moderate** in voice and body ▪ emotional voice is present: ordinary speech patterns are **moderately** disrupted by emotional overflow as represented by changes in accentuation patterns, unevenness of pace, changes in pitch ▪ although there is some freedom from control and restraints, arousal may still be **somewhat restricted**
5	Arousal is **fairly intense and full** in voice and body ▪ emotion overflows into speech pattern to a great extent: speech patterns deviate **markedly** from the client's baseline, and are fragmented or broken ▪ elevated loudness and volume ▪ arousal seems **fairly unrestricted**
6	Arousal is **very intense and extremely full** as the person is freely expressing emotion, with voice and body. ▪ usual speech patterns are **extremely disrupted** as indicated by changes in accentuation patterns, unevenness of pace, changes in pitch, and volume or force of voice ▪ spontaneous expression of emotion and there is **almost no sense of restriction**
7	Arousal is **extremely intense and full** in voice and body ▪ usual speech patterns are **completely disrupted** by emotional overflow ▪ the expression is **completely spontaneous and unrestricted** ▪ arousal appears uncontrollable and enduring. ▪ falling apart quality: although arousal can be a completely unrestricted therapeutic experience, it may also be a disruptive negative experience in which the clients feels like they are falling apart **control = containment in contrast to contorl = restriction** * The distinguishing feature between level 6 and level 7 is that in level 6 there is the sense that although a person's expression may be fairly unrestricted, this individual

	would be able to contain or control his or her arousal, whereas in level 7, a person's expression is completely unrestricted and there is the sense that emotional arousal would not be within this person's control.