LIFESPAN INTEGRATION EFFICACY:

A MIXED METHODS MULTIPLE CASE STUDY

by

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We accept this thesis as conforming to the required standard

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ABSTRACT

Attachment theory, neuroscience research and interpersonal neurobiology have much to say about the etiology and dynamics of chronic and enduring symptoms of psychological distress that are related to complex or developmental trauma or neglect. As multidisciplinary research has advanced understanding of the profound impact early primary relationships and experiences can have on an individual's entire lifespan, so have these advances influenced psychotherapeutic approaches. Lifespan Integration (LI) therapy was developed by Peggy Pace (2003/2012) through years of treating adults with histories of childhood abuse and trauma. Since 2003 over one thousand clinicians have been trained in LI worldwide and growing anecdotal reports of success call for research. Three advanced LI therapists were recruited to work with one participant each over a three-month period in the naturalistic settings of their private practices. The three participants in this study ranged in age (approximately 20, 40, and 60). Each came to therapy with chronic and/or enduring issues that had links to histories of childhood abuse and trauma. A mixed-method, pragmatic, adjudicated case study research design (Hermeneutic Single Case Efficacy Design, HSCED, Elliott, 2001, 2002) was expanded to accommodate three cases and chosen as best fit for investigating two research questions. The first research question investigated the efficacy of LI with representatives of this population. The second question was to investigate whether and how LI protocols and treatment goals would be linked with evidence of treatment efficacy and what this evidence would then say about the underlying theory. The results indicate that each of the three participants experienced significant clinical change in the issues that brought them to therapy. The data collected also indicate a strong alignment between LI's treatment goals and methods and the underlying theory, which supports the claim that LI works to foster integration (Siegel, 1999/2012), coherence, and other markers associated with

secure attachment, higher functioning, and mental health. Implications and contributions to clinical understanding and practice as well as future directions for research are discussed.

Keywords: Lifespan Integration Therapy (LI); Attachment Theory; Interpersonal Neurobiology; Integration; Complex Trauma; Hermeneutic Single Case Efficacy Design (HSCED)

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

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Without Peggy Pace's work, thoughtful development and adaptation of interventions with solid theoretical underpinnings and insight this study would obviously not exist. Thank you Peggy for your work and for your example.

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CHAPTER 1: INTRODUCTION

Why do some individuals with comparable current life circumstances thrive while others do not? In cases where there are no obvious current causes (e.g. bereavement, illness, recent trauma) why do some individuals struggle with symptoms of psychological distress—depression, hopelessness, anxiety, anger, interpersonal problems—in ways that are often so debilitating that their ability to cope with life is severely compromised?

Experienced therapists are aware of the connection between enduring and chronic symptoms of psychological distress and dysfunction with developmental trauma such as childhood abuse, neglect, loss, and sub-optimal attachment environments and relationships (van der Kolk, Roth, Pelcovitz, Sunday & Spinazzola, 2005). In the context of modern Western psychology, researchers, theorists and clinicians have been working on the answers to these questions for decades, and have developed the many models and interventions that have contributed to clinical practice. It is clear that when problems (whether visibly or not) have been developing over a lifetime the solutions are generally not facile[1]. Sar (2011) explains: "in clinical practice it is well known that the clinical consequences of developmental trauma show themselves as the most difficult and resistant problems patients present with" (p. 7).

There are many phenomena that overlap and can refer to a wide range of experiences, symptoms and psychological diagnoses[2], but from a clinician's point of view, an ability to comprehend the suffering of patients in an integrated way is invaluable for effective treatment (Sar, 2011). The ever-developing field of attachment theory, as well as complimentary research in areas such as developmental psychology and neuroscience, has much to say about what mechanisms and dynamics are involved internally and shared among individuals presenting with any of the wide range of symptoms that can result from adverse childhood experiences.

Relatively recent contributions from neuroscience have informed psychology and resulted in new fields such as social neurobiology and interpersonal neuroscience. Greater understanding of the brain's plasticity, the way it is shaped by interpersonal experiences, and the importance of the type of neural integration evident in coherent narratives (Cozolino, 2006/2014; Schore, 1994; Siegel, 1999/2012) has not only contributed to the understanding of the etiology of various problems, but has also influenced the formation of new treatment interventions and therapies.

It was the intent of this study to investigate the efficacy of one such newer therapy: Lifespan Integration (LI) therapy. LI therapy purports to specifically target the underlying neurological structures that are affected by such adverse experiences as developmental trauma, early neglect and suboptimal attachment relationships. This makes the question of whether LI is efficacious/effective truly provoking.

Understanding what LI is trying to accomplish requires an understanding of two key areas of theory and research: attachment theory and interpersonal neurobiology. Attachment theory has been found to be enormously helpful to the clinical context because of its basis in normative healthy development as well as its ability to describe a full spectrum of deviations. Advances in multiple fields have increasingly demonstrated how essential early attachment processes are for the overall development of a child with a special focus on regulatory systems that can affect physiological as well as psychological functioning for the whole lifespan. Advances in interpersonal neurobiology confirm the role of relational interaction in these processes not only in infancy but later in life as well, which has indications for the therapeutic relationship. Other advances in neuroscience and related fields combined under the umbrella of interpersonal neurobiology provide insight into the mechanisms by which developmental trauma

and sub-optimal attachment environments influence the psychological states and patterns that LI targets in its treatment protocols.

A third area reviewed focuses on an instrument that captures adult variations of the patterns of attachment behaviour used for classification as infants now studied at the level of mental representation. The way the adult manifests his or her internal states of mind concerning attachment related events and relationships is captured and assessed by an instrument called the Adult Attachment Interview. The links between the well-established scoring mechanisms for this measure and the constructs under investigation made this one of the tools of choice employed in this study along with qualitative and quantitative measures that are part of the efficacy research design.

The chosen research design for this study, Hermeneutic Single-Case Efficacy Design (HSCED; Elliott, 2001, 2002), was developed by Elliott as a method with the capability to produce evidence-based treatment information via a rigorous process that employs quantitative and qualitative data, case development via analyses of evidence capable of tracing causal links, and an independent adjudication phase. It is a design that is appropriate for investigation of a new therapy where little or no previous research exists, and, as a case study, it is also especially well suited for theory evaluation (Stiles, 2007).

The primary question investigated by this study was: Will LI therapy be shown to be efficacious in facilitating positive change in individuals with chronic or enduring issues linked to early histories of trauma, loss and/or sub-optimal attachment? And a second, related question was also investigated: Will the data collected in this study support the concept that LI therapy processes and treatment protocols align with the theoretical underpinnings, and thus, work to

affect change at the neural level in a way that fosters integration, coherence, and other markers associated with secure/autonomous attachment, higher functioning, and mental health?

CHAPTER 2: LITERATURE REVIEW

The areas of literature, theory, and research that are reviewed to provide an orienting context for this study include: attachment theory, social or interpersonal neurobiology, and adult attachment states and measures. Lifespan Integration therapy and its aims and methods are introduced along with the relation to key theoretical underpinnings.

The section on attachment theory gives some context of its origins, introduces internal working models, and provides background and information regarding the identified childhood patterns of attachment. Statistics linking patterns of attachment associated with clinical and non-clinical populations are followed by a review of research concerning the links between attachment patterns and psychological functioning.

Interpersonal neurobiology is introduced as the mutual informing of various disciplines including developmental psychology, attachment theory, and neuroscience, among others. The shared and interconnected knowledge from these disciplines informs the internal dynamics of attachment patterns and their resulting influences on mental health. Research advances in areas such as memory and emotion are discussed in relation to how they inform key concepts in this study. The concept of neural integration and its role in mental health is discussed, followed by adult attachment states of mind. After the sections related to social neurobiology is an overview of the characteristics of the adult state of mind or representational perspective regarding attachment. A measure called the Adult Attachment Interview will be introduced with its history of contribution to the key concepts discussed so far, and which strongly supports the correlation between integration, coherence, secure attachment and mental health.

Lifespan Integration therapy will then be introduced, followed by a presentation of the purpose of this study and the two specific research questions it will address.

Attachment Theory

Origins. British psychiatrist John Bowlby (1907-1990) became the director of the Department for Children and Parents at the Tavistock Clinic in London after World War II and continued to be affiliated with this clinic until his death. Bowlby conducted research into disruptions of bonds with parents with a focus on the effects of early separations and his work for organizations such as the World Health Organization resulted in far-reaching changes to attitudes and policies relevant to child care (Ainsworth, 1992). From early on Bowlby believed in the importance of real-life experiences and especially the role of the parent-child relationship in the etiology of emotional disorders. Unable to accept drive theories and other popular psychological theories of the time as adequate explanations, Bowlby searched for a comprehensive theory that would explain all that he was observing. Attachment theory is founded upon the realization of the universal evolutionary need of infants for safety and their ensuing natural behaviours around seeking proximity to figures most likely to afford the protection they need. Two main characteristics of attachment behaviour are proximity seeking to the chosen attachment figure (usually the primary caregiver) during distress, and the role of the caregiver as a secure base for exploration when there is no immediate threat. Though modern life does not typically include the dangers of a hunter-gatherer environment, research continues to discover the pervasiveness of the influence of the attachment system and of early attachment relationships. The importance of the fundamental role of attachment relationships should not be underestimated. Attachment theory and research continues to explain how much the primary caregiver-child relationship influences overall biopsychosocial development in ways that affect the entire lifespan.

Internal working models. The profound effect of early attachment interactions, the resulting biopsychosocial patterns as well as their generally enduring nature, may be explained in part by Bowlby's (1969/1982) concept of internal working models. Early experiences with caregivers build up into patterns called internal working models, which regulate, interpret, and predict attachment-related behaviour in the self and the attachment figure, and carry forward as models for other relationships as well. These patterns consist of unconscious thoughts and patterns, memories, beliefs, expectations, emotions, and behaviours about the self, others and relationships (Weinfield, Sroufe, Egeland, & Carlson, 2008). Though they may continue to develop or change with time and differing experiences, the early experiences of childhood are profound and generally[5] enduring[6]. These models are internal representations and mental patterns that will be discussed in greater detail in the section on social neurobiology. The differing ways these internal models manifest in external behaviour have been categorized into attachment[7] patterns[8].

Childhood attachment pattern identification. It was a developmental psychologist and researcher named Mary Ainsworth who worked with Bowlby for a time at the Tavistock Clinic and identified three attachment patterns or classifications that a child may have with attachment figures: (1) secure, (2) anxious-avoidant (insecure) and (3) anxious-ambivalent or resistant (insecure). A fourth pattern or classification, disorganized (insecure) attachment, was added (and accepted by Ainsworth) later on by a colleague of Ainsworth's: Mary Main (Main & Solomon, 1986, 1990). Ainsworth also developed a research scenario called the 'strange situation' (Ainsworth, Blehar, Waters, & Wall, 1978) that provided a controllable experiment and protocol whereby infant-caregiver separation and reunion behaviour could be observed that provided reliable insights into the child's attachment classification. The strange situation

remains a standardized research tool. Reflective of the importance and universality of the need for an attachment figure, an infant will form attachments if there is someone to interact with regardless of how they are treated. The type of attachment the infant develops depends upon the quality of care and relational responsiveness they have received. Though these patterns/classifications can change during an individual's lifetime they are surprisingly enduring (Main, 2000), which provides some indication as to their significant influence.

Under normal healthy conditions all humans develop attachments and the chosen attachment figure (most often the mother or father) is the person to whom one is most likely to turn under stress. An example of attachment behaviour is seen in the intense concern young children display when in unfamiliar surroundings regarding the whereabouts of their parent or caregiver. Ainsworth's strange situation observes parent or attachment figure/caregiver and infant/child (12-18 months old) behaviour around the key situations of separation and reunion. Typical behaviours for each attachment pattern are described below[9] (Ainsworth, 1979; Hesse & Main, 2000; Main, 2000).

Secure attachment. When securely attached, a child will seek proximity to the attachment figure as a haven of safety when alarmed and will also use this person as a secure base from which to explore when not alarmed. The caregiver is available, attuned to the child, and responds appropriately, promptly and consistently to needs. The caregiver has successfully formed a secure parental attachment bond to the child.

Ambivalent (insecure) attachment. The child is unable to use the caregiver as a secure base and seeks proximity before separation occurs. The child shows distress upon separation with ambivalence, anger and reluctance to warm to caregiver upon their return or to return to play. The child is preoccupied with the caregiver's availability seeking contact but resisting

angrily when it is achieved. The caregiver is inconsistent between appropriate and neglectful responses and generally will only respond after increased attachment behaviour from the infant.

Avoidant (insecure) attachment. The child shows little affective sharing in play, little or no distress upon the caregiver's departure, little or no visible response to the caregiver's return, and ignores or turns away with no effort to maintain contact if picked up. There is no apparent attachment bond. The caregiver shows little or no response to their distressed child, discourages crying and encourages independence.

Disorganized (insecure) attachment. The child may display freezing or rocking behaviour upon the caregiver's return. The lack of coherent attachment strategy is evidenced by contradictory, disoriented behaviours such as approaching with the back turned forward. The caregiver displays frightened or frightening behaviour, intrusiveness, withdrawal, negativity, role confusion, affective communication errors and/or maltreatment.

In addition to indicating whether the child feels *secure* or *insecure* concerning the availability and responsiveness of the attachment figure, these four attachment patterns also indicate whether there is an *organized* strategy or not [10](Hesse & Main, 2000; Main, 2000). Three of the four patterns represent an *organized* strategy for gaining the proximity of the attachment figure when the attachment system is activated (for example due to threat, danger or stress), and the fourth pattern represents a lack of or collapse of a workable strategy and is termed *disorganized*. Even though all three forms of insecure attachment are sub-optimal, the disorganized pattern is the most severely disturbed. These will be described further in conjunction with correlations to psychological distress and disorders.

Attachment patterns and clinical/non-clinical populations. There is considerable evidence linking secure attachment in early childhood with later adaptive healthy functioning,

and insecure attachment with later emotional and behavioural difficulty (Prior & Glaser, 2006; Weinfield, Whaley, & Egeland, 2004). According to Ainsworth's 1978 study (N = 106), a meta-analysis of 32 samples from eight countries (van IJzendoorn & Kroonenberg, 1988; N = 1990), and another meta-analysis (N = 2104) of middle class non-clinical groups in North America (van IJzendoorn , Schuengel, & Bakermans-Kranenburg, 1999), approximately 62-65% of children in the general population may be classified as having secure attachment, with the remaining 35-38% divided among the insecure classifications: 15% disorganized, and the remainder avoidant or ambivalent. Schuengel, Bakermans-Kranenburg, & van IJzendoorn (1999) reported the percentage of infants classified as disorganized as 14% in middle-class non-clinical groups in North America (N = 1882) and 24% in low-socioeconomic non-clinical groups (N = 493). Across several studies Lyons-Ruth and Jacobvitz (1999) report on, the incidence of disorganized attachment classifications in infancy ranged from 13-82[11]% depending[12] on the presence and types of family risk factors. Carlson and colleagues' (1989) study found that 82% of maltreated infants displayed disorganized patterns of attachment to their caregivers, compared to only 17% of socioeconomically similar controls. Main, Hesse, and Kaplan (2005) reported an average of 70% of disorganized attachment in parentally maltreated infants. It follows that within at risk populations the number of individuals with secure attachment patterns is much lower. In one example, Main (2000) reported that the adult secure-autonomous classification in control samples was 45% or more, but only 8% in psychologically distressed populations.

Links to psychological functioning. Attachment theory is infused with developmental processes with clear implications for psychopathology. Bowlby originally conceptualized the attachment system as a fundamentally psychobiological system that provided the framework for individuals' capacities to respond adaptively to threat or danger (Bowlby, 1973). In line with

this conceptualization research has continued to support the hypothesis that individual differences in both infant and adult attachment patterns index different capacities and strategies for emotion regulation and behaviour. The infant's development of an attachment to the caregiver is a key developmental task that influences not only the child's representations of self and other, but the mental frameworks and strategies for processing attachment-related thoughts and feelings, which include the same neural regions required for affect regulation and other processes related to mental health in general (Amini et al., 1996; Dozier, Stovall, & Albus, 2008; Schore, 2005). The early attachment environment including attachment-related events such as loss, abuse and neglect lead to differences in neural development, modifications in internal representations and strategies for processing and regulating emotion that can make individuals more vulnerable to suffering, lifelong difficulty and psychopathology.

An individual's attachment history has proven to be strongly connected with a wide variety of mental processes central to the regulation of emotion and behaviour (Diamond & Fagundes, 2010; Siegel, 1999/2012; Sroufe, Carlson, Levy, & Egeland, 1999). Not only are enduring attachment patterns such as internal working models created during early development, but the very regions of the brain (prefrontal and especially the orbitofrontal cortex) required for lifelong integration of functions that regulate emotion and behaviour are the same regions that are developmentally dependent upon early attachment experience (Perry, 2002; Siegel, 1999/2012). When attachment experiences are sub-optimal, these regions' development will also be sub-optimal.

Secure attachment as protective factor. Securely attached children experience a consistent and effective way to regulate their emotional arousal (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969/1982; Main, 2000) and secure attachment has been correlated with

positive factors such as social competence, ego-resilience, personal efficacy, positive relationships, and capacity for emotional regulation (Belsky & Cassidy, 1994; Lyons-Ruth & Jacobvitz, 2008; Prior & Glaser, 2006; Schore, 2005; Sroufe, 2005). Though secure attachment does not guarantee mental health, it is a significant protective factor in the face of stress. An example of this is seen in studies where those with secure attachment demonstrate greater physiological inhibition of heightened HPA cortisol levels when stressed (Prior & Glaser, 2006; Schuengel, van IJzendoorn, & Bakermans-Kranenburg, 1999; Spangler & Grossman, 1993).

Insecure attachment as risk factor. Sub-optimal insecure attachment histories have been linked to depression and anxiety. For example the loss of a parent in early childhood has been shown to put these children at increased risk of later depression. Bowlby (1980) suggested that when a child's parent dies and the child experiences the loss of control and continuity that these events present, the child may develop a sense of helplessness in response to traumatic events. In one study, 42% of women whose mothers had died before they were eleven years old were later diagnosed with depression in contrast with 14% of those whose mothers died after they were eleven[13], and[14] inadequate care following the loss of a primary caregiver in childhood doubled the risk of depression in adulthood (Harris, Brown, & Bifulco, 1990 , cited by Dozier, Stovall-McClough, & Albus, 2008, p. 721).

Bowlby (1973) suggested that all forms of anxiety disorders may develop from patterns of early anxiety about the availability of attachment figures. These anxieties often develop from situations with unhelpful patterns of parental control via overprotection or rejection, or from situations when the child worries about a parent's survival due to violence in the home. Individuals with the insecure pattern of high attachment anxiety tend to maximize experiences of negative affect and are hypervigilant to threat cues. Conversely, individuals with the insecure

pattern of high avoidant attachment tend to minimize experiences of negative affect and direct attention away from threat cues (Diamond & Fagundes, 2010; Dozier, Stovall-McClough, & Albus, 2008).

Overall patterns of psychobiological research results across multiple studies provide strong evidence that individual differences in attachment anxiety and avoidance are characterized by heightened hypothalamic-pituitary-adrenal (HPA) axis and autonomic nervous system (ANS) reactivity to stress, consistent with the concept that attachment insecurity is associated with deficits in emotion regulation (Cicchetti, Rogosch, Toth, & Sturge-Apple, 2011; Diamond & Fagundes, 2010). Ambivalently attached individuals' hypervigilance to threat cues and heightened negative affectivity are manifested in exaggerated patterns of stress-induced HPA and ANS activity. Interestingly, similar patterns of heightened HPA and ANS reactivity have also been consistently observed among avoidantly attached individuals, which is contrary to their tendency to report lower levels of subjective distress (Diamond & Fagundes, 2010; Rifkin-Graboi, 2008; Roisman, 2007). These findings for avoidant individuals support other findings of increased dissociation among this population. Though not mutually exclusive, two current rationales for these results emphasize early impairment of developmentally resilient stress-regulatory systems and negatively biased cognitive and affective appraisals that affect overall stress and reactivity. The results of either rationale reinforce the compromising effect of insecure attachment and how it increases the risk for mental health challenges and psychopathology (Slade, 2000; Sroufe, 2005). Based on a longitudinal study in Minnesota, Sroufe (2005) reports that both avoidant and ambivalent attachment were moderately related to depression, speculating that two distinct pathways—one based on alienation/hopelessness and the other based on anxiety/helplessness—were involved. In summary, it appears that insecure

attachment may be neither necessary nor sufficient for the development of forms of psychopathology such as depression or anxiety disorders, but it may increase the risk, the severity, or their persistence.

Disorganized attachment's link to greater risk. Though both avoidant and ambivalent forms of attachment are sub-optimal and insecure rather than secure, they are nevertheless 'organized' in that the behaviour of the caregiver is patterned enough to enable the child to develop a conditional strategy for meeting attachment goals. The avoidant child minimizes reactions to the caregiver's unresponsiveness by shifting attention away from the parent and the current stress in hopes of maintaining the current level of access to caregivers who are uncomfortable with closeness (Cassidy & Mohr, 2001; Dozier, Stovall-McClough, & Albus, 2008; Main, 2000). The ambivalent child maximizes reactions beginning to express distress even when the threat has not yet become obvious and focuses attention on the parent in order to maximize their chances that their inconsistently responsive caregiver will be available when needed. It is the children who have the fourth category of disorganized attachment that are most at risk of significant future distress, challenge and psychopathology (Cassidy & Mohr, 2001; Dozier, Stovall-McClough, & Albus, 2008; Hesse & Main, 2000; Lyons-Ruth & Jacobvitz, 2008; van IJzendoorn, Schuengel, & Bakermans-Kranenburg, 1999). The caregivers of these children are either frightening or frightened themselves (which the child perceives as frightening), and when they regularly frighten but do not soothe their children this puts these children in the double-bind of needing safety from caregivers who are not safe. In contrast to having an organized strategy to solve or deal with fear that is faced by secure, avoidant, and ambivalent/resistant infants, disorganized infants face 'fear without solution' (Hesse & Main, 2000). This irresolvable conflict renders these children at a loss as to how to deactivate their

attachment needs and gain a sense of security—it makes them unable to organize a coherent strategy for maximizing protective access to their caregivers—and sets precedents for psychic collapse or segregating mental experiences such as dissociation. Psychic phenomena such as dissociation have been repeatedly correlated with disorganized attachment (Cassidy & Mohr, 2001; Hesse & Main, 2000; Liotti, 2004, 2011; Sroufe, 2005).

The defensive segregation in consciousness and the psychoneurobiological manifestations of *freeze* (a third alternative to *flight* or *fight*—such as when a deer is caught in the headlights) may explain the odd and seemingly functionless behaviour exhibited by disorganized infants in the strange situation. Perry and colleagues (1995) have argued that dissociative states are an evolutionary form of protection that young children are predisposed to in situations where flight or fight would not be successful for them, and, that the cost of experiencing dissociative states frequently in childhood is a sensitized and compromised neural network that makes subsequent activations of dissociation require progressively lower levels of stress. This compromise to the neural system is particularly true for young children because they are undergoing critical periods for the organization and growth of these systems.

Sroufe (2005) reports that the correlation between degree of disorganization in infancy and number and severity of psychiatric problems at 17.5 years of age approaches .40. Sroufe also reports ongoing investigation of links between disorganized attachment and the development of borderline personality disorder. Cassidy and Mohr (2001) report findings that have associated infant and child disorganization with the development of externalizing disorders. They also point out that though associations between disorganized attachment and psychopathology are stronger than with other forms of insecure attachment, and though

psychological difficulties in later years are almost certain, disorganized attachment is best still viewed as a risk factor rather than a predictor for psychopathology.

Summary. Attachment theory provides a developmental perspective on why individuals can vary so much in their ability to successfully cope with trauma and stress. It is believed that individuals who have a history of unsolvable fear (disorganized attachment) are at much greater risk for dealing poorly with threat later in life (Hesse & Main, 2000), for humans need experiences in which fears are solvable in order to build up the brain structures that help regulate anxiety and allow for organized responses (Siegel, 1999/2012). There is widespread agreement that dissociation is one of the consequences of developmental trauma often comorbid with disorganized attachment (Liotti, 2004, 2011; Ogawa, Sroufe, Weinfield, Carlson, & Egeland, 1997; Sar, 2011). There is growing recognition of the relationships of borderline personality disorder with chronic developmental trauma and attachment issues (Fonagy, 2000; Liotti, Cortina, & Farina, 2008; Sar[15], 2011[16]), childhood trauma, attachment avoidance, and alexithymia with obsessive compulsive disorder (Carpenter & Chung, 2011), and insecure attachment with ineffective coping and psychological distress in general (Lee & Hanking, 2009; Wei, Heppner, & Mallinckrodt, 2003). It has become clear that cumulative childhood trauma in combination with insecure attachments, but not adult trauma, predicts increasing symptom complexity in adults (Cloitre et al., 2009; Sar, 2011; Taylor & Bagby, 2013).

Along with technical advances in biological imaging, various disciplines have increasingly overlapped and mutually informed each other in productive ways. One example of such a productive collaboration involves neuroscience, developmental psychology and attachment theory. Alan Schore (2000) saw this clearly when he wrote: “attachment research should focus upon the early-forming psychoneurobiological mechanisms that mediate both

adaptive and maladaptive regulatory processes. Such studies will have direct applications to the creation of more effective preventive and treatment methodologies" (p. 23). With this in mind, the next area will review interdisciplinary advances brought together in social or interpersonal neurobiology (Cozolino, 2006/2014; Siegel, 1999/2012).

Social/Interpersonal Neurobiology

Bowlby's forward-thinking formulation of attachment theory acknowledged the biological and long-lasting effects of the attachment relationship that reached well beyond survival, protection and behavioural 'homeostasis' (Bowlby, 1988; Main, 1999), but neuroscience was not yet at a place to reveal just how much more there was to the role and impact of the attachment relationship. Science and technology in the last decades have allowed fields such as developmental neuroscience to make great strides in research. It was no coincidence that the decade of the 1990's was declared the 'decade of the brain' by the US Congress, and that it became an unprecedented, highly-focused research effort that resulted in vast interdisciplinary interest and extensive contribution (Cerebrum, The Dana Foundation, 2010).

Interpersonal neurobiology, social neuroscience, affective neuroscience, and sociophysiology are among the emerging disciplines attempting to work with both the biological and the social sciences (Cozolino, 2006/2014; Siegel, 1999/2012) and have been described as the synthesis of various disciplines such as emotional development, neurobiology, attachment theory, cognitive science, developmental psychology and complexity theory. These emerging disciplines are born from research findings enlightening the powerful mutual dependence between neurobiology and relational interaction, which together provide deeper levels of insight into attachment patterns and their links to psychological distress and malfunction. Internal

working models, memory, emotion and states of mind understood via the perspective and context of neuroscience provide insight into the mechanics of problems as well as their potential solutions.

Research has increasingly confirmed and expanded upon the degree to which the attachment relationship is a regulating relationship that goes far beyond establishing internal and external (behavioural) patterns. By virtue of its role in regulating such things as blood pressure, temperature, distress, and comfort, the early attachment relationship plays the role of influencing the very development of a child's neurology as it forms its regulatory systems (Amini et al., 1996; Coan, 2010; Diamond, 2010; Perry, 2002; Schore, 1994, 2000; Spangler & Grossman, 1993; Sroufe, 2005). The degree to which this is true, and the importance of this foundational understanding, is difficult to overstate.

As previously stated, an individual's attachment history has proven to be strongly connected with a wide variety of mental processes central to the regulation of emotion and behaviour. Relatively recent neurobiological studies have implicated the same attachment-experience-dependent regions (prefrontal and especially the orbitofrontal cortex) with brain areas that integrate functions that are all involved with regulating emotion and behaviour (Amini et al., 1996; Bechara, Damasio, & Damasio, 2000; Perry, 2002). As confirmed by Siegel (1999/2012), the well-established correlation between a sub-optimal attachment history and greater risk of developing psychopathology may be explained by the areas of neural development most affected by sub-optimal attachment relationships:

> [T]he link between insecurity of attachment and risk for psychopathology may be found within the brain regions that are dependent upon patterns of communication early in life

> for proper development, and also responsible for the regulation and integration of various processes (including memory, perception, and emotion). (p. [17]115[18])

Insecure attachment and dysregulation of the developmental processes of integration will undermine successful self-organization, flexibility, and strength, which will then often become the ground in which chronic problems and mental suffering ensue (Steele & Steele, 2008).

Memory. Understanding the neurological variations of memory is an essential building block that brings insight into attachment processes and later struggles in functioning. For example, the differentiation between implicit and explicit memory has been a major contribution in understanding how behaviour may be influenced by non-conscious elements. Memory is far more than simply conscious recall of past events. A broad definition offered by Siegel (1999/2012) is: "memory is the way past events affect future function" (p.46). This definition allows for the ways the brain encodes past experiences that do not involve consciousness in either the encoding or the recall, and implicit memory is an example of this type of memory. Explicit memory does require conscious awareness for both encoding and recall and is what is generally thought of as memory. Brain capacities for explicit memory begin to develop between one and two years of age, whereas the brain structures for implicit memory are intact at birth, mature throughout development, and remain available across the lifespan.

From the earliest days of life infants are able to perceive the environment around them in ways that are demonstrable as behavioural, perceptual, somatosensory and emotional learning. If a certain toy makes a loud noise and frightens them, infants may cry when exposed to that toy a subsequent time though they have no internal sense that they are recalling[19] something[20]. The association of the toy with something frightening was recorded in implicit memory. When implicit memory is retrieved, the neural profiles that are reactivated involve circuits that are

fundamental to emotion, bodily sensations, and images, and though all of this influences behaviour it occurs outside of the realm of conscious awareness (Siegel, 1999/2012).

Research has shown that implicit and explicit memory are different and distinct systems, "each with its own anatomy, physiology, pharmacology, and developmental course" (Amini et al., 1996, p. 228). Beyond the influential non-conscious role implicit memory plays, an additional pertinent feature of implicit memory is that it can create a clear processing bias—meaning that implicitly learned rules (e.g. toys that look like this are frightening) are also applied to neutral stimuli (toys that look only somewhat like this or even toys in general) and can thus become self-perpetuating in the face of non-confirming evidence (Amini et al., 1996). The awareness of the existence and functioning of implicit memory represents an important, and previously missing, part of a rational theory of maladaptive affective functioning (Amini et al., 1996; Damasio, 1999; Siegel, 1999/2012). It has also become clear that significant portions of a child's earliest experiences, including the all-important attachment relationship experiences, are engrained in implicit memory[21]. In cases of more severe attachment insecurity such as disorganized attachment, this storage of influential experience and learning in implicit memory combined with less opportunity for natural developmental integration may cause more severe fragmentation that affects functioning more profoundly in later life. Before considering the role of integration, looking at emotion from a neurobiological viewpoint is helpful as well.

Emotion. Greater understanding of the purpose, phenomenon and experience of emotion has also continued to develop. In contrast to the narrow conceptualization of emotion as sensations that can be experienced, identified, and expressed, emotion has been found to involve complex layers of processes involved in a great deal of human functioning. Most essentially, emotion is a pre-conscious element of homeostatic regulation rooted in reward and punishment

mechanisms basic to existence and survival (Damasio, 1999). Schore (2005) clarifies the development of the regulatory role of emotion and the connection with attachment relationships:

> The process of development itself is believed to represent a progression of stages in which adaptive self-regulatory structures and functions enable new interactions between the individual and the social environment. It is now established that emotions are the highest order direct expressions of bioregulation in complex organisms, that the maturation of the neural mechanism involved in self-regulation is experience-dependent, and that these critical affective experiences are embedded in the attachment relationship. (p. 206)

Damasio (1999) points out that from a neurological perspective emotions are required not only for bioregulation but for the self-processes that undergird consciousness itself.

Beyond emotions' regulatory functions, Amini and colleagues (1996) describe emotion or affect as a basic brain function that is, "part of our genetic endowment with a number of purposes among which is the ability of social mammals to communicate and perceive expressive signals that reflect internal states" (p. 228), which provides the scaffolding for the construction of social cognition. Damasio's research team also demonstrated how emotions and their neurobiological underpinnings are involved in decision-making at a non-conscious level, and identified the brain regions (mainly the orbitofrontal cortex) that mediate these processes (Bechara, Damasio, & Damasio, 2000). Called the somatic marker hypothesis, the idea is that decision making is a process that is influenced by marker signals that arise in bioregulatory processes, including those that express themselves in emotions and feelings. The influence can occur consciously and/or non-consciously and is (not surprisingly) tied to implicit memory. Thus, emotions "represent dynamic processes created within the socially-influenced, value-

appraising processes of the brain" (Siegel, 1999/2012, p. 149). Whether conscious, non-conscious, or both, emotion carries information about self-states meant to assist in managing self-regulation on many levels. Siegel (1999/2012) puts it this way:

> [Emotion] serves as a set of integrating processes linking various systems in a dynamic flow across domains and through time. Emotion readies us for action, for evoking motion of the internal or external sort. Within the brain itself, emotion links various systems together to form a state of mind. (Siegel, 1999/2012, p. 148)

Emotion thus serves many purposes and roles ranging from simple to complex interactions between felt senses and autonomic nervous system responses to contributing in both conscious and non-conscious ways to social interaction, decisions and meaning[22] making[23][24].

Self-regulation. It is the vital early attachment relationship that either helps or hinders the development of organized and adaptive neural networks for emotional regulation and the interaction between non-conscious emotion, implicit memory and meaning-making. The attainment of the self-regulation of affect is a major developmental achievement that begins during the earliest days of life. Normal, securely attached development results in enhanced future social-emotional and stress-regulation capacities, and, insecurely attached development is a liability resulting from inhibited development of these[25] systems[26].

An up to date neurologically-informed view supports Bowlby's internal working models of attachment and indicates that the infant stores these internal models in right-lateralized non-verbal implicit-procedural memory (Schore, 2000). Security of attachment relates to a neurophysiologic coding of an expectation that during times of stress, homeostatic disruptions will be set right, and conversely, insecurity of attachment compromises this to varying degrees of severity. Research has confirmed the enduring neural nature of these early developmental

experiences and identified the functioning of the orbitofrontal control system in the regulation of emotion and in acquiring specific internal and external knowledge as central to self-regulation (Bechara, Damasio, Damasio, 2000; Schore, 2005; Siegel, 1999/2012). An ultimate indicator of secure attachment is resilience in the face of stress, which is expressed in the capacity to flexibly regulate emotional states via both self-regulation and interactive regulation. Conversely: "attachment-related psychopathologies are thus expressed in dysregulation of social, behavioral, and biological functions that are associated with an immature frontolimbic control system and an inefficient right hemisphere" (Schore, 2000, p. 36[27]).

Plasticity. Though Schore (2005) and Amini and colleagues (1996) emphasize the enduring nature of this early coding, both also point out that the brain maintains its plasticity and point to the potential for later emotionally attuned relationships to bring change. Highlights from the 'decade of the brain' were reviewed in the article "A Decade after the Decade of the Brain" (Cerebrum, February 26, 2010); some of these highlights are particularly relevant and confirm what has been pointed out so far. Dr. Nora Volkow reported that:

> [T]he human brain, even when fully mature, is far more plastic—changeable and malleable—than we originally thought…It has also become increasingly clear that the human brain is particularly sensitive to social stimuli…New research has revealed that social stimuli (such as parenting style and early-life stress) can epigenetically modify the expression of genes that influence brain morphology and function including the sensitivity of an individual to stressful stimuli. (Cerebrum, February 26, 2010)

Schore (1994, 1996, 2000, 2002, 2005, 2011) has an extensive body of work dedicated to understanding and elucidating how implicit, attuned, right-brain to right-brain communication between, for example, a therapist and client can influence the neural structures in a positive way.

An interim summary of concepts to this point includes: (i) the attachment relationship as enormously influential in development of regulatory systems, (ii) the strong relationship between internal working models, implicit memory, emotion and self-regulation, (iii) the fact that these systems are often activated and affect our behaviour, feelings and choices non-consciously, (iv) that they are neurologically coded in enduring ways, and importantly for those with sub-optimal early environments, that (v) the brain remains wonderfully capable of change. In this context, the next concept to consider is one that encapsulates a key to positive change and health: integration.

Integration. Integration is a common concept in psychotherapy that is related to greater health and functioning and generally refers to troublesome aspects of experience having been processed in ways that allow them to be more tolerable and less potent in disturbing ways[28](van der Hart, 2008; van der Kolk, 2002). Integration generally involves the bringing together of various aspects of stored experience or self-states that have been isolated or defended against, fragmented or split off[29]. From a neurological perspective integration is the central mechanism by which health is created in mind, brain, body, and relationships (Siegel, 1999/2012, p. 336). In complex systems theory, which can be applied to the human brain, the linkage of differentiated elements of a system produces a harmonious flow of that system that is characterized by flexibility, adaptability, coherence, energy, and stability: all indicators of mental health and resilience[30](Siegel, 1999/2012, p. 193).

As seen with implicit memory, states of mind can also become differentiated and isolated or defended. Emotion is integral to how the brain shifts its state and is also central to how patterns of neural activation become states of[31] mind[32]. Insecure attachment patterns affect fluid, flexible and adaptive access to memory and emotion in varying ways that create different

patterns or problems with states of mind and integration. The minimizing strategy of avoidant/dismissing attachment patterns affect emotion and memory by creating very specific adaptations that control access to attachment-related memories and emotions (Steele & Steele, 2008). The maximizing strategy of ambivalent/preoccupied attachment patterns affect emotion and memory by creating patterns in which there is a blurring of the past, present and future. Disorganized/unresolved attachment patterns are correlated with dissociation and fragmented access to emotion, memory and abrupt shifts in states of[33] mind[34]. Liotti (2011) hypothesized that infant disorganized attachment may be the "first step in developmental pathways characterized by less than optimal or even frankly defective capacity for mental integration of emotional-interpersonal information" (p. 239). Secure/autonomous attachment on the other hand seems to provide a more open access to emotion and memory that does not require minimizing or maximizing strategies, and results in greater flexibility, fluidity and adaptive states of mind.

When a brain remains stuck in a given[35] state[36], such as depression, or exhibits dysregulated and abrupt shifts in state, such as with dissociation, this may be due to dysfunctional self-organization and the lack of ability to integrate aspects of the self over time (Liotti, 2011; Siegel, 1999/2012). Integration is thought to lead to optimal self-regulation because it offers open neural access to and between internal and external information, which then allows for flexible and organized responses that are adaptive to the current environment. When integration is impaired, as in the case of disorganized attachment, unresolved trauma, and dissociation, the mind clusters its modules and the content of their information within fairly distinct states of mind and coordination, balance, and adaptive responses are not as possible. The result is that the individual moves toward chaos, rigidity, or both. A "higher mode" of

integrative processing is replaced by a "lower mode" of reflexive responding(Siegel, 1999/2012; van der Hart, 2008).

The orbitofrontal cortex so highly involved in linking widely distributed representational processes together is also fundamental to forming dynamic complex representations "in order to establish a sensorimotor integration of the self across space and time" (Siegel, 1999/2012, p. 371). Complex representations allow for anticipation and planning, and may also be at the heart of the way the mind attempts to achieve a sense of coherence among its various states.

Siegel (1999/2012) also focuses on this integrative neural process as an important target of future psychotherapeutic intervention:

> If individuals become stuck and disabled, if they are filled with adaptive specialized selves without a sense of authenticity, or if they are filled with intense and unresolved conflicts across self-states, then the development of a specific process that integrates the selves across time may become important. …the development of such an integrating process may be the central feature of psychotherapy for these individuals. (p. 211)

This focus on neural integration as an intentionally targeted feature of therapy intervention is something that Lifespan Integration has embraced and made one core aspect of its treatment protocols. Interpersonal neuroscience highlights the role of interpersonal relationships in the capacity for self-integration. Siegel (1999/2012) asserts: "The capacity for self-integration, like the processes of the mind itself, is continually created by an interaction of internal neurophysiological processes and interpersonal relationships" (p.355). Though the early attachment relationship plays the most significant role in development, other later relationships such as partners or therapists also have opportunity to play an important role (Feeney & Van Vleet, 2010; Mallinckrodt, 2010; Schore, 2011; Siegel, 1999/2012).

Before turning to Lifespan Integration, one last area must be introduced that covers how developmental attachment patterns translate into adulthood, how they present in adult measures, and what these measures say about the adult's internal functioning.

Adult Attachment States and Measures

Developments in social or interpersonal neurobiology provide a "look under the hood" in ways that have been inaccessible to psychotherapeutic clinicians. Methods and tools to visually "look under the hood" of a particular individual in a meaningful and accessible way do not yet exist, though the increasing availability of technologies such as fMRI may make this a reality. A tool does exist however, that holds the potential of providing a "look" at the constructs of interest in this study that is based upon representational evidence rather than direct imaging.

The Adult Attachment Interview (AAI). Mary Ainsworth studied attachment behaviour in infants (Ainsworth, Blehar, Waters, & Wall, 1978) and Mary Main studied attachment representations in adults (Main, Kaplan, & Cassidy, 1985). Just as Ainsworth discovered patterns in the behaviour of infants, Main discovered that representational patterns could be discerned in adult attachment narratives (Hesse, 2008; Slade, 2000). Main and colleagues developed the Adult Attachment Interview (AAI) as a way to investigate the adult's state of mind with respect to overall attachment history. The AAI is a semi-structured interview in which adults are asked to reflect on and describe their relationships with both parents as well as experiences of loss, rejection and separation during early childhood. Analysis of the patterns of thought, memory and affectivity in these narratives reveal variations in not just events, but significantly and more importantly in the quality of representation of these experiences via narrative coherence and defensive strategy. The AAI's questions intentionally activate the attachment system and by doing so elicit similar states and strategies for dealing with emotional

pain (e.g. dismissive restriction or preoccupation) that were learned and patterned unconsciously in childhood, which are then revealed in the discourse of the interview.

Strikingly, the role of narrative coherence was already evident with six-year-old children, for when Main worked on a coding system for parent-child discourse, she found that the conversation of both child-mother and child-father dyads were reflective of the child's strange situation behaviour five years previously with the same parent. For example, a child secure with mother but avoidant with father in infancy would be found fluent in his or her discourse with mother, but restricted in discourse with father five years later (Main, 2000).

Analysis and scoring of the AAI (Hesse, 2008; Main, Hesse, & Goldwyn, 2008; Main & Goldwyn, 1982-1998, reported in Crowell, Fraley, & Shaver, 2008) is done from a transcript of the interview in terms of parental behaviour and state of mind scales and coherence maxims based on Grice's (1975) maxims. High coherence means the narrative adheres to the maxims of:

- *quality* (it is believable, without contradictions or illogical conclusions)
- *quantity* (enough, but not too much, information is given to permit the coder to understand the narrative)
- *relation/relevance* (the individual answers the questions asked), and
- *manner* (the individual uses fresh, clear language rather than jargon, canned speech, or nonsense words).

Patterns of scale scores are used to assign the interviewee to one of three major classifications: autonomous (secure), or (insecure): dismissing or preoccupied. Individuals may additionally be classified as 'unresolved' if they report attachment-related traumas of loss and/or abuse and manifest confusion and disorganization in the discussion of that topic. This unresolved categorization is given precedence over the other major categorization this individual

receives and is considered an insecure classification. Finally, a 'cannot classify' designation is assigned when scale scores reflect elements rarely seen together that are usually highly incoherent.

Van IJzendoorn (1995) reports on several studies on the AAI and summarizes that the AAI demonstrated remarkable reliability and discriminant validity (p. 388). Main (2000) reports that the AAI classifications were found to be stable in test-retest reliability over two-month to four year periods, and that coherence was shown to be independent of differences between respondents in verbal and performance IQ, autobiographical memory not related to attachment, and generalized speech habits. These results were supported in another study where test-retest was three months apart and different cognitive and memory tests were given (Sagi et al,. 1994). Other studies measured long-term stability over eighteen months (Benoit & Parker, 1994) and discriminant validity with respect to narrative styles (Crowell et al., 1996). Hesse (2008) summarizes discriminant validity studies as showing that security is minimally associated with intelligence and not significantly associated with memory, social desirability, or discourse style on an unrelated topic. Interrator reliability reports are consistently greater than $r = .75$, and estimates of agreement on the category assignments commonly exceed 90% (Steele, Steele, & Murphy, 2009, p. 636). Thus, the AAI is a way to study, assess and identify an adult's capability for organizing thoughts, feelings and behaviour (as well as the self's flexibility and strength) by activating the "part of the mind that stores early memories and associated emotions not typically available to awareness, yet exerting an influence on mind and behavior" (Steele & Steele, 2008, p. 8). There is also an exceptionally high correlation ($r = .96$) between 'coherence of transcript' and security, which confirms the role and functioning of constructs discussed so[42] far[43][44].

Coherence, integration, and secure attachment. Coherence, integration, secure attachment states of mind and mental health are highly connected and further highlight the potential usefulness of the AAI in shedding light on not only attachment states of mind, but the internal neural integration of the interviewee. Adults who are assessed as prototypically secure/autonomous with regard to state of mind regarding attachment are able to live fully in the present, unimpaired by troubles from the past, denial in the present, or attachment-related worries about the future. Further, these individuals have emotional regulation skills that allow them to maintain flexibly organized behaviour in the face of high levels of arousal or tension (Sroufe, 2005). They can enjoy and modulate a wide range and high intensity of emotional experience while maintaining flexible, adaptive, and organized behaviour (Siegel, 1999/2012). Neurologically they are not burdened with fragmented and split-off memories or emotions or problems with varying degrees of[45] dissociation[46]. The way the AAI scores for secure-autonomous confirms this connection in a strikingly direct (and hopeful) way: "placement in the secure-autonomous category is based exclusively on the overall coherence of the text. Because coherence can change, whereas life-history cannot, this latter point is no doubt of special import to all those involved in intervention" (Main, Hesse, & Goldwyn, 2008, p. 48).

Further indications of the ties between the AAI and the constructs of coherence, integration and changes in neural organization are confirmed by the research and work of Howard and Miriam Steele and colleagues. Their comments are also related to the value of this information in the clinical context: "the AAI may be both a useful motivator within therapy and a telling indicator of increases in organization and coherence in, and between, the internal and external worlds" (Steele, Steele, & Murphy, 2009, p. 641). Steele and Steele (2008) also report on the AAI's use in case studies (with reference to Ammanitti, Dazzi, & Muscetta, 2008):

> The case studies literature includes repeat administrations of the AAI that provide a detailed window on changes in the internal world that occur in psychoanalytic psychotherapy across years of treatment. . . . Coherence is clearly shown to improve in one patient, whereas other patients are shown to shift from deeply insecure modes of feeling, thinking, and relating to less insecure, more organized modes of functioning. (Steele & Steele, 2008, p. 26)

The use of the AAI in clinical contexts encompasses and speaks to various disciplines, including the underlying attachment-related constructs as well as linguistic analysis and contemporary developmental psychological research.

"All of these findings suggest that understanding the processes underlying the AAI, including memory, social communication, and some integrating process creating coherence of mind, will enable us to explore more fully the interpersonal nature of the mind's development" (Siegel, 1999/2012, p. 106). Repeating Siegel's comment but expressed in another way, a greater understanding of how the mind works enables one to see how the AAI may be a powerful tool to gain insight into a client's functioning. With all these constructs and the utility of the AAI in mind, it is time to introduce the therapy under investigation: Lifespan Integration therapy.

Lifespan Integration (LI)

The protocols of LI were developed by a therapist who had worked for two decades with adults that experienced trauma, abuse and/or neglect as children—in other words with adults that had histories of sub-optimal attachment. Peggy Pace (2003/2012) became increasingly aware of the graduated and pervasive continuum of dissociation in those she treated. Pace's professional experience of what this lack of integration was causing in her clients combined with her desire to address the issues at a foundational level, in this case a neural level, led her to develop the

therapy protocols of LI. Pace (2003/2012) claims: "Through repeated use of Lifespan Integration people become more and more integrated, and report feeling more solid inside, more adult, more capable and competent" (p.11). Pace's description of unintegrated ego states or parts of the self system that were created as effective defenses in childhood and that are frozen in the past reflects the literature presented in the earlier sections of this paper on how memory, emotions, and self-regulation work at a neurobiological level. Pace observed these ego states remaining out of the control of the current, adult, and more resourced Self. Pace also recognized that some clients, especially those with significantly sub-optimal attachment experiences, needed treatment addressing the lack of development of a solid self in addition to integration[47] work[48]. Most fundamentally then, the LI protocols were developed to address these key treatment outcome variables: building core self and increasing in integration (which by their nature and various nuances in the protocols also effect trauma[49] clearing[50], affect regulation and other desired results).

Before introducing the protocols, there should be no mistake made by underestimating the continued importance of essential working principles of good psychotherapy such as the quality of attunement the therapist is capable of sustaining (Schore[51], 2011[52]). In fact the therapist's capabilities and qualities, among which the therapist's own integration and internal coherence as well as attunement skills are paramount, play an essential role in the LI therapy, especially when addressing the more difficult, complex and chronic client issues (Pace, 2003/2012, p. 30; Pace, 2003-2013, p. 4). The LI therapy treatment protocols also incorporate and employ elements that are common to other therapies such as active imagination and visualization. Each LI protocol has different combinations or variations in foci for the various therapeutic processes, with the common use of a timeline of memory cues from the client's life.

Lifespan Integration's protocols are used to target different types of issues. Each has a common role in promoting integration along with varying ratios of focus on other key treatment outcome variables. This concept is illustrated in Figure 1. For example, primarily trauma clearing protocols include: PTSD protocol and Standard protocol. The primary structure building and affect regulating protocol is Birth to Present protocol. Other protocol variations include Relationship pattern protocol and Cell Being[53] protocol[54], which have specific therapeutic outcome goals but also engage the fundamental therapeutic processes in varying ratios. All LI protocols employ the timeline, active imagination, and mind-body awareness, which, when combined with the skill of the therapist's attunement and regulation contribute to integration. The particular LI protocol chosen for a particular client/session depends on more specific details not covered here.

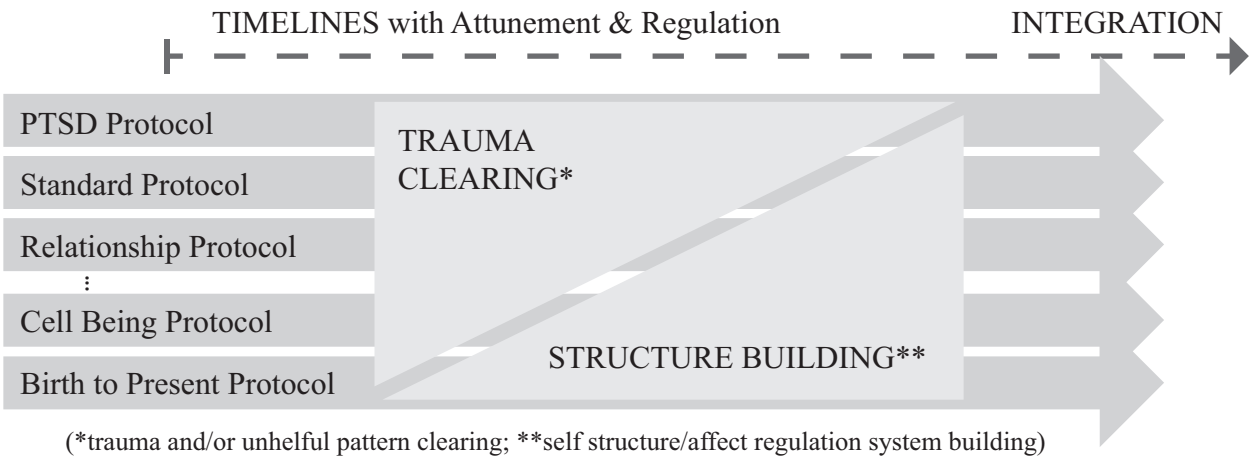

Figure 1. LI protocols and the conceptual ratio of primary therapeutic outcome variables.

The social neurobiology/attachment-informed focus on structure-building and neural integration in the conceptual design of the protocols target key structures and systems that are strongly correlated to the etiology of health and well[55]-being[56].

Lifespan Integration (LI) grew out of a focus on helping adults who had enduring and difficult to treat issues. The sorts of enduring and chronic issues typically associated with

elements indicating sub-optimal attachment environments such as neglect, abuse, loss and trauma usually indicate interventions that typically require more long-term therapy (Sar, 2011). The first edition of Peggy Pace's book: *Lifespan Integration: Connecting Ego States through Time* was published in 2003. Since then more than one thousand therapists have been trained worldwide in LI, and anecdotal reports support its effectiveness with individuals of all ages across a wide range of issues.

One study (Balkus, 2012) of LI therapy focused on the effectiveness of the trauma clearing protocols of LI. Seventeen traumatized women received two sessions each of the LI standard protocol, and findings from this study demonstrated that levels of the two types of trauma-related symptoms that were measured, avoidance and intrusion, were reduced. The number of symptom incidents were measured by the Impact of Events Scale (IES) three different times and were reduced from averages of over 28 (for both avoidance and intrusion) before treatment to less than four (avoidance) and less than six (intrusive incidents) at the one month follow-up after the second session. At the present time, though other studies are planned or in process, there are no other formal research results to[57] report[58][59].

Purpose of this Study

This study had two main purposes. The first purpose was to contribute toward the building of a research base regarding the efficacy of this therapy, especially with regard to the complex issues clients bring to therapy in real life rather than controlled experiments with many exclusion criteria or a narrow focus of investigation. An important aspect of this first purpose was the complexity of issues that the participants brought into their treatment. Participants selected for this study had early histories of insecure attachment issues of varying types and degrees including loss, neglect, trauma and abuse. Developmental histories such as these are

highly correlated with later problems such as depression, complex trauma, chronic anxiety, and chronic interpersonal issues or issues of coping and functioning that are typically difficult and resistant to treatment. If LI therapy was shown to demonstrate efficacy in facilitating change and relief of symptoms for these types of problems, especially within the short timeframe (7-11 sessions), then this study will have contributed to bringing attention to this meaningful and important aspect of LI therapy.

The second purpose of this study was to consider the aims of and methods employed by LI in relation to the theoretical underpinnings presented in the literature review section. Put simply, attachment theory combined with social neurobiology have shed a great deal of light on the etiology of poor mental health, and Pace seems to have developed the LI interventions in ways specifically targeted to bring change to the core structures/areas that are mal-developed and/or under-functioning. Whatever can be learned toward the question of whether the LI protocols are being effective in their intended ways (e.g. neural integration and structure building) will be a contribution to this immensely interesting and important area of inquiry and practice.

The measures selected for use in this study were chosen for their particular ability to contribute to this purpose. The qualitative interviewing provides the opportunity to reveal meaningful themes and events from the perspective of the participants as well as the therapists. The psychological constructs that the AAI investigates (states of mind concerning attachment and coherence) are deeply connected with the constructs LI therapy attempts to work with.

Thus, the two research questions this study will seek to answer are:

1. Is LI therapy efficacious in facilitating positive change in individuals with chronic or enduring issues connected with adverse early histories?

2. Will the data collected in this study support the concept that LI therapy processes and treatment protocols work to affect change at the neural level in a way that fosters integration, coherence, and other markers associated with secure/autonomous attachment, higher functioning, and mental health?

CHAPTER 3: METHODOLOGY

Study Design

It is well established that the consequences of complex or developmental trauma are among the most difficult problems that individuals present with when seeking help in therapy (Pearlman & Courtois, 2005; Sar, 2011). The main objective of this study was to investigate the treatment effects of a new therapy that purports to be able to help these clients in efficient, even rapid ways. The LI treatment protocols are designed to address underlying conditions conceptually at a neurological level in ways that would be appropriate and theoretically helpful for various presenting issues with generally common roots in developmental trauma and insecure attachment. One study (Balkus, 2012) investigating the efficacy of LI therapy to reduce trauma symptoms has been done. To date there have been no studies that have investigated the efficacy of the LI protocols that focus on the complex enduring issues that are typically more resistant to change. The variety of possible presenting issues calls for a study design that is responsive to differences and yet remains rigorous when evaluating efficacy (and effectiveness). Drawing from the rich history of the use of case studies and practice-based evidence (Margison et al., 2000; McLeod & Elliott, 2011), a case study design focused on treatment efficacy is a fitting choice. Stiles (2007) also made an excellent case for the superiority of case study research over hypothesis-based research for the purposes of theory evaluation, which in many ways is the focus of the second research question.

Investigating more than one case allows for the flexibility required to accommodate individual differences as well as providing in-depth consideration that spans particular cases. This combination was designed to shed the maximum amount of light on the efficacy of the

treatment in facilitating positive client change and on the potentially instructive investigation of the triangulation of the rich data sets, the LI treatment processes, and the underlying theories.

The particular design selected for this study was thus a multiple-case version of the Hermeneutic Single Case Efficacy Design developed by Robert Elliott (HSCED: Elliott, 2001; Elliott, 2002; Elliott et al., 2009). Using a mixture of quantitative and qualitative methods, an analysis of types of evidence, and an adjudication process, HSCED is a rigorous approach to evaluating treatment in naturalistic clinical contexts. The parallel mixed methods build rich case records that create a network of evidence from which causal links between therapy process and outcome are identified. Taking the example from the legal system in the way it employs practical reasoning systems to arrive at conclusions, HSCED follows suit with the specific purpose of evaluating the causal role of therapy in bringing about outcome. HSCED is a critical-reflective method, involving good-faith attempts to work against one's preferences and expectations. To facilitate this process HSCED builds on other adjudicated approaches (Stephen & Elliott, 2011) but has features unique to itself such as systematic examination of particular sets of types of evidence either supporting the causal role of the therapy or not. In order to do this, affirmative and skeptic teams are assembled to develop opposing arguments by assessments of the evidence. Making this strategy appropriately transparent, systematic and self-reflective, requires three things: a rich case record consisting of quantitative and qualitative evidence, identifying positive evidence to support change linked with therapy, and a careful assessment of negative evidence. The final step in this process incorporates independent external judges to adjudicate the rich case records with the evidence for and against the efficacy of the therapy in question (Elliott, 2002; Elliott et al., 2009).

The heart of this research design is to address perceived shortcomings in Randomized Controlled Trials (RCTs) by contributing to Evidence Based Practice in a way that honours clients' uniqueness and contribution to their own progress while helping professionals gain information regarding which treatments demonstrate efficacy and even what this efficacy might be attributable to. In contrast to RCTs, which have been the main source for Empirically Supported Treatments, case studies have typically been rich sources of experience but may have lacked the ability to make inferences. Hermeneutic Single-Case Efficacy Design (HSCED) is a rigorous effort to produce evidence-based treatment information that draws from and respects quantitative as well as qualitative data. HSCED is "a systematic, interpretive, critical, legalistic, mixed methods research approach drawing on a wide range of psychotherapy and counselling research methods" (Stephen, Elliott, & MacLeod, 2011, p. 4). It is also a form of case study design specifically for evaluating therapy efficacy. The term 'efficacy' is intentional by the design's founder Elliott to highlight the empirical aspect of the design. Though this study was done in naturalistic clinical settings where the term effectiveness is more common, the term 'efficacy' is retained to honour the design. HSCED answers two main questions: (i) Has the client experienced positive change? and (ii) Is this psychotherapy responsible for this change? Each adjudicator is also asked to provide commentary on mediating and moderating factors.

Robert Elliott first introduced the practical systematic procedures of HSCED in 2001 (Elliott, 2001). Though HSCED was characterized by a critical-reflective design from the outset, by 2009 Elliott and several colleagues published a study in which the design had grown to include the adjudication process involving the development of opposing argument positions and judges who evaluate the entire case (Elliott et al., 2009). The expansion of the adjudication

process to HSCED gives it another level of objective rigour. An overview of the HSCED process is shown in Figure 2.

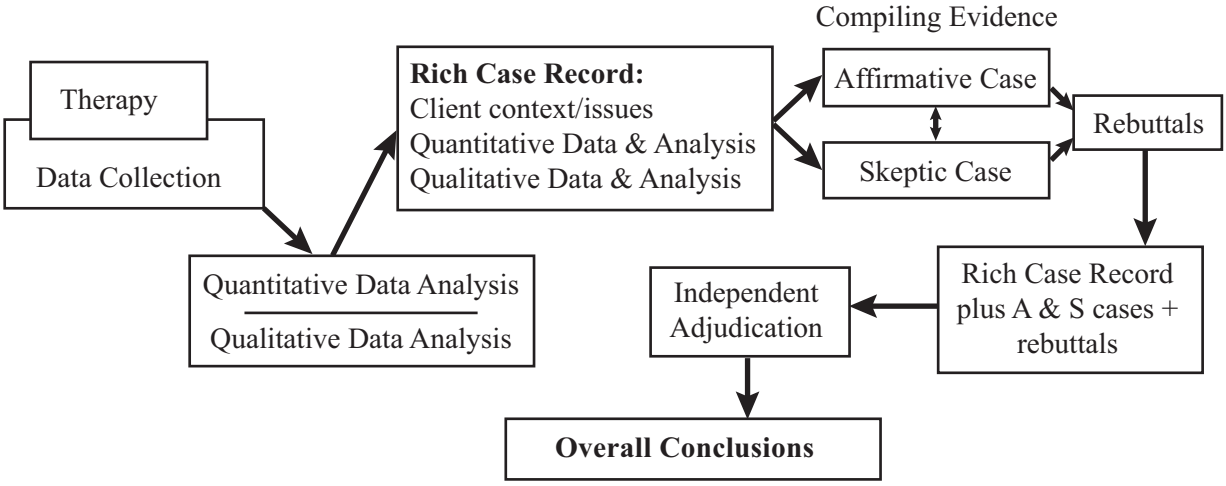

Figure 2. Overview of HSCED.

Rationale for the methodology. There are several aspects of the HSCED research design that made it particularly well suited for the purposes and context of this study. The case study aspect of the design is appropriate and desirable with investigation into newer therapies to allow for in-depth study that remains open to the unexpected and that respects differences. Case studies are also especially well suited for theory investigation/evaluation because they allow investigators to compare observations to multiple aspects of a theory, whereas hypothesis-testing studies test single aspects of a theory against observations (Stiles, 2007). Controlled designs are more appropriate for testing specific hypotheses. The decision to expand this design beyond the single case and to investigate three cases was based on the belief that providing more than one rich case would more effectively meet the objectives of both research questions. The primary research question concerns the efficacy of LI therapy with clients with longstanding chronic problems stemming from developmental challenges. Since these clients' problems present in varied ways such as depression, dissociation, chronic relational issues, emotional regulation

problems, or eating disorders, investigating more than one case was intended to facilitate a greater ability to look beyond the specific presenting problems of one case. LI claims to address the underlying issues common to many of these presenting problems, and investigating three cases was meant to facilitate not losing sight of this. Providing data from three cases would also facilitate more meaningful insight for the secondary research question considering the processes of LI in light of theoretical frameworks.

Inclusion/exclusion criteria. Suitable participants for this study included those seeking therapy for chronic or enduring presenting issues that were likely to have been influenced by developmental origins such as childhood trauma, neglect or abuse, or other sub-optimal attachment environments. Sub-optimal attachment environments resulting in insecure or disorganized attachment often overlap with trauma, neglect and/or abuse, and, are often described as complex trauma. Appropriate ages identified for participation in this study included those that had reached adulthood—having passed through childhood and adolescence they could represent those that struggle with issues stemming from developmental years that endure.

Exclusion criteria included individuals who had received LI therapy previously, those who were adopted, those who were not yet adults, or individuals whose presenting issues stem from recent trauma with no previous issues. Examples of the latter would include individuals with PTSD stemming from events experienced in adulthood who had no other longstanding issues for which they were seeking therapy. Some drugs and medications have been identified as interfering with LI. It is hypothesized (Pace, 2003/2012, p. 104) that they interfere with the client's ability to focus during sessions and this disturbs their capacity for seeing results. Habitual use of marijuana, benzodiazepines, opioids or other prescription painkillers are the drugs that would have been cause for exclusion from this study[60]. Pace (2003/2012) has

reported positive results with individuals taking these drugs, but they are compromised and thus were cause for exclusion from this study. Pace reports no issues with SSRI's and does not mention any other drugs[61][62].

Therapist Recruitment

Early on in this process Pace was contacted in order to ask for her recommendations for LI therapists that would provide high treatment fidelity. Of several LI therapists that were identified, three were selected based on their experience level with LI, their relative geographic proximity, and their availability for the same three-month treatment period. Each of the three was an LI consultant and trainer and able to provide the highest degree of treatment fidelity and experience with the method. Each had a private practice and agreed to take in one new client for the purpose of the research study. They arranged for payment for their services directly with the selected potential participants as per their usual practices. The study period allowed for a maximum of twelve weekly sessions. The therapists were told that though six to twelve sessions was the target for the study, they clearly should treat each participant with their best interests in mind[63][64]. The therapists were also instructed to treat each participant as they would usually (i.e. no special foci or directions for the actual therapy were given). With the exception of an intake session, each of the sessions consisted of LI therapy/protocols. They were asked to fill out a form for each session (the TSNQ) for the duration of the study. In addition the therapists participated in recruitment as described below.

Participant Recruitment and Selection

A purposive recruitment strategy was employed for this study. Each of the three participating LI therapists placed recruitment brochures in their waiting rooms (APPENDIX B), mentioned the study to every person inquiring about therapy for the same three-week period, and

had a document with further information (APPENDIX C) available for anyone showing interest. In addition, the principal investigator made an announcement about the upcoming research at two LI training workshops in the region.

Each of those who responded with interest in the study, whether by putting their email on a sign up sheet at a training or by telling one of the therapists that they were interested were emailed the information document (APPENDIX C) describing the study in more detail and directing them to contact the principal investigator should they have any questions or should they wish to proceed to screening after reading the information.

A phone interview with the principal investigator was scheduled with each of the potential participants who wanted to proceed to screening, and the initial screening form was completed (APPENDIX D). Of the potential participants who met the inclusion criteria seven were shortlisted and two potential participants for each therapist identified based largely on geography. The goal giving direction to this shortlisting was to diversify the participants as much as possible by such demographics as age and gender. Each therapist was then asked to contact their first (and second if needed) potential participant to make arrangements.

Data Collection

Procedure. The primary investigator met with each participant three times: at pre-therapy, post-therapy and one-month follow-up. In addition to the interviews/measures completed during these three times, the participants completed two measures for each therapy session (Personal Questionnaire, PQ; and Helpful Aspects of Therapy, HAT), and the therapists completed one measure for each session (the Therapist Session Notes Questionnaire; TSNQ). Each of the measures contributed to the rich case record for each participant and is described below. An overview of the data collection schedule is provided in Table 1.

Table 1.
Outline of Data Collected During the Study

Screening – December 2013

- Demographic/screening Questionnaire

Pre-therapy – January 2014

- CORE-OM
- Personal Questionnaire (PQ) created, and baseline scores captured
- Adult Attachment Interview (AAI)

Therapy – 7-11 Sessions: January - April 2014

- Personal Questionnaire (PQ) – per session*
- Helpful Aspects of Therapy (HAT) – per session*
- Therapist Session Notes Questionnaire (TSNQ) – per session*

*submitted to the principal investigator independently

Post-therapy – April 2014

- CORE-OM
- Personal Questionnaire (PQ)
- Change Interview
- Adult Attachment Interview (AAI)

One-month Follow-up – May 2014

- CORE-OM
- Personal Questionnaire (PQ)
- Change Interview

Instruments/measures. Each rich case record consists of quantitative measures (CORE-OM, PQ, Change Interview Scales), session level data and outcome measures (PQ; HAT; TSNQ), qualitative instruments (HAT; TSNQ; Change Interview) and the pre- and post-treatment AAI data.

CORE-OM. This popular measure (CORE-OM; APPENDIX F) is a 34-item self-report questionnaire designed to measure change in mental health of adults, particularly change brought about by psychological therapies (Evans, 2012). It taps into a pan-theoretical 'core' of clients' distress, including subjective well-being (four items), commonly experienced problems or symptoms (twelve items), and life/social functioning (twelve items). In addition, items on risk to self and to others (six items) are included as clinical flags rather than a scale. Features of this measure include high and low intensity items to increase sensitivity and a mix of positively and negatively framed items. Psychometric properties of this instrument (Evans et al., 2002) are

solid and reported as: internal consistency (α=0.91; Connell et al., 2007) and test-retest reliability (r = .75 to .95), and good convergent validity with seven other instruments with large differences between clinical and non-clinical samples and good sensitivity to change. Clinical cut-off scores and mean scores based on normative data for clinical and non-clinical populations (and differentiated by gender) have been established. Numeric values for reliable and clinically significant change have also been developed for this instrument. Reliable change is change that exceeds that which might be expected by chance alone or measurement error. For the CORE-OM, reliable change is represented by a change of five or more in the clinical score (once means have been multiplied by ten, which is common practice to offer whole numbers, or 0.5 if this has not been done). Clinically significant change is indicated when a client's CORE-OM score moves from the clinical to the non-clinical population (i.e. above the cut-off at intake and below after therapy).

Personal Questionnaire (PQ). The PQ (Elliott, Mack, & Shapiro, 1999; APPENDIX G) is a brief, individualized measure of presenting problems that the client wishes to work on in therapy consisting of approximately ten items with seven-point distress rating scales. Prior to meeting the participants individually at their pre-therapy interviews, the principal investigator emailed each one asking them to give thought to and to make notes on the issues for which they were seeking therapy. This material was then used in the pre-therapy meeting to assist in the development of each participant's PQ (Elliott, Mack, & Shapiro, 1999). Items generated for the PQ were to be the ones the client felt were most salient, but attempts were made to also consider items from each of the following areas: symptoms, mood, specific performance or activity area such as work, relationships, and self-esteem. Care was taken to ensure that each item was phrased in the participant's own words and that it clearly referred to something the client could

identify and consider each week. This individualized measure then served as a tailored weekly quantitative outcome measure for each case.

Adult Attachment Interview (AAI). The AAI (George, Kaplan, & Main, 1984/1985/1996; APPENDIX H) is an interview-based instrument in which adults are asked to reflect on and describe their relationships with both parents as well as experiences of loss, rejection and separation during early childhood. Analysis of the patterns of thought, memory and affectivity in these narratives reveal variations in not just events, but significantly and more importantly in the quality of representation of these experiences via narrative coherence and defensive strategy. These specific characteristics of the AAI are of particular interest in investigating the effects of LI therapy. The degree to which the adult's state of mind with regard to their childhood attachment relationships, early memories, and associated emotions can identify markers and indications tied to mental health (Steele & Steele, 2008) positions the AAI as very relevant to this study. It may contribute to evidence for change (research question one), and may also be a good instrument to contribute to the investigation of the effectiveness of LI's therapeutic process variables and LI's underlying theoretical constructs (research question two).

Helpful Aspects of Therapy (HAT). The HAT (Elliott, 1993; Llewelyn, 1988; APPENDIX I) instrument is a qualitative measure of client perceptions of significant therapy events with seven open-ended items. In HSCED, HAT data are used to help identify therapeutic events that may be correlated with change indicated on other measures or to support change referred to in the qualitative interview. Identified events that indicate trends or patterns may also lead to theories that provide groundwork for further research.

TSNQ. This is a custom form (APPENDIX J) for the therapist to fill out after each session, which includes some of the same questions as the HAT about

helpful/important/hindering events and their context. It also gathers information about the number and type of LI protocols used in that session and asks for general session notes and observations.

Change Interview. The semi-structured Change Interview (Elliott, 1999; APPENDIX K) provides qualitative and quantitative outcome data. The quantitative data consists of three five-point scales to further reflect on aspects of the experienced changes: degree of expectancy-surprise, importance, and strength of attribution to the therapy. The qualitative data of the Change Interview consists of the client's descriptions of changes experienced over the course of therapy and their attributions for these changes including in-therapy and extra-therapy factors. Information on helpful as well as negative aspects and experiences of therapy is included.

Data Analysis, Case Development, and Adjudication

Rich case records. The rich case record compiled for each participant included an overview drawing from client report, principal investigator and therapist notes. Data from the screening stage as well as pre-therapy interview data including goals for treatment and historical family of origin/attachment-related information was summarized. The quantitative data from the Change Interview scales was charted and analyzed. Qualitative data from transcribed interviews, the HAT and the TSNQ were added to the rich case records. Analysis for the CORE-OM, the PQ, and the AAI are described in more detail below. Each of these pieces was compiled into the rich case record for each participant in preparation for the development of the affirmative and skeptic cases.

CORE-OM analysis. The data from the three administrations of the CORE-OM (pre-therapy, post-therapy and follow-up) were compiled into a table for each participant showing the mean scores broken out by the four areas (well-being, symptoms/problems, functioning, and

risk) as well as showing the mean scores for the sub-scales (such as anxiety or depression symptoms and functioning in relationships). These mean scores were then presented along with the published normative mean scores for clinical and non-clinical populations and the cut-off between them.

Personal Questionnaire (PQ) analysis. In line with a growing recognition that traditional statistical methods can be challenging if not problematic when it comes to evaluating treatment efficacy or clinical significance, guidance was sought for analysis for the PQ. Jacobson and Truax (1991) wrote that though statistical significance is real, "the existence of a treatment effect has no bearing on its size, importance, or clinical significance" (p.12). Questions regarding the efficacy of psychotherapy refer to real life benefits derived from it, its impact or its ability to make a difference in people's lives—in other words: clinically significant change. Jacobson and Truax proposed various suggested calculations for situations in which standard statistical calculations are not possible, for example when there is no normative data for clinical or non-clinical populations. They suggest that significant clinical change would be change that moved a minimum of two standard deviations beyond the mean toward functionality, and thus two standard deviations from their pre-therapy (baseline) ratings were used to calculate the cut-off to determine clinically significant change for each participant. Jacobson and Truax (1991) also developed a calculation for measuring a reliable change index, or change that reflects more than the fluctuations of an imprecise measuring instrument. The standardized error of the difference (S_{diff}) provided an appropriate estimate of error in measuring client change, which provided a formula to establish a confidence level for defining the minimum reliable change values at the 95% level (1.96 S_{diff}) for each participant.

AAI analysis. The audio-recorded interviews were transcribed and then two independent, expert AAI coders were engaged to do the analysis on the transcripts. After all the interviews (pre- and post-therapy) had been done and transcribed, each coder was given a set of either one pre-therapy transcript and two post-therapy transcript or the reverse, and was kept blind to which transcripts were from pre- or post-therapy interviews.

Affirmative and skeptic cases. After data compilation and analysis, the rich case records were analyzed by two teams of four (each including one professor, one therapist, and two graduate level psychology students) with the purpose of gathering specific evidence that support arguments (written briefs) for and against the evidence of change in each of the three participants and the role of the LI therapy in facilitating these changes. The primary investigator was available to both teams for clarification but was not a member of either team.

The primary job for the affirmative case development team was to identify positive evidence for links between the therapy and client change. According to the research design, at least two different kinds of evidence that support the therapy-change connection are required to make a reasonable case for the causal role of therapy in client change. Five kinds of positive-link evidence are suggested for consideration (Elliott, 2001; Elliott, 2002; Elliott et al., 2009):

1. Client attributes specific changes to therapy in general.
2. Content of the post-therapy qualitative or quantitative outcome data plausibly matches specific events, aspects or processes within therapy.
3. Associations are found between important in-therapy process goals and week-to-week shifts in client problem ratings.
4. Therapeutic influence can be inferred when therapy coincides with change in long-standing or chronic client problems.

5. An important therapy event is associated with a clear shift in a client problem.

The affirmative case also included a rebuttal once the skeptic case had been presented.

The primary job for the skeptic case development team was to identify negative evidence in the form of non-therapy explanations for all or most of the client change. Eight kinds of non-therapy explanations are outlined (Elliott, 2001; Elliott, 2002; Elliott et al., 2009):

1. Apparent changes are trivial or negative i.e. there was no change.
2. Apparent changes reflect measurement error or statistical artifacts.
3. Apparent changes are superficial attempts to please the therapist and/or researcher.
4. Apparent changes are a result of client expectations or wishful thinking.
5. Apparent changes reflect self-help easing of short-term or temporary problems.
6. Apparent changes can be attributed to extra-therapy life events.
7. Apparent changes are the result of medication or recovery from medical illness.
8. Apparent changes result from reactive effects of research.

The first four non-therapy explanations assume that the client change is illusory or trivial, and the second four assume that change has occurred but that factors other than the therapy are responsible. The skeptic case also included a rebuttal once the affirmative case had been presented. The affirmative and skeptic cases and rebuttals were then compiled and added to the case records.

Adjudication. Three professionals were recruited to act as independent judges considering the evidence for and against the questions of change and therapy efficacy for each of the three cases. Each judge has a professional area of expertise that was relevant to this research. Dr. José Domene, is a licensed psychologist, Associate Professor with expertise in measurement and research methodology, and Canada Research Chair in School to Work

Transition at the Faculty of Education at the University of New Brunswick where he teaches in the counselling program area. Dr. Nuri Gené-Cos, MD, MRCPsych, PhD, is a consultant psychiatrist in private practice and the Traumatic Stress Service Lead Clinician at the Maudsley Hospital in London, England. Dr. Gené-Cos has twenty years' experience in adult general psychiatry and has experience with Lifespan Integration therapy. Becky Stewart, MA, is a clinician based in British Columbia, Canada, with advanced training in the AAI with experts Mary Main and Erik Hesse. Her private practice focus is supporting individuals who have experienced developmental trauma and attachment related injuries. She has presented internationally on attachment and trauma issues and continues to research trauma related issues in her PhD research.

Each of these judges was given an orientation to the research method and its requirements, provided with all three of the rich case records including the affirmative and skeptic cases (APPENDICES M, N ,& O), a copy of the measures, and the Adjudicator Response form listing the questions they were to answer for each of the three cases (APPENDIX L). For each of the main two questions (To what extent did the client change over the course of therapy? And, to what extent is this change due to therapy?), the adjudicator was asked to select their answer from a six-point Likert scale, and to answer 'How certain are you?' also from a six-point Likert scale. They were asked to detail the pieces of evidence from the rich case records that support their conclusions, and to identify mediating and moderating factors that stood out to them.

Efficacy conclusions. Once the adjudication process was completed and all nine adjudicator forms had been received (3 adjudicators for each of the three cases; APPENDIX P), an overall summary was compiled and reported in the results section of this document.

CHAPTER 4: RESULTS

Each of the three complete rich case records including the quantitative and qualitative case data with analyses with the affirmative and skeptic cases (APPENDICES M, N and O), and the adjudicator evaluations (APPENDIX P) are included in the appendices. The substance of each of the three participants' cases is presented individually here with a summary of all three at the end.

Case One: Felicity

Overview. Felicity (not her real name) is in her early forties, relatively new in her career as a therapist, and had heard about the Lifespan Integration Efficacy research study via word of mouth in informal therapists' network channels. Felicity had been exposed to LI and participated in two training sessions within the last year or so. She wanted to experience LI as a client to see what it could do for her regarding ongoing issues, and also wanted to experience LI for herself in order to see what she could learn from the experience that she might bring to her work as a therapist. When she heard about the research study, she saw it as an opportunity to do this and contribute to the body of knowledge for psychology at the same time.

Felicity is happily married with two young children. She is well educated, intelligent, and personable. She describes herself as an optimist, usually up for anything, caring, empathic, and confident. Her friends would describe her as loyal, steady, positive, caring, funny and intuitive. The LI therapist treating Felicity for this study described Felicity as "very bright and very hopeful about [the] treatment option of LI. She has strong family support and is insightful."

Felicity had been working on various issues with another therapist and discontinued that therapy for the duration of this study. She had never experienced LI therapy before. She had been taking a low dosage of Wellbutrin for depression for approximately eighteen months as she

had done a few times throughout adulthood, and had no changes in dosage during the period of the study. The issues Felicity brought to therapy included unsettling feelings and relational difficulties with family of origin relationships, relational patterns, and residual trauma symptoms that are detailed below. Felicity had eleven LI therapy sessions during the three-month study period.

Instruments and measures results.

CORE-OM. Felicity's pre-, post-, and one-month follow-up CORE-OM scores are presented in the rich case record in appendix M. Felicity's CORE-OM scores indicate that she was not generally clinically distressed and was generally functioning well before and after the study.

Pre-therapy AAI. Felicity's early attachment history is among safe and caring parents. Her developmental challenges began primarily after her parents' divorce when Felicity was young, and her mother's remarriage a few years later. Felicity reports that her mother changed, "lost her way" so to speak, becoming selfish and much more focused on her new spousal relationship to the point of neglecting Felicity's needs for safety, especially during Felicity's middle childhood years when Felicity's step-father was sexually abusive. She describes that relationship as confusing, inappropriate and frightening.

Felicity's pre-therapy AAI transcript reflects this situation. The coded transcript of this interview indicated that Felicity was unresolved for abuse, but otherwise displayed secure/autonomous traits such as good grasp of childhood memories, lively personal identity, balance, valuing of attachment, representational change, representational diversity, and able to discuss adverse experiences with autonomy, coherence, and even humor. Being unresolved trumps the underlying secure/autonomous classification and is an insecure classification.

Personal Questionnaire Items, Baseline Ratings and Changes. Felicity listed nine specific items that she was bringing to therapy. Felicity's top items related to feelings and patterns around a cut-off relationship with her brother, his wife, and their children (items 1-3). Items 5, 6, and 7, and probably 9 indirectly, addressed trauma symptoms and feelings, and items 4 and 8 concerned her social relationships and identity. Each item/problem was rated from one to seven according to how much it bothered the client during the previous seven days (1= not at all, 2=very little, 3=little, 4=moderately, 5=considerably, 6=very considerably, 7=maximum possible). Felicity's items are listed below with baseline, post-therapy and one-month follow-up ratings shown after each item (e.g. 5-4-3). Her weekly scores are in her complete rich case record in appendix M.

1. Cut-off/avoidance with brother & niece/nephew unresolved/unsettling. (5-4-3)
2. Fear of codependent patterns returning if cut-off with brother is resolved. (6-3-3)
3. Feelings of anger/disgust with sister-in-law, and not wanting to repair it. (7-4-3)
4. Lack of community/feelings of isolation. (5-2-2)
5. Flashbacks of neglect & feelings of anger & disbelief about childhood environment highlighted by daughter now. (5-2-2)
6. Feelings of anger toward mother easily stirred. (7-1-1)
7. Flashbacks of abuse when triggered that are still 10/10 intense. (6-3-3)
8. Unclear/unsettled about who I want to be with the people in my life now that are acquaintances. (4-1-1)
9. Feelings of limits/wall blocking emotional intimacy with husband, and 'settling for less.' (4-2-4)

Felicity's mean PQ scores across the study are shown in Figure 3 below.

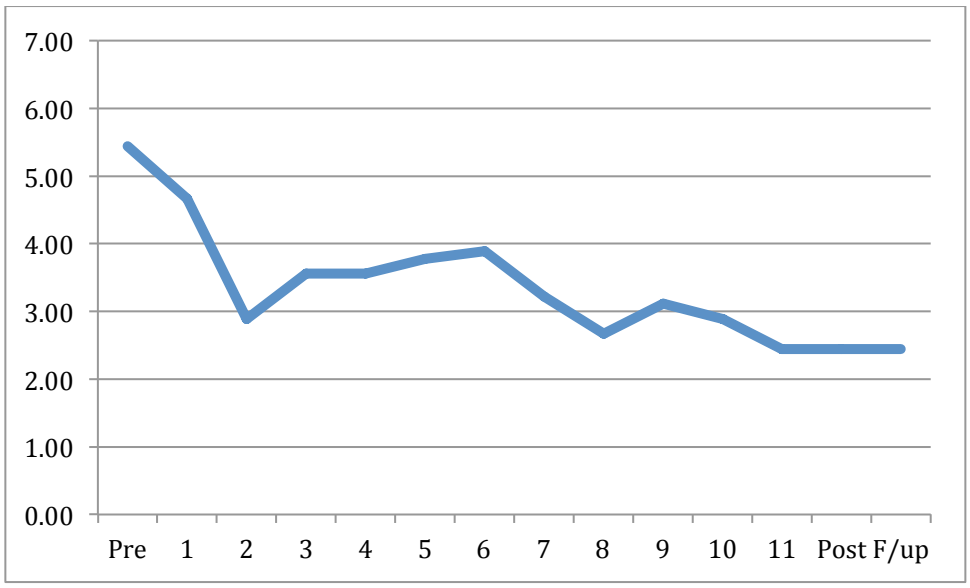

Figure 3. PQ item/problem mean scores across the study (Felicity).

As seen in Table 2, Felicity's mean baseline (pre-therapy) score of 5.44 was over the cut-off for clinical distress (3.5) and her scores at post-therapy and follow-up (2.44 and 2.44) were below this marker and also below the clinical change cut-off of 3.31, indicating clinically significant change (Jacobson & Truax, 1991). Felicity's mean change at post-therapy (3.00) and at follow-up (3.00) is well beyond the minimum for reliable change (1.14).

Table 2.
Personal Questionnaire (PQ) Outcome Data (Felicity)

	Caseness	RC	CC	Pre	Post	Pre-post Difference	1 mo. F/up	Pre-F/up Difference
PQ Mean scores	3.5	1.14	3.31	5.44	2.44*	3.00**	2.44*	3.00**

*Note. Caseness = cut-off for determining whether client is clinically distressed (Stephen, Elliott, & Macleod, 2001); RC =reliable change index, minimum value required for reliable change at $p < .05$. (Jacobson & Truax, 1991; Elliott, 2002); CC = significant clinical change cut-off at 2SDs from the mean (Jacobson & Truax, 1991). * = below CC; ** = greater than RC.*

Post-therapy AAI. Felicity's post-therapy AAI was classified as preoccupied. There was no longer an unresolved classification. It is significant to note that the main section of the interview resulting in the preoccupied classification occurred at the beginning of the interview,

which included preoccupied anger toward her mother and stepfather, and the remainder of the interview would have otherwise been classified as secure/autonomous. This section at the beginning generates not only the preoccupied classification, but in light of Felicity's other data, raises questions. For example, in the Personal Questionnaire measure, Felicity's rating for 'feelings of anger toward mother easily stirred' went from 'maximum possible' (7) at pre-therapy, to 'not at all' (1) by post-therapy, remaining at a 1 at follow-up. Does the post-therapy AAI interview section represent residue from the recent trauma work rather than substantive remaining anger or a preoccupied mental state of mind with regard to attachment? It is a question to consider. It is also a question to revisit at a later follow-up outside the scope of this current study.

Session-by-Session Synthesis of HAT & TSNQ data. This section is a significant reduction of the detailed commentary provided in these instruments by Felicity and her therapist, which is included in the complete rich case record in appendix M. The aim here is to provide an overview of the therapy process; it is presented in Table 3 below. The client comments are taken from the HAT, which asks for events the client found helpful or important. The therapist comments and LI protocols used are taken from the TSNQ.

Table 3.
Therapy Process and Comments/Observations by Session

Sess.	LI Protocol	Therapist Comments	Client Comments
1	None: intake session	History taken; treatment priorities established	The therapist did a thorough, caring intake
2	Relationship Pattern	[Dealt w/] feelings of betrayal by brother in childhood-now	[Experienced] distance from the pain in the feeling of betrayal by my brother
3	Relationship Pattern	Pain around brother - by end of session client reported less reactivity and surprise at absence of the usual pain	[Helpful] to slow down when accessing the feeling in my body during the timelines
4	Depression Protocol	Reconnection w/ younger self and ability to soothe younger self; recognition separating past danger to current	Connecting the dots between intimacy w/ my husband to sexual abuse in my childhood

		sexuality	
5	Standard Protocol	[Worked on] specific traumatic event; empowerment increased, shame decreased	[Got] guidance in choosing safer memory…easier to go there
6	Standard Protocol	Client able to get beyond the fear and discomfort of the trauma into compassion and sadness for her younger self	Revisited the memory from last [session] and got more closure
7	Standard Protocol	[Worked on] relationship to mother, it's importance [impact]	Shifted from relational pattern to standard protocol w/ specific memory; able to soothe my 10 year old self… reduce distress
8	Relationship Pattern	Focus on internal struggle re engaging with sibling	[Got help] honing in on what was really making me upset about my brother
9	Relationship Pattern	Focus on trying to stay engaged w/ sibling while also protecting self and dealing with emotions around his spouse	Honing in on the feelings underneath my [difficulties with] sister-in-law
10	Relationship Pattern	Discovering that her inner struggle is more about self than her sibling	[Realizing] that reengaging w/ brother is way more about me than him
11	Standard Protocol	[Working on] memory [where dread of engaging began]	Pinpointed the moment that was the most helpful in which to intervene

Reported changes from Change Interview. At the post-therapy Change Interview, when asked about what changes she had noticed/experienced, Felicity reported that she was:

- More mindful, calmer in her brain
- Easier to be 'in the moment'/present
- Over the hump internally regarding her PQ goals
- Less reactive about a lot of things
- More confident doing LI and knowing who it is a fit for
- Closer to being ready to resolve the cut-off (re PQ items 1-3)
- Less feelings of anger with mom (re PQ item 6)
- Not thinking so much about who I am and community (re PQ items 4 & 9)

Details and examples are found in the section with quotations from the Change Interview.

Change Interview Scales.

Scale I. Expected (1) – unexpected/surprised by (5). Felicity's ratings on this scale were identical at post-therapy and at the one-month follow-up. Felicity rated two of her changes (getting over the hump internally regarding her goals, and becoming more confident doing LI herself) as a one, meaning that she expected these. Felicity rated the remaining six of these eight changes as a four or five, meaning that the change itself or the degree of change was unexpected and she was at least somewhat surprised by it. According to Elliott (2002) if changes are unexpected it counters the possible role of wishful thinking.

Scale II. Without therapy, change likely (1) – unlikely (5). Felicity's mean ratings on this scale were 4.38 at post-therapy and 4.13 at follow-up indicating that she considered them largely unlikely to have happened without the therapy. According to Elliott (2002) this is another opportunity for the client to indicate whether there were extra-therapy events or other dynamics that they attribute their changes to.

Scale III. Importance of the change, not at all (1) – extremely (5). Felicity's mean ratings on this scale were 4.38 at post-therapy and 4.25 at follow-up indicating that these changes were between very and extremely important to her—in other words, not trivial.

Change Interview Comments. An abridged selection of post-therapy Change Interview content is listed in Table 4 and one-month follow-up content in Table 5 (appendix M contains the unabridged selection).

Table 4.
Post-therapy Change Interview Comments (Felicity)

- *(What's therapy been like for you?)*

"Surprising. Very cool. The word enjoy isn't appropriate because it was challenging, but I got a lot out of it. And I felt like I took the opportunity to really lean into some hard things."

- *(What changes, if any, have you noticed in yourself since therapy started?)*
"More mindful without trying. Calmer in my brain. Not as much internal dialogue going on. That was one thing that was really surprising."

- "I feel an internal shift, a sense of being over the hump of a couple of my goals, like on the downward slope of the curve. I feel less reactive about a lot things that I was pretty reactive about before."

- "Put it this way, I expected [the change] based on what other people reported, but to really feel it was a surprise. I intellectually knew what we were going for, but to feel it was a surprise."

- *(In general, what do you think has caused these various changes?)*
"The therapy. I would think it's the grounding in today, bringing parts of myself to today, communicating to parts of myself that that level of distress isn't necessary anymore…"

Table 5.
One-month follow-up Change Interview Comments (Felicity)

- (*What changes, if any, have you noticed in yourself?)*
"The effects of being more mindful have diminished a bit. The reduction in reactivity regarding my difficult subjects has held, and I felt calmer in general and maybe that has held, but I am less aware of being in the moment so easily."

- "I feel like there's something internal that's shifted so that I feel less reactive about all those things."

- "A specific example... I have been in cut-off with my brother since [3 years ago]. He was the one that initially cut off and I was so hurt and angry. Since then he has tried to reach out a few times and I've just been sort of like '[rejecting expletive].' And now… he includes me on emails where he sends pictures of his kids and stuff, and I'm responding and like asking a question. I feel a lot more open to extend my hand that way and not expect some big conversation to have to happen… Because before it was like: 'if you think I am just going to ignore this, you are crazy.' And now it's like 'ok, well.' And, I just learned I'm going to be seeing him in [a couple months], and before I would have been 'oh Lord!' and now see it as something 'handle-able' and I'm actually looking forward to it."

Affirmative and skeptic case summaries. Based on the rich case record, the affirmative team indicated that Felicity changed substantially over the course of therapy. According to the quantitative and qualitative evidence, Felicity experienced clinically significant change in the issues that brought her to therapy. The skeptic team concurred that there was positive change that was not trivial. The affirmative team also indicated that the evidence supported the therapy

as a substantial direct cause of these changes. Strong evidence was apparent in three of the areas suggested by Elliott (2001, 2002): retrospective attribution by the client, within-therapy process-outcome correlations, and changes in stable rather than acute/recent problems. The skeptic team did not identify specific evidence, but raised questions around the roles of expectancy, motivation, self-correction, investment in therapy, and common factors of therapy. The affirmative rebuttal focused on Felicity's own comments around what was expected and what was surprising, that her changes were very specific and not vague, and her very specific attributions.

Adjudication results: Felicity. According to the HSCED design, options for the two main questions put to the adjudicators are: not at all/0%, slightly/20%, moderately/40%, considerably/60%, substantially/80%, and completely/100%. The responses to the first question put to the three adjudicators: "To what extent did the client change over the course of therapy?" were: "substantially/80%," "considerably/60%," and "substantially/80%." The responses to the qualifying question of how certain they were (with choices of 100%, 80%, 60%, 40%, 20%, and 0%) were unanimous at 80% certain.

The responses to the second question put to the three adjudicators: "To what extent is this change due to therapy?" were: "substantially/80%," "considerably/60%," and "substantially/80%." The responses to the qualifying question of how certain they were, were 100%, 80%, and 80% certain. The adjudicators' full reports with commentary are in appendix P.

Case Two: Kappa

Overview. The client, Kappa (not her real name) was exposed to this research study by coincidently contacting one of the three LI therapists that were doing the therapy. A friend's mother had introduced her to the idea of counselling, and Kappa made contact during the time

period that all inquiring clients were exposed to the existence of this research through a brochure. Kappa was interested in supporting research that might help others with similar issues. She contacted the primary investigator for more information and went on to screening and then selection for participation.

Kappa had just started her first year of college and was living on campus in student housing. Kappa's original description of herself, her background and her reasons for seeking LI therapy included: "mom and dad weren't around; I raised my brother from early on; I was in an extremely bad car accident a couple years ago, am sporadically on an anxiety pill; I just started college and am not good with transitions." Kappa presented as capable but somewhat disregulated and anxious. She describes herself as energetic, loving, and maybe an over thinker. Others that know her well would also say she is a helper, sympathetic, adventurous, intelligent and caring. The therapist described Kappa at the beginning as: "perfectionistic, attractive, social, intelligent, resourceful and used to a caretaker position. She displays a lack of affect regulation (highly anxious/dissociative), instability, and a lack of boundaries being fully open to everyone."

Kappa's list of problems to address in therapy revolved largely around difficult feelings and/or worry about family members and various relationship issues and patterns. Her list also included panic attacks. Kappa had ten LI therapy sessions during the three-month study period.

Instruments and measures results.

CORE-OM. Kappa's pre-, post-, and one-month follow-up CORE-OM scores are presented in the rich case record in appendix N. Kappa's CORE-OM scores indicate that she was clinically distressed before the study in symptoms/problems and in functioning and moved well out of the clinical population by post-therapy and maintained through follow-up. Her mean

scores at both post-therapy and follow-up were well below the mean scores for even the non-clinical population.

Pre-therapy AAI. Kappa's early history and attachment relationships were varied and chaotic with the exception of a steady and caring maternal grandmother. Kappa reported a disturbing progression of events and developments in her childhood with her father. Kappa reported early memories of her father being loving and making an effort to have fun with Kappa and her brother but after Kappa's mother and father split when she was five or six, Kappa's father fell quickly and deeply into alcoholism and dangerous and abusive behaviour. When Kappa and her brother were with their father, and as early as six or seven, Kappa had to see to making dinner because their father was too incapacitated. She had no contact with him for the majority of her teen years continuing up to the recent past due to a restraining order as well as imprisonment. Her mother was a workaholic, and her mother's new boyfriend after she left Kappa's father was physically and emotionally abusive toward Kappa.

Kappa's pre-therapy AAI transcript reflects much of this situation in terms of providing historical information, however it is also somewhat confusing at first glance. The coded transcript of this interview indicated that Kappa's state of mind regarding attachment was secure/autonomous with an element of contained anger. This finding is further discussed in the section on the post-therapy AAI interview.

Personal Questionnaire Items, Baseline Ratings and Changes. Kappa's problem items covered a range of issues involving family of origin relationships, panic attacks, behavioural patterns, and feelings. A total of twelve items/problems were listed at the pre-therapy interview meeting. Each item/problem was rated from one to seven according to how much it bothered the client during the previous seven days (1= not at all, 2=very little, 3=little, 4=moderately,

5=considerably, 6=very considerably, 7=maximum possible). Kappa's items are listed below with baseline, post-therapy and one-month follow-up ratings shown after each item (e.g. 5-4-3). Her weekly scores are in her complete rich case record in appendix N.

1. Tendency to emotionally cheat while dating. (7-1-1)
2. Panic attacks. (7-1-2)
3. Unclear on how to deal with/relate to father. (7-2-2)
4. Difficult feelings (hate, anger) around mom's boyfriend. (7-5-4)
5. Not enough ability/desire to say 'no' (e.g. too much drinking). (6-1-1)
6. Trouble trusting men and women. (6-3-2)
7. Tendency to check out when too stressed. (6-2-4)
8. Resentment/disdain towards boyfriends. (6-1-1)
9. Difficult feelings (disdain, anger) around mom. (5-1-1)
10. Anxiety/worry about dad. (7-2-2)
11. Anxiety/worry about little brother. (5-2-2)
12. Inconsistent in my faith. (5-1-1)

Kappa's mean PQ scores across the study are shown in Figure 4 below.

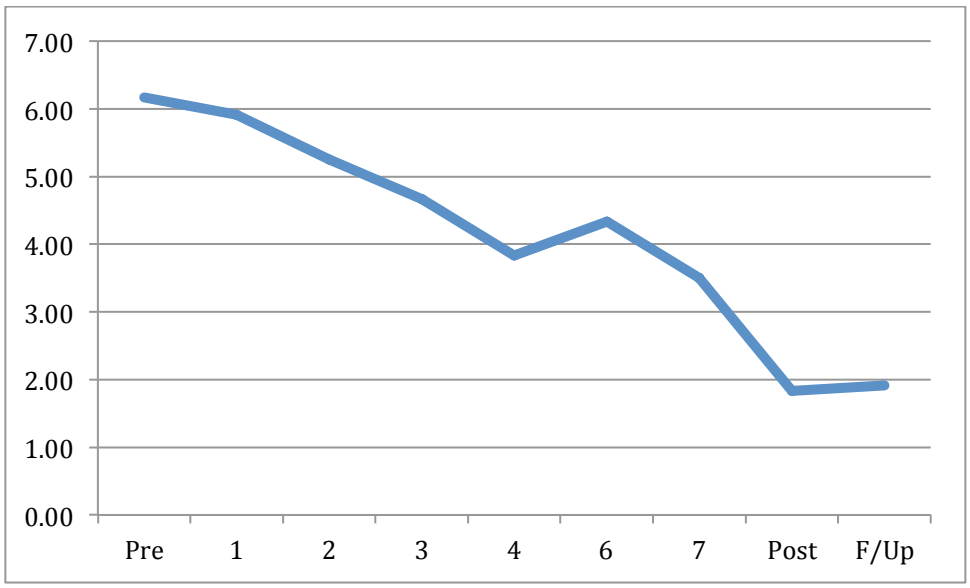

Figure 4. PQ item/problem mean scores across the study (Kappa).

NB. Kappa did not complete her PQ (or HAT) for sessions 5, 8-10.

As seen in Table 6, Kappa's mean baseline (pre-therapy) score of 6.17 was over the cut-off for clinical distress (3.5) and her scores at post-therapy and follow-up (1.83 and 1.92) were below this marker and also below the clinical change cut-off of 4.57, indicating clinically significant change (Jacobson & Truax, 1991). Kappa's mean change at post-therapy (4.33) and at follow-up (4.25) is well beyond the minimum for reliable change (1.14).

Table 6.
Personal Questionnaire (PQ) Outcome Data (Kappa)

	Caseness	RC	CC	Pre	Post	Pre-post Difference	1 mo. F/up	Pre-F/up Difference
PQ Mean scores	3.5	1.14	4.57	6.17	1.83*	4.33**	1.92*	4.25**

*Note. Caseness = cut-off for determining whether client is clinically distressed (Stephen, Elliott, & Macleod, 2001); RC =reliable change index, minimum value required for reliable change at p < .05. (Jacobson & Truax, 1991; Elliott, 2002); CC = significant clinical change cut-off at 2SDs from the mean (Jacobson & Truax, 1991). * = below CC; ** = greater than RC.*

Post-therapy AAI. Kappa's post-therapy AAI was classified as unresolved with an underlying classification of dismissing attachment. The coder's notes identify loss and abuse as underlying the classification of unresolved, and also mention that this transcript, though given an

underlying classification of dismissing, was borderline for being a 'cannot classify,' which occurs when there are elements of both dismissing and preoccupied attachment patterns in the same transcript. As mentioned in the earlier section on the AAI, at first glance the coded transcripts provide feedback that is somewhat confusing. The second transcript reflects a picture of what one might expect given Kappa's history, and the first transcript reflecting a secure/autonomous classification seems misleading until one takes more of the rich case record information into consideration. There were elements and/or key relationships, such as that with her grandmother, in Kappa's history that would contribute to forming the structures that would enable Kappa to give an interview scored as secure/autonomous (with aspects such as a fairly coherent narrative, ability to comment on effects of adverse experiences etc.). There were also many elements and aspects of Kappa's early attachment relationships and experiences that would have led to the patterns evident in the second transcript. One clue into what changed between these interviews was given by Kappa in her post-therapy Change Interviews, when she explained that therapy had "helped me process issues and think about them, deal with them… something I hadn't done before." She says she was uneasy at first: "we talked about kind of hard things…I was opening things I hadn't dealt with." The second AAI snapshot seems to capture a layer that therapy had helped Kappa access.

Session-by-Session Synthesis of HAT & TSNQ data. This section is a significant reduction of the detailed commentary provided in these instruments by Kappa and her therapist, which is included in the complete rich case record in appendix N. The aim here is to provide an overview of the therapy process; it is presented in Table 7 below. The client comments are taken from the HAT, which asks for events the client found helpful or important. The therapist comments and LI protocols used are taken from the TSNQ.

Table 7.
Therapy Process and Comments/Observations by Session (Kappa)

Sess.	LI Protocol	Therapist Comments	Client Comments
1	None: intake session	Client revealed physical and emotional traumas	[Creating timeline] important because it made me remember a lot of things I had repressed
2	Cell Being Protocol	When around other people, client disconnects from her own experience and [is] enmeshed in the "other's"	I felt really connected w/ myself in a way I hadn't before.
3	Standard Protocol	4th TL client emoted anger towards mother and her boyfriend in the source memory	I got in contact w/ my 'little' self. I confronted the situations that I was struggling w/ and dealt w/ memories that I had repressed
4	Standard Protocol	Client put together her work in the session with her making poor choices w/ boyfriends in the present	Talked about my father and feelings I had towards him. I overcame some memories that I shoved in the back of my head and never confronted
5	PTSD Protocol	Client able to connect the presenting problem w/ earlier one… Client able to see she can trust her 'gut'	(No form filled)
6	PTSD Protocol	New awareness of her fear of making boundaries with men. Ended session w/ greater confidence to increase boundaries with unsafe people	It connected feelings that I was experiencing currently to feelings in the past, which helped me understand why I was feeling the way I was then
7	Birth to Present Protocol	Client story helpful for me to case plan. Redirect focus towards building greater core resiliency through BP	I felt a overwhelming sense of peace come over me, I felt like someone truly cared for me. I still feel at ease!
8	Birth to Present Protocol	Client able to connect w/ her baby self; infant self went from overwhelmed to relaxed. Adult self felt compassionate, caring and close.	(No form filled)
9	Birth to Present Protocol	Client reporting being comfortable and connected rather than 'all over the place' as at beginning. Able to understand her power/options in relationship	(No form filled)
10	Birth to Present Protocol	[Client reported events] and we celebrated her ability to successfully practice what we have been working on	(No form filled)

Reported changes from Change Interview. At the post-therapy Change Interview, when asked about what changes she had noticed/experienced, Kappa reported:

- That she had stopped partying (and drinking too much)
- Increased (inner) stability

- Decreased relationship struggles
- [New ability to] discern which relationships to keep
- That she is controlling her own world more and staying out of everyone else's
- Animosity toward mom decreased, and increased relationship building with her
- Less anger toward mom's boyfriend and greater management of boundaries w/ him
- Couldn't talk about my dad w/o crying and now almost at peace w/ that
- Have boundaries now

Details and examples are found in the section with quotations from the Change Interview.

Change Scales.

Scale I. Expected (1) – unexpected/surprised by (5). Kappa's mean ratings for whether she expected or whether she was surprised by these nine changes ranged from three to five, with an average of 4.33 at post-therapy and 4.67 at follow-up, meaning that the change itself or the degree of change was generally unexpected and she was largely surprised by them. According to Elliott (2002) if changes are unexpected it counters the possible role of wishful thinking.

Scale II. Without therapy, change likely (1) – unlikely (5). Kappa's mean ratings on this scale were 4.44 at post-therapy and 4.55 at follow-up indicating that she considered them largely unlikely to have happened without the therapy. According to Elliott (2002) this is another opportunity for the client to indicate whether there were extra-therapy events or other dynamics that they attribute their changes to.

Scale III. Importance of the change, not at all (1) – extremely (5). Kappa's mean ratings on this scale were 4.67 at post-therapy and 4.89 at follow-up indicating that these changes were between very and extremely important to her—in other words, not trivial.

Change Interview Comments. An abridged selection of post-therapy Change Interview content is listed in Table 8 and one-month follow-up content in Table 9 (appendix N contains the unabridged selection).

Table 8.
Post-therapy Change Interview Comments (Kappa)

- *(What changes, if any, have you noticed in yourself since therapy started?)*
"The entire list that we made. Everything has pretty much drastically changed."
- "Before I came in I felt like I needed to party all the time... I kind of felt, like stability in myself. I struggled a lot with relationships before… And, that I can't control everything, I can't control everybody else's worlds… I have had a lot of animosity toward my mom for a lot of things, and then doing the timelines and stuff, I kind of almost learned to forgive her… When I came in I wasn't basically able to talk about my dad without crying… but it's kind of almost like feeling at peace with it… Boundaries. Boundaries. I have boundaries!"
- *(In general, what do you think has caused these various changes?)*
"Um, I think going through the timelines, I think therapy had basically all, probably 90%. I did start exercising though so I guess I could throw that in there..."

Table 9.
One-month follow-up Change Interview Comments (Kappa)

- (*So how are you doing?)*
"I'm doing well... I'm ok now. Things are ok now."
- (*How was therapy for you looking back now?)*
"It was great. It felt weird at first. I didn't really know what this was doing, spilling out a bunch of stuff... But it helped me categorize my issues, unclutter them, deal with them."
- *(And so how do you look at that now? How do you look at the fact that you did it?)*
I'm happy that I did it cause I can, I can talk about my dad now without basically choking up and like I feel so like free from all these issues that were just kind of hampering me and not let me do things."

Affirmative and skeptic case summaries. Based on the rich case record, the affirmative team indicated that Kappa changed substantially over the course of therapy. The skeptic team concurred that there was positive change that was not trivial. According to the quantitative and qualitative evidence, Kappa experienced clinically significant change in the specific issues that brought her to therapy and with general symptoms and functioning. The affirmative team also

indicated that the evidence supported the therapy as a substantial direct cause of these changes. Strong evidence was apparent in four of the five areas suggested by Elliott (2001, 2002): retrospective attribution by the client, process-to-outcome mapping, within-therapy process-outcome correlations, and changes in stable rather than acute/recent problems. The skeptic team raised questions around the roles of normal development/maturation during Kappa's age/season of life, becoming more independent from her family of origin, and common factors of therapy including support, care and guidance. The affirmative rebuttal focused on the very short time frame, the comprehensive changes that included behavioural changes tied to the therapy process, and Kappa's very specific attributions.

Adjudication Results: Kappa. The responses to the first question put to the three adjudicators: "To what extent did the client change over the course of therapy?" were: "completely/100%," "substantially/80%," and "substantially/80%." The responses to the qualifying question of how certain they were, were 100%, 100%, and 80% certain.

The responses to the second question put to the three adjudicators: "To what extent is this change due to therapy?" were unanimously: "substantially/80%." The responses to the qualifying question of how certain they were, were also unanimous at 80% certain.

Case Three: Jane

Overview. The client, Jane (not her real name) heard about the Lifespan Integration Efficacy research study via word of mouth in informal therapists' network channels. As an experienced therapist, Jane had come across LI, and participated in a training session. Jane had previously considered contacting one of the training level LI consultants, wanting to experience LI to see what it could do for her, and to see what she could learn from the experience that she

could bring to her work. When she heard about the research study, she saw it as an opportunity to realize these goals.

Jane is intelligent, sensitive, and very strong. Jane has achieved a great deal personally and professionally—she is an educated, competent, compassionate, now middle-aged professional who describes herself as happy. Those who know her would also describe her as caring, proficient at solving their problems, and driven. Jane's history sheds light on the inner drive and discipline Jane has had to employ.

The therapist described Jane at intake, noting: "The client is probably a good candidate for success with Lifespan Integration. I do not know her level of dissociation, which will affect the speed with which LI will be effective. She is an intelligent, professional woman with a high degree of self-agency."

So what were the issues that Jane chose to work on at this time? Jane has never been married. She has patterns that have thwarted her from finding a life partner where the relationship is mutually rewarding. In the past she has fallen into patterns of caretaking the men she has become involved with. She also finds herself running into unhelpful feelings and internal reactivity just at the thought of meeting a potential partner. Residual internal reactivity around the topic of her family of origin was another area that appeared on Jane's list of items that she wanted to work on in therapy. The therapist noted: "She is motivated to do personal work in order to find a successful relationship with a man, which, if it should occur, would be a relatively new experience for her." Jane had seven LI therapy sessions during the three-month study period.

Instruments and measures results.

CORE-OM. Jane's pre-, post-, and one-month follow-up CORE-OM scores are presented in the rich case record in appendix O. Jane's CORE-OM scores were very low (no distress) at the outset and remained so at post-therapy and follow-up, reflecting her high-functioning personality.

Pre-therapy AAI. Jane has survived a significantly suboptimal early history as well as several significant events and challenges in adulthood as well. In terms of the seven categories of *The Adverse Childhood Events Study* (A.C.E., Felitti et al., 1998) that studied the relationship of health risk behaviour and disease in adulthood to the breadth of exposure to childhood emotional, physical, or sexual abuse and household dysfunction during childhood, Jane's childhood included significant forms and levels of at least five of the seven categories.

Jane was the eldest girl among several younger siblings and she found herself having a key role in caretaking for her siblings from a very early age, especially when her mother returned to work when Jane was seven. Jane's father was physically violent and abusive to the mother and all of the children, regularly and significantly. He also sexually abused Jane from the age of five onward for years. Apart from very early experiences of her mother's attention before she was overwhelmed by the needs of her rapidly growing family, Jane did not experience safety or comfort from any adults in her growing years. There were no other adult figures that were present as relational sources for building attachment security.

Jane's pre-therapy AAI transcript reflected the historical information, but did not reflect an attachment pattern that might be expected from this situation. Jane had clearly been able to develop into a very high-functioning adult. The coded transcript of this interview indicated that Jane had a classification of unresolved for loss/trauma and an underlying classification known as

earned secure/autonomous, with an element of contained anger. All secure/autonomous classifications include a relative lack of defensiveness, moderate to high coherence, and a clear valuing of attachment (Steele & Steele, 2008). Being unresolved trumps the underlying secure/autonomous classification and is an insecure classification.

Personal Questionnaire Items, Baseline Ratings and Changes. The majority of Jane's items related to feelings and patterns that manifest around the theme of a potential life partner (items 1-5, 7 and 8). An additional item (6) addressed feelings about her current role in her family of origin, and an additional item (9) was added in the third session that addressed feelings of loss/helplessness. Thus a total of eight original items/problems were listed from the outset with a ninth added mid-therapy due to an event which is described in the HAT for that week. Each item/problem was rated from one to seven according to how much it bothered the client during the previous seven days (1= not at all, 2=very little, 3=little, 4=moderately, 5=considerably, 6=very considerably, 7=maximum possible). Jane's items are listed below with baseline, post-therapy and one-month follow-up ratings shown after each item (e.g. 5-4-3). Her weekly scores are in her complete rich case record in appendix O.

1. Feeling hesitant/withdrawn when in situations where I could meet a potential partner. (6-1-1)
2. Lack of openness/confidence around connecting with a potential partner. (6-1-1)
3. Anxiety concerning potentially meeting someone who may be a potential partner. (6-1-1)
4. Lack of trust in self around choosing/selecting the right man (trusting my 'picker'). (5-1-1)
5. Fear of rejection or being ostracized in relation to a potential partner. (4-1-1)

6. Sorrow/regret/unsettled feelings about current (distant) role in my family of origin now. (4-1-1)
7. Vulnerable to codependence/caregiving role in a primary relationship. (3-1-1)
8. Sensitivity around own strengths & competencies re whether others may be able to accept/embrace me for who I am. (3-1-1)
9. Feelings of helplessness after loss (added in 3rd session). (6-1-1)

Jane's mean PQ scores across the study are shown in Figure 5 below.

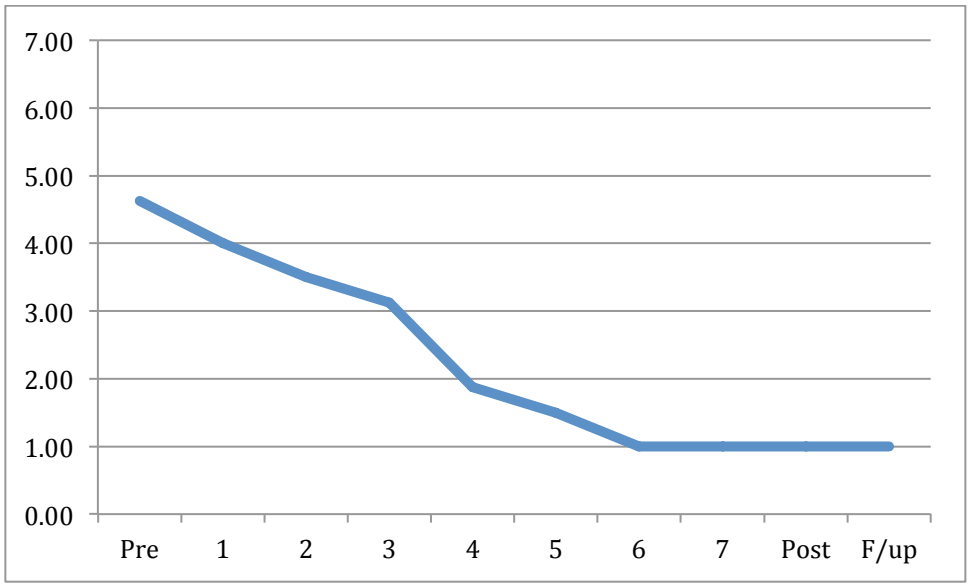

Figure 5. PQ item/problem mean scores across the study (Jane).

As seen in Table 10, Jane's mean baseline (pre-therapy) score of 4.63 was over the cut-off for clinical distress (3.5) and her scores at post-therapy and follow-up (1.00 and 1.00) were below this marker and also below the clinical change cut-off of 2.19, indicating clinically significant change (Jacobson & Truax, 1991). Jane's mean change at post-therapy (3.63) and at follow-up (3.63) is well beyond the minimum for reliable change (1.14).

Table 10.
Personal Questionnaire (PQ) Outcome Data (Jane)

	Caseness	RC	CC	Pre	Post	Pre-post Difference	1 mo. F/up	Pre-F/up Difference

PQ Mean scores	3.5	1.14	2.19	4.63	1.00*	3.63**	1.00*	3.63**

*Note. Caseness = cut-off for determining whether client is clinically distressed (Stephen, Elliott, & Macleod, 2001); RC =reliable change index, minimum value required for reliable change at p < .05. (Jacobson & Truax, 1991; Elliott, 2002); CC = significant clinical change cut-off at 2SDs from the mean (Jacobson & Truax, 1991). * = below CC; ** = greater than RC.*

Post-therapy AAI. Jane's post-therapy AAI transcript contained too little information to score for unresolved status, so unfortunately this could not be ascertained from this interview. The areas under question included the level of unresolved loss/trauma and the degree of derogation, which is related to the dismissing classification, and in this case it pertained specifically to Jane's references to her father rather than being global. There was agreement that the underlying classification was secure/autonomous. In many ways these observations are not surprising. Though Jane had worked with aspects of her trauma during this three-month study period it would not be surprising at all if more remained. The lack of clarity and conclusions to be drawn pertaining to the degree of residual patterns of dismissive defense regarding such an abusive father also remains a question.

Session-by-Session Synthesis of HAT & TSNQ data. This section is a significant reduction of the detailed commentary provided in these instruments by Jane and her therapist, which is included in the complete rich case record in appendix O. The aim here is to provide an overview of the therapy process; it is presented in Table 11 below. The client comments are taken from the HAT, which asks for events the client found helpful or important. The therapist comments and LI protocols used are taken from the TSNQ.

Table 11.
Therapy Process and Comments/Observations by Session (Jane)

Sess.	LI Protocol	Therapist Comments	Client Comments
1	None: intake session	Based on goals and family of origin info, chose Rel. Prot. as initial tool of choice	Therapist could tolerate my story; was validating
2	Relationship Pattern	The timeline repetitions shifted the client's bodily activation from nausea,	Gaining clarity about my patterns;

	Protocol	tightness that moved and softened until client reported being more coherent and grounded	easier to avoid continuing them
3	PTSD and bit of Standard Protocol	Chose PTSD protocol based on current event which [also] reminded her of a previous trauma	Working on trauma of losing sibling 30 years ago activated by helplessness of friend lost this week; reduced helpless feelings
4	PTSD Protocol	Insights about the nature of client's family system gained after each timeline	Getting genuine empathy allowed me to relax even more into the therapy
5	Relationship Pattern Protocol	[Working with] the relational pattern as it pertains to the client's mother	Created more ease in my body and in my emotions
6	Birth to Present Protocol	Reinforcing and/or creating the sense that being cared for is important in the client's life; creating a connected, cohesive story of the client's life	Displace[d] the internalized narrative that I must care for others, even to the exclusion of my own needs being met
7	Standard Protocol	Addressed one very difficult incident and completely clear that incident of its distress and feelings toward the man	Allowed me to let go of residual feeling toward father

Reported changes from Change Interview. At the post-therapy Change Interview, when asked about what changes she had noticed/experienced, Jane reported:

- Less anxious re meeting potential partner
- Less hesitant/withdrawn around meeting potential partners
- [Reduction in] lack of openness/confidence around potential partner
- [Reduction in] lack of self-trust around choosing potential partner
- [Reduction in] fear of rejection re potential partner
- More settled re family of origin feelings
- Less reactive around topic of family of origin
- [Reduction in feeling] vulnerable to codependence/caregiving w/ potential partner
- [Reduction in] sensitivity re own strengths [and how others perceive them]

Details and examples are found in the section with quotations from the Change Interview.

Change Scales.

Scale I. Expected (1) – unexpected/surprised by (5). Jane's scores on this scale were identical at post-therapy and at follow-up except for one item, which differed by one point. She rated two items as one (she expected change with these), one item at two (tended toward expecting change), and rated the remaining items at a four or five both times (with one three) meaning that the change itself or the degree of change was generally unexpected, and, she was largely surprised by most of them. According to Elliott (2002) if changes are unexpected it counters the possible role of wishful thinking.

Scale II. Without therapy, change likely (1) – unlikely (5). Jane's mean ratings on this scale were 4.22 at post-therapy and 4.67 at follow-up indicating that she considered them largely unlikely to have happened without the therapy. According to Elliott (2002) this is another opportunity for the client to indicate whether there were extra-therapy events or other dynamics that they attribute their changes to.

Scale III. Importance of the change, not at all (1) – extremely (5). Jane's mean ratings on this scale were 4.33 at post-therapy and 4.33 at follow-up indicating that these changes were between very and extremely important to her—in other words, not trivial.

Change Interview Comments. An abridged selection of post-therapy Change Interview content is listed in Table 12 and one-month follow-up content in Table 13 (appendix O contains the unabridged selection).

Table 12.
Post-therapy Change Interview Comments (Jane)

- *(What changes, if any, have you noticed in yourself since therapy started?)*
"Moderately more settled relative to my family of origin; less anxious about meeting potential partners; when I think about my family of origin it is much less, almost not reactive anymore."

- *(How important or significant to you personally do you consider this change to be?)*
"Very; extremely..."
- *(In general, what do you think has caused these various changes?)*
"I think it is 95% the therapy and 5% that I wanted it to happen"
- *(What would have made your therapy more effective or helpful?)*
"If I had done it twenty years ago!"

Table 13.
One-month follow-up Change Interview Comments (Jane)

- (*So how are you doing?)*
"I feel much more content I think, generally. Some of those 'edges' that had surfaced have been rounded and I am happy about that."
- *(In one HAT you said that 'the LI resolved the issue' – what did you mean by that?)*
"It means that I don't react. When I think about it I don't get activated; I don't get into flight or fight."
(*So given your experience in this field, what does that say to you?)*
"That it's powerful stuff. And, um, it also is something that the process of LI treatment is able to circumvent my intellect, so I didn't get in my own way, so I didn't actually stall myself or sidestep it…"
- *(If your PQ items [after session 5] are already at a level of bothering you 'not at all' there is no obvious correlation to your next sessions' work being 'very helpful'. How would you comment on this?)*
"I guess I would say that the Likert scale as I imagined the meaning of it was probably skewed. For instance I didn't know how 'not at all' or how 'good' a person could feel, and it got better."
- *(I am wondering whether your goal of finding a suitable partner was either not a priority earlier in your life, or perhaps it was not a priority because you didn't know how it would be met… How was LI hopeful now?)*
"I know, because it was very conscious, that I put aside the notion of finding a partner because I had been very bad at it. And I had been bad at it because of all my history and trauma."

Affirmative and skeptic case summaries. Based on the rich case record, the affirmative team indicated that Jane changed substantially over the course of therapy. The skeptic team concurred that there was positive change that was not trivial. According to the quantitative and qualitative evidence, Jane experienced clinically significant change in the issues that brought her to therapy. The affirmative team also indicated that the evidence supported the therapy as a

substantial direct cause of these changes. Strong evidence was apparent in five of the five areas suggested by Elliott (2001, 2002): retrospective attribution by the client, process-to-outcome mapping, within-therapy process-outcome correlations, changes in stable rather than acute/recent problems, and event-shift sequences. The skeptic team raised questions around the role of expectancy, confirmatory bias, investment in therapy, and common factors of therapy including support and care. The affirmative rebuttal focused on Jane's strong sense of independence, her experience to differentiate common factors, and her very specific attributions.

Adjudication Results: Jane. The responses to the first question put to the three adjudicators: "To what extent did the client change over the course of therapy?" were: "considerably/60%," "moderately/40%," and "substantially/80%." The responses to the qualifying question of how certain they were, were 20%, 60%, and 80% certain.

The responses to the second question put to the three adjudicators: "To what extent is this change due to therapy?" were: "substantially/80%," "considerably/60%," and "substantially/80%." The responses to the qualifying question of how certain they were, were 100%, 80%, and 80% certain.

Summary of Results for all Three Cases

Each of the three adjudicators wrote commentaries to elaborate their evaluations in ways consistent with their different areas of expertise (see APPENDIX P and discussion chapter). Overall, the average of the adjudicator responses over the three cases for the question: "To what extent did the client change over the course of the therapy?" was 73% (past 'considerably/60%' and approaching 'substantially/80%'), and they were an average of 76% certain of this assessment. The average of the adjudicator responses over the three cases for the question: "To

what extent is this change due to the therapy?" was 76% (even closer to 'substantially/80%'), and they were an average of 84% certain of this assessment.

The overall results of these three mixed methods case studies indicated that each of the three participants experienced clinically significant change with the issues that they brought to therapy, and there were multiple forms of evidence for direct causal attribution to the LI therapy specifically for each case. The skeptic team raised possibilities and questions but did not point to clear evidence that successfully challenged these conclusions. The further examination, observations, and ratings by the three independent judges once again support these findings with ratings approaching 'substantial/80%' to both key questions. The strength of these findings provide an answer to the first research question of the efficacy of LI therapy: there is evidence that Lifespan Integration therapy is efficacious with chronic or enduring issues that are connected to a history of sub-optimal attachment and/or complex trauma as demonstrated in these three cases.

The second research question asks whether the findings of this study of LI therapy will demonstrate an alignment between LI therapy processes and targeted outcome variables and the established theoretical underpinnings of the challenges individuals with a history of sub-optimal attachment and/or complex trauma face. Findings relating to this question will be addressed in the implications section of the next chapter.

CHAPTER 5: DISCUSSION

In this chapter the results and data are considered in light of the underlying theoretical framework that provided the lens for this study. The second research question in this study asked whether the data will support the concept that LI therapy processes do what they intend to: to work in the realm of neurobiology to foster integration and other markers for secure attachment and good mental health. What have we learned? How may it matter? Where do we go from here? These are the questions addressed now.

The effectiveness of LI's therapy processes and targeted clinical outcome variables in relation to theoretical research, as well as other potential contributions to clinical understanding and practice, is addressed in the implications section of this chapter. This will be done by looking at how LI's treatment protocols, as demonstrated in these three case studies, align with what is known about the etiology of chronic or enduring issues via the established theoretical framework of attachment theory and the interdisciplinary advances contributing to social neurobiology. Reflecting on the data gained in this study provides an opportunity to also identify implications that may be potential areas of contribution to clinical understanding and practice. Reflections on methodological and other limitations encountered in this study as well as on future directions are in the considerations section.

Implications

Connections between theory, LI protocols, and results. Is there alignment between the LI treatment protocols, the underlying theory, and the results demonstrated in this study? If so, what does the data seem to be indicating? Every one of the LI treatment protocols employs a timeline and therefore aims to thereby facilitate increased integration on a neurobiological level—this is a fundamental process that LI is designed to facilitate. All but one of the LI

protocols can also be conceptualized by its primary treatment goal or process variable that it targets: structure-building and trauma clearing. According to the literature reviewed in chapter two, attachment patterns formed in childhood can be viewed as survival strategies or adaptations that make sense for the environment in which they were created. As the child grows up and the environment changes, these early patterns or adaptations can be of great benefit and/or they can also be significant liabilities. The LI foci of structure-building, trauma clearing, and neural integration are directly related to what conceptually happens in the realm of neurobiology in those with different attachment histories and patterns.

Structure-building. Based on the literature, an individual with a history of secure attachment as a child, who experienced a consistent and effective way to regulate his or her emotional arousal and experienced no other major losses or traumas, would have the internal self and regulation structures that then generally help him or her develop into an adult with social competence, ego-resilience, personal efficacy, positive relationships, and continued capacity for emotional regulation (Belsky & Cassidy, 1994; Lyons-Ruth & Jacobvitz, 2008; Prior & Glaser, 2006; Schore, 2005; Sroufe, 2005). These helpful internal structures viewed from the lens of neurobiology and attachment theory would be neural networks that support effective, flexible, and resilient affect regulation, and internal working models of self and others that promote trust, ego-strength and desire for relationship that is mutually rewarded and reinforced in positive ways.

The LI Birth to Present protocol is specifically designed to help build these very helpful neural structures that are either missing entirely in the severely neglected, or chronically underdeveloped in many individuals with less than secure attachment histories. Two of the participants in this multiple case study received Birth to Present (BP) protocol as part of their

treatment: Kappa and Jane. Comments from their therapists via the TSNQ are quoted below in order to provide insights into their rationale for employing this protocol: (Jane's therapist, session 6) "Reinforcing and/or creating the sense [of] being cared for is important in the client's life…the client needs to have the internal framework [of being] lovingly cared for in order to choose better men." She also noted: "creating a connected, cohesive story of the client's life via the BP" as a helpful event in this session. Kappa's therapist wrote (session 7): "Client reported . . . and gave a confusing story. This was helpful for me to case plan. We agreed to set relationships aside in our LI work and redirect our focus towards building greater core resiliency through BP."

Comments from Jane's and Kappa's HAT forms in response to these sessions include: (Jane, session 6) "The therapist's narrative about my baby self being cared for and nurtured by others . . . displaces the internalized narrative that I must care for others, even to the exclusion of my own needs being met." Kappa wrote (session 7): "[Therapist] had me imagine I was the child, and protected. I felt a [sic] overwhelming sense of peace come over me, I felt like someone truly cared for me. I still feel at ease!" Later in the post-therapy and follow-up interviews both Jane and Kappa made comments reflecting changes in the way they felt about/in themselves. Jane's comments included: "[I feel] much more at ease, comfortable in my own skin" and, "I feel much more content I think, generally . . . Just a little easier in my skin, just sort of happier maybe a little bit. Less irritable when issues come up that relate to the issues I was working on." Kappa's post-therapy and follow-up comments included: "I kind of felt, like stability in myself," "boundaries. I have boundaries!" and "I think especially with Birth Protocol, like before this I would just be floating through my days . . . it brought me down into my body, and gave me a better sense of what I think of myself."

These sections of the data seem to indicate that the participant's whose sessions (in Jane's case only one, and in Kappa's case, four sessions) included the most direct LI structure-building protocol (Birth to Present) did experience positive change and growth in their self and emotion regulation structures. Each of the selected comments describes aspects shared by those with secure attachment mentioned above. In this regard there is a clear connection between the aims and methods of LI, its protocols, and the underlying theory, which appears to have been effective to some measure.

Trauma clearing. The phrase 'trauma clearing' in this context refers to a summative label used in LI literature that refers to not only traumatic events (as per criteria for PTSD diagnoses), but memories or events that represent a source of distress that affects clients in disproportionate ways in the present, unhelpful relational patterns that resulted from dysfunctional or abusive relationships, and other artifacts of abuse, trauma, or relational harm. Based on the literature and in neurobiological terms, these artifacts tend to represent compromised neural networks for emotional regulation and various types of fragmentation or dissociation via the interaction between non-conscious emotion, implicit memory, and meaning-making. According to Schore (2000) they are often related to sub-optimal attachment histories and represent "dysregulation of social, behavioral, and biological functions that are associated with an immature frontolimbic control system and an inefficient right hemisphere" (p. 36). LI protocols focused on the treatment variable of trauma clearing aim to not only bring new corrective emotion and felt experience to these memories and patterns, but via the use of the timeline in each of the protocols, to counteract the 'immaturity' of the neural system and the 'inefficiency' of the hemisphere by facilitating neural integration and thus higher, more adaptive functioning.

Each of the participants in these case studies had sessions with trauma clearing protocols. Standard protocol and PTSD protocol are the protocols that target trauma most directly, but Relationship Pattern protocol is a variant that is also in this category. Selected relevant comments from the therapists and the participants are quoted in order to shed light on the connection between the theoretical, the LI protocols, and the data. Each participant's PQ items directly or more indirectly reflected issues that had roots in childhood abuse and trauma. Some of Felicity's comments about the most helpful events in a session included: "Was able to clear the house in my memory—no one is in my room . . . there is a sense of peace," and "Got to hold and soothe my 10 year-old self and reduce her distress as well as my own about the memories." In Felicity's post-therapy interview she reported: "I wouldn't say I'm never going to think about those issues again, but it's more . . . I've done something about it. And I have diffused the energy around it."

Kappa reported: "I got in contact with my 'little' self. I confronted the situations that I was struggling with and dealt with memories that I had repressed." Kappa's therapist's notes included the following observation: "[Kappa] was able to emote anger towards individual in [the] source memory and by the end of the next TL (timeline reported a feeling of 'ease and calm'." Jane's session comments include: "working on trauma of losing brother 30 years ago . . . which was activated by [losing friend this week] . . . reduced helplessness feelings" and "the relationship protocol . . . created more ease in my body and in my emotions." Jane's post-therapy comments included: "so that [new freedom] is a direct result of the work we did around some trauma . . . I've processed it and it's over for me" and "I don't react. When I think about it I don't get activated; I don't get into fight or flight. It also means that I probably won't think about it."

These selections from the data seem to support the effectiveness of the LI trauma clearing protocols for compromised neural networks for emotional regulation tied to non-conscious memories or patterns tied to adverse experiences often from childhood.

Neural integration. The concept of integration has been used for many years and in many ways in the field of psychology. The idea of being integrated seems logically tied to the concept of health, similar to something like resilience. Two salient questions are: how important is integration in the process of increasing mental health, and, how does one achieve this? In LI, the concept of integration refers to the neurobiological concept of neural level processes where neural networks (sometimes referred to as ego-states) that involve such things as implicit memory, emotion, and meaning-making that might have never been integrated from childhood, or have been split-off or fragmented and are largely un- or sub-conscious, are increasingly connected with and incorporated into more adaptive networks of the adult core self. This process follows a complex systems theory concept for the basis of higher-functioning and resilience (Siegel, 1999/2012), and is accomplished via the part of the LI protocols in which a timeline of cues, memories and images from the client's life is engaged. The repeated journeys through the timeline, with an attuned therapist who helps manage the client's level of arousal or activation, enable the client's neural system to build new and more adaptive connections and to develop a coherent sense of self through time that also supports higher-functioning and resilience. The process of disrupting old patterns or neural networks and building new networks is begun in therapy and conceptually continues based on that momentum. Positive changes via client report and behaviour may be apparent relatively soon but it is believed (and it is logical) that substantial neural change takes time. This is further discussed in the considerations section.

There are several examples from the data gathered in this study where work targeting a specific trauma memory or relationship resulted in not only relief of distressing feelings or behaviour related to the specific memory, but also in a more generalized change in feelings and behaviour. For example, in her post-therapy interview, Felicity reported:

> I feel less reactive about a lot of things that I was pretty reactive about before . . . I had a bit of a shift; I knew this intellectually, but I feel like I feel it more whole body now—that the problem is not 'out there' it's 'in here.' It is internal reactivity that is the problem that is keeping me from achieving reconnection with my brother and sister-in-law *and a lot of the other things*. (post-therapy interview, APPENDIX M)

Felicity's realization that the problem was not specific to the person or circumstances is a higher-functioning response and allows for more adaptive options on how to deal with this situation *as well as other ones* in which she finds herself being reactive, and the theory is that the work with the timelines facilitated this. It is also interesting that she reports that she knows this in her body now whereas before she knew it intellectually—this 'body' knowing is a worthwhile topic in itself.

There are examples of generalized growth and higher-functioning that may reflect at least the disruption of the old hindering or split-off neural networks if not also the beginnings of new connections from Kappa's case as well. Kappa's therapeutic work focused on some specific relationships and traumatic events (as well as structure-building sessions), and yet Kappa was able to report:

> I had really negative—I wasn't able to be in relationships; I was a bad friend. I have become more trusting of people. . . . I think I really struggled with relationships with

> guys and boundaries. . . . Like [now] I have my own boundaries, I know like what to do and what not to do . . . (follow-up interview, APPENDIX N)

These comments of Kappa's indicate a generalized personal growth that has also affected her relationships globally. Jane's case is more complex in this regard for she was already high-functioning and though she reported significant change in the issues that brought her to therapy there were no obvious globalized improvements except that she reported "more of a sense of freedom . . . much more at ease, comfortable in my own skin" (post-therapy interview, APPENDIX O).

These examples of more globalized positive changes are the type of results expected with greater integration: greater flexibility, adaptability, resilience and higher functioning. These do not 'prove' that neural integration was increased, but they are observations that support the theory.

Meta-data process to outcome support. It should also be noted that in the development of the affirmative cases (see APPENDICES M, N, and O), the within-therapy process-to-outcome correlations were evident in all three of the cases, which again supports the strong correlation between the treatment goals and protocols of LI and client change. The question of evaluating the effect of common factors is according to Judge A "a red herring [because] it is virtually impossible to not provide common factors" (APPENDIX P). LI, as any other therapy, is certainly enhanced by the presence of excellent common factor therapeutic skills such as genuine caring and attunement and makes use of these highly valued and common ingredients in its own combinations and emphases. LI has very specific protocols that were clearly engaged in each session (except intake sessions) and which resulted in specific identifiable outcomes that were directly related to the protocol's goals. Examples of the therapy processes or mediators for

change that were considered helpful by the adjudicators (APPENDIX P) were considerably specific to LI and included: the LI protocols in general, adapting/attuning/choice of protocols according to client's needs in sessions, timeline repetitions: decreasing reactivity and integrating material from childhood memories into the present, and focusing on a specific memory to get to an understanding of patterns.

Summary of implications. These selections from the data seem to support not only the effectiveness of the LI protocols, but the integral link between their therapeutic purposes (structure-building, trauma clearing, integration) and the underlying theory that speaks to the etiology of enduring and/or chronic issues with roots in early development and/or trauma. The direct theoretical links between etiology and treatment is compelling and may provide a grounded reason for the apparent indication of reasonably rapid change.

It should also be noted that along with the theoretical alignment, the structure-building, trauma clearing, and integration components of LI find parallel priorities in the three phases identified as the current standard of care for complex trauma (symptom reduction/stabilization, trauma processing, and life integration and rehabilitation) (Steele, van der Hart, & Nijenhuis, 2005; van der Kolk, & Courtois, 2005). The links are not coincidental, but are common results of accumulated clinical experience that call for further study (van der Kolk, & Courtois, 2005[65][66]).

Additional contributions to clinical understanding and practice. The data from these case studies also point to processes or aspects of LI that proved to be clinically helpful to these participants. Some features of LI are mentioned here briefly as concepts to consider as potential contributions to clinical understanding and practice. They may also point to fruitful areas to study further.

LI is a mind-body therapy, meaning that it uses right-brain communications such as attunement (Schore, 1994) as well as somatic information as key sources of information and as tools. LI uses memories from the client's life, and works with them not so much cognitively as engages with them on a mind-body level. The therapist's attunement and pacing is crucial to keep the client from being retraumatized by levels of emotion that are overwhelming, and allows for a relatively gentle way to deal with very difficult material. The fact that LI is a mind-body therapy has several additional benefits or features:

- It provides a way to access/treat pre-verbal or implicit memories and experiences that individuals know via their history of symptoms but don't 'remember.'
- It does not heavily rely on clients being able to verbalize their feelings or evaluate their thoughts, rather, the body provides valuable information.
- The results are also experienced first on a mind-body level, which means they do not rely on being intellectually 'remembered;' akin to muscle-memory in sport it is learning on another level.

Some examples from the data include:

- "It's powerful stuff. And, it also is something that the process of LI treatment is able to circumvent my intellect, so I didn't get in my own way, so I didn't actually stall myself or sidestep it" (Jane, follow-up interview, APPENDIX O).
- "The relationship protocol created more ease in my body and in my emotions" (Jane, HAT session 5, APPENDIX O).
- "I can talk about my dad now without basically choking up and like I feel so like free from all these issues that were just kind of hampering me and not let me do things" (Kappa, follow-up interview, APPENDIX N).

- "Therapy gave me, really being with yourself, I can just read myself better because of that" (Kappa, follow-up interview, APPENDIX N).
- "Put it this way, I expected [the change] based on what other people reported, but to really feel it was a surprise. I intellectually knew what we were going for, but to feel it was a surprise" (Felicity, post-therapy interview, APPENDIX M).
- "I feel more grounded in today, and more present with who I am" (Felicity, post-therapy interview, APPENDIX M).

Each of these aspects might be worthy of focused study. They represent a few of the concepts that contribute to make LI quite a thoughtful and thorough treatment method for the often complex types of issues that have their roots in chronic and/or enduring issues connected to early adverse histories—the very clinical context in which they were developed.

Considerations

Methodological considerations. Overall the HSCED design proved to be a solid and robust tool for accomplishing its goals of examining treatment efficacy, and thereby to contribute to evidence-based practice. For the most part it was easily adapted for use in this multiple case version in the naturalistic setting of the three different therapist's offices.

Two questions did arise that would be useful for future studies had to do with the adjudication. The HSCED had already evolved in response to previous feedback that judges wanted to be able to give scaled responses rather than yes or no to questions such as 'did the client change?' and this seems like a useful development. A further useful development might be to work on a clear definition of "completely/100%" in order to facilitate the judges working from the same definition. As per Jacobson and Truax (1991) and their attempts to assist in defining meaningful measures or calculations for a quantifiable definition of clinically

significant change where no normative quantitative data exists, perhaps this would be a worthwhile definition to pursue.

Another consideration that came to light in the adjudication process is that though it is robust and balanced to recruit judges with varying areas of expertise, this may generate very different views on specialized aspects of cases. This divergence of views, largely based on the need for specific expertise, occurred in this study in relation to interpretation of the AAI data. The AAI data are discussed further in the following section.

These considerations are made from within the paradigmatic assumptions of the HSCED, however the project is available for review to a wider audience of scientists and scholars with differing philosophies of science. These readers may raise questions and disagree about things such as the assigned roles of data review and interpretation. For example, in this study, the task to identify potential alternative explanations of therapeutic change was assigned to the skeptic teams, considered in the adjudicators' overall conclusions, and presented by the author and principle investigator.

AAI data considerations. Interpretation of the AAI data in these case studies is benefitted by discussion for several reasons. On the one hand, there is substantial support for the use of, the appropriateness of, and the reliability of the AAI as reported in the literature review section. On the other hand, the majority of the published AAI data relates to group-based research investigating a variety of attachment-related issues and concerns rather than the use of the AAI in therapy outcome research, and even less in short timeframes, which makes interpretation more challenging. Crowell and Hauser (2008) report that, "there have been very few investigations of stability and change of attachment patterns in clinical samples in adult life . . . investigating stability-change in psychotherapy patients" (p.342). Van IJzendoorn and

Bakermans-Kranenburg (2008) affirm that most attachment-based studies of clinical samples are descriptive and correlational, and write that: "we need more intervention studies demonstrating the effectiveness of specific therapies for the improvement of attachment security in persons with clinical disorders" (p.90).

Within the context of breaking relatively unfamiliar territory, the AAI data in this study raised some exciting questions and directions for future study. For example, Kappa's pre-therapy outcome measures showed clinical levels of symptomology, and her pre-therapy AAI provided a coherent context for the symptomology but was classified as secure. Kappa's post-therapy outcome measures showed significant clinical change and her post-therapy AAI was classified as unresolved/dismissing. Felicity's classifications were unresolved/secure and then (resolved) preoccupied, and Jane's showed an emerging derogation of her father. How did the relatively short three-month timeframe play a role? Was the second administration of the AAI too soon after trauma therapy to capture a more 'settled' snapshot, and instead captured states that indicated that reorganization/integration was in process? In Kappa's case, did the first AAI administration capture a high-functioning self-state that drew from her experiences with her stable/caring grandmother and not locate the trauma that Kappa had repressed? Kappa's 'secure' AAI at pre-therapy did not reflect the full richness of flexibility and creativity of the prototypical secure classification, but rather was deemed secure due to its 'fairly coherent narrative and her ability to comment on effects of adverse experiences' (APPENDIX N). All these are questions that provide intriguing ground for further study.

In Crowell and Hauser's study (2008) of attachment pattern stability in a high-risk sample (across 13 years) they make some pertinent observations about the potential nuances of AAI data including: "it is possible that a subset of individuals manifest 'signs' of preoccupation

only under some conditions" (p.364) and that though the majority of their sample showed attachment stability, recent life events may influence classification results. Recent therapy, perhaps especially trauma therapy, could easily be considered the type of 'recent life event' that would (ideally) disrupt patterns and facilitate positive change. Becky Stewart, an adjudicator in this study with specific expertise in attachment theory and the AAI, made some helpful observations as well (see APPENDIX P). In her reports regarding Felicity's as well as Jane's cases she wrote: "Often resolution of unresolved states of mind toward greater security do so by first shifting toward an insecure organized state of mind with regard to attachment."

Overall, the AAI data in these case studies provoke fascinating questions and considerations for further follow-up and investigation.

Limitations[67]**.** As a multiple case study within the context of questions of efficacy and theoretical and clinical learning, this study is not the type from which generalizations are made. The purpose and scope of the study are focused on the two research questions and what can be learned through the attempt to answer them within the specific context and configuration of the individuals involved. The three participants varied in age, each roughly twenty years apart (20, 40 and 60), however they were all female Caucasians who had grown up in North America.

At the current time there does not appear to be a standard or even experimental method for 'measuring' neural integration. It is hard to predict when continuing advances in neuroscience and the equipment developed in this field will make measurement of increases in neural integration (increased dendrite-synapse connections in all pertinent brain areas) as direct and reliable as measuring heart rate. In the interim, conceptual theory, observations, and correlations with research support (such as between coherence, integration and higher

functioning) provide guidance and some indications but not in ways that allow for definitive assertions.

Future directions. In direct response to the limitations, expanding the demographics in further study with children, men, and individuals from different cultures are obvious directions for future study. Continuing with the use of naturalistic settings could be very helpful. There are also abundant points of interest on a theoretical or clinical level that would merit further study, several of which have been mentioned or alluded to in this chapter already (accessibility to and effectiveness with those so traumatized they can not tolerate other trauma therapies that require greater exposure for example). LI seems to be a promising new therapy on many levels and research has only just begun—there is much to do and learn[68].

Conclusion

Adverse developmental and childhood circumstances such as trauma and abuse are known to have profound, often lifelong affects, causing significant distress and coping challenges. They are often difficult to treat and are known to often take considerable time, which makes effective treatment inaccessible or prohibitive for many. Relatively recent advances in what is known about how the brain works have contributed to many disciplines as well as to therapy interventions. LI is a newer intervention that developed out of a desire to seek and apply new understandings in a way that would make therapy more effective for those suffering with these sorts of histories and complex issues. This multiple case study aimed to investigate LI's efficacy and to seek evidence for how it was working that might contribute to clinical practice and understanding, and ultimately to making more effective therapy available to all who could benefit from it. The results of this multiple case study indicate that each participant experienced clinically significant positive change in the issues that brought them to therapy within seven to

eleven sessions, and that the LI treatment goals and methods seem to be directly aligned with the underlying theories upon which it is based. There is a great deal of promise indicated by these results, as well as direction for clinical understanding, practice and further study.

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APPENDIX A

TRINITY WESTERN UNIVERSITY

CONFIDENTIALITY AGREEMENT

As an assistant or consultant to the *Lifespan Integration Efficacy* study, I acknowledge that I am in a place of significant trust and responsibility related to participant identification, data, and confidential matters. I acknowledge that wisdom and great discretion must constantly be exercised to keep in strict confidence information made available to me during the course of my work as well as when communicating by phone or electronically.

I acknowledge that I must encrypt and password protect electronic data and take all care with paper documents, storing them in locked cabinets when not in use.

Information for Non-Disclosure. The protection of confidential participant information is vital to the success of this study. Such confidential information includes, but is not limited to, the following:

- Computer Passwords
- Participant Identification
- Field notes
- Data gathered
- Transcripts and analysis

I have read the above Confidentiality Agreement and am willing to be bound by its terms both during and after my work with this study.

_____	_____	_____
Assistant Name:	Signature:	Date:
_____	_____	_____
Witness:	Signature	Date:

APPENDIX B

Recruitment Brochure (side 1)

The purpose of this study

- To learn about whether people receiving Lifespan Integration therapy experience helpful change or not.

- To learn about what happens in the process.

- To learn about how Lifespan Integration therapy facilitates helpful change.

- To contribute to the knowledge available regarding what makes for good and effective therapy.

If you would like to contribute to this process by taking part in this study while you receive your Lifespan Integration therapy please contact us for more information.

For more information, or to participate

For more information,

or to participate,

please contact:

Monica Hu

monica.hu@mytwu.ca

or

Dr. Janelle Kwee, R. Psych.

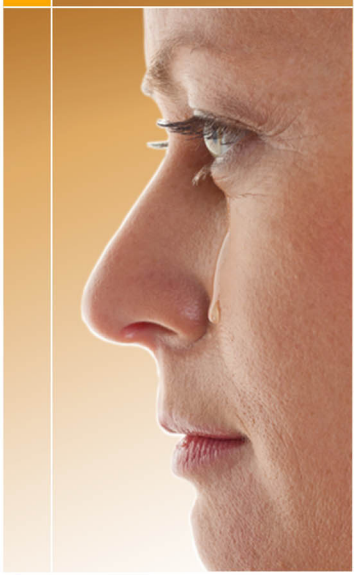
janelle.kwee@twu.ca

TRINITY WESTERN UNIVERSITY

Dept. of Graduate Studies, Counseling Psychology
Trinity Western University
Langley, B.C.

What helps and how?

A research study investigating the effectiveness of Lifespan Integration therapy



Recruitment Brochure (side 2)

Answering questions...

What causes symptoms of psychological distress—depression, hopelessness, anxiety, anger, or interpersonal problems?

What underlies their intensity? Why are some events or symptoms challenging to some and debilitating to others?

What can individuals do to address these issues? What is the underlying need? What kinds of help are effective?

How do types of help get known for being effective? How are they evaluated?

This study aims to investigate the effectiveness of Lifespan Integration therapy.

"LI holds promise that deserves to be investigated."

- Monica Hu

New research and insights into what is going on internally at the neurological level have influenced new treatment interventions and therapies.

It is the intent of this study to investigate the efficacy of one such relatively new therapy: Lifespan Integration (LI) therapy. Using a gentle approach combining established therapeutic practices with a unique use of a timeline feature, LI therapy purports to specifically target the underlying neurological structures that are affected by developmental and other trauma.

After over ten years of informal results it is time to do more formal research.

This research study uses an approach to evaluating treatment in naturalistic clinical contexts. This means that participants have their therapy and the research interviews in the same place – the therapist's office.

Who can participate?

We are looking for individuals who are seeking LI therapy and would like to participate in the research as well.

When is it?

The timeframe for the research therapy is during the first months of 2014 – January through March, with interviews at the beginning and end of this period as well as one month after that.

Who will conduct the study?

The researcher doing the interviews will be Monica Hu, student in the Master of Counseling Psychology program at Trinity Western University.

Who will the LI therapists be?

The therapists are highly trained, authorized LI consultants and experienced therapists in Bellevue & Bothell, WA.

APPENDIX C

TRINITY WESTERN UNIVERSITY

Lifespan Integration Efficacy Study Information

Description of Lifespan Integration: Lifespan Integration (LI) is a therapy that aims to enable clients to integrate difficult past experiences that compromise current functioning into their lives through therapeutic work that includes repetitions of a timeline comprised of real memories from their lifespan. By integrating the real life memory, clients heal their previous hurts and spontaneously think, feel, and act in healthier ways regarding their presenting problems.

Purpose: The purpose of this research study is to learn about whether people receiving Lifespan Integration Therapy experience helpful change or not, and to learn about what happens in the process. The purpose includes gathering details about what was helpful or not helpful as well as information on how and when any changes were noticed or experienced. No matter what the specific results are, the purpose for gathering this information will contribute to the knowledge available regarding what makes for good therapy.

Procedures: There are four 'parts' to this study:

1. Shortly before your first therapy session the principal researcher will meet with you and:
   - ask you to fill out a 34-item check-box type questionnaire about your symptoms
   - work with you to identify goals for your therapy
   - conduct an audio-recorded interview to gather background information.

   (The interview is recorded to assist the researcher in not needing to take notes and will be kept strictly confidential and anonymous – see confidentiality section.)
   This meeting will take approximately 1 ½ to 2 hours.

2. The three-month therapy phase where you have 6-12* therapy sessions with your therapist and:
   - before each session you will be asked to rate how things are going with your goals
   - after each session you will be asked to fill out a form about what was/wasn't helpful.

   These will take approximately 30 minutes per therapy session (not during therapy time).
   * The exact number/frequency of sessions between 6 and 12 will be decided between you and your therapist depending on your needs/situation and also allows for missed appointments if needed.

3. After the last therapy session for this study (i.e. after three months), the researcher will meet with you again and:
   - ask you to fill out the 34-item check-box type questionnaire again
   - conduct another audio-recorded interview similar to the first as well as questions about noticing or experiencing change or other interesting events during the last three months.

   This meeting will take approximately 1 ½ to 2 hours.

4. A final follow-up meeting very similar to the last one (#3) but after a little more time has passed – a month or so after the last meeting. Time will also be provided to debrief about the whole experience, discuss questions you may have about the study, and thank you for your participation.
   This meeting will take approximately 1 ½ to 2 hours.

A summary of the results of this study will be available to you and mailed/emailed if requested approximately one to two months after the follow-up meeting.

Potential Risks and Discomforts: Participating in the procedures described above (questionnaires, forms, interviews) may stir up thoughts, memories or feelings that are uncomfortable or distressing. If this happens at a level beyond what you can manage during a meeting you can stop the process and/or discuss what is happening for you at any time. The therapy process will help with these experiences and discussing this with your therapist is suggested. If you should need help beyond this you can ask for referrals. You may also withdraw from the study at any time (see below).

Potential Benefits: Beyond the benefits that come from the therapy directly, participating in this study provides more opportunity to learn about, reflect on, and discuss your situation and experiences. These sorts of opportunities may provide new perspectives, help solidify change, or offer unexpected experiences that may be beneficial to you.
Your participation in this study will also contribute to knowledge used in research as well as in professional therapy practice about how various treatment types work to help people. Indirectly, you will have contributed to the common good, especially to people with similar challenges as yourself.

Confidentiality: Your identity and any information that you provide in connection with this study will remain strictly confidential. Exclusion to this confidentiality is if you reveal intent to harm yourself or others, then we are required by law to inform the appropriate authorities. You will be given a pseudonym (of your choosing) that will be used on all documents and forms that are in use during this study. Electronic data will be securely encrypted, and all paper documents will be kept in a locked filing cabinet. In accordance with strict research practices and standards, once the study is complete the data will be locked in a secure filing cabinet at the Counselling Psychology department at Trinity Western University for ten years after which it will be destroyed.

Remuneration/Compensation: Participants will be given a $50 gift card at the completion of the study. Therapy fees are set by the therapist.

Withdrawal: You may withdraw from the study at any time with notification to the principal investigator verbally or in writing. Upon withdrawal from the study any collected information will be deleted/shredded and will not be incorporated into the study results. If withdrawal occurs after the study is complete, anonymized non-identifying information incorporated into the results will not be destroyed.

Consent: If you are selected you will be presented with this information again along with a chance to ask any questions. If you choose to participate you will be asked to sign a consent form.

Please email Monica Hu (monica.hu@mytwu.ca) with your phone number and good times to reach you for a short phone interview if you are interested in participating in this study.

APPENDIX D

TRINITY WESTERN UNIVERSITY

Date _____

Lifespan Integration Efficacy – Pre-study Screening Form

First Name: _____ Last Name: _____

Birthdate (mm/dd/yy): _____

Address: _____

City: _____ State, Zip: _____

Phone: _____Are messages okay? ☐ Yes ☐ No

Email: _____ Preference: ☐ Phone ☐ Email

Health and General Information

1. Are you currently receiving psychiatric services, professional counseling, or psychotherapy elsewhere? ☐ Yes ☐ No If yes, where? _____

2. Which medications/drugs are you currently taking? Please include herbal remedies, recreational drugs such as marijuana, as well as anti-anxiety or depressants, pain-killers etc.

_____

3. Please list any persistent physical symptoms or health concerns _____

_____

4. What brings you to seek therapy at this time? (if you need more space please use the back of the page) _____

_____

_____

5. Would you be available for therapy during the months of January - March 2014, as well as for three other meetings: one before therapy starts, one soon after it ends, and a final meeting one month later? ☐ Yes ☐ No. Comments/details: _____

_____

6. What is your opinion of the role of research? What do you think you might get out of participating in this study? Do you have reservations/questions about any aspects of research in general or this research in particular (from what you know about it so far)? (if you need more space please use the back of the page) _____

_____

_____

_____

_____

_____

_____

7. How did you hear about Lifespan Integration therapy and this research study? _____

_____

_____

_____

APPENDIX E

TRINITY WESTERN UNIVERSITY

AGREEMENT TO PARTICIPATE

Research Study Title: Lifespan Integration Efficacy

Principal Investigator: Monica Hu, MA Student
Counselling Psychology Department, Trinity Western University
Email: monica.hu@mytwu.ca
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Co-Investigator: Dr. Marvin McDonald, Program Director
Counselling Psychology Department, Trinity Western University
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Phone: 604-513-2034

Purpose: The purpose of this research study is to learn about whether people receiving Lifespan Integration Therapy experience helpful change or not, and to learn about what happens in the process. The purpose includes gathering details about what was helpful or not helpful as well as information on how and when any changes were noticed or experienced. No matter what the specific results are, the purpose for gathering this information will contribute to the knowledge available regarding what makes for good therapy.

Procedures: There are four 'parts' to this study:

5. Shortly before your first therapy session the principal investigator (Monica) will meet with you and:
   - ask you to fill out a 34-item check-box type questionnaire about your symptoms
   - work with you to identify goals for your therapy
   - conduct an audio-recorded interview to gather background information.

   (The interview is recorded to assist the researcher in not needing to take notes and will be kept strictly confidential and anonymous – see confidentiality section.)
   This meeting will take approximately 1 ½ to 2 hours.

6. The three-month therapy phase where you have 6-12* therapy sessions with your therapist and:
   - before each session you will be asked to rate how things are going with your goals

- after each session you will be asked to fill out a form about what was helpful/not helpful.
These will take approximately 30 minutes per therapy session (not during therapy time).
* The exact number/frequency of sessions between 6 and 12 will be decided between you and your therapist depending on your needs/situation and also allows for missed appointments if needed.

7. After the last therapy session for this study (i.e. after three months), Monica will meet with you again and:
 - ask you to fill out the 34-item check-box type questionnaire again
 - conduct another audio-recorded interview similar to the first as well as questions about noticing or experiencing change or other interesting events during the last three months.
This meeting will take approximately 1 ½ to 2 hours.

8. A final follow-up meeting very similar to the last one (#3) but after a little more time has passed – a month or so after the last meeting. Time will also be provided to debrief about the whole experience, discuss questions you may have about the study, and thank you for your participation.
This meeting will take approximately 1 ½ to 2 hours.

A summary of the results of this study will be available to you and mailed/emailed if requested approximately one to two months after the follow-up meeting.

Potential Risks and Discomforts: Participating in the procedures described above (questionnaires, forms, interviews) may stir up thoughts, memories or feelings that are uncomfortable or distressing. If this happens at a level beyond what you can manage during a meeting you can stop the process and/or discuss what is happening for you at any time. The therapy process will help with these experiences and discussing this with your therapist is suggested. If you should need help beyond this you can ask for referrals. You may also withdraw from the study at any time (see below).

Potential Benefits: Beyond the benefits that come from the therapy directly, participating in this study provides more opportunity to learn about, reflect on, and discuss your situation and experiences. These sorts of opportunities may provide new perspectives, help solidify change, or offer unexpected experiences that may be beneficial to you.

Your participation in this study will also contribute to knowledge used in research as well as in professional therapy practice about how various treatment types work to help people. Indirectly, you will have contributed to the common good, especially to people with similar challenges as yourself.

Confidentiality: Your identity and any information that you provide in connection with this study will remain strictly confidential. Exclusion to this confidentiality is if you reveal intent to harm yourself or others, then we are required by law to inform the appropriate authorities. You will be given a pseudonym (of your choosing) that will be used on all documents and forms that are in use during this study. Electronic data will be securely encrypted, and all paper documents will be kept in a locked filing cabinet. In accordance with research practices and standards, once

the study is complete the data will be locked in a secure filing cabinet at the Counselling Psychology department at Trinity Western University for ten years after which it will be destroyed.

Remuneration/Compensation: Participants will be given a $25 gift card.

Withdrawal: You may withdraw from the study at any time with notification to the principal investigator verbally or in writing. Upon withdrawal from the study any collected information will be deleted/shredded and will not be incorporated into the study results. If withdrawal occurs after the data analysis, anonymized non-identifying information incorporated into the results can no longer be removed.

Contacts (regarding this research study): If you have any questions or desire further information with respect to this study, you may contact Monica Hu at 604-513-2034 or monica.hu@mytwu.ca or Dr. Janelle Kwee at 604-513-2034 or janelle.kwee@twu.ca.

Contact (regarding the rights of research participants): If you have any concerns about your treatment or rights as a research participant, you may contact Ms. Sue Funk in the Office of Research, Trinity Western University at 604-513-2142 or sue.funk@twu.ca.

Consent: Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time without jeopardy to your relationship with your Lifespan Integration therapist.

Signatures: Your signature below indicates that you have had your questions about the study answered to your satisfaction and have received a copy of this consent form for your own records.

Your signature indicates that you consent to participate in this study and that your responses may be put in anonymous form and kept for further use after the completion of the study.

_____ _____

Research participant signature Date

_____

Printed name

APPENDIX F

core

OUTCOME MEASURE

Site ID

letters only | numbers only

Client ID

Therapist ID | numbers only (1) | numbers only (2)

Sub codes

Date form given D D / M M / Y Y Y Y

Age

Male ☐ **Female** ☐

Stage Completed

S Screening
R Referral
A Assessment
F First Therapy Session
P Pre-therapy (unspecified)
D During Therapy
L Last Therapy Session
X Follow up 1
Y Follow up 2

Stage

Episode

IMPORTANT - PLEASE READ THIS FIRST

This form has 34 statements about how you have been OVER THE LAST WEEK.
Please read each statement and think how often you felt that way last week.
Then tick the box which is closest to this.
Please use a dark pen (not pencil) and tick clearly within the boxes.

Over the last week

		Not at all	Only Occasionally	Sometimes	Often	Most or all the time	OFFICE USE ONLY
1	I have felt terribly alone and isolated	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ F
2	I have felt tense, anxious or nervous	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
3	I have felt I have someone to turn to for support when needed	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☐ F
4	I have felt OK about myself	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☐ W
5	I have felt totally lacking in energy and enthusiasm	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
6	I have been physically violent to others	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ R
7	I have felt able to cope when things go wrong	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☐ F
8	I have been troubled by aches, pains or other physical problems	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
9	I have thought of hurting myself	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ R
10	Talking to people has felt too much for me	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ F
11	Tension and anxiety have prevented me doing important things	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
12	I have been happy with the things I have done	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☐ F
13	I have been disturbed by unwanted thoughts and feelings	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
14	I have felt like crying	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ W

Please turn over

Survey: 151

Page: 1

Over the last week

	Not at all	Only Occasionally	Sometimes	Often	Most or all the time	OFFICE USE ONLY
15 I have felt panic or terror	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
16 I made plans to end my life	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ R
17 I have felt overwhelmed by my problems	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ W
18 I have had difficulty getting to sleep or staying asleep	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
19 I have felt warmth or affection for someone	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☐ F
20 My problems have been impossible to put to one side	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
21 I have been able to do most things I needed to	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☐ F
22 I have threatened or intimidated another person	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ R
23 I have felt despairing or hopeless	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
24 I have thought it would be better if I were dead	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ R
25 I have felt criticised by other people	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ F
26 I have thought I have no friends	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ F
27 I have felt unhappy	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
28 Unwanted images or memories have been distressing me	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
29 I have been irritable when with other people	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ F
30 I have thought I am to blame for my problems and difficulties	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ P
31 I have felt optimistic about my future	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☐ W
32 I have achieved the things I wanted to	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☐ F
33 I have felt humiliated or shamed by other people	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ F
34 I have hurt myself physically or taken dangerous risks with my health	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ R

THANK YOU FOR YOUR TIME IN COMPLETING THIS QUESTIONNAIRE

	(W)	(P)	(F)	(R)	All items	All minus R
Total Scores	☐	☐	☐	☐	☐	☐
Mean Scores (Total score for each dimension divided by number of items completed in that dimension)	☐	☐	☐	☐	☐	☐

33126

Survey: 151

APPENDIX G

Simplified Personal Questionnaire (PQ) Procedure and Form

Generating Items. The items generated for the PQ should be the most important in the client's view. However, an attempt should be made to include one or two problems from each of the following areas: symptoms, mood, specific performance/activity (e.g., work), relationships, self-esteem. This means that if the client does not list a problem in a particular area, the interviewer should ask the client if s/he has any difficulties in that area that s/he wants to work on in therapy. This part of the procedure should be thought of as a brainstorming session, generating as many potential items as possible (around 15 is preferable). If helpful and the client has completed the CORE-OM, the interviewer can ask the client about items with higher ratings.

Refining the PQ items. Next, the interviewer helps the client to clarify his/her items and, if necessary, to rephrase the goals into problems. If necessary, the number of items is reduced to around 10.

In this part of the procedure, the interviewer begins by writing each problem onto a separate index card, revising it in the process. Refining PQ items is not a mechanical procedure, but requires discussion with the client to make sure that the PQ reflects his/her chief concerns. It takes careful, patient communication to make sure that the PQ items truly reflect the client's experience of what is problematic.

PQ items should be present problems or difficulties, and should be worded "I feel," "I am," "I can't," "My thinking," and so on. It is useful to think of the list as things the client wants to change through therapy. After the interviewer writes down the items, s/he then asks the client if anything has been left out, adding, revising, deleting items as needed, until the client feels that the list is complete. The interview should not force the client to generate exactly 10 items; but try to obtain 8-12 items where possible.

Prioritizing the items. Next, the interviewer asks the client to sort the index cards into order, with the most important concern first, the next most important second, etc. The rank order of the item is written on the card.

Rating the PQ. After prioritizing, the interviewer gives the client a blank PQ form and the rank-ordered index cards, and asks the client to use the blank form to rate how much each problem has bothered him/her during the past week. These ratings become the client's initial baseline score for the PQ.

Optional: Duration ratings. In addition, at this first administration of the PQ, the interviewer may want to find out how long each problem has bothered the client at roughly the same level or higher as it does now, using the Personal Questionnaire Duration Form. This can be useful for establishing a retrospective baseline for the PQ.

Prepare the PQ. Finally, the interviewer types or writes the PQ items onto a blank PQ form, making at least 10 copies for future use. In doing so, it is a good idea to leave 2 spaces blank for the client to add more items later, in case his/her problems shift over time.

Personal Questionnaire (PQ)

Name (pseudonym) _____ Date _____

Read Script: "As you are familiar from your knowledge about the study so far, I want to remind you that when we develop the Personal Questionnaire together, you have the right to choose not to answer any questions you prefer not to answer, to ask questions of the researcher, and to withdraw your participation at any time."

1. Please describe the main problems you are having right now that led you to seek treatment.

2. If you are seeking psychotherapy, please list the specific problems or difficulties that would like assistance with. Please feel free to add to your list as you fill out other forms.

Instructions: Please complete before each session. Rate each of the following problems according to how much it has bothered you during the past seven days, including today.

	Not At All	Very Little	Little	Mode rately	Consid erably	Very Considera bly	Maximum Possible
1.	1	2	3	4	5	6	7
2.	1	2	3	4	5	6	7
3.	1	2	3	4	5	6	7
4.	1	2	3	4	5	6	7
5.	1	2	3	4	5	6	7
6.	1	2	3	4	5	6	7
7.	1	2	3	4	5	6	7
8.	1	2	3	4	5	6	7
9.	1	2	3	4	5	6	7
10.	1	2	3	4	5	6	7
11.	1	2	3	4	5	6	7
12.	1	2	3	4	5	6	7

APPENDIX H

Adult Attachment Interview (AAI)

This material is under copyright and is not included in full here. The AAI is a semi-structured interview in which adults are asked to reflect on and describe their relationships with both parents as well as experiences of loss, rejection and separation during early childhood.

APPENDIX I

Helpful/Important Aspects of Therapy Form (HAT)

Name: _____ Date: _____

1. Of the events that occurred in this session, which one do you feel was the most **helpful** or **important** for you personally? (By "event" we mean something that happened in the session. It might be something you said or did, or something your therapist said or did.)

2. Please describe what made this event helpful/important and what you got out of it.

3. How helpful was this particular event? Rate it on the following scale.
(Put an "X" at the appropriate point; half-point ratings are OK; e.g., 7.5.)

```
HINDERING <--------------    Neutral    ---------------->  HELPFUL
1       2       3       4       5       6       7       8       9
|---+---|---+---|---+---|---+---|---+---|---+---|---+---|---+---|
E       G       M       S               S       M       G       E
X       R       O       L               L       O       R       X
T       E       D       I               I       D       E       T
R       A       E       G               G       E       A       R
E       T       R       H               H       R       T       E
M       L       A       T               T       A       L       M
E       Y       T       L               L       T       Y       E
L               E       Y               Y       E               L
Y               L                               L               Y
                Y                               Y
```

4. About where in the session did this event occur?

5. About how long did the event last?

6. Did anything else particularly **helpful** happen during this session?

☐ Yes ☐ No

a) If yes, please rate how helpful this event was:

☐ Slightly helpful
☐ Moderately helpful
☐ Greatly helpful
☐ Extremely helpful

b) Please describe the event briefly:

7. Did anything happen during the session that might have been **hindering**?

☐ Yes ☐ No

a) If yes, please rate how hindering the event was:

☐ Extremely hindering
☐ Greatly hindering
☐ Moderately hindering
☐ Slightly hindering

b) Please describe this event briefly:

APPENDIX J

Therapist Session Notes Questionnaire (TSNQ)

Therapist Initials _____ Client (pseudonym) _____ Date _____

Session Notes
Protocol(s) used (# repetitions): _____ Length of session: _____

Most Helpful and/or Important Event (can be positive or negative):

Description of why this event was helpful and/or important.

Rating of how helpful and/or important this was (put an "X" at the appropriate point; half-points are ok, e.g. 7.5)

```
HINDERING <--------------    Neutral    ---------------->  HELPFUL
1       2       3       4       5       6       7       8       9
|---+---|---+---|---+---|---+---|---+---|---+---|---+---|---+---|
E       G       M       S               S       M       G       E
X       R       O       L               L       O       R       X
T       E       D       I               I       D       E       T
R       A       E       G               G       E       A       R
E       T       R       H               H       R       T       E
M       L       A       T               L       A       L       M
E       Y       T       L               L       T       Y       E
L               E       Y               Y       E               L
Y               L                               L               Y
                Y                               Y
```

At what point in the session did this event occur? Number of protocol repetitions/other?

Did anything else particularly helpful happen during this session? Please describe and give a rating between five and nine as per the scale above.

Did anything else particularly hindering happen during this session? Please describe and give a rating between one and five as per the scale above.

Therapeutic impressions at exit.

Other notes or observations regarding coherence/integration other progress/change.

APPENDIX K

Change Interview Record
(Elliott, 1999)

Client (pseudonym) _____

Date _____ ☐ Post-therapy ☐ Follow-up

Read Script: "As we have talked about at other times, I want to remind you that, during this interview, you have the right to choose not to answer any questions you prefer not to answer, to ask questions of the researcher, and to withdraw your participation at any time."

Psychopharmacological Medication/Drug/Herbal Remedies Record

Medication Name	For what symptoms?	Dose/ Frequency	How long?	Last Adjustment?

Change List

Change	Change was: 1 - expected 3 - neither 5 - surprised by	Without therapy: 1 - unlikely 3 - neither 5 - likely	Importance: 1-not at all 2-slightly 3-moderately 4-very 5-extremely
1.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
2.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
3.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
4.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
5.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
6.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
7.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
8.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
9.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
10.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

Client Change Interview
(Elliott, 1999)

After each phase of treatment, clients are asked to come in for a semi-structured interview. The major topics of this interview are any changes you have noticed since therapy began, what you believe may have brought about these changes, and helpful and unhelpful aspects of the therapy. The main purpose of this interview is to allow you to tell us about the therapy and the research in your own words. This information will help us to understand better how the therapy works; it will also help us to improve the therapy. This interview is recorded for later transcription. Please provide as much detail as possible.

1. General Questions:
1a. What medication on you currently on?
1b. What has therapy been like for you so far? How has it felt to be in therapy?
1c. How are you doing now in general?

2. Self-Description:
2a. How would you describe yourself? (If role , describe what kind of ____? If brief/general, can you give me an example? For more: How else would you describe yourself?)
2b. How would others who know you well describe you? (How else?)
2c. If you could change something about yourself, what would it be?

3. Changes:
3a. What changes, if any, have you noticed in yourself since therapy started? (For example, are you doing, feeling, or thinking differently from the way you did before? What specific ideas, if any, have you gotten from therapy so far, including ideas about yourself or other people? Have any changes been brought to your attention by other people?) *[Interviewer: Jot changes down for later.]*
3b. Has anything changed for the worse for you since therapy started?
3c. Is there anything that you wanted to change that hasn't since therapy started?

4. Change Ratings: (Go through each change and rate it on the following three scales:)
4a. For each change, please rate how much you expected it vs. were surprised by it? (Use this rating scale:)
(1) Very much expected it
(2) Somewhat expected it
(3) Neither expected nor surprised by the change
(4) Somewhat surprised by it
(5) Very much surprised by it
4b. For each change, please rate how likely you think it would have been if you hadn't been in therapy? (Use this rating scale:)
(1) Very unlikely without therapy (clearly would not have happened)
(2) Somewhat unlikely without therapy (probably would not have happened)
(3) Neither likely nor unlikely (no way of telling)
(4) Somewhat likely without therapy (probably would have happened)
(5) Very likely without therapy (clearly would have happened anyway)

4c. How important or significant to you personally do you consider this change to be? (Use this rating scale:)
(1) Not at all important
(2) Slightly important
(3) Moderately important
(4) Very important
(5) Extremely important

5. Attributions:

In general, what do you think has caused these various changes? In other words, what do you think might have brought them about? (Including things both outside of therapy and in therapy)

6. Helpful Aspects:

Can you sum up what has been helpful about your therapy so far? Please give examples. (For example, general aspects, specific events)

7. Problematic Aspects:

7a. What kinds of things about the therapy have been hindering, unhelpful, negative or disappointing for you? (For example, general aspects. specific events)
7b. Were there things in the therapy that were difficult or painful but still OK or perhaps helpful? What were they?
7c. Has anything been missing from your treatment? (What would make/have made your therapy more effective or helpful?)

8. Suggestions.

Do you have any suggestions for us, regarding the research or the therapy? Do you have anything else that you want to tell me?

9. Review Personal Questionnaire (PQ)

Instructions: Compare pre-therapy and post-therapy to current PQ ratings with client, noting number of points changed for each problem. Tell client: We are trying to understand how clients use the PQ, and what their ratings mean.
9a. In general, do you think that your ratings mean the same thing now that they did before therapy? If not, how has their meaning changed? (Sometimes clients change how they use the PQ rating scale; did that happen for you?)
9b. Identify each problem that has changed 2+ points:
(1) Compare each PQ problem change (2+ points) to the changes listed earlier in the interview.
(2) If the PQ problem change is not covered on the change list, ask: Do you want to add this change to the list that you gave me earlier?
•If yes -> go back to question 5 and obtain change ratings for this change.
•If no -> go on:
(3) For each PQ problem change (2+ points), ask: Tell me about this change: What do you think it means? Do you feel that this change in PQ ratings is accurate?

APPENDIX L

Adjudication Response Form

Please highlight your answers on the scales provided (for example, use your mouse to highlight the appropriate answer and change to bold type or to a different colour). Choose only from the descriptors/percentage intervals provided. In answering the rest of the questions, please use whatever space is needed to give a full response.

1. To what extent did the client change over the course of therapy?

No change 0%	Slightly 20%	Moderately 40%	Considerably 60%	Substantially 80%	Completely 100%

1a. How certain are you?

100%	80%	60%	40%	20%	0%

1b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? (Use as much space as needed).

2. To what extent is this change due to therapy?

Not at all 0%	Slightly 20%	Moderately 40%	Considerably 60%	Substantially 80%	Completely 100%

2a. How certain are you?

100%	80%	60%	40%	20%	0%

2b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? (Use as much space as needed).

3. Which therapy processes (mediator factors) do you feel were helpful to the client? (Use as much space as needed).

4. Which characteristics and/or personal resources of the client (moderator factors) do you feel enabled the client to make the best use of therapy? (Use as much space as needed).

APPENDIX M
Rich Case Record: Felicity

Overview

The client, Felicity (not her real name) heard about the Lifespan Integration Efficacy research study via word of mouth in informal therapists' network channels. Felicity had been exposed to LI and participated in two training sessions within the last year or so. She wanted to experience LI as a client to see what it could do for her regarding some ongoing issues, but also to see what she could learn from the experience that she could bring to her work as a therapist. When she heard about the research study, she saw it as an opportunity to do this and contribute to the body of knowledge for psychology at the same time.

Felicity is happily married with two young children. She is well educated, intelligent, and personable. She describes herself as an optimist, usually up for anything, caring, empathic, and confident. Her friends would describe her as loyal, steady, positive, caring, funny and intuitive. The therapist described Felicity as "very bright and very hopeful about [the] treatment option of LI. She has strong family support and is insightful."

The issues Felicity brought to therapy included unsettling feelings and relational difficulties with family of origin relationships, relational patterns, and residual trauma symptoms. Felicity had eleven LI therapy sessions during the three-month study period.

An outline of the types of data collected with corresponding dates is provided in Table 1. All data collection was done by the principal investigator at the pre-therapy, post-therapy, and follow-up points, and the therapy was done by an experienced LI therapist who is also an approved LI consultant and trainer. Except for completing the Therapist Session Notes Questionnaire (TSNQ) after each session, there were no differences from usual for the therapist who was instructed to work with her client as she would normally.

Table 1.
Outline of Data Collected During the Study

Screening – December 8, 2013

- Demographic/screening Questionnaire

Pre-therapy – January 10, 2014

- CORE-OM
- Personal Questionnaire (PQ) created, and baseline scores captured
- Adult Attachment Interview (AAI)

Therapy – 11 Sessions: January 16 - April 3, 2014

- Personal Questionnaire (PQ) – completed by client after each session*
- Helpful Aspects of Therapy (HAT) – completed by client after each session*
- Therapist Session Notes Questionnaire (TSNQ) – completed by therapist after each session*

*submitted to the principal investigator independently

Post-therapy – April 10, 2014

- CORE-OM
- Personal Questionnaire (PQ)
- Change Interview
- Adult Attachment Interview (AAI)

One-month Follow-up – May 8, 2014

- CORE-OM

- Personal Questionnaire (PQ)
- Change Interview

Screening Information

Felicity was currently engaging in professional counselling elsewhere, but said she would put it on hold if she became a participant in this study. She had never experienced LI therapy. She was not experiencing any persistent physical symptoms or health concerns. She is taking Wellbutrin to manage recurring mild depression. She is not taking herbal remedies or recreational drugs. Her reasons for seeking LI therapy at this time fit the criteria for being longstanding and likely influenced by her attachment history or developmental trauma.

Pre-therapy Interview Data – January 10 (Summarized)

Reasons for Seeking Therapy

Felicity's reasons for seeking therapy have been briefly described in the overview. Her list of itemized problems that were rated throughout the study were co-created and given baseline ratings in this pre-therapy meeting with the principal investigator. The items are listed in the section on the Personal Questionnaire (PQ) along with their progressive ratings through until the one-month follow-up.

Family of Origin/Early Attachment History/Adult Attachment Interview

Mary Main and colleagues developed the Adult Attachment Interview (AAI; Main, Kaplan, & Cassidy, 1985) as a way to investigate the adult's state of mind with respect to overall attachment history. The AAI is a semi-structured interview in which adults are asked to reflect on and describe their relationships with both parents as well as experiences of loss, rejection and separation during early childhood. Analysis of the patterns of thought, memory and affectivity in these narratives reveal variations in not just events, but significantly and more importantly in the quality of representation of these experiences via narrative coherence and defensive strategy. The AAI's questions intentionally activate the attachment system and by doing so elicit similar states and strategies for dealing with emotional pain (e.g. dismissive restriction or preoccupation) that were learned and patterned unconsciously in childhood, which are then revealed in the discourse of the interview.

Analysis and scoring of the AAI (Hesse, 2008; Main & Goldwyn, 1982-1998 reported in Crowell, Fraley, & Shaver, 2008; Main, Hesse, & Goldwyn, 2008) is done from a transcript of the interview regarding several scales. Patterns of scale scores are used to assign the interviewee to one of three major classifications: autonomous (secure), or (insecure): dismissing or preoccupied. Individuals may additionally be classified as 'unresolved' if they report attachment-related traumas of loss and/or abuse and manifest confusion and disorganization in the discussion of that topic. This unresolved categorization is given precedence over the other major categorization this individual receives and is considered an insecure classification. Finally, a 'cannot classify' designation is assigned when scale scores reflect elements rarely seen together that are usually highly incoherent.

Felicity's early attachment history is among safe and caring parents. Her developmental challenges began primarily after her parents' divorce when Felicity was young, and her mother's remarriage a few years later. Felicity reports that her mother changed, lost her way so to speak,

becoming selfish and much more focused on her new spousal relationship to the point of neglecting Felicity's needs for safety, especially during Felicity's middle childhood years when Felicity's step-father was sexually abusive. She describes that relationship as confusing, inappropriate and frightening.

Felicity's pre-therapy AAI transcript reflects this situation. The coded transcript of this interview indicated that Felicity was unresolved for abuse, but otherwise displayed secure/autonomous traits such as good grasp of childhood memories, lively personal identity, balance, valuing of attachment, representational change, representational diversity, and able to discuss adverse experiences with autonomy, coherence, and even humor. Being unresolved trumps the underlying secure/autonomous classification and is an insecure classification.

Outcome Data

The following is an explanation of each outcome/change measure and the subsequent results/responses collected in the study.

CORE Outcome Measure (CORE-OM)

The CORE-OM (Core Systems Group, 1998) has been designed to be suitable for use across a wide variety of service types as an initial screening tool and outcome measure that addresses global distress. It taps into a pan-theoretical 'core' of clients' distress, including subjective well-being (four items), commonly experienced problems or symptoms (twelve items), and life/social functioning (twelve items). In addition, items on risk to self and to others (six items) are included as clinical flags rather than a scale. Features of this measure include high and low intensity items to increase sensitivity and a mix of positively and negatively framed items. Felicity's pre-, post-, and one-month follow-up scores are shown below in Table 2 along with gender-specific normative mean scores from clinical and non-clinical populations and cut-off scores between clinical and non-clinical for females.

Table 2.

CORE-OM Mean Scores by Dimension with Normative Clinical and Non-clinical Means

Dimension	Pre	Post	F/Up	Non-Cl	Clinical	Cut-off
Well-being	0.25	0.25	0.25	1.10	2.41	1.77
Symptoms/problems	0.75	0.25	0.5	1.00	2.28	1.67
Anxiety	0.5	0.25	0.25			
Depression	0.75	0	0.5			
Physical	1	0.5	0.5			
Trauma	1	0.5	1			
Functioning	0.25	0	0.17	0.86	1.84	1.30
General	0	0	0			
Close relationships	0	0	0			
Social relationships	0.75	0	0.5			
Risk to self/others	0	0	0	0.15	0.61	.31
All non-risk items	0.46	0.14	0.32	0.95	2.11	1.50
All items	0.38	0.12	0.26	0.81	1.85	1.29

Personal Questionnaire Data

The PQ (Wagner & Elliott, 2004) provides a brief, individualized, weekly outcome measure with items that are generated by the client's presenting problems and co-constructed by the client and therapist or primary investigator before the therapy sessions begin. In this case, Felicity was asked to consider her goals for therapy prior to meeting and then she and the primary investigator collaboratively created the PQ during the pre-therapy interview. Items were generated based on the most important problems in the client's view. The areas of symptoms, mood, specific performance, relationships, and self-esteem were considered in attempting to define and clarify each item or issue in terms that could be readily assessed by the client each session (Elliott, Mack, & Shapiro, 1999). Rather than providing a standardized assessment of generic outcome criteria, the PQ's strength is that it provides a questionnaire tailored to the client's specific issues and concerns that they would like to address in therapy and in which they would like to see change. As such, the PQ serves as a client-driven outcome measure.

Felicity's top item related to feelings and patterns around a cut-off relationship with her brother, his wife, and their children (items 1-3). Items 5, 6, and 7, and probably 9 indirectly, addressed trauma symptoms and feelings, and items 4 and 8 concerned her social relationships and identity. The client filled out her PQ pre-therapy, after each therapy session, post-therapy, and at the one-month follow-up. Each item/problem is rated from one to seven according to how much it has bothered the client during the past seven days (1= not at all, 2=very little, 3=little, 4=moderately, 5=considerably, 6=very considerably, 7=maximum possible). Table 3 and Figure 1 illustrate Felicity's responses on the PQ by item throughout the study, and Figure 2 illustrates the changes in mean scores. Table 4 displays the outcome data for Felicity's PQ.

Table 3.

Personal Questionnaire (PQ) Items/Problems & Ratings Across the Study

	Problem/Item	Pre	1	2	3	4	5	6	7	8	9	10	11	Post	F/up
1	Cut-off/avoidance with brother & niece/nephew unresolved/unsettling	5	5	4	6	5	5	5	4	5	4	6	4	4	3
2	Fear of codependent patterns returning if cut-off with brother is resolved	6	5	2	7	4	5	4	4	5	5	4	3	3	3
3	Feelings of anger/disgust with sister-in-law, and not wanting to repair it	7	6	4	4	3	4	5	2	4	6	5	5	4	3
4	Lack of community/feelings of isolation	5	5	4	4	6	4	3	4	3	2	2	2	2	2
5	Flashbacks of neglect & feelings of anger & disbelief about childhood environment highlighted by daughter now	5	6	3	3	2	4	4	3	1	3	2	1	2	2
6	Feelings of anger toward mother easily stirred	7	4	4	2	2	2	3	2	1	1	1	2	1	1
7	Flashbacks of abuse when triggered that are still 10/10 intense	6	4	2	1	2	4	4	4	1	1	3	1	3	3
8	Unclear/unsettled about who I want to be with the people in my life now that are acquaintances	4	4	1	1	2	1	2	2	2	2	1	1	1	1
9	Feelings of limits/wall blocking emotional intimacy with husband, and 'settling for less'	4	3	2	4	6	5	5	4	2	4	2	3	2	4

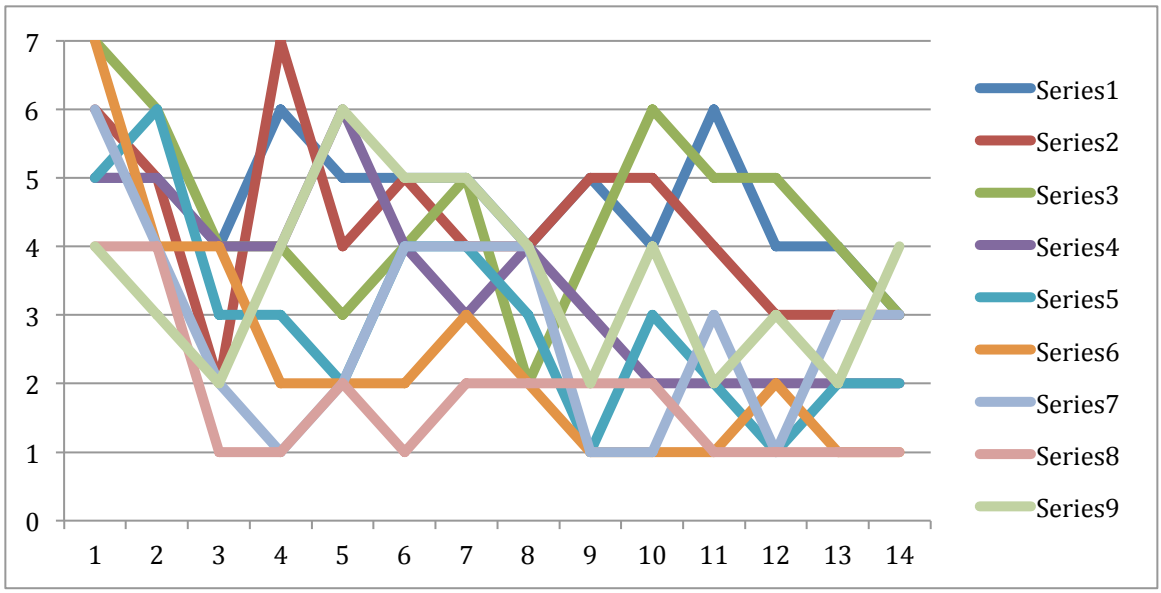

Figure 1. Personal Questionnaire (PQ) Item/Problem Trends Across the Study.

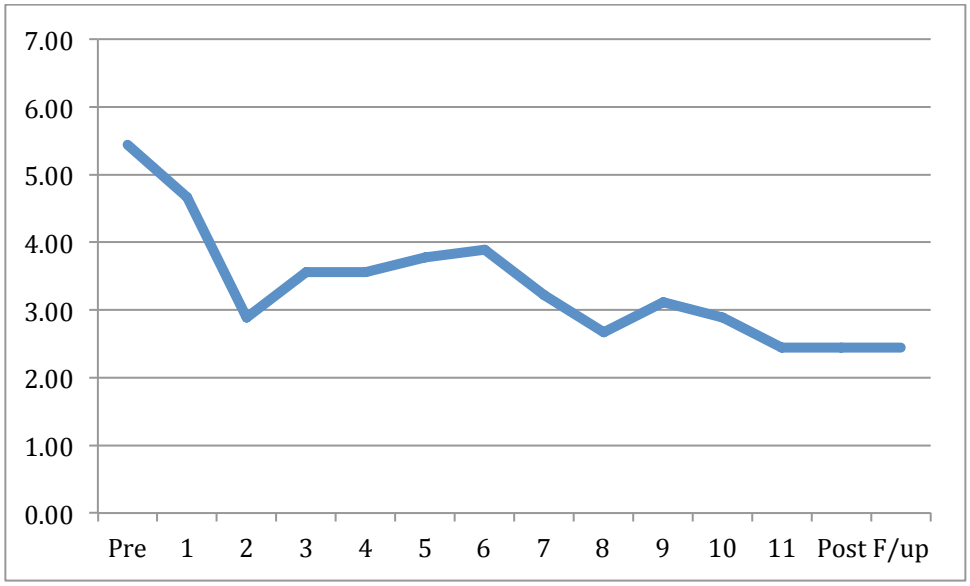

Figure 2. PQ Item/Problem Mean Scores Across the Study.

When it comes to evaluating treatment efficacy in general there is a growing recognition that traditional statistical methods can be problematic. At a minimum, though statistical significance is real rather than chance, "the existence of a treatment effect has no bearing on its size, importance, or clinical significance" (Jacobson & Truax, 1991). Questions regarding the efficacy of psychotherapy refer to real life benefits derived from it, its impact or its ability to make a difference in people's lives. Jacobson and Truax proposed various suggested calculations for situations in which standard statistical calculations are not possible, for example when there is no normative data for clinical or non-clinical populations. They suggest that significant clinical change would be change that moved a minimum of two standard deviations

beyond the mean toward functionality, and thus two standard deviations represent the cut-off (CC). They also developed a calculation for measuring a reliable change index (RC), or change that reflects more than the fluctuations of an imprecise measuring instrument. The standardized error of the difference (S_{diff}) provides an appropriate estimate of error in measuring client change (Jacobson & Truax, 1991), which provides a formula to establish a confidence level for defining the minimum reliable change index (RC) value at the 95% level (1.96 S_{diff}) in Table 4. As seen in Table 4, Felicity's mean change at post-therapy and at follow-up is greater than the minimum for reliable change, and beyond (in this case, below, which is better on the PQ) the cut-off for clinically significant change.

Table 4.

Personal Questionnaire (PQ) Outcome Data

	Caseness	RC	CC	Pre	Post	Pre-post Difference	1 mo. F/up	Pre-F/up Difference
PQ Mean scores	3.5	1.14	3.31	5.44	2.44*	3.00**	2.44*	3.00**

*Note. Caseness = cut-off for determining whether client is clinically distressed (Stephen, Elliott, & Macleod, 2001); RC =reliable change index, minimum value required for reliable change at p < .05. (Jacobson & Truax, 1991; Elliott, 2002); CC = significant clinical change cut-off at 2SDs from the mean (Jacobson & Truax, 1991). * = below CC; ** = greater than RC.*

Post-therapy AAI

Felicity's post-therapy AAI was classified as preoccupied. There was no unresolved classification. It is significant to note that the main section of the interview resulting in the preoccupied classification occurred at the beginning of the interview, which included preoccupied anger toward her mother and stepfather, and the remainder of the interview would have otherwise been classified as secure/autonomous. This section at the beginning (in which she describes her step-father as a pedophile and her mother as an idiot) generates not only the preoccupied classification, but in light of other reported changes, raises questions. In the Personal Questionnaire measure, Felicity's rating for 'feelings of anger toward mother easily stirred' went from 'maximum possible' (7) at pre-therapy, to 'not at all' (1) by post-therapy, remaining at a 1 at follow-up. This was the item that saw the greatest change - a decrease of 6 points, where Felicity's mean item change was a decrease of 3 points. Does the interview section represent residue from recent trauma work rather than substantive remaining anger or a preoccupied mental state of mind with regard to attachment? It is a question to consider.

Helpful Aspects of Therapy (HAT)

The HAT is a form completed at the end of each session for identifying important helpful and/or hindering events in the therapy session (Elliott, 1993). Items include open and closed-ended questions and rating scales to aid the client in their evaluation. The client (via the HAT) and the therapist (via the TSNQ - see TSNQ section) identified these important events independently at the conclusion of each therapy session. Tables 5 and 6 provide a summary of the client's responses in the HAT.

Table 5.

Client Reported Most Helpful or Important Event for Each Session on the HAT Form.

Session	Most Helpful or Important Event in Session	Description of Why the Event was Helpful/Important	How Helpful was the Event (/6-9)
1	Therapist did a thorough, caring intake and 'joined' me very well. I could tell she is very compassionate.	It was helpful to feel the connection with the therapist, and it will help in future sessions to know that she is aware of my goals and knows my story.	8
2	Selection of the 'Relationship Protocol'	I could concentrate on a feeling that extends over time, not just one memory	8
3	To slow down when accessing the feeling in my body during the TL 'check-ins' so that I could really access it.	This was helpful to diminish the reactivity over time – I had to really feel my distress so that I could gauge the intensity	8
4	Connecting the dots between intimacy with my husband to sexual abuse in my childhood [therapist prompted this].	It was as though the house of cards fell down, as I knew it would someday, and I had to face the truth.	9
5	Chose one memory over another. Was guided by [therapist] that it was fine to choose the 'safer' memory; wouldn't make a difference in terms of resolution.	Easier to 'go there' – to a memory where I was empowered to change my circumstances.	8
6	Making the decision to revisit the memory from last time and getting more 'completion' in the clearing of that memory.	I was able to confront and talk to my stepfather in a moment of his vulnerability and my power, and imagine his arrest. Get closure.	9
7	Shifting from a relational protocol to a specific memory – standard protocol. [Therapist] was attuned to this need, and made this suggestion.	Able to go in and take myself out of that memory and assure my 10 year old that she is out of it now and all opportunities are open to her. Got to my adult self at [the] end.	8.5
8	Honing in on what was really making me upset about my brother and the difficulty of reconnecting with him.	[Therapist] talked through the sentences that she was going to return to during the TLs (source problem) until they were accurate.	8
9	I got snagged by one of my cues and found the version of my brother (age) that I could laugh with and relate to.	It was like a recognition of someone I haven't seen for a long time, and really miss: "oh there you are!"	8.5
10	Toward the end of the session I had an internal shift after getting snagged in several memories during the TL in which I was acting codependently.	Re-engaging with my brother is way more about me than him – my internal reactivity about feeling helpless and codependent with him.	9
11	Float back to a memory – suggested by [therapist]. Landed in one initially then was tugged pretty quickly to a more reactive source memory.	Pinpointed the moment that was most helpful in which to intervene – when I wasn't capable of intervening myself (then).	9

Table 6.

Client Reported Additional Helpful/Important Events and Hindering Events for Each Session

Session	Anything Else Helpful During the Session	How Helpful	Anything Hindering During the Session	How Hindering
1	No	-	No	-
2	Reduction in reactivity (distance from the pain) in the feeling of betrayal by my brother (of his vow).	Greatly	No	-
3	To narrow the focus of my distress to one thing instead of several things. At first I was focusing on how distressed I was about all the areas in my brother's life that are dysfunctional, then narrowed to one area.	Greatly	I got so used to nodding that I may have just been keeping a pace up instead of slowing down to truly access the imagined memories.	Slightly
4	Went back and brought my 5 year old to my house, and really took my time to try to visualize her and talk to her	Greatly	My 5 year old kept disappearing and my brain wanted to dissociate – I had to smell coffee grounds to stay present (which helped)	Moderately
5	Picturing the memory with no one there anymore – an empty room where I once stood.	Extremely	I developed a headache during the session that was slightly distracting	Slightly
6	Was able to clear the house in my memory – no one is in my room at the closet, and no one is in the kitchen. There is a sense of peace.	Extremely	No	-
7	Got to hold and soothe my 10 year old self and reduce her distress as well as my own about the memories.	Greatly	I felt myself 'floating away'/dissociating a few times, but 'named it' out loud and was able to recover and be in the memory/TL	Slightly
8	No	-	I was having a hard time seeing myself as a baby (and not my daughter).	Slightly
9	Honing in on the feelings underneath my contempt toward my sister-in-law, and holding my fussiness, crankiness and wisdom at the same time.	Greatly	No	-
10	Working for several minutes at the beginning of the session to hone in on the most accurate emotion/scenario to target.	Greatly	No	-

11	[Therapist] directed me to stay with my own reactivity and emotion rather than focusing on a theoretical future reaction.	Extremely	No	-

Therapist Session Notes Questionnaire (TSNQ)

Lifespan Integration uses a variety of protocols to target different types of issues. Primarily trauma clearing protocols include: PTSD protocol and Standard protocol. The primary structure building and affect regulating protocol is Birth to Present protocol. Other protocol variations include: Relationship pattern protocol and Cell Being protocol, but as is seen in Figure 3, each protocol engages the therapeutic processes in varying ratios. Figure 3 provides a general overview of key LI protocols and their targeted main functions. All LI protocols employ the timeline, which, when combined with the skill of the therapist's attunement and regulation contribute to integration.

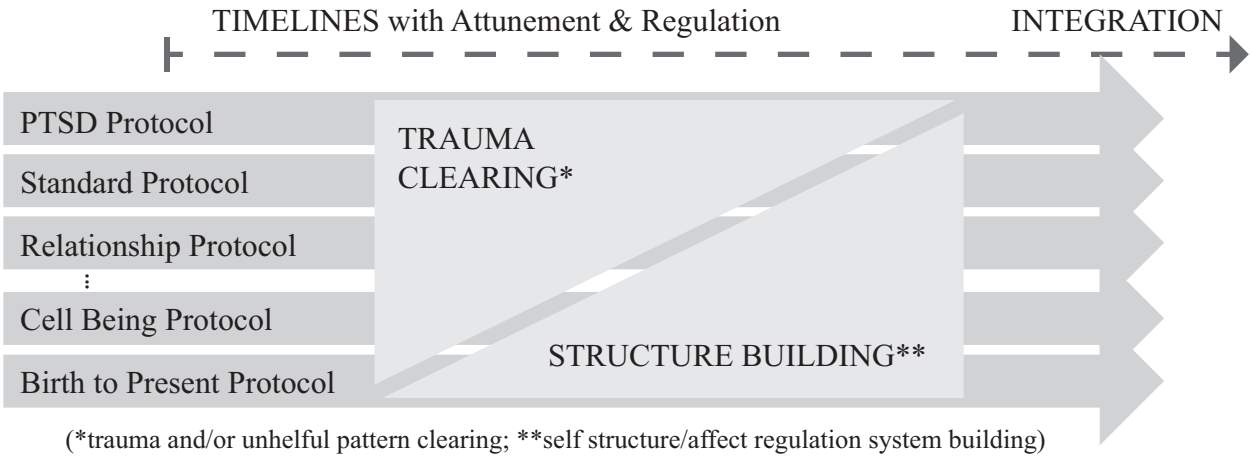

Figure 3. LI Protocols and their key therapeutic outcome variables.

The protocols used with Felicity in each session are outlined in Table 7 and therapist notes on important helpful and/or hindering aspects of therapy from the TSNQ follow in Tables 8 and 9.

Table 7.

Lifespan Integration protocols and number of repetitions for each session

Session	LI Protocol	No. of TL Repetitions	Length of session
1	None – intake session	-	90 min
2	Relationship Pattern protocol	5	50 min
3	Relationship Pattern protocol	6	53 min
4	Depression protocol	8	72 min
5	Standard protocol	7	53 min
6	Standard protocol	?	53 min
7	Standard protocol	5	53 min

8	Relationship Pattern protocol	5	53 min
9	Relationship Pattern protocol	6	53 min
10	Relationship Pattern protocol	5	53 min
11	Standard Protocol	5	53 min

Table 8.

Therapist Reported Most Helpful or Important Event for Each Session on the TSNQ Form

Session	Most Helpful or Important Event in Session	Description of Why the Event was Helpful/Important	How Helpful was the Event (/6-9)
1	Intake session. Full history taken and priorities for treatment established with client.	Intake important in order to establish rapport and also to understand client's priorities for treatment.	8.5
2	[Dealing with] feelings of betrayal by brother.	A promise was given by brother in childhood that was very important to client was broken repeatedly in adulthood.	8.5
3	After 6th TL client reported feeling less reactivity in her and more distance from the pain in her heart.	It reduced her reactivity to where she felt distance from it and was surprised by the absence of the usual pain.	8.5
4	Feeling the danger of being herself because it is not safe sexually.	The recognition helps to separate the danger from current sexuality. Took shame out of sexuality.	8.5
5	Wanting to choose a memory to diffuse; intentionally choosing one that was manageable to her.	There was an empowering piece to the traumatic event and this memory was chosen for that reason.	8.5
6	Wanting 14 year old self to know that her current life is different from what she experienced at 14. That her past did not affect her level of trust in humanity.	A relief to know what happened to her is not defining her. That she is strong.	8.5
7	Importance of relationship to mother – restrictiveness of relationship when growing up.	It has current residue of resentment and hurt and caused a negative cognition for client of not being good enough.	9
8	Focus on an internal struggle regarding engaging with sibling.	Engaging with sibling in a compassionate way is very important to client. Client has difficulty keeping engaged because a lot of sadness is felt in this regard.	7.5
9	[Focusing on] trying to stay engaged w/ sibling to be helpful while also protecting self or dealing w/ spouse of sibling.	Noticing how much it takes to stay engaged and present with self and feel her range of emotions at same time.	7.5

10	Discovering that her inner struggle is more about self than her sibling.	Allowed her to work at it as something internal and realize that this feeling tone has occurred many times in her life in other unrelated occasions.	7.5
11	[Focusing on] feeling dread about engaging w/ a certain person in her life.	Important because as we focused on it the dread went back to a memory at younger age of feeling very used in relationship to this person.	9

Table 9.

Therapist Reported Additional Helpful/Important Events and Hindering Events for Each Session

Session	Anything Else Helpful During the Session	How Helpful (/6-9)	Anything Hindering During the Session	How Hindering (/1-4)
1	Getting to know client's needs and concerns.	9	No	-
2	Client realizing her distress was decreasing.	8	No	-
3	No	-	No	-
4	Reconnection with younger self and ability to soothe younger self	8.5	No	-
5	The empowerment increased and shame decreased. Connection with younger self. Interventions sought by adult self.	8.5	No	-
6	Client described how much more 'present' she is feeling in her every moment since we have started working together. She connected this feeling directly to LI work.	9	No	-
7	Client as very insightful through the TLs about how she had perceived herself because of mother's responses to her.	8	No	-
8	Client shared a shift made from last session. The issue was holding no charge in relationship to mother and subsequent interactions with her in past week.	8.5	No	-
9	Client expresses feeling farther away from the struggle. Not feeling as sad while knowing the situation is sad.	7	No	-
10	Client had a paradigm shift that this was more about her. Also feeling less activated from middle of first TL.	8	No	-
11	Tremendous relief with each TL that younger self began to realize time has passed and she was excited about being in the present.	9	No	-

Change Interview Data

The Change Interview (Elliott, 1999) is a qualitative interview to account for and gather detailed and contextual descriptive information relating to therapy outcome. This interview consists mainly of questions regarding the client's perception of changes since therapy began and attributions for these changes. The interview includes inquiry into whether the client is taking medications or herbal remedies and whether dosages have changed during this period. Felicity reported taking Wellbutrin and no changes since screening. An additional goal of this interview is to gather information around whether the client was engaging in other simultaneous activities, or whether other events occurred that may have affected the credibility of the attributions. Anything that was reported in this way is listed in the client comments sections from the interviews. A list of the changes the client has experienced since therapy began is created and then the client is asked to rate the changes on three 5-point scales: 1) were these changes expected, neither, or were they surprised by them; 2) without therapy did they think these changes were unlikely, neither, or likely to have happened anyway; and 3) how important are these changes to them – not at all, slightly, moderately, very, or extremely?

The Change Interview was conducted post-therapy and at the one-month follow up. Figures 4, 5, and 6 illustrate the client's change list and ratings on these three scales.

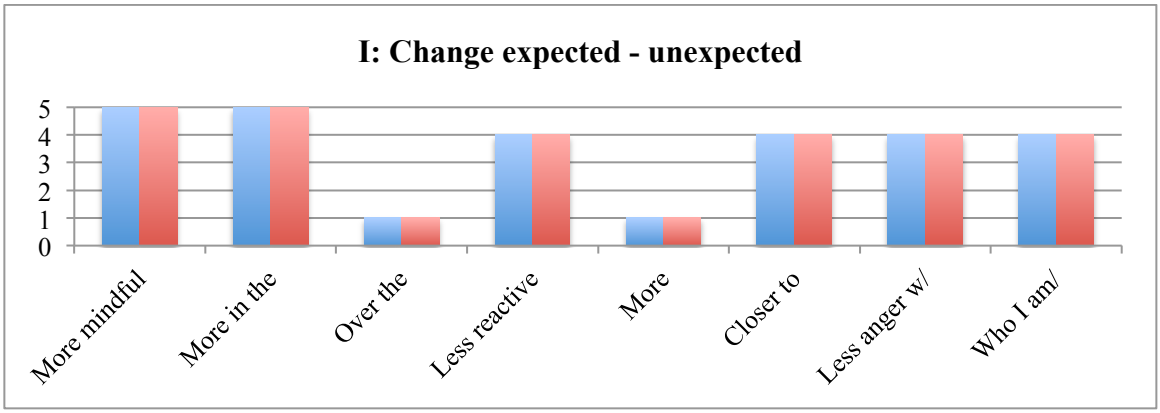

Figure 4. Scale I.
Change was: 1=expected, 3=neither, 5=client surprised by the change

Change List Key:

More mindful - calmer in brain

Easier to be 'in the moment'/present

Over the hump' internally re goals

Less reactive about a lot of things

More confident doing LI & who it is a fit for

Closer to being ready to resolve cut off (re PQ 1-3)

Less feelings of anger w/ mom (re PQ 6)

Not thinking so much about who I am/community (re PQ 4 & 9)

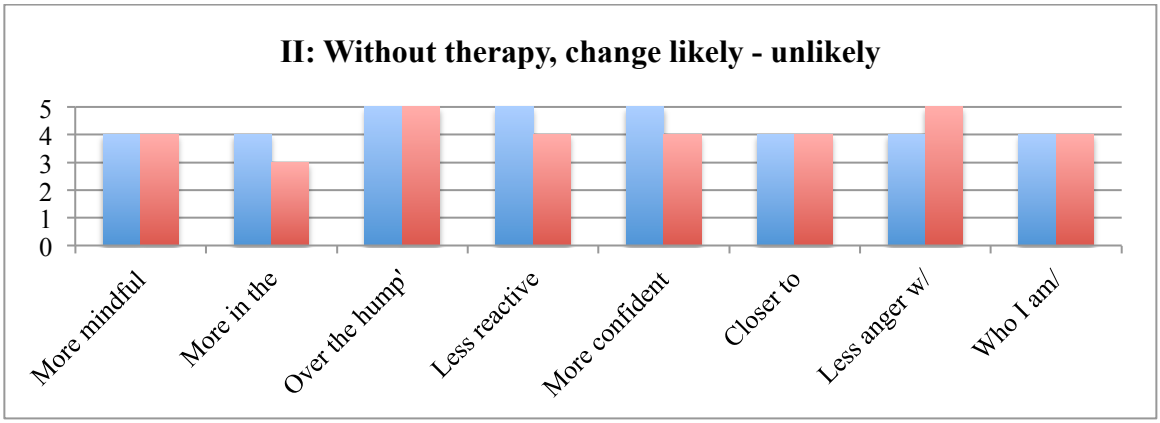

Figure 5. Scale II.
Without Therapy Change was: 1=likely to have happened anyway, 3=neither, 5=unlikely
*Note that in the Change Interview and in the original transcripts, this scale was originally reversed, with unlikely = 1, and likely = 5 in order to disrupt potential patterned client responses between the three Change Scales (always choosing the higher or lower numbers for instance). The scale and scores were reversed in this report to maintain the flow and facilitate reading.

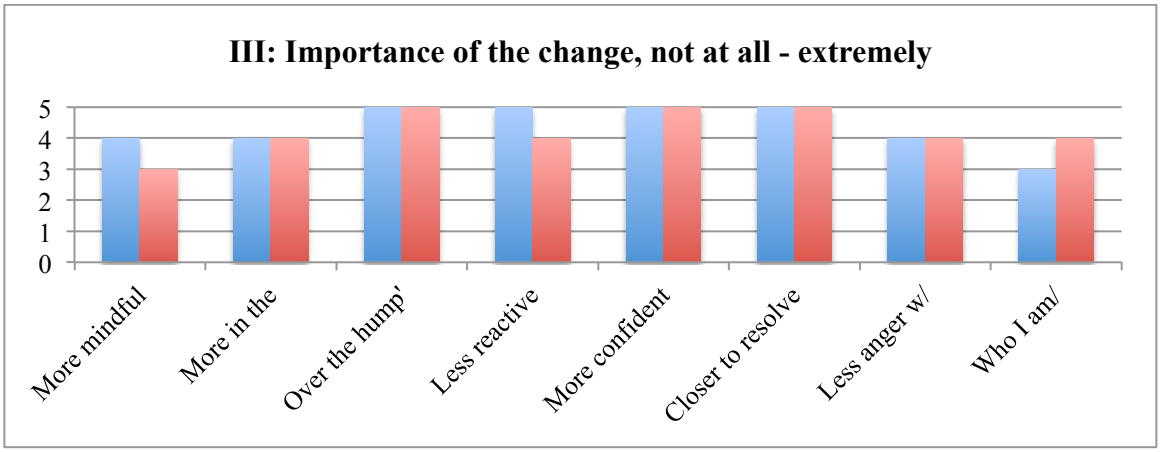

Figure 6. Scale III.
Importance of this Change to Client: 1=not at all, 2=slightly, 3=moderately, 4=very, 5=extremely

Therapist Progress Notes

The Therapist Session Notes Questionnaire (TSNQ) included room for additional session notes, comments, and observations, which are summarized in Table 10.

Table 10.

Therapist Session Notes.

Session	Notes
1	• Goals are 1-wanting to engage with brother with detached compassion. 2-if I do re-engage I need to be able to deal with my reactivity concerning his life. Also interested in dealing with sexual abuse trauma and trauma of betrayal from mom.
2	• Client realized the pain decreased in her core (chest and belly). And said, "it is not that I can conceive of it hurting less, now it's like too far away."

	• Client left the session relieved by the fact that the timelines decreased the intensity of her reaction to the betrayal. However, she then felt strong sensations about the loss of her home in childhood (which therapist noted for future work).
3	• Client entered [the] session with significant struggle and tearfulness about having been told by mother that her brother was not making healthy life choices. She pointed to her heart where she feels this pain. And becomes activated when she looks at the realms of his life where there is no self-care. …Sadness about not having the urge to help and having learned her lesson. • Client left the session expressing some surprise by the difference between her concept of pain and the pain itself actually receding. "It's hiding (referring to her pain). I can't conceive of feeling less upset about it but it is farther away from me."
4	• Client progressively worked through intense shame feelings and by end of session was much calmer and scene had changed. …merging of younger self with adult self was comforting.
5	• Client stated that she felt a feeling of "most complete merging feeling I've had." Client left recognizing something had shifted.
6	• Therapist noticed visible stuff in body feelings to relief from the traumatic event. Feelings of sadness came up as a positive shift toward healing. • Client was able to get beyond the fear and discomfort of the trauma into compassion and sadness for her younger self. Client also mentioned that she has been moving 'toward' things she would usually not be doing.
7	• Client left stating she had more clarity about what had occurred [re relationship with mother]. • The presenting issue felt more intellectual at the end and was not felt physically anymore. Plans made as an adult to discuss the presenting issue adult-to-adult. Her body felt calm by self-report.
8	• Client felt sadness recognizing why she holds back from engaging [with her sibling]. • Challenging self to move toward difficult things. Client states she feels more present everyday as a result of our work.
9	• Client expresses feeling a lot of reactivity toward a certain person involved but also feeling calmer. • Client moved through sadness/fear to reactivity and disgust. Very strong feelings toward a certain individual as client engages w/ her own feelings.
10	• Client said "I feel like wow" upon exiting. I interpreted that as a positive shift. • Visibly calmer, the thought of re-engaging with sibling brought slight apprehension but not overwhelm, by client report.
11	• Client expressed relief. It was very visible in her body. There was laughter and described the dread not being dread anymore. • The dread changed to a preference/choice of how to be in relationship w/ this person. Permission not to over function for this person or in [the] presence of this person.

Selected Client Comments from Post-Therapy Interview

- *(What's therapy been like for you?)*

"Surprising. Very cool. The word enjoy isn't appropriate because it was challenging, but I got a lot out of it. And I felt like I took the opportunity to really lean into some hard things."

- *(What changes, if any, have you noticed in yourself since therapy started?)*

"More mindful without trying. Calmer in my brain. Not as much internal dialogue going on. That was one thing that was really surprising."

- "I feel an internal shift, a sense of being over the hump of a couple of my goals, like on the downward slope of the curve. I feel less reactive about a lot things that I was pretty reactive about before."

- "I think also, I feel more confident doing LI because I've had it myself. I still value talk therapy etc. but I know this is a tool that works – at least for me! I am doing LI with more people than I thought I would and suggesting it to more people than I thought I would."

- "I have a talk therapist and we've talked a lot about this and I've gotten to those places a few times and then flipped right back out of there, so I feel like this is a more certain position that I can be detached and not automatically fall into that codependent pattern again."

- "Put it this way, I expected [the change] based on what other people reported, but to really feel it was a surprise. I intellectually knew what we were going for, but to feel it was a surprise."

- *(In general, what do you think has caused these various changes?)*

"The therapy. I would think it's the grounding in today, bringing parts of myself to today, communicating to parts of myself that that level of distress isn't necessary anymore… And, I had a bit of a shift, I knew this intellectually, but I feel like I feel it more whole body now that the problem is not 'out there' it's 'in here.' It is internal reactivity that is the problem that is keeping me from achieving reconnection with my brother and sister-in-law and a lot of the other things."

- *(Can you sum up what has been helpful about your therapy so far?)*

"I feel more grounded in today, and more present with who I am, and realizing that I'm achieving a whole bunch of things that I wanted to."

- *(Is there anything about this therapy specifically that doesn't happen in other therapies that you found helpful?)*

"I know that going back to visit or rescue your former self happens in other therapies but I don't think it's as effective when you don't follow that up with: 'now you and I are now in [present year]; we got through all of that; everything's fine; you are going to stay here with me…' You know I think that part of it is really solidifying the resolution of that reactivity from back then. …And I don't think I would have gotten there [here] with a different type of therapy."

- "I wouldn't say I'm never going to think about those issues again, but it's more… I've done something about it. And I have diffused the energy around it."

- "I don't think I would have gotten to this place of 'ok!' without having gone through that [process of] float back, me there, bring me out, show me that I'm this old and here is where I live, and my e.g. 12 year old are here [in the present] where I imagine."

- "It wouldn't have happened with just talk therapy or just even the type of therapy where [description], cause you're not resolving their distress as much. Cuz I've had that [description] in a type of therapy I had twenty years ago. It was great and it helped, but I

didn't address a lot of stuff this addresses, like 'you're not going to have to go through that anymore; we've grown up, got through it'."

- *(What kinds of things about the therapy have been hindering, unhelpful, negative or disappointing for you?)*

"Nothing. I can't think of anything unhelpful or detrimental. The only thing that was distracting at times was just my memory, but that was me being able to concentrate."

Selected Client Comments from One-Month Follow-Up Interview

- (*What changes, if any, have you noticed in yourself?)*

"The effects of being more mindful have diminished a bit. The reduction in reactivity regarding my difficult subjects has held, and I felt calmer in general and maybe that has held, but I am less aware of being in the moment so easily."

- "I feel like there's something internal that's shifted so that I feel less reactive about all those things. And so the longer that time goes on and the more likely it is that I'm going to encounter something that would have triggered the reactivity before, it is sort of like I have this internal sense of 'oh but I am past that.' Like I have a different pair of glasses when I look at this now or when I am encountering it."

- "A specific example... I have been in cut-off with my brother since [3 years ago]. He was the one that initially cut off and I was so hurt and angry. Since then he has tried to reach out a few times and I've just been sort of like 'fuck you.' And now… he includes me on emails where he sends pictures of his kids and stuff, and I'm responding and like asking a question. I feel a lot more open to extend my hand that way and not expect some big conversation to have to happen… Because before it was like: 'if you think I am just going to ignore this, you are crazy.' And now it's like 'ok, well.' And, I just learned I'm going to be seeing him in [a couple months], and before I would have been 'oh Lord!' and now see it as something 'handle-able' and I'm actually looking forward to it."

- "And I am in much more of a place that my brother is making the choices that he is capable of making right now, and the consequences are going to be what they are. And I don't think I would have gotten here as quickly. Because I was trying to address this in my regular therapy and it was just exposing the wound and then leaving session, and then coming back and exposing the wound a little more, and then leaving and then maybe the next week skipping it altogether because I had something else to focus on. So this was really… I took this whole thing like I was on a mission to get as much accomplished as I could. And I think it would have taken a couple years to get here."

Affirmative and Skeptic Briefs

Affirmative Brief

In HSCED, the purpose of the affirmative case is to present the case for (1) the client changing substantially over the course of therapy, and (2) that this change was substantially due to the therapy (Elliott, 2001, 2002). Elliott also described five types of direct evidence linking to therapy, of which there should be at least two types present. These five types of direct evidence are:

- Retrospective attribution
- Process-outcome mapping
- Within therapy (session-session) process-outcome correlation
- Change in stable problems
- Event shift sequences

The affirmative brief has three sections: the case (addressing the five types of evidence), rebuttal of the skeptic case, and a concise summary. The affirmative case is followed by the skeptic case, both rebuttals, and both summaries.

Based on the data in the rich case record, the affirmative team indicated that Felicity changed substantially over the course of therapy. Felicity's scores on her CORE-OM were well below the mean for a non-clinical population from the beginning and were slightly lower at follow-up than at pre-therapy, and so not a source of indication for the change Felicity did experience. Felicity's post-therapy AAI did raise questions regarding the cause for a shift into a preoccupied classification, however her post-therapy AAI indicated trauma had been resolved by the removal of the 'unresolved' classification for trauma from the pre-therapy AAI. In the PQ, which represented Felicity's problems that she was bringing to therapy, there was significant comprehensive change. Her mean PQ ratings went from 5.44 at pre-therapy to 2.44 at both post-therapy and follow-up, a mean improvement of 3.0, which is substantially above the reliable change index of 1.14, $p < .05$, and below (better than) the cut-off representing clinically significant change (Elliott, 2002; Jacobson & Truax, 1991). Felicity indicated via Change Scale III that the changes she experienced in therapy were an average of 4.38 (post-therapy) and 4.25 (follow-up) out of 5.0 in importance to her, where 1 = not at all important, and 5 = extremely important. The qualitative data of the weekly Helpful Aspects of Therapy (HAT), weekly Therapist Session Notes Questionnaire (TSNQ), and post-therapy and follow-up Change Interviews also reported positive client change reported by the client and observed by the therapist over the course of therapy. In summary, Felicity reported that "I feel less reactive about a lot of things that I was pretty reactive about before," and that (in comparison to other therapy experiences) "this is a more certain position that I can be detached and not automatically fall into that codependent pattern again." Felicity also reported feeling more "grounded in today" and "present with who I am."

The affirmative team also indicated that the rich case record evidence supported the therapy as a substantial direct cause of these changes. In the weekly Helpful Aspects of Therapy (HAT), the client identified important and helpful factors for each session, giving these factors average ratings of 8.46 out of 9 for degree of helpfulness (where 1 = extremely hindering, 5 =

neutral, and 9 = extremely helpful). The items Felicity identified in the HAT not only corresponded to overall goals for therapy, but also to the therapist reported important factors for each session, as reported in the Therapist Session Notes Questionnaire (TSNQ). In the change interviews the client reported each of the 9 areas of change as 'unlikely to have occurred without therapy' with her post-therapy mean at 4.38 and her follow-up mean at 4.13 where 1 = the change was likely to have happened anyway, 3 = neither, and 5 = unlikely to have happened without therapy.

The following is a summary of the causal evidence, which highlights specific events or processes that brought about the reported changes.

1. **Retrospective Attribution: Client attributes changes to therapy in general**
   - As reported in the introduction, in Change Scale II about the likelihood of the changes without therapy, Felicity indicated that the majority of her change was unlikely to have occurred without this therapy (mean at follow-up was 4.13 out of 5.0 for unlikely).
   - In the post-therapy Change Interview Felicity attributes the changes she has noticed to "the therapy. I would think it's the grounding in today, bringing parts of myself to today." She continues to describe that she has experienced therapy previously that had similar components, but not all: "I've had that [similar pieces] in a type of therapy I had twenty years ago. It was great and it helped, but it didn't address a lot of stuff this addresses." She continues: "I don't think I would have gotten [here] with a different type of therapy."

2. **Process-Outcome Mapping**
   - Many of Felicity's HAT forms highlight events that describe how the therapy helped her process traumatic events or problematic patterns, which will be covered in the next type of evidence: in-therapy process-outcome correlations. There is an average overall reduction of 3 points in Felicity's PQ scores and the foci for each session were clearly correlated with Felicity's goals. At the same time, the evidence for clear session-by-session process-outcome shifts is erratic on Felicity's PQ with no strong evident correlations to shifts directly after sessions. Felicity's overall improvement is evidenced in the downward trend of her mean PQ scores over the three months.

3. **Within-Therapy Process-Outcome Correlation**

   The LI protocols have differences that are geared to facilitating theoretically central in-therapy process variables: primarily trauma clearing or structure and affect regulation system building, and, all of them employ a timeline that works toward facilitating integration (theoretically correlated with increased mental health, resilience and optimal functioning).

   According to the therapist notes in the TSNQ, variations of trauma clearing protocols were used in each of Felicity's 11 sessions, reflecting the nature of Felicity's issues as well as the therapist's judgment of her need for building self-structure. In order to examine evidence of correlations between therapy process and outcome for Felicity's therapy, correlations between the therapist's choice and use of LI protocols and improvement in scores on the PQ were examined. Of Felicity's nine PQ items, six (1-3 and 5-7) involved issues tied to past trauma where Felicity seemed to be experiencing the

majority of her reactivity and which were the main foci of her LI therapy work. Two of the remaining PQ items were not directly targeted during these sessions (4: lack of community, and 8 unclear about identity in relation to acquaintances), and the third (9: limits/wall blocking emotional intimacy with husband) was indirectly targeted via work with past trauma. The mean change in the six trauma-related areas was 3.5, and the mean change in the remaining 3 was 2, both greater than the RCI of 1.14. Felicity did report in the Change Interview that though the issues around community/identity were not directly addressed, they seemed to grow less important as she became less reactive overall. The issue around desiring more intimacy with her husband fluctuated throughout, and was the only item that did not improve by at least three points; it finished equal to where it started, at a 4.

- Though some of the client's and the therapist's notes are not explicit enough regarding the content of the sessions (as opposed to process, observations etc.) to be certain, it appears that PQ item topics were addressed (primarily via Standard protocol and Relationship pattern protocol) directly or in a related way as follows:
    - Item 1, cut-off with brother, in sessions 2, 3, and 10
    - Item 2, fear of codependent patterns relating to brother, in sessions 8 and 10
    - Item 3, anger with sister-in-law, in sessions 9 and 11
    - Item 5, childhood neglect/trauma, in sessions 4 – 6
    - Item 6, anger w/ mother, indirectly in sessions 4 – 6, and directly in session 7
    - Item 7, flashbacks of abuse (father-in-law), in sessions 4 – 6

- Felicity's highlights of helpful events from the HAT include:
    - Session 3 "slow[ing] down when accessing the feeling in my body during the timeline…was really helpful to diminish the reactivity over time"
    - Session 3 "to narrow the focus of my distress to one thing instead of several things"
    - Session 5 "picturing the memory with no one there anymore"
    - Session 6 "making the decision to revisit the memory from last time and getting more 'completion' in the clearing of that memory. Get closure."
    - Session 7 "shifting from a relational protocol to a specific memory – standard protocol. [Therapist] was attuned to this need, and made this suggestion."
    - Session 7 "got to hold and soothe my 10 year old self and reduce her distress as well as my own [adult self] about the memories"
    - Session 8 "honing in on what was really making me upset about my brother and the difficulty of reconnecting with him. [Therapist] talked through the sentences that she was going to return to during the timelines until they were accurate."
    - Session 9 "toward the end of the session I had an internal shift…[I saw that] re-engaging with my brother is way more about me than him."
    - Session 10 (referring to selecting the memory to work with) "pinpointed the moment that was most helpful in which to intervene."

- Therapist highlights of helpful events from the TSNQ include:
    - Session 3 "after sixth timeline client reported feeling less reactivity and more distance from the pain…was surprised by the absence of the usual pain."

- Session 4 “reconnection with younger self and ability to soothe younger self.”
- Session 5 “the empowerment increased and shame decreased.”
- Session 6 “client described how much more ‘present’ she is feeling in her every moment since we have started working together. She connected this feeling directly to LI work.”
- Session 7 “client is very insightful through the timelines about how she perceived herself because of mother’s responses to her [in childhood].”
- Session 10 “discovering that her inner struggle is more about self than her sibling [in the present]. Allowed her to…realize that this feeling tone has occurred many times in her life in other unrelated occasions.”
- Session 11 “tremendous relief with each timeline that younger self began to realize time has passed and she was excited about being in the present.”

4. Change in Stable Problems

- Many of the PQ items that Felicity developed reflected problem areas that had been present from or rooted in childhood. The issues around community/social identity were connected to her current community where they had been living for approximately five years. The issue of cut-off with her brother was three years old, and an unknown time for the issue with her sister-in-law. Felicity reported being reactive “for a really long time.” In contrast with acute issues or issues that came about within the last months or weeks, these have been stable problems. Changes as significant as a mean drop from 5.44 at pre-therapy to 2.44 at post-therapy and follow-up with this mix of predominantly stable problems indicate therapeutic influence much more than shifts with acute, recent problems which may be more likely to reflect regression to the mean.

5. Event-Shift Sequences

- There was no direct evidence for an event-shift sequence in Felicity’s rich case record.

Skeptic Brief

In HSCED the purpose of the skeptic case is to make a good-faith attempt to challenge and to find alternative explanations for the affirmative case that the client changed over the period of therapy and/or that any changes were the result of the therapy (Elliott, 2001, 2002). Its role is to enable a balanced view of the evidence. Elliott identified eight alternative explanations for the skeptic case to consider, four non-change explanations and four non-therapy explanations. Its format is the same as the affirmative brief: case, rebuttal, and summary, presented in alternating order with the affirmative sections.

Based on the data in the rich case record, the skeptic team agreed that Felicity did experience positive change that was not trivial. The skeptic case focuses on non-therapy explanations for the change detailed in the points below. Focal points of the skeptic case include the role of expectancy, motivation, self-correction, investment in therapy, and common factors of therapy such as receiving support and care. They also suggested that Felicity was invested in the research outcomes, and experienced the benefit of a more experienced therapist, who provided a "fresh" experience in therapy. Additionally, they indicated that Felicity may have experienced cumulative positive effects of ongoing personal therapy.

The following is a summary of the evidence attributed to the eight alternative explanations arguing for non-change or non-therapy change.

1. **Non-improvement**
   - The client did experience improvement. According to the PQ, the Change Scales for importance, and the Change Interviews, Felicity displayed significant change. The changes were neither trivial nor negative; they were substantial and positive.

2. **Statistical Artifacts**
   - Though not a statistical error, there is the question of what the increased 'involving anger' on Felicity's post-therapy AAI represents in relation to her positive comments in her Change Interviews and the great reduction on her PQ item 6 about her anger toward her mother being easily stirred.

3. **Relational Artifacts**
   - Felicity experienced strong "buy in" to the method, suggesting that apparent changes are affected by an underlying motivation to please the therapist and/or researcher.

4. **Wishful thinking**
   - Wishful thinking played a role: Felicity expected to change as a result of what she had heard about LI therapy, which in turn contributed to the change she experienced. Moreover, Felicity's investment in therapy (as a therapist, and one who had participated in two weekends of training in LI) would likely contribute to her report of positive outcomes.
   - Felicity over-attributed the effectiveness of therapy to LI-specific factors, for example by ignoring the role of common therapeutic factors such as experiencing support, attunement and being cared for.

5. **Self-correction**
   - Felicity may have experienced changes as a result of applying her own therapeutic skills to her own life. She may also experience ongoing personal growth as a result of her professional life as a therapist. Describing her motivation to work hard in therapy, Felicity stated: "I took this whole thing like I was on a mission to get as much accomplished as I could."

6. **Extra-therapy life-events**
   - No extra-therapy life-events (such as births, deaths, new jobs, new relationships, separations, etc.) during the time of her therapy that were likely contributory to change were identified.

7. **Psychobiological factors**
   - No psychobiological factors, such as medication, remedies, or health changes that likely contributed to change were identified.

8. **Reactive effects of research**
   - Felicity's PQ scores dropped after the first session, which may be a result of Felicity's efforts to crystallize and be mindful of her therapy goals, and may have contributed to her experience of reduced distress.

Affirmative Rebuttal of the Skeptic Case

The purpose of this rebuttal is to challenge the arguments and evidence put forward in the skeptic brief that support the case that Felicity's changes resulted from non-LI therapy processes and alternative explanations. The affirmative rebuttal addresses a few specific skeptic points as well as conceptual arguments.

Relational Artifacts/Buy-in

- Client accounts for change were specific and backed up by examples, making it unlikely these were attempts to please the researcher or therapist. Elliot (2002) suggests that the validity of the interviews is higher when conducted by a separate researcher who did not serve as the therapist for the study, which was the case for this study.
- The skeptic point about buy-in is questionable. Felicity's first word of response to the post-therapy Change Interview question "what has therapy been like for you?" was "surprising," followed closely by "challenging, but I got a lot out of it," which does not indicate initial buy-in. Further it is not known how hope for or even some expectation for change may be tied to the relational artefact of wanting to please the therapist to the degree of misreporting change. There is no indication in the data that supports this.

Common Factors

- LI is a therapy that makes especially good use of high calibre therapeutic skills such as attunement and regulation/containment. Though these may be referred to as 'common factors' because they are found to be important in many types of therapy, some of these factors are even more essential, central, and powerful in some therapies than others. Attunement is one such example for LI.
- The client's experience as a client and a therapist experiencing and employing various interventions and approaches puts her in a unique position to not over-attribute non-LI factors, or common factors to LI. In the first Change Interview, she reports, "I still value talk therapy etc. but I know this is a tool that works – at least for me!" In response to the question, "Is there anything about this therapy specifically that doesn't happen in other therapies that you found helpful?" Felicity responded, "I know that going back to visit or rescue your former self happens in other therapies but I don't think it's as effective when you don't follow that up with: 'now you are in the present…' You know I think that part of it [LI protocol] is really solidifying the resolution of that reactivity from back then… and I don't think I would have gotten [here] with a different type of therapy."

Cumulative Effects of Therapy/Investment in Therapy/Self-Correction

- We agree that Felicity had an investment in therapy; she had worked on her own personal growth in therapy and become a therapist herself. There is no argument that the higher functioning a person is they would have more resources to put toward solidifying gains, however the changes Felicity experienced during this three-month period indicate specific changes as a result of specific work in therapy during this time.

Expectancy/Wishful Thinking

- If all the changes were expected, it may have been due to wishful thinking, which is evidenced by the use of vague reports of change rather than specific, experience-based

reports such as Felicity's were. Felicity reported specific changes and provided examples reflecting both internal shifts as well as behavioural change (for example not only feeling less reactive internally, but now also starting to respond to her brother's emails).

- In Change Scale I at both post-therapy and one month follow up Change Interviews regarding the level of Felicity's expectancy for change in therapy, six of the eight areas cited were a four or five of five indicating that she was surprised by the changes. Felicity appeared to report her expectancy of change realistically because she was able to identify some areas of change that were expected, thus demonstrating a balanced rather than skewed response style in this area.
- Though Felicity wanted to experience LI in part to learn about it as a therapist, and she expected to change based on reports she had heard, she also reported being surprised when she experienced the felt sense of the changes in her body: "I expected [change] based on what other people reported, but to really feel it was a surprise. I intellectually knew what we were going for, but to feel it was a surprise."

Reactive Effects of Research

- Felicity's mean PQ scores did fall the most sharply in the early stage. Her mean PQ scores rose somewhat between sessions 2 and 6 (but not nearly as high as pre-therapy), and then continued on a general downward trend with the overall improvement of a mean drop of 3 points that was sustained from session 11 through follow-up. This indicates that whatever the reasons for the early drop that there was still a substantial and sustained overall positive change.

Skeptic Rebuttal of the Affirmative Case

In this rebuttal of the affirmative case, challenges will be made to the arguments put forward.

Relational Artifacts/Confirmatory Bias

- Psychotherapy research demonstrates that participants tend toward influenced performance (e.g. Hawthorne effect) and influenced reporting, and thus the 'people-pleasing' /relational artefact/over-attribution issues are not as minor or to be as easily dismissed as the affirmative team is tending toward.
- The skeptic team brought attention again to the role of the fact that Felicity is also a therapist and that her curiosity around LI as a tool strengthens the confirmatory bias dynamics.

Within-therapy Process-Outcome Correlation

- With regard to LI's theoretical and conceptual focus on integration, the skeptic team pointed out that any claims for neurological change must draw upon physiological and observational data and not exclusively self-report.

Common Factors

- The skeptic team acknowledges that it is plausible that common factors work in LI, as they do with most established therapies, but put out a reminder that case studies are not equipped to measure them and account for them properly the way research designs employing control groups can.

Affirmative Summary

The affirmative team believes that while common factors had a role, there is a very strong case, with multiple types of direct causal link evidence, that supports that Felicity experienced substantial change during the period of the study and that it can be substantially attributed to the LI therapy via its treatment of developmental and other trauma and its therapeutic building of self structure and affect regulation.

Skeptic Summary

The skeptic team acknowledges that change occurred that was not trivial, but challenges the substantial attribution to the LI therapy based on the influence of other non-therapy factors such as expectancy, investment in therapy, and self-correction.

APPENDIX N

Rich Case Record: Kappa

Overview

The client, Kappa (not her real name) was exposed to this research study by coincidently contacting one of the three LI therapists that were doing the therapy. A friend's mother had introduced her to the idea of counselling, and Kappa made contact during the time period that all inquiring clients were exposed to the existence of this research through a brochure. Kappa was interested in supporting research that might help others with similar issues. She contacted the primary investigator for more information and went on to screening and then selection for participation.

Kappa had just started her first year of college and is living on campus in student housing. Kappa's original description of herself, her background and her reasons for seeking LI therapy included: "mom and dad weren't around; I raised my brother from early on; I was in an extremely bad car accident a couple years ago, am sporadically on an anxiety pill; I just started college and am not good with transitions." Kappa presented as capable but somewhat disregulated and anxious. She describes herself as energetic, loving and maybe an over thinker. Others that know her well would also say she is a helper, sympathetic, adventurous, intelligent and caring. The therapist described Kappa as: "perfectionistic, attractive, social, intelligent, resourceful and used to a caretaker position. She displays a lack of affect regulation (highly anxious/dissociative), instability, and a lack of boundaries being fully open to everyone."

Kappa's list of problems to address in therapy revolved largely around difficult feelings and/or worry about family members and various relationship issues and patterns. Her list also included panic attacks. Kappa had ten LI therapy sessions during the three-month study period.

An outline of the types of data collected with corresponding dates is provided in Table 1. All data collection was done by the principal investigator at the pre-therapy, post-therapy, and follow-up points, and the therapy was done by an experienced LI therapist who is also an approved LI consultant and trainer. Except for completing the Therapist Session Notes Questionnaire (TSNQ) after each session, there were no differences from usual for the therapist who was instructed to work with her client as she would normally.

Table 1.
Outline of Data Collected During the Study

Screening – December 6, 2013

- Demographic/screening Questionnaire

Pre-therapy – January 11, 2014

- CORE-OM
- Personal Questionnaire (PQ) created, and baseline scores captured
- Adult Attachment Interview (AAI)

Therapy – 10 Sessions: January 14 - April 9, 2014

- Personal Questionnaire (PQ) – completed by client after each session*
- Helpful Aspects of Therapy (HAT) – completed by client after each session*
- Therapist Session Notes Questionnaire (TSNQ) – completed by therapist after each session*

*submitted to the principal investigator independently

Post-therapy – April 11, 2014

- CORE-OM
- Personal Questionnaire (PQ)
- Change Interview
- Adult Attachment Interview (AAI)

One-month Follow-up – May 7, 2014

- CORE-OM
- Personal Questionnaire (PQ)
- Change Interview

Screening Information

Kappa was not currently receiving psychiatric services, professional counselling, or psychotherapy elsewhere. She had never experienced LI therapy. She had been in a bad car accident and was only sporadically taking medication for anxiety, muscle relaxation, and a pain receptor blocker (antagonist) for migraines as needed. She was not taking herbal remedies or recreational drugs. Her reasons for seeking LI therapy at this time fit the criteria for being longstanding and likely influenced by her attachment history.

Pre-therapy Interview Data – January 11 (Summarized)

Reasons for Seeking Therapy

Kappa's reasons for seeking therapy have been briefly described in the overview. Her list of itemized problems that were rated throughout the study were co-created and given baseline ratings in this pre-therapy meeting with the principal investigator. The items are listed in the section on the Personal Questionnaire (PQ) along with their progressive ratings through until the one-month follow-up.

Family of Origin/Early Attachment History/Adult Attachment Interview

Mary Main and colleagues developed the Adult Attachment Interview (AAI; Main, Kaplan, & Cassidy, 1985) as a way to investigate the adult's state of mind with respect to overall attachment history. The AAI is a semi-structured interview in which adults are asked to reflect on and describe their relationships with both parents as well as experiences of loss, rejection and separation during early childhood. Analysis of the patterns of thought, memory and affectivity in these narratives reveal variations in not just events, but significantly and more importantly in the quality of representation of these experiences via narrative coherence and defensive strategy. The AAI's questions intentionally activate the attachment system and by doing so elicit similar states and strategies for dealing with emotional pain (e.g. dismissive restriction or preoccupation) that were learned and patterned unconsciously in childhood, which are then revealed in the discourse of the interview.

Analysis and scoring of the AAI (Hesse, 2008; Main & Goldwyn, 1982-1998 reported in Crowell, Fraley, & Shaver, 2008; Main, Hesse, & Goldwyn, 2008) is done from a transcript of the interview regarding several scales. Patterns of scale scores are used to assign the interviewee to one of three major classifications: autonomous (secure), or (insecure): dismissing or preoccupied. Individuals may additionally be classified as 'unresolved' if they report attachment-related traumas of loss and/or abuse and manifest confusion and disorganization in the discussion of that topic. This unresolved categorization is given precedence over the other major categorization this individual receives and is considered an insecure classification. Finally, a 'cannot classify' designation is assigned when scale scores reflect elements rarely seen together that are usually highly incoherent.

Kappa's early history and attachment relationships were varied and chaotic with the exception of a steady and caring maternal grandmother. Kappa reported a disturbing progression of events and developments in her childhood with her father. Kappa reported early memories of her father being loving and making an effort to have fun with Kappa and her brother but after Kappa's mother and father split when she was five or six, Kappa's father fell quickly and deeply into alcoholism and dangerous and abusive behaviour. When Kappa and her brother were with their father, and as early as six or seven, Kappa had to see to making dinner because their father was too incapacitated. She had no contact with him for the majority of her teen years continuing up to the recent past due to a restraining order as well as imprisonment. Her mother was a workaholic, and her mother's new boyfriend after she left Kappa's father was physically and emotionally abusive toward Kappa.

Kappa's pre-therapy AAI transcript reflects much of this situation in terms of providing historical information, however it is also somewhat confusing at first glance. The coded transcript of this interview indicated that Kappa's state of mind regarding attachment was secure/autonomous with an element of contained anger. This finding is further discussed in the section on the post-therapy AAI interview.

Outcome Data

The following is an explanation of each outcome/change measure and the subsequent results/responses collected in the study.

CORE Outcome Measure (CORE-OM)

The CORE-OM (Core Systems Group, 1998) has been designed to be suitable for use across a wide variety of service types as an initial screening tool and outcome measure that addresses global distress. It taps into a pan-theoretical 'core' of clients' distress, including subjective well-being (four items), commonly experienced problems or symptoms (twelve items), and life/social functioning (twelve items). In addition, items on risk to self and to others (six items) are included as clinical flags rather than a scale. Features of this measure include high and low intensity items to increase sensitivity and a mix of positively and negatively framed items. Kappa's pre-, post-, and one-month follow-up scores are shown below in Table 2 along with gender-specific normative mean scores from clinical and non-clinical populations and cut-off scores between clinical and non-clinical for females.

Table 2.

CORE-OM Mean Scores by Dimension with Normative Clinical and Non-clinical Means

Dimension	Pre	Post	F/Up	Non-Cl	Clinical	Cut-off
Well-being	1.5	0.5	1	1.10	2.41	1.77
Symptoms/problems	2.08	0.5*	0.5*	1.00	2.28	1.67
Anxiety	2.75	0.75	0.5			
Depression	1	0.5	0.25			
Physical	2.5	0.5	1			
Trauma	2.5	0	0.5			
Functioning	1.58	0.17*	0*	0.86	1.84	1.30
General	1.75	0.25	0			
Close relationships	1.25	0	0			
Social relationships	1.25	0.25	0			

Risk to self/others	0	0	0	0.15	0.61	.31
All non-risk items	1.79	0.36*	0.36*	0.95	2.11	1.50
All items	1.47	0.29*	0.29*	0.81	1.85	1.29

Personal Questionnaire Data

The PQ (Wagner & Elliott, 2004) provides a brief, individualized, weekly outcome measure with items that are generated by the client's presenting problems and co-constructed by the client and therapist or primary investigator before the therapy sessions begin. In this case, Kappa was asked to consider her goals for therapy prior to meeting and then she and the primary investigator collaboratively created the PQ during the pre-therapy interview. Items were generated based on the most important problems in the client's view. The areas of symptoms, mood, specific performance, relationships, and self-esteem were considered in attempting to define and clarify each item or issue in terms that could be readily assessed by the client each session (Elliott, Mack, & Shapiro, 1999). Rather than providing a standardized assessment of generic outcome criteria, the PQ's strength is that it provides a questionnaire tailored to the client's specific issues and concerns that they would like to address in therapy and in which they would like to see change. As such, the PQ serves as a client-driven outcome measure.

Kappa's problem items covered a range of issues involving family of origin relationships, panic attacks, behavioural patterns, and feelings. A total of twelve items/problems were listed at the pre-therapy interview meeting. The client filled out her PQ pre-therapy, after most of her therapy sessions (see below), post-therapy, and at the one-month follow-up. Each item/problem is rated from one to seven according to how much it has bothered the client during the past seven days (1= not at all, 2=very little, 3=little, 4=moderately, 5=considerably, 6=very considerably, 7=maximum possible). Kappa usually filled out her PQ days after each session, and did not complete a PQ after sessions 5, 8, 9, or 10. The post-therapy PQ was therefore almost one month after her last report after session 7. Table 3 and Figure 1 illustrate Kappa's responses on the PQ by item throughout the study, and Figure 2 illustrates the changes in mean scores. Table 4 displays the outcome data for Kappa's PQ.

Table 3.

Personal Questionnaire (PQ) Items/Problems & Ratings Across the Study

	Problem/Item	Pre	1	2	3	4	6	7	Post	F/Up
1	Tendency to emotionally cheat while dating	7	6	4	6	5	4	3	1	1
2	Panic attacks	7	5	6	3	4	5	4	1	2
3	Unclear on how to deal with/relate to father	7	6	6	6	3	4	4	2	2
4	Difficult feelings (hate, anger) around mom's boyfriend	7	7	6	3	3	7	7	5	4
5	Not enough ability/desire to say 'no' (e.g. too much drinking)	6	5	2	6	3	3	2	1	1
6	Trouble trusting men and women	6	6	6	7	5	4	3	3	2
7	Tendency to check out when too stressed	6	7	7	4	4	5	3	2	4
8	Resentment/disdain towards boyfriends	6	6	6	5	5	4	4	1	1
9	Difficult feelings (disdain, anger) around mom	5	6	4	3	2	3	2	1	1
10	Anxiety/worry about dad	7	6	6	6	6	5	4	2	2
11	Anxiety/worry about little brother	5	6	6	6	6	6	4	2	2
12	Inconsistent in my faith	5	5	3	1	1	2	2	1	1

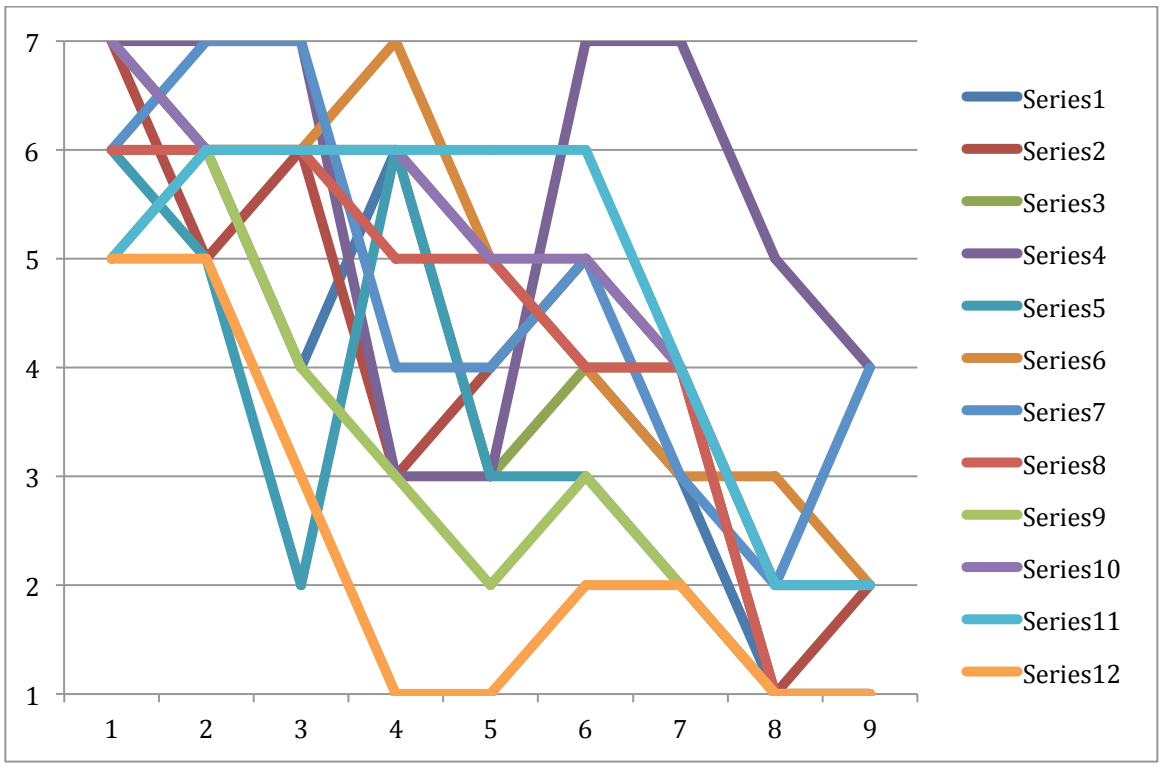

Figure 1. Personal Questionnaire (PQ) Item/Problem Trends Across the Study.

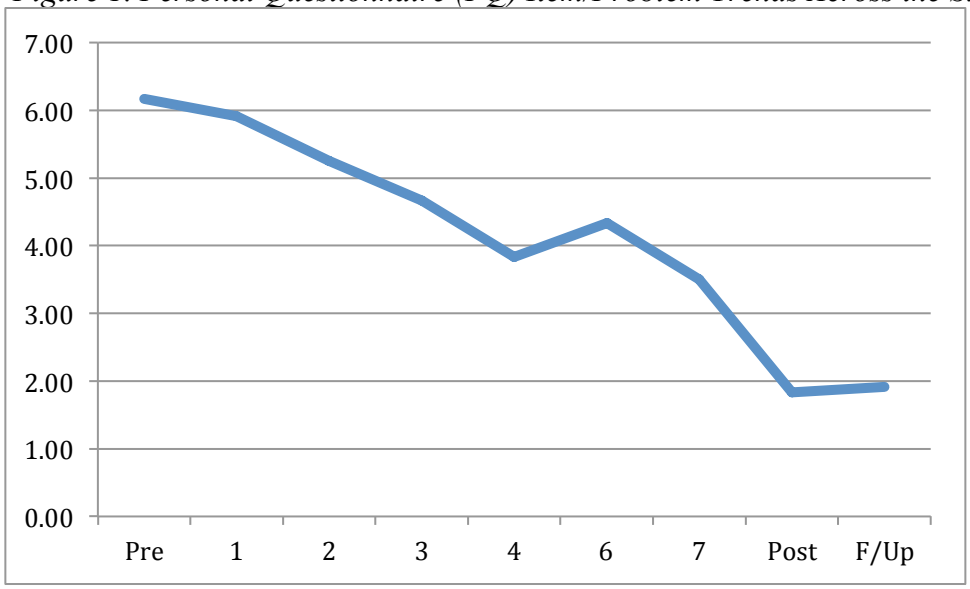

Figure 2. PQ Item/Problem Mean Scores Across the Study.

When it comes to evaluating treatment efficacy in general there is a growing recognition that traditional statistical methods can be problematic. At a minimum, though statistical significance is real rather than chance, "the existence of a treatment effect has no bearing on its size, importance, or clinical significance" (Jacobson & Truax, 1991). Questions regarding the efficacy of psychotherapy refer to real life benefits derived from it, its impact or its ability to make a difference in people's lives. Jacobson and Truax proposed various suggested

calculations for situations in which standard statistical calculations are not possible, for example when there is no normative data for clinical or non-clinical populations. They suggest that significant clinical change would be change that moved a minimum of two standard deviations beyond the mean toward functionality, and thus two standard deviations represent the cut-off (CC). They also developed a calculation for measuring a reliable change index (RC), or change that reflects more than the fluctuations of an imprecise measuring instrument. The standardized error of the difference (S_{diff}) provides an appropriate estimate of error in measuring client change (Jacobson & Truax, 1991), which provides a formula to establish a confidence level for defining the minimum reliable change index (RC) value at the 95% level (1.96 S_{diff}) in Table 4. As seen in Table 4, Kappa's mean change at post-therapy and at follow-up is greater than the minimum for reliable change, and moreover, beyond (in this case, below, which is better on the PQ) the cut-off for clinically significant change.

Table 4.

Personal Questionnaire (PQ) Outcome Data

	Caseness	RC	CC	Pre	Post	Pre-post Difference	1 mo. F/up	Pre-F/up Difference
PQ Mean scores	3.5	1.14	4.57	6.17	1.83*	4.33**	1.92*	4.25**

*Note. Caseness = cut-off for determining whether client is clinically distressed (Stephen, Elliott, & Macleod, 2001); RC =reliable change index, minimum value required for reliable change at p < .05. (Jacobson & Truax, 1991; Elliott, 2002); CC = significant clinical change cut-off at 2SDs from the mean (Jacobson & Truax, 1991). * = below CC; ** = greater than RC.*

Post-therapy AAI

Kappa's post-therapy AAI was classified as unresolved with an underlying classification of dismissing attachment. The coder's notes identify loss and abuse as underlying the classification of unresolved, and also mention that this transcript, though given an underlying classification of dismissing, was borderline for being a 'cannot classify,' which occurs when there are elements of both dismissing and preoccupied attachment patterns in the same transcript. As mentioned in the earlier section on the AAI, at first glance the coded transcripts provide feedback that is somewhat confusing. The second transcript reflects a picture of what one might expect given Kappa's history, and the first transcript reflecting a secure/autonomous classification seems misleading until one takes more of the rich case record information into consideration. There were elements and/or key relationships, such as that with her grandmother, in Kappa's history that would contribute to forming the structures that would enable Kappa to give an interview scored as secure/autonomous (with aspects such as a fairly coherent narrative, ability to comment on effects of adverse experiences etc.). There were also many elements and aspects of Kappa's early attachment relationships and experiences that would have led to the patterns evident in the second transcript. One clue into what changed between these interviews was given by Kappa in her post-therapy Change Interviews, when she explained that therapy had "helped me process issues and think about them, deal with them… something I hadn't done before." She says she was uneasy at first: "we talked about kind of hard things…I was opening things I hadn't dealt with." The second AAI snapshot seems to capture a layer that therapy had helped Kappa access.

Helpful Aspects of Therapy (HAT)

The HAT is a form completed at the end of each session for identifying important helpful and/or hindering events in the therapy session (Elliott, 1993). Items include open and closed-ended questions and rating scales to aid the client in their evaluation. The client (via the HAT) and the therapist (via the TSNQ - see TSNQ section) completed these forms independently at the conclusion of each therapy session. Kappa completed the HAT after six of her ten sessions, sometimes days after the session. She did not report other helpful or hindering events other than one for each HAT she completed. Table 5 provides a summary of Kappa's responses.

Table 5.

Client Reported Most Helpful or Important Event for Each Session on the HAT Form.

Sess.	Most Helpful or Important Event in Session	Description of Why the Event was Helpful/Important	How Helpful (/6-9)
1	…task that made me dive into my past was going through every year starting when I was three, and explaining my first memory	It was important because it made me remember a lot of things I had repressed	6.5
2	I think the actual therapy was really helpful! I think after one session I already feel a little better, and running through the LI story, helped a lot.	I felt really connected with myself in a way I hadn't before. I felt comforted, and happy memories surrounding my mother popped into my head, which was really nice!	7.5
3	We concreted my timeline and actually dove in surrounding certain people in my life. We focused on one specific person for most of the session and it seemed to really help!	I got in contact with my 'little' self. I confronted the situations that I was struggling with and dealt with memories that I had repressed.	8
4	[Therapist] and I talked about my father, and the feelings I had towards him. We went over the harder memories in my timeline, and then made sure I came to an understanding of things surrounding my father.	I think what made this helpful is I overcame some memories that I shoved in the back of my head and never confronted. I also came to the understanding that I was allowed to care for my Dad, but I just couldn't have direct contact with him when he was under that mindset.	9
6	[Therapist] and I had never talked about my recent ex, who displayed similar qualities and characteristics to my father, so we made a timeline about him	It connected feelings that I was experiencing currently to feelings in the past. Which helped me understand why I was feeling the way I was then.	9
7	[Therapist] and I worked on a birth protocol method, which connected my current self, to my infant self. She held a baby and had me imagine I was the child, and protected.	I felt a overwhelming sense of peace come over me, I felt like someone truly cared for me. I still feel at ease!	9

Therapist Session Notes Questionnaire (TSNQ)

Lifespan Integration uses a variety of protocols to target different types of issues. Primarily trauma clearing protocols include: PTSD protocol and Standard protocol. The primary structure building and affect regulating protocol is Birth to Present protocol. Other protocol variations include: Relationship pattern protocol and Cell Being protocol, but as is seen in Figure

3, each protocol engages the therapeutic processes in varying ratios. Figure 3 provides a general overview of key LI protocols and their targeted main functions. All LI protocols employ the timeline, which, when combined with the skill of the therapist's attunement and regulation contribute to integration.

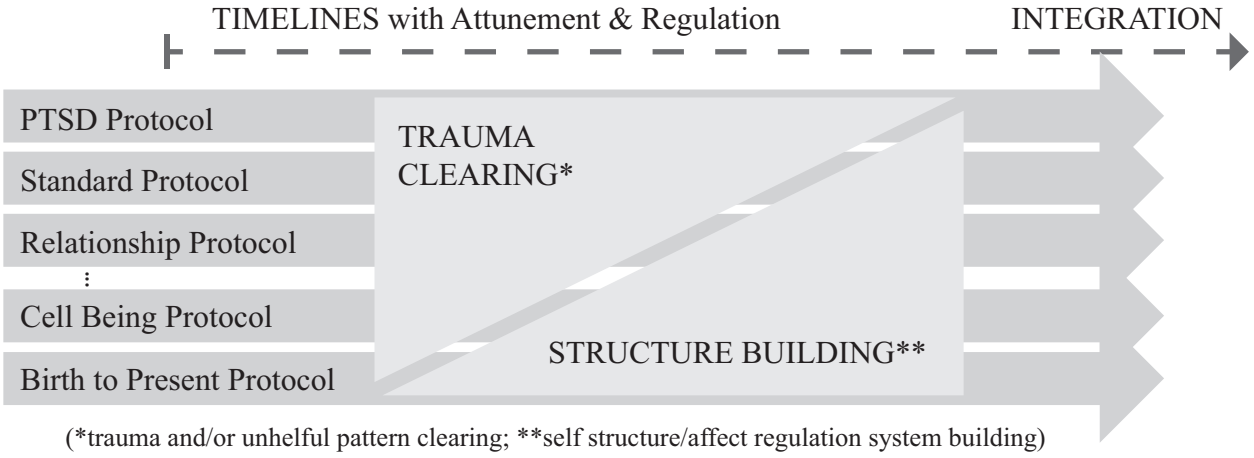

Figure 3. LI Protocols and their key therapeutic process variables.

The protocols used with Kappa in each session are outlined in Table 6 and therapist notes on important helpful or hindering aspects of therapy from the TSNQ follow in Tables 7 and 8.

Table 6.

Lifespan Integration protocols and number of repetitions for each session

Session	LI Protocol	No. of TL Repetitions	Length of session
1	None – intake session; created TL & target list	-	80 min
2	Cell Being protocol	2	60 min
3	Standard protocol	5	60 min
4	Standard protocol	5	60 min
5	PTSD protocol	3	60 min
6	PTSD protocol	4	60 min
7	Birth to Present protocol	1	60 min
8	Birth to Present protocol	3	60 min
9	Birth to Present protocol	2	75 min
10	Birth to Present protocol	3	75 min

Table 7.

Therapist Reported Most Helpful or Important Event for Each Session on the TSNQ Form

Session	Most Helpful or Important Event in Session	Description of Why the Event was Helpful/Important	How Helpful the Event (/6-9)

1	Intake session. Client revealed physical and emotional traumas received through parent relationship(s) and through accidental causes.	It gives a greater explanation for the 'freeze' response the client exhibited in our interaction.	8.5
2	Client felt 'inside' herself and was surprised and pleased about the feeling.	When around other people, she disconnects from her own personal experience and [is] enmeshed in the 'other's' experience. Therefore, anxiety/worry and over-functioning in relationships becomes a pattern.	8.5
3	Client felt high level of anxiety after 3rd TL, close to panic. Next TL client emoted anger towards mother and her boyfriend in source memory and at the end of the TL client was surprised at feeling 'better.'	Client reported maximum levels of hate and anger towards her mom's boyfriend as a presenting problem. By the end of the session, her affect when focusing on the boyfriend was more protective of self and less triggered by the boyfriend.	8.5
4	Client put together her work in the session with her making poor choices with boyfriends in the present	Client reported confusion and guilt in the early TLs around needing to provide care for the adult males in her life. By the last 2 TLs, client had a greater understanding and ease about not being responsible for others and that they need to prove themselves over time.	9
5	During PTSD protocol, client was able to connect the presenting problem – a recent abusive incident with her ex-boyfriend – with one from a month earlier.	Client was able to see how ex-boyfriend has a pattern of abusing and she can trust her 'gut' to not trust him.	7
6	New awareness of her fear of making boundaries with men. Ended session with greater confidence to increase boundaries with unsafe people.	Client has no concept of healthy boundaries She carries an internal belief that she needs to 'check up' on the men who have scared her or have been abusive to her.	9
7	Client cancelled last apt w/o explanation. She and I discussed the importance of letting me know how she is doing between sessions.	Explained "It is a re-enactment when you handle it alone or with peers. The adults in your life growing up were not helpful, so you didn't learn to ask for help very well. I want to help you. I want you to try to practice with me." Client agreed.	8
8	[Re discussion of client's upcoming trip to a remote place/people] I asked her how it felt to have me so concerned about her? She reported that she felt 'cared for' and that her mother didn't even ask any questions at all.	Client is working on boundaries and safeness for herself in relationships. It was helpful in the moment for her to have a felt sense of what being cared for is like. We followed up with a BP session where she was able to connect with the unsafe experience from her FOO.	9.5
9	Timelines/LI therapy	Kappa reported feeling so different experiencing her narrative timeline during the last repetition. She felt like it was 'smoother' and even though more memories were integrating she was comfortable and connected rather than how	9.5

		she felt at the beginning: 'all over the place physically and emotionally'	
10	Kappa reported after first TL that she felt everything was 'smooth' until the memories of her mother's boyfriend came up. Had a brief discussion about unsafe people, listening to your 'gut' about them and choices.	Many of Kappa's goals for therapy relate to her struggles in relationship to the men in her life. Her [increased] ability to trust herself to judge will give her power to choose	9.5

Table 8.

Therapist Reported Additional Helpful/Important Events and Hindering Events for Each Session

Session	Anything Else Helpful During the Session	How Helpful (/6-9)	Anything Hindering During the Session	How Hindering (/1-4)
1	The client complained of being 'overly cold' at the beginning. I explained 'cold' can be an anxiety reaction. At the end, she reported feeling warm and less anxious. Helping Kappa understand the process and what to expect is part of our attuning.	8	She is experiencing flashbacks. We ran out of time, so was not able to give as many self-care ideas	3
2	After 2nd TL client reported feeling 'comfortable in her body and an increase in peacefulness'	-	Would have liked to do one more TL	-
3	After the 2nd TL client reported remorse regarding her own partying and guilt around poor choices. Client was able to connect with the 'sadness' of being exposed to her mom & the boyfriend's lifestyle while she grew up.	7	Would have liked to do one more TL	-
4	Client was able to emote anger towards individual in source memory and by the end of the next TL reported a feeling of 'ease and calm'.	9	No	-
5	Client was able to connect with her feelings of guilt, sadness, and anger regarding co-dependent relationship and how it relates to her family of origin	-	Ran out of time, not able to do enough TLs in one session	3
6	Kappa reported greater awareness of her need for self-care (boundaries). Gave her a book re boundary violations/why (education)	9	Ran out of time again	2
7	Client reported being accused of stealing and gave a confusing story to explain. This was helpful for me to case plan. We agreed to set relationships aside in our LI work and redirect our focus towards building greater core resiliency through BP.	9	No	-
8	Kappa was able to connect with her baby self and feel anger towards her caregivers. Infant self went from overwhelmed to relaxed. Adult self felt compassionate, caring, and close.	9	No	-
9	Client able to understand the principle of her power to crack open to see, open wide, or shut a door in relationship. The door with the 'ex' needed to be	9	No	-

	locked shut. The door with her Dad could be opened a crack, see how it goes and decide as he earns trust.			
10	[Client reported events] and we were able to celebrate her ability to successfully practice what we have been working on.	9	No	-

Change Interview Data

The Change Interview (Elliott, 1999) is a qualitative interview to account for and gather detailed and contextual descriptive information relating to therapy outcome. This interview consists mainly of questions regarding the client's perception of changes since therapy began and attributions for these changes. The interview includes inquiry into whether the client is taking medications or herbal remedies and whether dosages have changed during this period. Kappa reported that she was not taking any medications or remedies at this time except anxiety medication (Alprazolam) as needed while away on her trip (a trip during the three month period). An additional goal of this interview is to gather information around whether the client was engaging in other simultaneous activities, or whether other events occurred that may have affected the credibility of the attributions. Anything that was reported in this way is listed in the client comments sections from the interviews. A list of the changes the client has experienced since therapy began is created and then the client is asked to rate the changes on three 5-point scales: 1) were these changes expected, neither, or were they surprised by them; 2) without therapy did they think these changes were unlikely, neither, or likely to have happened anyway; and 3) how important are these changes to them – not at all, slightly, moderately, very, or extremely?

The Change Interview was conducted post-therapy and at the one-month follow up. Figures 4, 5, and 6 illustrate the client's change list and ratings on these three scales.

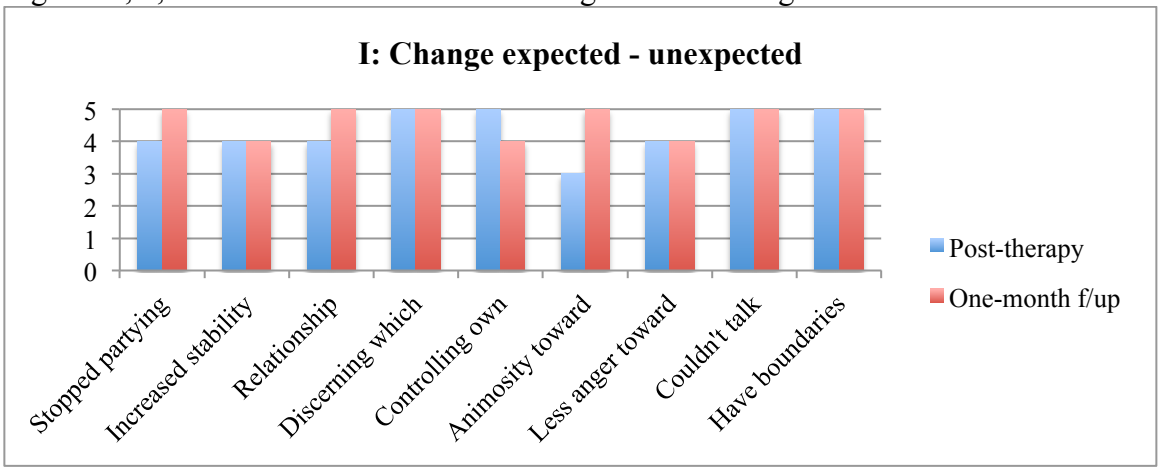

Figure 4. Scale I.
Change was: 1=expected, 3=neither, 5=client surprised by the change

Change List Key:

Stopped partying
Increased stability
Relationship struggles decreased
Discerning which relationships to keep

Controlling own world more & staying out of everyone else's
Animosity toward mom decreased and increased relationship building
Less anger toward mom's boyfriend and greater management of boundaries w/ him
Couldn't talk about my dad w/o crying and now almost at peace with that
Have boundaries now

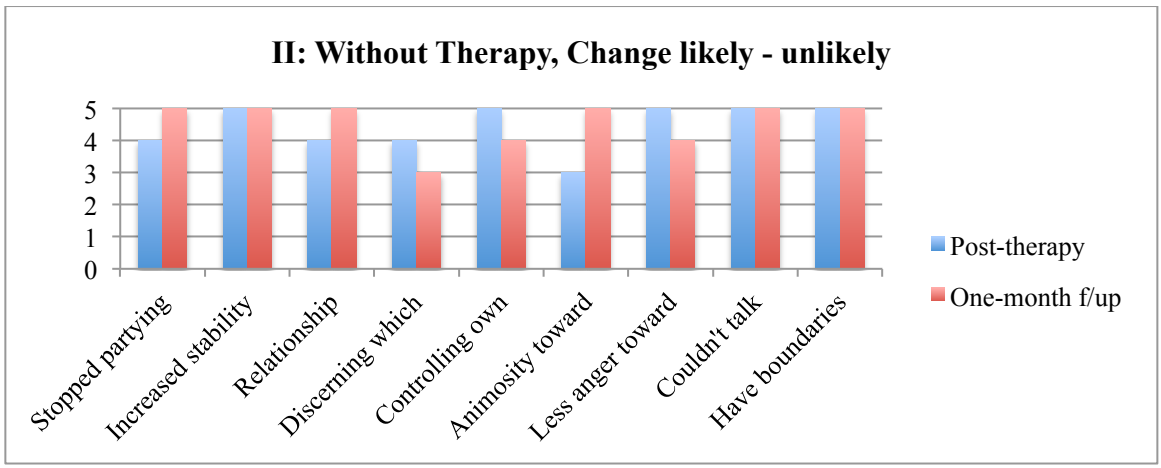

Figure 5. Scale II.
Without Therapy Change was: 1=likely to have happened anyway, 3=neither, 5=unlikely
*Note that in the Change Interview and in the original transcripts, this scale was originally reversed, with unlikely = 1, and likely = 5 in order to disrupt potential patterned client responses between the three Change Scales (always choosing the higher or lower numbers for instance). The scale and scores were reversed in this report to maintain the flow and facilitate reading.

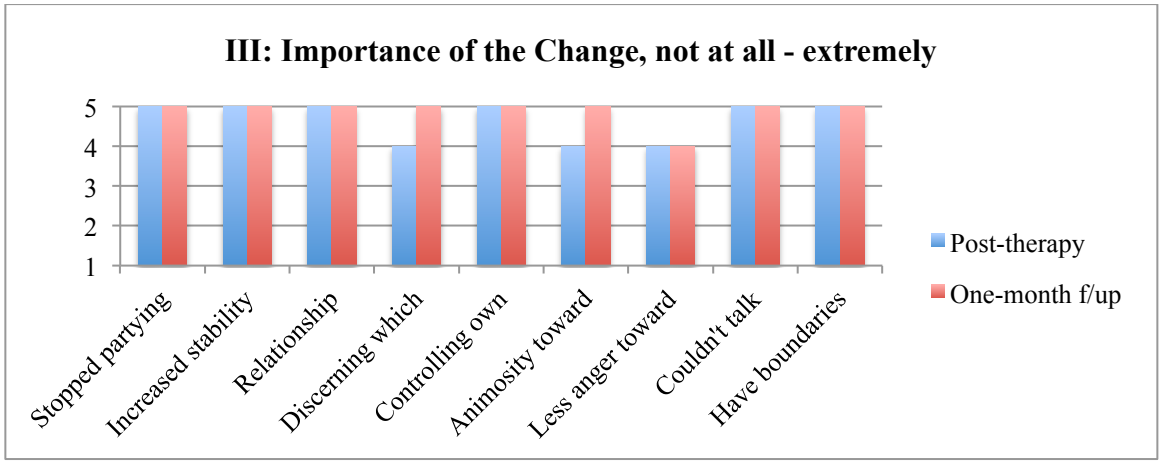

Figure 6. Scale III.
Importance of this Change to Client: 1=not at all, 2=slightly, 3=moderately, 4=very, 5=extremely

Therapist Progress Notes

The Therapist Session Notes Questionnaire (TSNQ) included room for additional session notes, comments, and observations, which are summarized in Table 9.

Table 9.

Therapist Session Notes.

Session	Notes
1	• Kappa has complex trauma. She is open and engaged. She exhibits a 'freeze' response, so I will watch for what level of dissociation exists. I have some concerns around pacing her work, but will watch how she does after the next session. We will start with Cell Being protocol and see where her internal system leads.
2	• Kappa evidenced a good ability to connect with herself. She is able to process quickly. I believe that this work is a good fit for her system. The images that were integrating were positive, negative, and neutral. Her body evidenced a leaning to the left and compassionate expressions, which matched her verbal report. We will be able to move towards clearing trauma more quickly than I expected.
3	• At the beginning of this session, when checking in on time since session 2, client reported a decrease in her desire to 'seek others to make her feel happy.' • [At exit] Kappa reported feeling minimal anxiety when thinking of the boyfriend and the realization that he is not worth her time. Client also expressed a strong feeling of love towards herself.
4	• Client had a greater understanding and ease about not being responsible for others and that they need to prove themselves to her over time. • Kappa reported feeling a new 'kind of ease and calm' and a greater sense of 'play.'
5	• [At exit] Kappa reported feeling clear that she needs to maintain and enforce strong boundaries with abusive people. NO contact. Discussed the possible need for a restraining order if needed. • We will continue with the PTSD next appointment. Added an extra appointment to address this current problem.
6	• Kappa's attachment wounds are becoming more evident in our sessions. She comes to session needing to talk and get guidance on important life issues. Therefore, we are spending the first half of each session attending to the present REAL issue. This is typical for younger clients who have not received helpful guidance from their parents. • Kappa reported decreased ability to sleep since last session. She reported that she feels a need to take care of the men. In this PTSD case, the ex-boyfriend & other male friends & family were coming to her mind during the week. • Client had greater confidence in the need to create firm boundaries for herself. Client reported some fear that she would not be able to keep the boundaries. • Kappa is developing a greater level of awareness regarding the abuse and codependent nature of her relationships with men all through her life. These past sessions have focused on her role in these relationships from father, 'step-father,' brother, and ex-boyfriend. This is important as she continues to differentiate her need for healthy love and care from her lifelong coping practice of taking care of the unhealthy males in her life in order to gain some connection. It appears that the trauma portion of these relationships has been processed, revealing her attachment and core issues.
7	• Kappa reported feeling more relaxed, happy, and self-protective after BP TL. • Kappa has now reported several instances where she has been accused of lying and/or stealing. This example today brought up a new concern regarding her lack of memory. Also, her lack of contact due to "losing her phone". These discrepancies are concerning to me. I will continue to pay

	attention to whether these are known or dissociated behaviors, compulsive manipulations of addiction and co-dependency, or actually split off patterns. Due to this, I will focus on BP until the end of our sessions together. I have noticed her freeze and "faint" responses, but now am curious what level of dissociation she may be experiencing. I did not address this directly with the client. The one BP TL we did, Kappa reported that it felt very different to her than the CB. It was more difficult to connect. We are on track, then.
8	• Kappa reported feeling appropriate care towards infant self and adult self acknowledged anger after TL 3. • Plan to continue with BP to build in safeness and nurture that was not provided with FOO.
9	• Noticed the high level of anxiety in Kappa, as she started each TL with her heels up off the ground. By the end of each TL, her feet were planted on the floor. • Kappa reported being 'really happy,' connected, comfortable after two TLs. Also and increase in images integrating in the TL. Kappa felt she would focus on her own 'shit' and not get into 'other people's shit' – felt like a light bulb moment.
10	• Kappa reported that her ex-boyfriend attempted to contact her several times in several ways one day. She reported a 30 second conversation telling him to 'STOP contacting her' and then she did not respond to the follow up text. She also reported she is really making an effort to slow herself down compared to how she usually jumps into relationship. She said, "it's interesting because I have been able to practice everything we have worked on in my real life!" • Kappa reported feeling 'great,' memories were smoother, more integration of other memories into the TL and a loving and good connection with her baby self.

Selected Client Comments from Post-Therapy Interview

• *(What changes, if any, have you noticed in yourself since therapy started?)*
"The entire list that we made. Everything has pretty much drastically changed. Before I came in I felt like I needed to party all the time, because I was in college and this is what you do in college. Then I met with [therapist] all the time, and then kind of stopped; and I found I really don't like partying. So that was really great."

• "I kind of felt, like stability in myself. I struggled a lot with relationships before. Relationships with guys, relationships with girls, and when we were doing the timelines she [therapist] pointed out why I struggle with relationships, like what parts of my life made me do that. And I kind of took note of that, and then worked at like just getting the people out of my life that I don't need. I think that was really important. I always used to try to hang onto everybody no matter if they were a bad influence on me or not."

• "And, that I can't control everything, I can't control everybody else's worlds and that I can just control my world—and I've done that! And it's been awesome! And life is so great. I am staying out of everybody else's stresses. [For example] I always struggled with my brother and what he was doing, and then when I stepped back and let him take control, he is doing awesome, and that was a big one."

• "I have had a lot of animosity toward my mom for a lot of things, and then doing the timelines and stuff, I kind of almost learned to forgive her and realize that she did mess up, but she is not a bad person, and it's not kind of where she is at now… So our relationship is definitely starting to build up more."

- "Less anger towards [mom's boyfriend], but that is still an issue; but I think he is just not a good person basically. It sucks what he did, but he's probably not going to change."

- "I think it was really interesting, when I came in I wasn't basically able to talk about my dad without crying, and I don't know if it was talking about it so much that I feel comfortable talking about it now, or cuz of dealing with things, but it's kind of almost like feeling at peace with it. That was probably the most helpful, cuz it was almost disabling. It was amazing how much I let someone that's not in my life affect my life."

- "Boundaries. Boundaries. I have boundaries!" *(How does that feel?)* "Great. I didn't have any before. I never had any boundaries set around relationships whether it was guys or girlfriends or parents or siblings. I kind of let people walk all over me. And I haven't done that anymore."

- (*What in general do you think has caused these various changes?)*
"Um, I think going through the timelines, I think therapy had basically all, probably 90%. I did start exercising though so I guess I could throw that in there..."

- (*Can you sum up what has been helpful about your therapy so far?)*
"Um, we worked on birth protocol so kind of like the visualization of things…at first it was a little weird, but um I think that was, like visualizing me as a child and then going through these things and like explaining it. I think, like explaining it to myself and then having somebody explain like kind of further was really helpful."

- (*What kinds of things about the therapy have been hindering, unhelpful, negative or disappointing for you?)*
"At first I was kind of uneasy… we talked about kind of hard things and then I freaked out and then I cancelled an appointment…I was just really like stressed out but it [was] just cause I was opening things that I hadn't dealt with. So that was hard. Um, what else was difficult? Sometimes when we'd be going through the timelines, um, like my mind would get stuck on one part but then [therapist] would keep going… Now I'm like 100% better now after talking about it, so I think it was good but at the time it was not."

- (*Anything else about problematic aspects? Has anything been missing from your treatment? What would have made your therapy more effective or helpful? Any comments there?)*
"No. Don't really have any."

- (*How do you feel about the goals you chose at the beginning? Do you feel like you did a good job and picked all the things that were important to you, or do you feel like you missed some or -?)*
"Well I think the goals that I picked at the beginning opened up ideas to things that I need help with that I had no idea about. Like they were just kind of like a first, mm, how do or something like not insignificant but like they stem down from the real problem, like helped me deal with the real problem. Does that make sense?"

(So if I'm hearing you right you feel like you dealt with the iss-, or the specific thing that was a goal, but you also saw change in the whole issue.)

"Yeah. Yeah… Which is cool. It was unexpected. It was definitely surprising but it was really great, I'm really glad I did it. I'll probably keep doing it."

- (*At the beginning at one point you said 'well I'll say that later,' do you remember what that was?)*

"Mm, oh that was the issue with [mom's boyfriend]. Yeah because it's going to probably be a consistent struggle, but I've found ways to kind of deal with it now which is great and, um, like one, a situation happened where he was at my house and he started an argument, it was expected cause that's just his personality, um, and rather than dealing with how I usually deal with it which would just be to kind of be an enabler to like the argument I just left. It was like I don't need to, yeah."

Selected Client Comments from One-Month Follow-Up Interview

- (*So how are you doing?)*

"I'm doing well... I'm ok now. Things are ok now."

- (*How was therapy for you looking back now?)*

"It was great. It felt weird at first. I didn't really know what this was doing, spilling out a bunch of stuff... But it helped me categorize my issues, unclutter them, deal with them."
(And so how do you look at that now? How do you look at the fact that you did it?)
I'm happy that I did it cause I can, I can talk about my dad now without basically choking up and like I feel so like free from all these issues that were just kind of hampering me and not let me do things.

- (*What changes if any have you noticed in yourself?)*

"My attitude on some things have kind of brightened. Before therapy like I couldn't talk about my dad. Now I can. Before I literally couldn't talk about him without crying. I think there was just so much bottled up emotion about it, and I kind of released that during therapy and now I can just talk about him. I understand more: [therapist] gave me useful tips to think about him. And there's just so much negative memories that darkened my head, so when I talked to her about it, and went over it, remembered it again and again, it just kind of came to peace. I was at peace with it."

- "I had really negative—I wasn't able to be in relationships; I was a bad friend. I have become more trusting of people. And it's been reciprocated. Like my relationships have grown because I've been putting more of myself into them."

- "I think I really struggled with relationships with guys and boundaries. So I didn't really know boundaries, like my own boundaries… I was in a very very bad relationship before I went into counselling, and I ended it like a week in, and I'm in a very new one now and it's just so different, and is such a good way… Like [now] I have my own boundaries, I know like what to do and not to do… Um, which also leads back into trust, like I need to trust that this person [new boyfriend] is not gonna do that [hurt me] and I have. It's awesome."

- "And I had a really bad relationship with my mom, no respect for her, no like compassion towards her. But [therapist] helped me realize ya she messed up, but there is grace to be able to forgive. She is still kind of stupid, but she is doing good… I think I just came to the understanding that that's her, and that she can still love me. It's basically she's been dating this awful person. I think it's awful that she's with him, but my feelings aren't going to change that, so I just remove myself from being around him and just hang out with her and it's totally fine."

- *(How has your relationship with her changed?)*

"We used to just bicker about stupid things, and I would be negative towards her, and that would just cause arguments and tension. There's just no tension. I don't speak my mind about *that* situation because there's nothing that's going to happen because of it. That was also kind of good to learn."

- *(On a scale of 1-10, 10 being lousy, how would you rate the relationship before with your mom, and now?)*

"Like an 8 or 9 before. And probably like a 2 or 3 now."

- *(Can you say more about why you didn't or why you think you didn't trust people?)*

"Like I didn't have this foundation like growing up. I didn't, my parents didn't lay a foundation, like I didn't have any boundaries…"

- *(Now that you are trusting more, can you say more about that shift?)*

"Yeah, well I think interest more in building new friendships, like I was a very independent person and it's kind of nice not having to be so independent, like being able like to rely on people which I'm still struggling with but it's nice."

- *(Have other people noticed changes in you?)*

"Yeah, that was kind of cool… Okay so last night, my big sister [in sorority] was talking to her roommate and her roommate said 'it's really cool like seeing… it's like Kappa just seems like she really knows herself now.' That was just a really cool compliment."

- (*Regarding the partying, what part of you was thinking this needs to change and why?)*

"I think I knew that I shouldn't be doing it, but I didn't have enough strength and I don't want to say independence, but it almost fits that. It felt weird because everybody was going out if I was staying in."

- (*How has this changed?)*

"I have built a different community, but I see that it wasn't good. Before it was such a want to get drunk, and I don't like getting drunk. I never really liked getting drunk. There's no desire. No want. I don't feel the need…

- (*You said last time that you had an increased inner stability. Can you say more about that?)*

"I think it's given me kind of like confidence to be like what I want to be. I don't need to be something that my mom wants me to be or like I don't need to be what the sorority stigmatizes, like I'm gonna be me."

- (*You mentioned in the HAT that you felt really connected with yourself in a way you hadn't before. Can you say more about that?)*

"I think especially with Birth Protocol, like before this I would just be floating through my days. Floating not really checking in with myself, just kind of going. Therapy gave me, really being with yourself, I can just read myself better because of that."

- (*Can you describe the different LI protocols, how they were for you?)*

"It [Standard Protocol] helped me process issues and think about them, deal with them, and sort through them, something I hadn't done before, and then Birth protocol brought me down into my body, and gave me a better sense of what I think of myself."

Affirmative and Skeptic Briefs

Affirmative Brief

In HSCED, the purpose of the affirmative case is to present the case for (1) the client changing substantially over the course of therapy, and (2) that this change was substantially due to the therapy (Elliott, 2001, 2002). Elliott also described five types of direct evidence linking to therapy, of which there should be at least two types present. These five types of direct evidence are:

- Retrospective attribution
- Process-outcome mapping
- Within therapy (session-session) process-outcome correlation
- Change in stable problems
- Event shift sequences

The affirmative brief has three sections: the case (addressing the five types of evidence), rebuttal of the skeptic case, and a concise summary. The affirmative case is followed by the skeptic case, both rebuttals, and both summaries.

Based on the data in the rich case record, the affirmative team indicated that Kappa changed substantially over the course of therapy. Kappa's scores on her pre-therapy CORE-OM indicate that she was near the clinical mean for distress in the areas of symptoms (particularly anxiety, physical, and trauma) and functioning (general as well as social). Kappa's overall pre-therapy CORE-OM score was below the clinical mean for females, but still well into the clinical population. By post-therapy, Kappa had moved to well under not only the clinical cut-off, but also well under the mean for the non-clinical norm for females. The Adult Attachment Interview (AAI) feedback indicates that at post-therapy Kappa was accessing layers of her experience she had apparently been suppressing earlier, but there is no clear information regarding stable shifts in attachment patterns. In the PQ, which represented Kappa's problems that she was bringing to therapy, there was significant comprehensive change. Her mean PQ ratings went from 6.17 pre-therapy to 1.83 at post-therapy and to 1.92 at follow-up, a mean improvement of 4.25 at follow-up, which is far above the reliable change index of 1.14, $p < .05$, and far below (better than) the cut-off representing clinically significant change (Elliott, 2002; Jacobson & Truax, 1991). Kappa indicated via Change Scale III that the changes she experienced in therapy were an average of 4.67 (post-therapy) and 4.89 (follow-up) out of 5.0 in importance to her, where 1 = not at all important, and 5 = extremely important. The qualitative data of the weekly Helpful Aspects of Therapy (HAT), weekly Therapist Session Notes Questionnaire (TSNQ), and post-therapy and follow-up Change Interviews also reported positive client change reported by the client and observed by the therapist over the course of therapy. In summary, Kappa reported that "everything has pretty much drastically changed" on her list of original issues brought to therapy, that overall she feels more stability within herself, and has seen overall global improvements with relationships as well as the way in which she engages in them.

The affirmative team also indicated that the rich case record evidence supported the therapy as a substantial direct cause of these changes. In the weekly Helpful Aspects of Therapy (HAT), the client identified important and helpful factors for each session, giving these factors

average ratings of 8.17 out of 9 for degree of helpfulness (where 1 = extremely hindering, 5 = neutral, and 9 = extremely helpful). The items Kappa identified in the HAT not only corresponded to overall goals for therapy, but also to the therapist reported important factors for each session, as reported in the Therapist Session Notes Questionnaire (TSNQ). In the change interviews the client reported 8 of the 9 areas of change as 'unlikely to have occurred without therapy' with her post-therapy mean at 4.44 and her follow-up mean at 4.55 where 1 = the change was likely to have happened anyway, 3 = neither, and 5 = unlikely to have happened without therapy.

The following is a summary of the causal evidence, which highlights specific events or processes that brought about the reported changes.

6. Retrospective Attribution: Client attributes changes to therapy in general

- As reported in the introduction, in Change Scale II about the likelihood of the changes without therapy, Kappa indicated that the majority of her change was unlikely to have occurred without this therapy (mean at follow-up was 4.55 out of 5.0 for unlikely).
- In the post-therapy Change Interview Kappa attributes the changes she has noticed to "going through the timelines, I think therapy and basically all, but probably 90%. I did start exercising though so I guess I could throw that in there." The Change Interview question clarifies that she should consider other contributing life events as well, so Kappa's answer reflects her effort to take this into account.

7. Process-Outcome Mapping

- In Kappa's HAT forms that were completed after intake (5 of 9 sessions), Kappa's most important therapy event pertained directly to the LI protocol utilized that session, and most are directly tied to how it contributed to her desired outcomes. These were reported as being 7.5, 8, and 9 out of 9 helpful (on a nine point scale where 5 is neutral, 9 is extremely helpful, and 1 is extremely hindering). These comments almost always also corresponded with therapist comments in the TSNQ. Some examples include:
  - In the HAT after session two, Kappa describes "running through the LI story [timelines] helped a lot…happy memories surrounding my mother popped into my head, which was really nice," and which was a change from her general feelings toward her mother reflected in her PQ item 9 (difficult feelings of anger and disdain around mom). Item 9 went down 2 points after this session (reported as the PQ in session 2 because Kappa filled out both the PQ and HAT after each session).
  - In the HAT after session three, Kappa reports that "we focused in on one specific person [mother's boyfriend] for most of the session and it seemed to really help!" The therapist reported that Kappa's affect during this session went from extreme hate toward her mother's boyfriend to "more protective of self and less triggered by the boyfriend." Kappa's PQ item 4 regarding difficult feelings of hate and anger with her mother's boyfriend went from 6 to 3 after this session.
  - In the HAT after session four, Kappa reports "we went over the harder memories in my timeline…what made this helpful is I overcame some memories I [had] shoved in the back of my head and never confronted." Kappa's PQ item 3 regarding being unclear on how to relate to her father, and item 6 regarding having trouble trusting men and women both went down 2 points after this session. The therapist reported in

the TSNQ that Kappa "put together her work in the session with her making poor choices with boyfriends in the present" and that she shifted from confusion and guilt around needing to provide care for the adult males in her life to having a greater understanding and ease about not being responsible for others.

- In the TSNQ for sessions 5 and 6 the therapist reports that their work resulted in Kappa gaining insight into a pattern with her boyfriend and that she "can trust her 'gut' to not trust him," and "ended session (6) with greater confidence to increase boundaries with unsafe people." Both PQ items 6 and 8 (trouble trusting men and women, and resentment/disdain towards boyfriends) went from 5 and 5 steadily down to 3 and 1 by post-therapy, and 2 and 1 by follow-up. Likewise in the TSNQ for session 10 the therapist reports: "many of Kappa's goals for therapy relate to her struggles in relationship to the men in her life. Her [increased] ability to trust herself to judge will give her power to choose."

- In the post-therapy Change Interview, Kappa reports that Standard protocol (her general reference to the protocols that were not Birth protocol) "helped me process issues and think about them, deal with them, and sort through them, something I hadn't done before."

8. Within-Therapy Process-Outcome Correlation

The LI protocols have differences that are geared to facilitating theoretically central in-therapy process variables: primarily trauma clearing or structure and affect regulation system building, and, all of them employ a timeline that works toward facilitating integration (theoretically correlated with increased mental health, resilience and optimal functioning).

According to the therapist notes in the TSNQ, trauma-clearing protocols were used in sessions 3 through 6; structure building/affect regulation building protocols were focused on in sessions 2, and 7 through 10. In order to examine this possibility for Kappa's therapy, correlations between the therapist's choice and use of LI protocols and difference scores on the PQ were examined. For the most part there was regular and consistent improvement seen in the PQ scores with every PQ item ending up between 2 and 6 points lower at post-therapy and follow-up. There were also three intervals where items increased by more than one point, two of these were spikes of 4 points: 'difficult feelings around mom's boyfriend' (item 4) went up from 3 to 7 between sessions 6 and 7, and 'not enough ability/desire to say no – e.g. too much drinking' (item 5) went up by 4 points between week 3 and 4. Sessions 2, 3, 4 and 7 saw shifts correlated with the protocol/therapy process variable, and sessions 3 and 4 in particular saw corresponding shifts greater than the RCI of 1.14 tied to just those sessions.

- Session 2 (self structure building protocol): In the HAT after session two, Kappa describes feeling "really connected with myself in a way I hadn't before"… Kappa's PQ scores for items 5 and 12 (not enough ability to say no, and inconsistent in my faith) went down two points each after that session. In the TSNQ, the therapist notes, "when around other people, Kappa disconnects from her own personal experience and [is] enmeshed in the 'other's' experience. Therefore, anxiety/worry and over-functioning in relationships becomes a pattern. [After session timelines] Kappa felt 'inside herself'." In the follow up

change interview, when asked to elaborate on this comment from the HAT about feeling connected with herself, Kappa responded: "I think especially with Birth protocol, like before this I would just be floating through my days. Floating not really checking in with myself, just kind of going. Therapy gave me, really being with yourself, I can just read myself better because of that." Kappa also made comments about increased inner stability and having a new confidence to be what she wants to be rather than conforming to the expectations of others.

- Session 3 (Trauma clearing protocol). Kappa's mother's boyfriend was the focus of trauma clearing in this session. After the session Kappa reported that it really helped. Her PQ score for item 4 (feelings of anger/hate around mom's boyfriend) went down from 6 to 3. The therapist notes for this session include, at exit "Kappa reported feeling minimal anxiety when thinking of the boyfriend and the realization that 'he is not worth her time'. Client also expressed a strong feeling of love towards herself."
- Session 4 (Trauma clearing protocol) with the focus on Kappa's father. Kappa reported "I think that what made this helpful is I overcame some memories that I shoved in the back of my head and never confronted." The therapist reported: "by the last two timelines the client had a greater understanding and ease about not being responsible for others." Kappa's PQ item 3 (unclear on how to deal with/relate to father) dropped from 6 to 3.
- Session 7 (Self structure/affect regulation building). After this session Kappa reported in the HAT: "I felt a overwhelming sense of peace come over me, I felt like someone truly cared for me. I still feel at ease!" The therapist explains in the TSNQ why she switched to Birth protocol from the trauma work in this session to do with concerns about possible dissociation and speaks of the role of the client being able to 'connect' with herself in line with the process of structure building. The therapist comments that Kappa reported feeling more relaxed, happy, and self-protective after the session.
- Kappa did not fill out any more PQ or HAT forms until post-therapy, but she continued with Birth protocol through session 10 as per the direction begun in session 7. Therapist comments/observations from sessions 8 and 9 include: "Client is working on boundaries and [safety] for herself in relationships. It was helpful for her to have a felt sense of what being cared for is like," and "she was comfortable and connected rather than how she felt at the beginning: 'all over the place physically and emotionally'." Kappa's mean PQ scores dropped further from the mean of 4.67 after session 7 to 2.44 at post-therapy reflecting a drop in every item. At follow up there was a small increase with a mean of 2.56.

9. Change in Stable Problems

- Most of the PQ items that Kappa developed reflected problem areas that had been present for years rather than months or weeks, and in this sense they were not short term. The items related to dating (not sure how long) and drinking were more recent (especially since entering college) than the items related to family of origin relationships, but these were not queried individually, so this is only surmised. Anxiety about her father and younger brother was definitely present for years as were the troublesome feelings around her mother and her mother's boyfriend. The panic attacks were more recent beginning after the two car accidents within the previous three years or so. The researcher does not know how recent the item about inconsistency in her faith may have been. Changes as significant as a mean drop from 6.17 at pre-therapy to 1.83 at post-therapy, and 1.92 at

follow-up with this mix of predominantly stable problems indicate therapeutic influence much more than shifts with acute, recent problems which may be more likely to reflect regression to the mean.

10. Event-Shift Sequences

- There was no direct evidence for an event-shift sequence in Kappa's rich case record.

Skeptic Brief

In HSCED the purpose of the skeptic case is to make a good-faith attempt to challenge and to find alternative explanations for the affirmative case that the client changed over the period of therapy and/or that any changes were the result of the therapy (Elliott, 2001, 2002). Its role is to enable a balanced view of the evidence. Elliott identified eight alternative explanations for the skeptic case to consider, four non-change explanations and four non-therapy explanations. Its format is the same as the affirmative brief: case, rebuttal, and summary, presented in alternating order with the affirmative sections.

Based on the data in the rich case record, the skeptic team agreed that the client did experience positive change that was not trivial. The skeptic case focuses on non-therapy explanations for the change detailed in the points below. Focal points of the skeptic case include the role of normal development/maturation during Kappa's age and season of life, becoming more independent from her family of origin, and common factors of therapy such as receiving support, care, and guidance, which indicate that process-outcome links should be qualified and not over-attributed to LI. It is clear that the therapist did spend some time giving the client guidance and the opportunity to talk, and may have completed fewer LI-specific protocols because of this.

The following is a summary of the evidence attributed to the eight alternative explanations arguing for non-change or non-therapy change.

9. Non-improvement

- As mentioned above, the skeptic team agreed that the client did experience improvement. According to the CORE-OM, the PQ, the Change Scales for importance, and the Change Interviews, Kappa displayed significant change. The changes were neither trivial nor negative; they were substantial and positive. The mean PQ score showed slight deterioration through one-month follow up though the CORE-OM score was unchanged.

10. Statistical Artifacts

- Statistical artifacts (measurement error, regression to the mean, outlier, or experimentwise error) were not raised as being contributory to change.

11. Relational Artifacts

- The relationship Kappa had with the therapist was considerably different (a supportive/kind adult) in comparison to what she had in childhood and that Kappa may have had difficulty talking negatively about her. They also cited the potential role of power differentials (age, status) between the therapist and client in making the client want to please the therapist. Kappa is, by observation of the therapist, a 'people-pleaser and caretaker', and may have wanted to please the therapist.

12. Wishful thinking

- Changes as a result of apparent wishful thinking indicating that Kappa was merely trying to convince herself of change by using vague, intellectual, or clichéd descriptions were not identified.

13. Self-correction

- The client's own efforts to 'self-correct' resulted in changes toward her goals in therapy such as saying 'no' and partying less.

14. Extra-therapy life-events

- Kappa admitted that she started exercising and that this was a positive influence contributing toward her changes in therapy.
- Kappa's phase of life is generally full of change and is consistent also with maturational/developmental changes.
- Kappa reported making different friends in her sorority as well as breaking up with her boyfriend and entering a new relationship, all of which would have contributed to her positive outcomes.

15. Psychobiological factors

- At Kappa's age, frontal lobe development is still actively maturing and changing, which would contribute to greater reasoning capabilities and the ability to be less impulsive.

16. Reactive effects of research

- Relationship with research staff, altruism, or research activities were not identified as having enhanced or interfered with therapy.

Affirmative Rebuttal of the Skeptic Case

The purpose of this rebuttal is to challenge the arguments and evidence put forward in the skeptic brief that support the case that Kappa's changes resulted from non-LI therapy processes and alternative explanations. The affirmative rebuttal addresses a few specific skeptic points as well as conceptual arguments.

Common Factors

- LI is a therapy that makes especially good use of high calibre therapeutic skills such as attunement and regulation/containment. Though these may be referred to as 'common factors' because they are found to be important in many types of therapy, some of these factors are even more essential, central, and powerful in some therapies than others. Attunement is one such example for LI.

Relational Artifacts

- While the relationship with the therapist was certainly a positive one it was not the only positive relationship with an adult Kappa had experienced. Kappa also had a strong and supportive relationship with her maternal grandmother who was and is an involved constant in her life. It is agreed that Kappa may not have been inclined to say anything negative about the therapist, and may likely have been inclined to please her, yet the affirmative team believes that neither of these played a role regarding whether Kappa changed and whether the therapy can be attributed for it. Kappa's changes were clear and causal evidence exists that it attributed to the LI. Kappa also did not hold back comments about how the therapy was difficult for her, for example "At first it was a little weird" and "I was opening things I hadn't dealt with. So that was hard."

Self-correction

- Though beginning to exercise generally always contributes in a positive manner, it is not clear whether the impetus to begin exercising was completely independent of the positive changes Kappa was experiencing as a result of therapy, or whether the therapy was helping her to also take positive action in her life. Kappa's attribution for the changes in her life perhaps correctly cited the exercise, but she only gave it a minor role still attributing 90% or "basically all" of her changes to the therapy.

Extra-therapy Life Events

- Similarly to the question of how the beginning of exercising should be viewed in terms of its role in contributing to change, there were other extra-therapy life events that we know about during Kappa's time in therapy. She formed new friendships, she had ended one relationship with an abusive boyfriend and begun another relationship during the period of therapy and the question is whether these events were the cause of Kappa's changes or the result. The evidence points to the therapy directly helping her to make these changes on many levels. See affirmative case sections 2 and 3 for process-outcome and therapeutic process variable to outcome correlations for all the links between becoming more connected to herself, learning boundaries, recognizing patterns and so on.
- The developmental phase of life at Kappa's age is certainly one of change and growth, however it must be remembered that the period under study was three months of

treatment and an additional month between post-therapy and follow-up. It is not likely that the extent and scope of Kappa's change, both internal and external, would have occurred all on its own without therapy within such a short time.

Psychobiological Factors

- As with the previous argument, frontal lobe growth and development is not likely to realistically account for Kappa's changes in such a short period of time.

Skeptic Rebuttal of the Affirmative Case

In this rebuttal of the affirmative case, challenges will be made to the arguments put forward.

Developmental Change/Maturation/Life Phase

- College age developmental issues are an important context for Kappa's changes. Profound and quick shifts in personality, cognitive development, and relational capacities are developmentally common for many people in university.
- Accelerated or 'converging' or consolidating' developmental transitions provide very plausible alternatives.

Relational Artifacts

- Kappa's response to the positive relationship with the therapist is not discounted by it not being the only positive relationship in her life – by the presence of the good relationship with her grandmother. Rather, Kappa's relationship with her grandmother provides just the right kind of template for the relational response that supports our case.
- Psychotherapy research demonstrates that participants tend toward influenced performance (e.g. Hawthorne effect) and influenced reporting, and thus the 'people-pleasing' /relational artefact/over-attribution issues are not as minor or to be as easily dismissed as the affirmative team is tending toward.

Within-therapy Process-Outcome Correlation

- With regard to LI's theoretical and conceptual focus on integration, the skeptic team pointed out that any claims for neurological change must draw upon physiological and observational data and not exclusively self-report.

Common Factors

- The skeptic team acknowledges that it is plausible that common factors work in LI, as they do with most established therapies, but put out a reminder that case studies are not equipped to measure them and account for them properly the way research designs employing control groups can.

Affirmative Summary

The affirmative team believes that while common factors had a role, there is a very strong case, with multiple types of direct causal link evidence, that supports that Kappa experienced substantial change during the period of the study and that it can be substantially attributed to the LI therapy via its treatment of developmental and other trauma and its therapeutic building of self structure and affect regulation.

Skeptic Summary

The skeptic team acknowledges that change occurred that was not trivial, but challenges the substantial attribution to the LI therapy based on the influence of other non-therapy factors such as self-correction, extra-therapy life events, and developmental maturation and growth that are common to Kappa's life phase.

APPENDIX O

Rich Case Record: Jane

Overview

The client, Jane (not her real name) heard about the Lifespan Integration Efficacy research study via word of mouth in informal therapists' network channels. As an experienced therapist, Jane had come across LI, eventually participated in a training session, and wanted to experience it not only to see what it could do for her, but also to see what she could learn from the experience that she could bring to her work. When she heard about the research study, she saw it as an opportunity to achieve these goals in a focused way.

Jane is intelligent, sensitive, and very strong. Jane has achieved a great deal personally and professionally—she is an educated, competent, compassionate, now middle-aged professional who describes herself as happy. Those who know her would also describe her as caring, proficient at solving their problems, and driven. Knowing more of her history it is obvious that no one would achieve half of what she has without the inner drive and discipline to create possibilities and effect the change that she has.

The therapist described Jane at intake, noting: "The client is probably a good candidate for success with Lifespan Integration. I do not know her level of dissociation, which will affect the speed with which LI will be effective. She is an intelligent, professional woman with a high degree of self-agency."

So what were the issues that Jane chose to work on at this time? Jane has never been married. She has patterns that have thwarted her from finding a life partner where the relationship is mutually rewarding. In the past she has fallen into patterns of caretaking the men she has become involved with. She also finds herself running into unhelpful feelings and internal reactivity just at the thought of meeting a potential partner. Residual internal reactivity around the topic of her family of origin was another area that appeared on Jane's list of items that she wanted to work on in therapy. The therapist noted: "She is motivated to do personal work in order to find a successful relationship with a man, which, if it should occur, would be a relatively new experience for her."

An outline of the types of data collected with corresponding dates is provided in Table 1. All data collection was done by the principal investigator at the pre-therapy, post-therapy, and follow-up points, and the therapy was done by an experienced LI therapist who is also an approved LI consultant and trainer. Except for completing the Therapist Session Notes Questionnaire (TSNQ) after each session, there were no differences from usual for the therapist who was instructed to work with her client as she would normally.

Table 1.

Outline of Data Collected During the Study

Screening – December 10, 2013

- Demographic/screening Questionnaire

Pre-therapy – January 11, 2014

- CORE-OM
- Personal Questionnaire (PQ) created, and baseline scores captured
- Adult Attachment Interview (AAI)

Therapy – 7 Sessions: January 24 - March 28, 2014

- Personal Questionnaire (PQ) – completed by client before each session*

- Helpful Aspects of Therapy (HAT) – completed by client after each session*
- Therapist Session Notes Questionnaire (TSNQ) – completed by therapist after each session*

*submitted to the principal investigator independently

Post-therapy – April 12, 2014

- CORE-OM
- Personal Questionnaire (PQ)
- Change Interview
- Adult Attachment Interview (AAI)

One-month Follow-up – May 8, 2014

- CORE-OM
- Personal Questionnaire (PQ)
- Change Interview

Screening Information

Jane was not currently receiving psychiatric services, professional counselling, or psychotherapy elsewhere. She had never experienced LI therapy. She was not experiencing any persistent physical symptoms or health concerns, taking medications related to anxiety or depression, painkillers, herbal remedies, or recreational drugs. Her reasons for seeking LI therapy at this time fit the criteria for being longstanding and likely influenced by her attachment history.

Pre-therapy Interview Data – January 11 (Summarized)

Reasons for Seeking Therapy

Jane's reasons for seeking therapy have been briefly described in the overview. Her list of itemized problems that were rated throughout the study were co-created and given baseline ratings in this pre-therapy meeting with the principal investigator. The items are listed in the section on the Personal Questionnaire (PQ) along with their progressive ratings through until the one-month follow-up.

Family of Origin/Early Attachment History/Adult Attachment Interview

Mary Main and colleagues developed the Adult Attachment Interview (AAI; Main, Kaplan, & Cassidy, 1985) as a way to investigate the adult's state of mind with respect to overall attachment history. The AAI is a semi-structured interview in which adults are asked to reflect on and describe their relationships with both parents as well as experiences of loss, rejection and separation during early childhood. Analysis of the patterns of thought, memory and affectivity in these narratives reveal variations in not just events, but significantly and more importantly in the quality of representation of these experiences via narrative coherence and defensive strategy. The AAI's questions intentionally activate the attachment system and by doing so elicit similar states and strategies for dealing with emotional pain (e.g. dismissive restriction or preoccupation) that were learned and patterned unconsciously in childhood, which are then revealed in the discourse of the interview.

Analysis and scoring of the AAI (Hesse, 2008; Main & Goldwyn, 1982-1998 reported in Crowell, Fraley, & Shaver, 2008; Main, Hesse, & Goldwyn, 2008) is done from a transcript of the interview regarding several scales. Patterns of scale scores are used to assign the interviewee to one of three major classifications: autonomous (secure), or (insecure): dismissing or preoccupied. Individuals may additionally be classified as 'unresolved' if they report

attachment-related traumas of loss and/or abuse and manifest confusion and disorganization in the discussion of that topic. This unresolved categorization is given precedence over the other major categorization this individual receives and is considered an insecure classification. Finally, a 'cannot classify' designation is assigned when scale scores reflect elements rarely seen together that are usually highly incoherent.

Jane has survived a significantly suboptimal early history as well as several significant events and challenges in adulthood as well. In terms of the seven categories of *The Adverse Childhood Events Study* (A.C.E., Felitti et al., 1998) that studied the relationship of health risk behaviour and disease in adulthood to the breadth of exposure to childhood emotional, physical, or sexual abuse and household dysfunction during childhood, Jane's childhood included significant forms and levels of at least five of the seven categories.

Jane was the eldest girl among several younger siblings and she found herself having a key role in caretaking for her siblings from a very early age, especially when her mother returned to work when Jane was seven. Jane's father was physically violent and abusive to the mother and all of the children, regularly and significantly. He also sexually abused Jane from the age of five onward for years. Apart from very early experiences of her mother's attention before she was overwhelmed by the needs of her rapidly growing family, Jane did not experience safety or comfort from any adults in her growing years. There were no other adult figures that were present let alone relational sources for building attachment security.

Jane's pre-therapy AAI transcript reflects the historical information, but does not reflect an attachment pattern that might be expected from this situation. However, Jane has lived many years as an adult and has clearly worked on her own issues. The coded transcript of this interview indicated that Jane had a classification of unresolved for loss/trauma and has an underlying classification known as earned secure/autonomous, with an element of contained anger. All secure/autonomous classifications include a relative lack of defensiveness, moderate to high coherence, and a clear valuing of attachment (Steele & Steele, 2008). Being unresolved trumps the underlying secure/autonomous classification and is an insecure classification.

Outcome Data

The following is an explanation of each outcome/change measure and the subsequent results/responses collected in the study.

CORE Outcome Measure (CORE-OM)

The CORE-OM (Core Systems Group, 1998) has been designed to be suitable for use across a wide variety of service types as an initial screening tool and outcome measure that addresses global distress. It taps into a pan-theoretical 'core' of clients' distress, including subjective well-being (four items), commonly experienced problems or symptoms (twelve items), and life/social functioning (twelve items). In addition, items on risk to self and to others (six items) are included as clinical flags rather than a scale. Features of this measure include high and low intensity items to increase sensitivity and a mix of positively and negatively framed items. Jane's pre-, post-, and one-month follow-up scores are shown below in Table 2 along with gender-specific normative mean scores from clinical and non-clinical populations and cut-off scores between clinical and non-clinical for females.

Table 2.

CORE-OM Mean Scores by Dimension with Normative Clinical and Non-clinical Means

Dimension	Pre	Post	F/Up	Non-Cl	Clinical	Cut-off

Well-being	0	0	0	1.10	2.41	1.77
Symptoms/problems	0.33	0.25	0	1.00	2.28	1.67
Anxiety	0	0	0			
Depression	0.5	0.75	0			
Physical	1	0	0			
Trauma	0	0	0			
Functioning	0.08	0	0	0.86	1.84	1.30
General	0.25	0	0			
Close relationships	0	0	0			
Social relationships	0	0	0			
Risk to self/others	0	0	0	0.15	0.61	.31
All non-risk items	0.18	0.11	0	0.95	2.11	1.50
All items	0.15	0.09	0	0.81	1.85	1.29

Personal Questionnaire Data

The PQ (Wagner & Elliott, 2004) provides a brief, individualized, weekly outcome measure with items that are generated by the client's presenting problems and co-constructed by the client and therapist or primary investigator before the therapy sessions begin. In this case, Jane was asked to consider her goals for therapy prior to meeting and then she and the primary investigator collaboratively created the PQ during the pre-therapy interview. Items were generated based on the most important problems in the client's view. The areas of symptoms, mood, specific performance, relationships, and self-esteem were considered in attempting to define and clarify each item or issue in terms that could be readily assessed by the client each session (Elliott, Mack, & Shapiro, 1999). Rather than providing a standardized assessment of generic outcome criteria, the PQ's strength is that it provides a questionnaire tailored to the client's specific issues and concerns that they would like to address in therapy and in which they would like to see change. As such, the PQ serves as a client-driven outcome measure.

The majority of Jane's items related to feelings and patterns that manifest around the theme of a potential life partner (items 1-5, 7 and 8). An additional item (6) addressed feelings about her current role in her family of origin, and an additional item (9) was added in the third session that addressed feelings of loss/helplessness. Thus a total of eight original items/problems were listed from the outset with a ninth added mid-therapy due to an event which is described in the HAT for that week. The client filled out her PQ pre-therapy, before each therapy session, post-therapy, and at the one-month follow-up. Each item/problem is rated from one to seven according to how much it has bothered the client during the past seven days (1= not at all, 2=very little, 3=little, 4=moderately, 5=considerably, 6=very considerably, 7=maximum possible). Table 3 and Figure 1 illustrate Jane's responses on the PQ by item throughout the study, and Figure 2 illustrates the changes in mean scores. Table 4 displays the outcome data for Jane's PQ.

Table 3.

Personal Questionnaire (PQ) Items/Problems & Ratings Across the Study

	Problem/Item	Pre	1	2	3	4	5	6	7	Post	F/Up
1	Feeling hesitant/withdrawn when in situations where I could meet a potential partner	6	4	4	3	2	2	1	1	1	1

2	Lack of openness/confidence around connecting with a potential partner	6	4	4	3	2	2	1	1	1	1
3	Anxiety concerning potentially meeting someone (who may be a potential partner)	6	5	4	3	3	2	1	1	1	1
4	Lack of trust in self around choosing/selecting the right man (trusting my 'picker')	5	5	4	3	2	2	1	1	1	1
5	Fear of rejection or being ostracized in relation to a potential partner	4	4	3	2	1	1	1	1	1	1
6	Sorrow/regret/unsettled feelings about current role in my family of origin now (distant)	4	4	3	6	2	1	1	1	1	1
7	Vulnerable to codependence/ caregiving role in a primary relationship	3	3	3	3	2	1	1	1	1	1
8	Sensitivity around own strengths & competencies re whether others may be able to accept/embrace me for who I am	3	3	3	2	1	1	1	1	1	1
9	Feeling of helplessness after loss (added in the 3rd session)	-	-	-	6	3	1	1	1	1	1

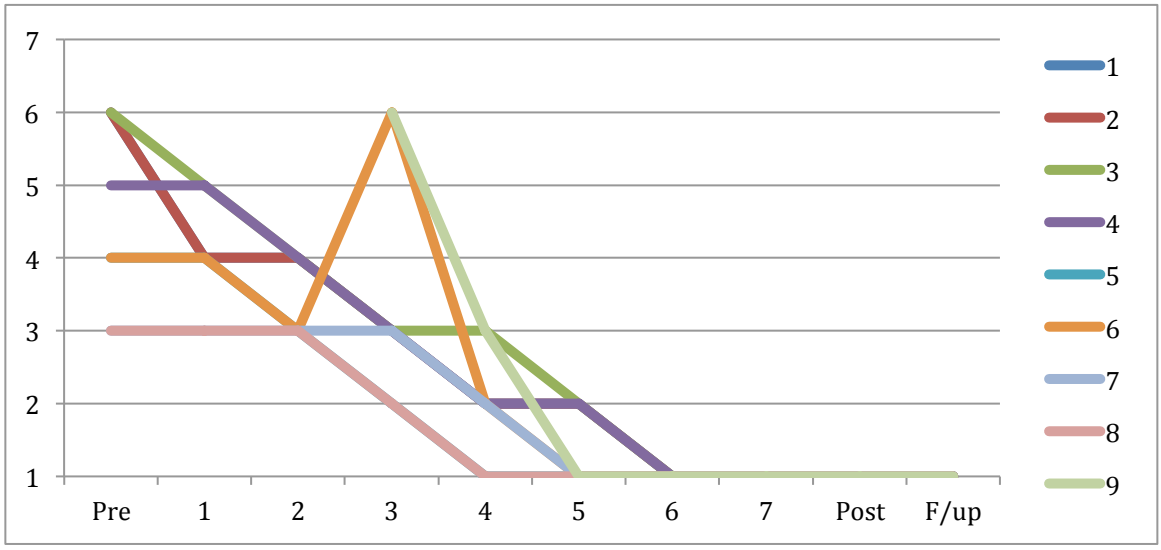

Figure 1. Personal Questionnaire (PQ) Item/Problem Trends Across the Study.

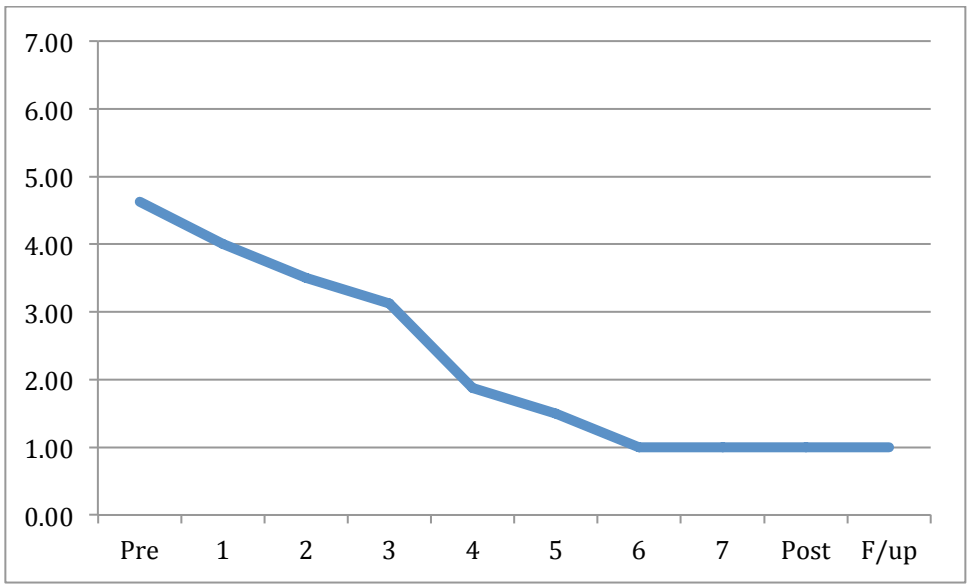

Figure 2. PQ Item/Problem Mean Scores Across the Study.

When it comes to evaluating treatment efficacy in general there is a growing recognition that traditional statistical methods can be problematic. At a minimum, though statistical significance is real rather than chance, "the existence of a treatment effect has no bearing on its size, importance, or clinical significance" (Jacobson & Truax, 1991). Questions regarding the efficacy of psychotherapy refer to real life benefits derived from it, its impact or its ability to make a difference in people's lives. Jacobson and Truax proposed various suggested calculations for situations in which standard statistical calculations are not possible, for example when there is no normative data for clinical or non-clinical populations. They suggest that significant clinical change would be change that moved a minimum of two standard deviations beyond the mean toward functionality, and thus two standard deviations represent the cut-off (CC). They also developed a calculation for measuring a reliable change index (RC), or change that reflects more than the fluctuations of an imprecise measuring instrument. The standardized error of the difference (S_{diff}) provides an appropriate estimate of error in measuring client change (Jacobson & Truax, 1991), which provides a formula to establish a confidence level for defining the minimum reliable change index (RC) value at the 95% level (1.96 S_{diff}) in Table 4. As seen in Table 4, Jane's mean change at post-therapy and at follow-up is greater than the minimum for reliable change, and moreover, beyond (in this case, below, which is better on the PQ) the cut-off for clinically significant change.

Table 4.

Personal Questionnaire (PQ) Outcome Data

	Caseness	RC	CC	Pre	Post	Pre-post Difference	1 mo. F/up	Pre-F/up Difference
PQ Mean scores	3.5	1.14	2.19	4.63	1.00*	3.63**	1.00*	3.63**

*Note. Caseness = cut-off for determining whether client is clinically distressed (Stephen, Elliott, & Macleod, 2001); RC =reliable change index, minimum value required for reliable change at $p < .05$. (Jacobson & Truax, 1991; Elliott, 2002); CC = significant clinical change cut-off at 2SDs from the mean (Jacobson & Truax, 1991). * = below CC; ** = greater than RC.*

Post-therapy AAI

Jane's post-therapy AAI transcript contained too little information to score for unresolved status, so unfortunately this could not be ascertained from this interview. The areas under question include the level of unresolved loss/trauma and the degree of derogation, which is related to the dismissing classification, and in this case it pertained specifically to Jane's references to her father rather than being global in any way. There was agreement that the underlying classification was secure/autonomous. In many ways these observations are not surprising. Though Jane had worked with aspects of her trauma during this three-month study period it would not be surprising at all if more remained. The lack of clarity and conclusions to be drawn pertaining to the degree of residual patterns of dismissive defense regarding such an abusive father also remains a question.

Helpful Aspects of Therapy (HAT)

The HAT is a form completed at the end of each session for identifying important helpful and/or hindering events in the therapy session (Elliott, 1993). Items include open and closed-ended questions and rating scales to aid the client in their evaluation. The client (via the HAT) and the therapist (via the TSNQ - see TSNQ section) identified these important events independently at the conclusion of each therapy session. Tables 5 and 6 provide a summary of Jane's responses in the HAT.

Table 5.

Client Reported Most Helpful or Important Event for Each Session on the HAT Form.

Session	Most Helpful or Important Event in Session	Description of Why the Event was Helpful/Important	How Helpful was the Event (/6-9)
1	Therapist could tolerate my story	It was validating	7
2	Gaining clarity about my patterns	With clarity about patterns, it is easier to avoid continuing those patterns	8
3	Working on trauma of losing sibling 30 years ago which was activated by helplessness when friend lost in [life-threatening situation] this week	Reduced helplessness feelings	9
4	Getting genuine empathy from my therapist	It was validating and allowed me to relax even more into the therapy	8
5	The relationship protocol	It created more ease in my body and in my emotions	8
6	The therapist's narrative about my baby self being cared for & nurtured by others	Displaces the internalized narrative that I must care for others, even to the exclusion of my own needs being met	9
7	Processing disgust relative to father	Allowed me to let go of residual feeling toward father	9

Table 6.

Client Reported Additional Helpful/Important Events and Hindering Events for Each Session

Session	Anything Else Helpful During the Session	How Helpful	Anything Hindering During the Session	How Hindering
1	Planning for how to approach the treatment	Moderately	Reviewing my story again in detail was exhausting – but I understand its necessity	Slightly
2	No	-	No	-
3	No	-	No	-
4	The LI helped resolve the issue	Greatly	No	-
5	No	-	No	-
6	No	-	No	-
7	No	-	No	-

Therapist Session Notes Questionnaire (TSNQ)

Lifespan Integration uses a variety of protocols to target different types of issues. Primarily trauma clearing protocols include: PTSD protocol and Standard protocol. The primary structure building and affect regulating protocol is Birth to Present protocol. Other protocol variations include: Relationship pattern protocol and Cell Being protocol, but as is seen in Figure 3, each protocol engages the therapeutic processes in varying ratios. Figure 3 provides a general overview of key LI protocols and their targeted main functions. All LI protocols employ the timeline, which, when combined with the skill of the therapist's attunement and regulation contribute to integration.

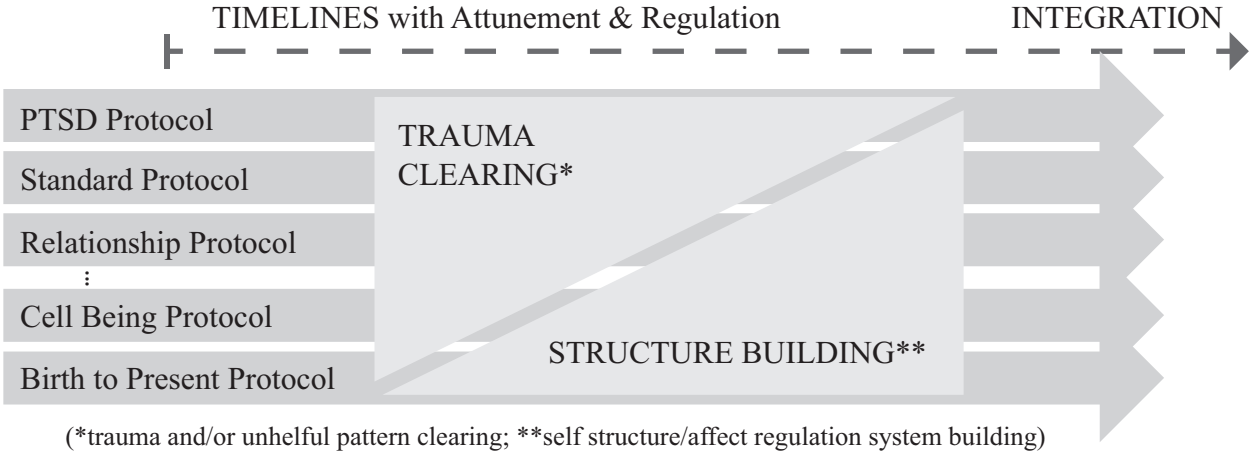

Figure 3. LI Protocols and their key therapeutic outcome variables.

The protocols used with Jane in each session are outlined in Table 7 and therapist notes on important helpful or hindering aspects of therapy from the TSNQ follow in Tables 8 and 9.

Table 7.

Lifespan Integration protocols and number of repetitions for each session

Session	LI Protocol	No. of TL Repetitions	Length of session
1	None – intake session	-	75 min
2	Relationship Pattern protocol	6	60 min
3	PTSD protocol/bit of Standard protocol	10	75 min
4	PTSD protocol	5	60 min
5	Relationship Pattern protocol	8	60 min
6	Birth to Present protocol	3	75 min
7	Standard protocol	7	75 min

Table 8.

Therapist Reported Most Helpful or Important Event for Each Session on the TSNQ Form

Session	Most Helpful or Important Event in Session	Description of Why the Event was Helpful/Important	How Helpful was the Event (/6-9)
1	Intake session. Based on client-stated main goal for therapy (relationship) and FOO info, chose LI Relationship Protocol (RP) to target her natural, body-based resistance to moving into romantic relationships with men. Jane was supportive of this suggestion.	Once a client names her goals for therapy, and I understand her goals and FOO from introductory conversation, it is my responsibility to find the LI tools that will help the client achieve her goals. The client's confirmation of my choice was validating and helpful.	8
2	Client's spontaneous insight and resolve, and positive shifting of body activation, after timeline (TL) repetitions	The client's therapy goal is to pick a better partner than her past choices. We named a relationship pattern and noted her body's activation in relation to the pattern. The TL repetitions shifted the activation from nausea, tightness that moved and softened until the client reported being more coherent and grounded.	8.5
3	Choosing PTSD protocol based on event in the client's week and current distress about her friend (lost in avalanche) which reminded her of a trauma from her life.	The client's trauma went from being very activated in the body to not activated at all. The client was calm at exit, feeling peaceful about past trauma and current situation.	6.5
4	Insights about the nature of her family system gained after each TL	When clients 'see' their FOO patterns through the mind-body therapy of LI (rather than just cognitive understanding), they intuitively see the negative patterns quickly and make natural and fluid measures to avoid re-engaging the old patterns again.	9

5	Naming the relational pattern as it pertains to the client's mother for use with Relational Protocol	Naming this pattern and repeating TLs with it resulted in the client expressing insights and responses, which reflect to me that she will discontinue unconsciously living out her mother's values and beliefs.	9
6	Using the Birth to Present Protocol	Reinforcing and/or creating the sense of being cared for is important in the client's life. My therapeutic perspective is that the client needs to have the internal framework to be lovingly cared for in order to choose better men. Having the felt body sense of receiving healthy, appropriate attunement and care will help her decide which men she wants to select for sharing in her life.	9.5
7	Standard Protocol was used to address one very difficult incident and completely clear that incident of its distress and feelings toward the man involved	Clearing this one incident generalized to a healthy, empowered perspective of the problem, which occurred many times. The client saw herself as freer and more empowered. The specific generalized to the whole.	8

Table 9.

Therapist Reported Additional Helpful/Important Events and Hindering Events for Each Session

Session	Anything Else Helpful During the Session	How Helpful (/6-9)	Anything Hindering During the Session	How Hindering (/1-4)
1	The client demonstrated a high degree of personal authority and a sense of self, which will very likely increase the positive outcomes of LI.	7	No.	-
2	No	-	No	-
3	She also made a comment about her mother, which I believe is important in a more global way, and relates to a broader role her mother played specific to her therapy goal.	9	After session, therapist asked for info about unrelated topic; client declined	?
4	Therapist pointing out the client's mother's role as it relates to the client's therapeutic goal and client recognition of pattern	7.5	No	-
5	Client's ability to name a pattern, connect to her body, and see progression of insight and change is on the high end of the continuum.	8	Client tired on arrival	1.5
6	Creating a connected, cohesive story of the client's life via the BP	7	No	-
7	The client experienced relief from the single	7.5	No	-

incident as a stand-alone healing apart from its application to a more generalized pattern

Change Interview Data

The Change Interview (Elliott, 1999) is a qualitative interview to account for and gather detailed and contextual descriptive information relating to therapy outcome. This interview consists mainly of questions regarding the client's perception of changes since therapy began and attributions for these changes. The interview includes inquiry into whether the client is taking medications or herbal remedies and whether dosages have changed during this period. Jane reported that she was not taking any medications or remedies at this time. An additional goal of this interview is to gather information around whether the client was engaging in other simultaneous activities, or whether other events occurred that may have affected the credibility of the attributions. Anything that was reported in this way is listed in the client comments sections from the interviews. A list of the changes the client has experienced since therapy began is created and then the client is asked to rate the changes on three 5-point scales: 1) were these changes expected, neither, or were they surprised by them; 2) without therapy did they think these changes were unlikely, neither, or likely to have happened anyway; and 3) how important are these changes to them – not at all, slightly, moderately, very, or extremely?

The Change Interview was conducted post-therapy and at the one-month follow up. Figures 4, 5, and 6 illustrate the client's change list and ratings on these three scales.

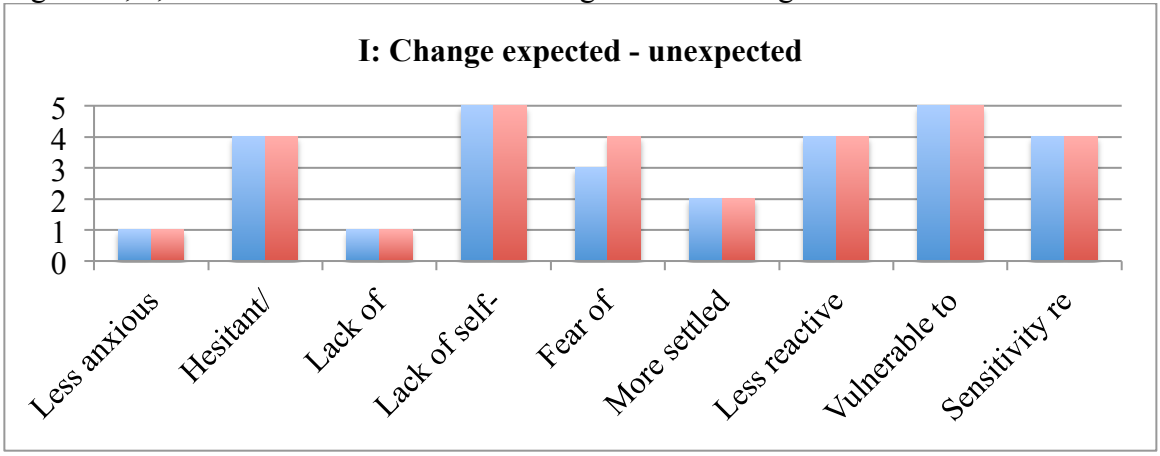

Figure 4. Scale I.
Change was: 1=expected, 3=neither, 5=client surprised by the change

Change list Key:

Less anxious re potential partner (PP)
Less hesitant/withdrawn around PP
[Reduction in] lack of openness/confidence around PP
[Reduction in] lack of self-trust around choosing PP
[Reduction in] fear of rejection re PP
More settled re FOO
Less reactive around topic of FOO
[Reduction in] vulnerable to codependence/caregiving w/ PP
[Reduction in] sensitivity re own strengths & competencies

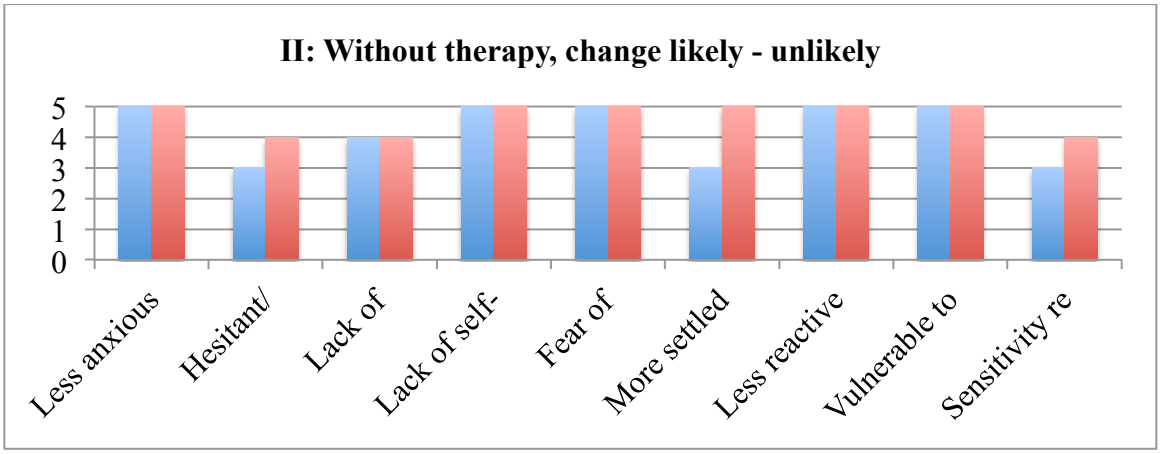

Figure 5. Scale II.
Without Therapy Change was: 1=likely to have happened anyway, 3=neither, 5=unlikely
*Note that in the Change Interview and in the original transcripts, this scale was originally reversed, with unlikely = 1, and likely = 5 in order to disrupt potential patterned client responses between the three Change Scales (always choosing the higher or lower numbers for instance). The scale and scores were reversed in this report to maintain the flow and facilitate reading.

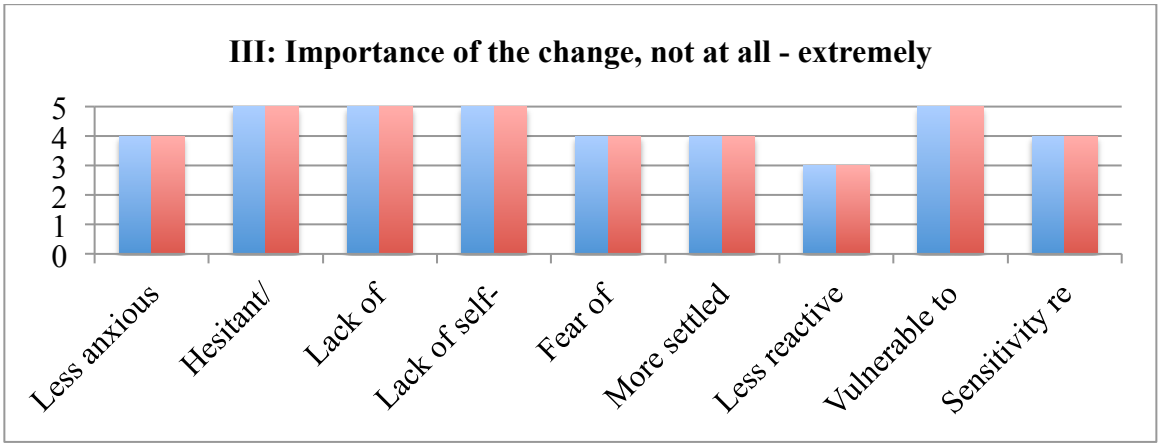

Figure 6. Scale III.
Importance of this Change to Client: 1=not at all, 2=slightly, 3=moderately, 4=very, 5=extremely

Therapist Progress Notes

The Therapist Session Notes Questionnaire (TSNQ) included room for additional session notes, comments, and observations, which are summarized in Table 10.

Table 10.

Therapist Session Notes.

Session	Notes
1	• It was very useful to get an understanding of Jane's family history…she was a working member of the care-giving staff to [several] younger [siblings] and claimed complete independence by age 16. She was sexually molested by males around her. She named her therapy goal as wanting

	to move into a romantic relationship with a man that is healthier and more rewarding than previous [ones]. • Her lack of safety, and inability to trust male relationships from previous experiences was stored in her cellular memory and I believed we could impact her body's natural resistance with LI's RP. • She is motivated to do personal work in order to find a successful relationship with a man, which, if it should occur, would be a relatively new experience for her.
2	• The client's goal for therapy is to pick a partner who will be a better partner than her choices from the last [few] decades of her life. We named the existing relationship pattern and I asked her to note her body's activation in relation to the pattern. As we progressed through the TL repetitions she made these spontaneous comments which reflect understanding of the unconscious pattern and internally driven, more positive responses: e.g. "I didn't assert myself in [previous relationship] and there's an element of caregiving playing out in these relationships. There's a pattern of sacrifice." • Activation [bodily sensations] moving/shifting throughout repetitions of TL, ending with it softening and client reporting being more coherent and grounded.
3	• The client came to session aware that a friend's life-threatening circumstance during the week was activating a [traumatic] event, which occurred thirty years earlier in the client's life. Together we decided to use the PTSD protocol… this was helpful because traumas influence how clients engage their timelines. Often we clear trauma before using BP etc. The client reminded me of her therapy goal, and I reassured her that clearing her trauma from 30 years ago would probably affect her overall goal for therapy, even though the trauma did not appear to have a direct correlation to her desired outcome. The client was activated when she came to session. With LI, we trust the client's body. I made a clinical decision, with input from the client, to depart from the relationship protocol specific to her therapy goal…I believe that this session of PTSD [protocol] would fit into the whole. • The client made a comment at the end of the TLs, which I believe she thought exclusively applied to the trauma, but I heard her comment in a more global way. The comment was about her mother as it related to the trauma. The client would like to address the situation regarding her mother, as it pertains to the trauma targeted today in next week's session. I will share my perspective [then] that I suspect the statement represents a much broader role her mother played specific to her therapy goal, …applicable to her long-standing relationship with her mother, and a major component in the problem the client is choosing to address in this therapy.
4	• The client appeared to be surprised by my comments regarding the role her mother played in the client's relational dysfunction connected to her treatment goal. • The client spontaneously gained internal clarity after each TL about the nature of her family system: its values, its dysfunctional patterns, lack of safety, etc. …and this understanding appeared to be a deeper, more organic level than previous, cognitive understanding. • The client is seeking to shift a personal, relational pattern, which she has observed repeatedly in her life since she launched from her family of origin. Insights and positive, organic change regarding her foundational experiences appear to be quite helpful toward helping the client meet her goal. • Once again, I am struck by the body's capacity to lead us to the right targets for healing, which leads us toward the client achieving her therapeutic goal. I made the clinical decision to clear the trauma from 30 years ago knowing that her body was activated about it and therefore the active material would present itself in the session no matter what we chose as the target. [This] brought out two very important components of the client's existing framework that contribute to the difficult relational pattern she wants to change: 1) her mother's role in the client's pattern, and 2) overarching and longstanding characteristics of her family of origin.
5	• The client 'marinated' in her mother's beliefs and behaviors from the first day of life. All humans store life experiences in the body. The client's mother's beliefs were transferred into the client's body and mind. Naming the pattern and repeating the TLs with it resulted in the client making powerful statements about the pattern and how 'finished with it' she feels.

- The client expressed other insights and responses that reflect to me that she will discontinue unconsciously living out her mother's values and beliefs. This outcome is in alignment with her goal for therapy.

6

- Reinforcing the importance of the client being the recipient of care occurred in each of the 3 BP repetitions. The client commented, "It is interesting to be the focus of care. It is therapeutic to be nurtured and cared for." This perspective is quite a departure from the client's experience growing up, and is a vital component of choosing an appropriate partner, which is in alignment to the client's therapeutic goal. My therapeutic perspective is that the client needs to have the internal framework to be lovingly cared for. Having the felt body sense of receiving healthy, appropriate attunement and care will help her decide which men and women she wants to select for sharing in her life.
- The client reported that in the two weeks which have occurred since our last session (5), she has been comfortable 'catching the vibe' of other people, assessing her own internal responses to others, and generally being able to be non-anxious around men who had the qualities she would like to have in a partner. She said it was significant that she could test, and know, her internal experience.
- It appears to me that we are making significant progress. She came into therapy as a self-aware, intelligent client who was conscious of her track record of unsatisfying romantic relationships with men. She easily metabolizes the work of LI and shows signs of change after each session. Her intelligence, and personal insight, hasten the results that can be achieved with LI.

7

- It is realistic to note that more healing could be done on the same pattern that we targeted today, yet I feel confident that the healing that was accomplished in this single session will continue to positively impact the client's life.
- I perceived the client to be relieved and grateful. She said, "I'm a new woman. This (work) has been really helpful. I've always known _____(problematic pattern from childhood) has put a shroud of yuck over my life and now it's lifting – it's lighter." The client was smiling, conversant and very positive about the implications Lifespan Integration is having in her life.
- Today's LI generalized to a pattern in her life and led her to have a more positive, lighter feeling about herself as it pertained to her life as whole. This perspective reflects the capacity to integrate a single experience into the broader spectrum of her life, which I believe indicates increased coherence and overall integration.

Selected Client Comments from Post-Therapy Interview

- *(What changes, if any, have you noticed in yourself since therapy started?)*

"Moderately more settled relative to my family of origin; less anxious about meeting potential partners; when I think about my family of origin it is much less, almost not reactive anymore."

- *(How important or significant to you personally do you consider this change to be?)*

"Very; extremely..."

- *(In general, what do you think has caused these various changes?)*

"I think it is 95% the therapy and 5% that I wanted it to happen"

- *(Can you sum up what has been helpful about your therapy so far?)*

"I actually think the protocols were helpful. In addition to that, the rapport with my therapist was good; her validation of some of the trauma and some of the things we worked on was really helpful. This is not news; these are things we know are helpful, but it was helpful to me. …She was pretty consistent all the way through, she listened carefully, validated what was appropriate, worked the protocols effectively in very supportive ways. I give her an

"A"—she was good at it. …I appreciated when I was in the middle of processing/resolving and I hadn't gotten over the hump to where I was more resolved about it that she stuck with it and our session would have normally ended that she added a few minutes to our session to facilitate me getting to a better place of resolution. I also appreciated that when I was working on some stuff that made me mad… she told me what to expect or what I might expect (i.e. my headache may continue for a couple days etc.), and that, being really knowledgeable about what she does, was really helpful."

- *(What kinds of things about the therapy have been hindering, unhelpful, negative or disappointing for you?)*

"There hasn't been anything like that. Nothing."

- *(What would have made your therapy more effective or helpful?)*

"If I had done it twenty years ago!" "No really, it was just fine."
"If I were to do it again, I would have tried to do it every week in a row like you wanted… and I would have done a couple more [sessions], but our schedules didn't allow it at this time."

- "[I feel] more of a sense of freedom…much more at ease, comfortable in my own skin."

- *(What about changes related to your family of origin? Have you had a chance to test them out?)*

"No, but not interacting with them and being comfortable with that is as much a test of that as anything… Had an underlying feeling of regret, wishing it was different… and now I don't. And if I do see them it will be fine too, but there won't be an emotional load to it as much."

- *(What about changes related to vulnerability to the caregiving role?)*

"Again it's kind of that confidence that I'm not going to go there, that I don't need to. There's no psychic pull because of family of origin stuff to pull me into that role. And, I'm just not. I don't need to. I'm not going to. So that is a direct result of the work we did around some trauma, and I feel very specifically released from the codependent role in the family, which you know I was kind of born into the job of mom for my siblings and that role was fostered by my parents and even my siblings and I'm done with it. I've processed it and it's over for me."

Selected Client Comments from One-Month Follow-Up Interview

- "I feel much more content I think, generally. Some of those 'edges' that had surfaced have been rounded and I am happy about that… Just a little easier in my skin, just sort of happier maybe a little bit. Less irritable when issues come up that relate to the issues I was working on. Less rough edges."

- *(In one HAT you said that 'the LI resolved the issue' – what did you mean by that?)*

"It means that I don't react. When I think about it I don't get activated; I don't get into flight or fight. It also means that I probably won't think about it. I've done other trauma work in the past, but it also wasn't resolved, it wasn't 'put away', so it would come forward…"
(*So given your experience in this field, what does that say to you?)*
"That it's powerful stuff. And, um, it also is something that the process of LI treatment is

able to circumvent my intellect, so I didn't get in my own way, so I didn't actually stall myself or sidestep it…"

- *(What did you mean in the HAT comment about the narrative of the therapist being really helpful?)*

"For one thing, I think that part of what makes LI optimally effective is the sensitivity of the therapist; and the wisdom of that therapist, and then their connection with the patient. My therapist was very attuned to the vulnerability of my child self and was able to coach perspective on the nurturing and the caring of my baby self in a way that I might not have offered myself at least in that setting so it was particularly nurturing. I think that a less experienced therapist might not have had that level of knowing."

- *(Your PQ scores went down at least by the 5th session. Your comments in the HAT from the 6th and 7th sessions said that events in those sessions were very helpful – so one way of looking at that is that these items were not in your PQ list, or that these results were incidental surprises. If your PQ items are already at a level of bothering you 'not at all' there is no obvious correlation to your next sessions' work being 'very helpful'. How would you comment on this?)*

"I guess I would say that the Likert scale as I imagined the meaning of it was probably skewed. For instance I didn't know how 'not at all' or how 'good' a person could feel, and it got better. It seemed like it was just 'dandy' and then I had this sort of, uh, for lack of a better word, further integration that was 'even more', and it wasn't all just on those [PQ] topics, but it was on those topics also. So it was beyond my original expectation of what was even possible. Like I was happy with it and then I got even more happy with it."

- *(I am wondering whether your goal of finding a suitable partner was either not a priority earlier in your life, or perhaps it was not a priority because you didn't know how it would be met… How was LI hopeful now?)*

"I know, because it was very conscious, that I put aside the notion of finding a partner because I had been very bad at it. And I had been bad at it because of all my history and trauma. …It is kind of like I had done a lot of work and I was feeling kind of ready in many areas to change that, make it a higher priority, but I still had the anxiety of all the issues from traumas and such, so by resolving that anxiety I now feel completely free to make it a priority and move on."

Affirmative and Skeptic Briefs

Affirmative Brief

In HSCED, the purpose of the affirmative case is to present the case for (1) the client changing substantially over the course of therapy, and (2) that this change was substantially due to the therapy (Elliott, 2001, 2002). Elliott also described five types of direct evidence linking to therapy, of which there should be at least two types present. These five types of direct evidence are:

- Retrospective attribution
- Process-outcome mapping
- Within therapy (session-session) process-outcome correlation
- Change in stable problems
- Event shift sequences

The affirmative brief has three sections: the case (addressing the five types of evidence), rebuttal of the skeptic case, and a concise summary. The affirmative case is followed by the skeptic case, both rebuttals, and both summaries.

Based on the data in the rich case record, the affirmative team indicated that Jane changed substantially over the course of therapy. Jane is a high-functioning individual, and so her CORE-OM scores did not leave any significant room for improvement – she was far below the average for a female in a non-clinical population at pre-therapy. Jane's Adult Attachment Interviews (AAI) confirmed the extreme adversity she faced in her childhood and did not offer clear indications of 'how much' of her loss or trauma had been resolved in this period. Her underlying classification remained the same. In the PQ, which represented Jane's problems that she was bringing to therapy, there was significant comprehensive change. Her mean PQ ratings went from 4.63 pre-therapy to 1.0 at post-therapy and follow-up, a mean improvement of 3.63, which is far above the reliable change index of 1.14, $p < .05$, and far below (better than) the cut-off representing clinically significant change (Elliott, 2002; Jacobson & Truax, 1991). Jane indicated via Change Scale III at post-therapy and at follow-up that the changes she experienced in therapy were an average of 4.33 out of 5.0 in importance to her, where 1 = not at all important, and 5 = extremely important. The qualitative data of the weekly Helpful Aspects of Therapy (HAT), weekly Therapist Session Notes Questionnaire (TSNQ), and post-therapy and follow-up Change Interviews also reported positive client change reported by the client and observed by the therapist over the course of therapy. In summary, Jane explained that she feeling less anxious about all the issues regarding a potential partner, and that she was less reactive and more settled in terms of feelings about her family of origin.

The affirmative team also indicated that the rich case record evidence supported the therapy as a substantial direct cause of these changes. In the weekly Helpful Aspects of Therapy (HAT), the client identified important and helpful factors for each session, giving these factors average ratings of 8.29 out of 9 for degree of helpfulness (where 1 = extremely hindering, 5 = neutral, and 9 = extremely helpful). The items Jane identified in the HAT not only corresponded to overall goals for therapy, but also to the therapist reported important factors for each session, as reported in the Therapist Session Notes Questionnaire (TSNQ). In the change interview, the

client reported the majority of areas of change on the 'unlikely to have occurred without therapy' side of the scale. Her post-therapy mean was 4.22 and her follow-up mean was 4.67 where 1 = the change was likely to have happened anyway, 3 = neither, and 5 = unlikely to have happened without therapy.

The following is a summary of the causal evidence, which highlights specific events or processes that brought about the reported changes.

Retrospective Attribution: Client attributes changes to therapy in general

- As reported in the introduction, in Change Scale II about the likelihood of the changes without therapy, Jane indicated that the majority of her change was unlikely to have occurred without this therapy (mean at follow-up was 4.7 out of 5.0 for unlikely).
- In the post-therapy Change Interview Jane attributes the changes she has noticed to "95% the therapy and 5% that I wanted it to happen." This demonstrates Jane's insight about the role of expectancy in therapeutic change and a very clear attribution of the general causal role of therapy in her change.
- At one-month follow-up Change Interview Jane compares her LI work with previous trauma work. Regarding her LI therapy, she states that she no longer experiences "fight or flight reactivity" and that the trauma is put away ("when I think about it, I don't get activated"). She reports that LI therapy "is powerful stuff" and the process of LI treatment is "able to circumvent my own intellect so that I didn't get in my own way." She contrasts this experience with previous trauma therapy, through which she was unable to attain this level of resolution.
- Also in the one month follow-up, when asked about how the last sessions could be helpful given her already minimal PQ scores, Jane stated "I didn't know how 'not at all' or how 'good' a person could feel, and it got better. It seemed like it was just 'dandy' and then I had this sort of, uh, for lack of a better word, further integration that was 'even more', and it wasn't all just on those [PQ] topics, but it was on those topics also. So it was beyond my original expectation of what was even possible. Like I was happy with it and then I got even more happy with it."

Process-Outcome Mapping

- In every HAT form, except for the intake session, Jane's most important therapy event pertained directly to how the LI protocol utilized that session contributed toward her desired outcomes. All were reported as being either "greatly" or "extremely" helpful (8 or 9 on a nine point scale where 5 is neutral, 9 is extremely helpful, and 1 is extremely hindering). These comments almost always corresponded with therapist comments in the TSNQ. Some examples include:
    - In the HAT after session two, Jane describes gaining clarity about her relational patterns, stating that this helps her to avoid repeating them. The participant in this case was referring to the LI relationship protocol in which a relationship pattern becomes the focus for work. The evoked somatic experiencing of the relationship pattern is tracked throughout the session. These feelings are generally reported to change and be relieved. In the TSNQ, the therapist similarly reported the client's spontaneous insight, resolve, and positive shifting of body activation throughout the timeline repetitions.

  - In the TSNQ after session four, client insights about the nature of her family system gained over timeline repetitions was reported. In the second half of the PTSD protocol, the therapist noted that the client developed insights into her family system that related directly to her presenting problems and treatment goals. The therapist explained from the perspective of LI therapy, "when clients 'see' their family of origin patterns through the mind-body process of LI rather than just cognitively, they intuitively see the negative patterns quickly and take natural and fluid measures to avoid reengaging the patterns again."
  - In the TSNQ after session five, after working on issues with her mother in the relationship protocol, the therapist offered that it was helpful to note the patterns in her FOO and repeat the timelines resulting in the client's insights. According to the therapist, naming this pattern and repeating timelines resulted in the client expressing insights and responses, reflecting that she will unconsciously discontinue living out her mother's beliefs and expectations while disregarding her own. Corresponding to this process focus in therapy, Jane reported (in her Change Interview) a decrease in "psychic pull" related to family of origin issues and a sense of release from her codependent role in the family.
  - In the HAT after session six, Jane reports that the therapist narrative about her baby self being cared for (which is LI Birth to Present protocol), displaces the internalized narrative of needing to care for others even to the exclusion of her own needs being met. The therapist commented that reinforcing and creating the sense of being cared for relates to the client's presenting problem around successfully choosing a suitable potential partner capable of a mutually fulfilling relationship rather than repeatedly choosing men where she easily falls into the caregiving role.
  - After session seven, the therapist reported in the TSNQ that Standard Protocol was used to address a specific incident in order to clear the distress and feelings toward the client's father, generalizing to a healthy empowered perspective of the problem. Similarly, in the HAT, Jane described being able to let go of residual feelings of disgust to her father.
- In the Change Interview, in response to the researcher's question, "what about your therapy has been helpful?" Jane specifically cites the LI protocols saying: "I actually think the LI protocols were helpful." In addition:
  - In the post-therapy Change Interview Jane states that the therapist "worked the protocols effectively in very supportive ways."
  - And, in the follow up Change Interview Jane cited the therapist's sensitivity and wisdom (acknowledged common factors of therapy) as part of what made the LI therapy "optimally effective."
- In the post-therapy Change Interview Jane rated her therapist as an "A" and reported that her therapist was attuned to the client's process and continued timeline repetitions until Jane experienced sufficient resolution, even extending the session somewhat if needed. This attunement to the client's degree of resolution is specific to the requirements of LI. There are specific markers about changes of activation in the client's body that guide the therapist in ending the session.
- Jane also describes that her therapist was able to guide her in understanding what to expect based on the LI process. She described the therapist's expertise with the protocol as being "really helpful."

- Jane reported less psychic pull to caregiving roles, and said specifically that this "was a direct result of the work we did around some trauma, and I feel very specifically released from the codependent role in the family, which you know I was kind of born into the job of mom for my siblings, and that role was kind of fostered by my parents and even my siblings and I'm done with it. I've processed it and it's over for me."

Within-Therapy Process-Outcome Correlation

The LI protocols have differences that are geared to facilitating theoretically central in-therapy process variables: primarily trauma clearing or structure and affect regulation system building, and, all of them employ a timeline that works toward facilitating integration (theoretically correlated with increased mental health, resilience and optimal functioning).

According to the therapist notes in the TSNQ, trauma-clearing protocols were used in sessions 2, 3, 4, 5, and 7; structure building/affect regulation building protocols were focused on in session 6. In order to examine this possibility for Jane's therapy, correlations between the therapist's choice and use of LI protocols and difference scores on the PQ were examined. Though there was regular and consistent improvement seen in the PQ scores until they couldn't get any lower, sessions 3 and 4 saw corresponding shifts greater than the RCI of 1.14 that were correlated with the protocol used:

- Session 3 (Trauma clearing protocol): PQ item 9 was created as a result of a recent traumatic event (friend missing and feared dead during travel) that invoked feelings from a past similar trauma (helplessness when sister missing in accident and never found). PQ item 6 spiked reflecting the recent trauma's affect on Jane's feelings around her family of origin. Following session 3, items 6 and 9 were reduced considerably: item 6 went from 6 to 2 and item 9 went from 6 to 3. These changes of 4 and 3 points respectively are far greater than the RCI of 1.14.
- Session 4 (Trauma clearing protocol on same theme as session 3): both items 6 and 9 were further reduced to the lowest rating possible (1), a reduction of one and two points respectively.
- Session 5 (Relationship Pattern protocol): Jane reports feeling "ease in body and emotions" after working on issues with her mother. This is interesting to note because, while identifying Family of Origin (FOO) concerns as a goal, she previously minimized her difficulties with her family and the result of feeling "more ease in body and emotions" cannot be cognitively attained. See next point about PQ items rating changes from this point on.
- Additionally, since the items were all rated as "not at all distressing" at the final four PQ administrations post-session 5 (i.e. 6, 7, post-therapy and follow-up), Jane was queried in the follow-up change interview about how this related to her HAT comments that sessions 6 and 7 were "extremely" helpful. Her response was that her experience of change "was beyond my original expectation of what was even possible. Like, I was happy with it and then I got even more happy with it…for instance, I didn't know how 'not at all' or 'good' a person could feel and it got better."

Change in Stable Problems

- All of the PQ items that Jane developed reflected long term and stable problem areas. She has never been married and is now middle-aged, and her family of origin issues are certainly also long-term. In the Change Interview, the researcher queried whether "finding a suitable partner" was a goal earlier in her life or not. She responded that she had put the goal aside for some years because of a disappointing track record with this long-standing issue. Changes as significant as a mean drop from 4.63 to 1.0 on the PQ from pre-therapy to post-therapy with stable problems indicate therapeutic influence much more than shifts with acute, recent problems which may be more likely to reflect regression to the mean.

Event-Shift Sequences

- Evidence for an event-shift sequence is clearly seen in session 3 and it carried into session 4 as discussed above with evidence type 3. The important therapeutic event in the third session was the therapist's decision (based on LI practice), with client agreement, to attend to the client's current activation and to use PTSD protocol, which may have been seen as a departure from working toward the client's specific goals. This resulted in significant reductions of 4 and 3 points on the PQ scale for items 6 and 9.
- Another important therapy event followed by a shift greater than 1.14 between sessions for at least one item was the recognition of the importance of family of origin patterns revealed in session 3, which were then the focus of further work in session 4. Following this work, the two pertinent PQ items (6 and 9) shifted down by 1 and 2 points, to the lowest possible rating of (1).

Skeptic Brief

In HSCED the purpose of the skeptic case is to make a good-faith attempt to challenge and to find alternative explanations for the affirmative case that the client changed over the period of therapy and/or that any changes were the result of the therapy (Elliott, 2001, 2002). Its role is to enable a balanced view of the evidence. Elliott identified eight alternative explanations for the skeptic case to consider, four non-change explanations and four non-therapy explanations. Its format is the same as the affirmative brief: case, rebuttal, and summary, presented in alternating order with the affirmative sections.

Based on the data in the rich case record, the skeptic team agreed that Jane did experience positive change that was not trivial. The skeptic case focuses on non-therapy explanations for the change detailed in the points below. Focal points of the skeptic case include the role of expectancy or confirmatory bias, investment in therapy, and common factors of therapy such as receiving support and care, which indicate that process-outcome links should be qualified and not over-attributed to LI.

The following is a summary of the evidence attributed to the eight alternative explanations arguing for non-change or non-therapy change.

Non-improvement

- As mentioned above, the skeptic team agreed that the client did experience improvement. According to the PQ, the Change Scales for importance, and the Change Interviews, Jane displayed significant change. The changes were neither trivial nor negative; they were substantial and positive. The PQ showed no deterioration through one-month follow up.
- While the skeptic team did not suggest that overall non-improvement was a consideration, they did suggest that some changes had not been demonstrated behaviourally, such as may be evidenced by Jane having the opportunity to interact with her family of origin.

Statistical Artifacts

- Regression to the mean. Three of eight original items (items 1, 2 and 3) were reduced by one or two points from “considerable” or “very considerably” to “moderately” between pre-therapy and the first session.

Relational Artifacts

- The skeptic team raised the probability that apparent changes are affected by an underlying motivation to please the therapist and/or researcher that corresponded to her investment in therapy as a therapist.

Wishful thinking

- Jane’s investment in therapy (as a therapist, and one who had participated in one weekend of training in LI) would likely contribute to her report of positive outcomes.
- The skeptic team stated that wishful thinking also played a role: Jane expected change, and thus changes cannot be directly attributed to the therapy.

- The skeptic team claimed that Jane over-attributed the effectiveness of therapy to LI-specific factors, for example by ignoring the role of common therapeutic factors such as experiencing support, attunement and being cared for.

Self-correction

- The skeptic team did not raise any observations about self-help or self-limiting easing of short-term or temporary problems. There was no evidence that the client was involved in any new, extra-therapeutic or self-directed efforts to specifically address the problem areas that she brought into therapy.

Extra-therapy life-events

- Though there were no specific extra-therapy life-events (such as births, deaths, new jobs, new relationships, separations, etc.), the skeptic team observed that Jane reported a history of multiple traumas, yet no remarkable situations were reported in her current life situation, which may have made gains in therapy more attainable at this time.

Psychobiological factors

- The skeptic team presumed that, given the client's age (in her 50's), she would be post-menopausal, and that this may be associated with emotional calm.

Reactive effects of research

- The skeptic team did not report relationship with research staff, altruism, or research activities as having enhanced or interfered with therapy.

Affirmative Rebuttal of the Skeptic Case

The purpose of this rebuttal is to challenge the arguments and evidence put forward in the skeptic brief that support the case that Jane's changes resulted from non-LI therapy processes and alternative explanations. The affirmative rebuttal addresses a few specific skeptic points as well as conceptual arguments.

Testing family of origin feelings behaviourally

- The skeptic team pointed out that Jane admitted that she had not had a chance to 'test out' her changes regarding her family of origin in terms of behavioural interaction. When the researcher inquired about this in the Change Interview, Jane replied "no" she had not tested this with her family of origin, but "not interacting with them and being comfortable with that is as much of a test of that as anything." Jane stated that she had "had an underlying feeling of regret, wishing it was different" and "now I don't." In other words, she was looking for an internal shift from the original creation of her goal, and this had happened.

Regression to the mean

- PQ decreases were substantial (well over the RCI) and sustained. It is therefore unlikely that the early shifts on three of her PQ items contribute substantially to the overall change. Moreover, Jane's response style indicated a clinically distressing, yet moderate (pre-treatment PQ mean of 4.63), endorsement of problem areas. These problem areas represented stable rather acute concerns, which reduces the likelihood for a substantial role for regression to the mean.

Relational Artifacts

- Client accounts for change were specific and backed up by examples, making it unlikely these were attempts to please the researcher or therapist. Elliot (2002) suggests that the validity of the interviews is higher when conducted by a separate researcher who did not serve as the therapist for the study, which was the case for this study. The therapist described Jane at intake as "an intelligent, professional woman with a high degree of self-agency." Direct evidence that Jane did not feel compelled to please the therapist exists in the TSNQ report after session three where the therapist admits she asked Jane about some unrelated information after the session and Jane declined the request. This level of differentiation can be assumed to apply to Jane's relationship with the researcher as well.

Investment in Therapy

- We agree that Jane had an investment in therapy. Jane apparently had been invested in her personal growth over many years. At the screening interview, Jane indicated that she chose to participate in the study because of the opportunity to work with an expert therapist on her own issues ("I want a serious therapist because these are serious issues"). Again, Jane is a mature accomplished professional, described by the therapist as having a strong sense of self-agency. Jane contributes to the profession in many ways including supervision. Participating in a research study in order to support advances in the field would likely only represent a minor aspect of her motivation at best, and more importantly would not likely affect her integrity in reporting change.

Expectancy/Confirmatory Bias/Wishful Thinking

- If all the changes were expected, it would have been more likely that they were due to wishful thinking. According to Elliott (2002), wishful thinking is generally evidenced by the use of vague reports of change rather than specific, experience-based reports such as Jane's. In the one month follow up change interview regarding the level of Jane's expectancy for change in therapy, six of the nine areas cited were four or five of five indicating that she was surprised by the change. Jane appeared to report her expectancy of change realistically because she was able to identify some areas of change that were expected, thus demonstrating a differentiated rather than a globally affected response style in this area.
- Confirmatory bias is the tendency of people to interpret ambiguous evidence as supporting their existing position or beliefs. This study did not include specific measures to test for this, but Jane's strong sense of independence and agency are strong protective factors. She was coming to see whether LI could help her rather than confirm that it could. Her report of being surprised by much of the change again confirms this.

Common Factors/Over-attribution

- The client's advanced education and experience as a therapist employing various interventions and approaches puts her in a unique position to not over-attribute non-LI-specific factors, or common factors to LI. In the first Change Interview, she cites the common factors of rapport and validation as being helpful to her while identifying them as common factors saying: "we know these things are helpful." She also reports that her therapist "worked the protocols effectively" thus demonstrating her ability to differentiate common factors from LI-specific factors. In the second Change Interview Jane again reports some common factors (the sensitivity and wisdom of the therapist), stating that they "are part of what makes LI optimally effective," again demonstrating the ability to differentiate factors and not over-attribute or over-generalize.
- LI is a therapy that makes especially good use of high calibre therapeutic skills such as attunement and regulation/containment. Though these may be referred to as 'common factors' because they are found to be important in many types of therapy, some of these factors are even more essential, central, and powerful in some therapies than others. Attunement is one such example for LI.

Extra-therapy Life Events/Psychobiological Factors/Physiological Measures

- It is true that Jane did not report a current life situation full of current stressors. Nor did she report specific circumstances that may have produced the positive outcomes she attributed to therapy. Generally, the affirmative team agrees that the absence of chaos puts the client in a good life situation to enter therapy for long-standing problems.
- While it is reasonable to assume that the client is post-menopausal, this is not a reasonable contributing factor to short-term therapeutic change. Moreover, there was no change in the client's use of any medications or herbal remedies (queried in the screening and change interview), nor was there evidence that the client experienced changes in her overall health during this time.

Skeptic Rebuttal of the Affirmative Case

In this rebuttal of the affirmative case, challenges will be made to the arguments put forward.

Relational Artifacts/Over-attribution/Confirmatory Bias

- Psychotherapy research demonstrates that participants tend toward influenced performance (e.g. Hawthorne effect) and influenced reporting, and thus the 'people-pleasing' /relational artefact/over-attribution issues are not as minor or to be as easily dismissed as the affirmative team is tending toward.
- The skeptic team brought attention again to the role of the fact that Jane is also a therapist and that her curiosity around LI as a tool strengthens the confirmatory bias dynamics.

Within-therapy Process-Outcome Correlation

- With regard to LI's theoretical and conceptual focus on integration, the skeptic team pointed out that any claims for neurological change must draw upon physiological and observational data and not exclusively self-report.

Common Factors

- The skeptic team acknowledges that it is plausible that common factors work in LI, as they do with most established therapies, but put out a reminder that case studies are not equipped to measure them and account for them properly the way research designs employing control groups can.

Extra-therapy Life Events/Psychobiological Factors

- Season of life (post-menopause) contributes to and further increases whatever "trend" the women are on in their life: calming or more distressed. Jane was experiencing a calming, which would have been compounded by this season of life for her thus contributing to the changes experienced, and over-attribution to her therapy by the affirmative team.

Affirmative Summary

The affirmative team believes that while common factors naturally had a role (they are 'common'), there is a very strong case, with multiple types of direct causal link evidence, that supports that Jane experienced substantial change during the period of the study and that it can be substantially attributed specifically to the LI therapy via its treatment of developmental and other trauma and its therapeutic building of self structure and affect regulation.

Skeptic Summary

The skeptic team acknowledges that change occurred that was not trivial, but challenges the substantial attribution to the LI therapy based on the influence of other non-therapy factors such as expectancy, over-attribution, investment, confirmatory bias and common factors.

APPENDIX P

Adjudication Reports (3 per case)

Felicity: Judge A

1. To what extent did the client change over the course of therapy?

				Substantially 80%	

1a. How certain are you?

	80%				

1b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? *(Use as much space as needed).*

The different kinds of outcome indicators provided contradictory information regarding change:

(a) The CORE scores failed to reveal change, but this is almost certainly because Felicity was in the sub-clinical range to begin with, and may be more representative of an error in choosing the CORE as an outcome measure than being representative of any deficit in the treatment. On a more positive note, the CORE scores at least suggest that the treatment did not generate negative change (i.e., increased symptomatology following treatment), which is relevant, given the AAI results and the non-linear trajectories of the PQ scores.

(b) The post-treatment AAI results strongly suggest that there has been change, but in both negative and positive directions. That is, the AAI scores suggest that LI is beneficial for resolving previously unresolved issues, but this comes at the cost of potentially shifting her from being someone who has achieved a secure attachment into an insecure attachment state of mind. This still strongly suggests change, but not the kind of change that one would hope for in therapy. [Incidentally, this represents a weakness of Elliott's method: Question 1 isn't really well suited for situations when the client may have experienced both positive and negative change. The two kinds of changes are cumulative according to the ranking system (at least as I have interpreted it) but in a clinical decision-making context they may cancel each other out.]

(c) The PQ clearly indicates positive change from pre- to post- treatment, an interpretation that the skeptic case does not even try to refute. However, what I found to be interesting is the high level of variability in PQ scores across the 11 sessions, revealing, in more than half the indicators (specifically, 1, 2, 3, 4, 5, 9), there were periods of time during treatment when things were worse than at pre-treatment. This is still indicative of change, but not a linear improvement in symptoms. Instead, it seems to me to be an indicator that LI is the kind of treatment where things may sometimes get worse before they get better.

2. To what extent is this change due to therapy?

				Substantially 80%	

2a. How certain are you?

100%					

Note that these numbers reflect my interpretation of the question that was posed to me, which is whether change was due to being in therapy or other factors. If the question had been whether the change was due to specific aspects of LI therapy in particular versus factors that LI shares with other kinds of therapy, then the percentage attributable to LI-specific factors would have been 60%, with approximately 20% due to aspects that are present in many kinds of high quality therapies, and approx. 20% due to within-person characteristics.

2b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? *(Use as much space as needed).*

From the affirmative case, the HAT and TSNQ information mattered the most. This information, combined with the fact that the skeptic case seemed to be more concerned with issues of common factors versus LI-specific factors (see below for more about that issue) rather than presenting any strong case that the change was due to factors that were altogether outside of therapy, led me to my conclusion.

3. Which therapy processes (mediator factors) do you feel were helpful to the client? *(Use as much space as needed).*

Information from Felicity's HAT forms suggests that the treatment protocols themselves were a key factor in driving change, although she also identified various general therapist qualities/skills as being most helpful (e.g., "caring intake and 'joined' me very well," "[Therapist] was attuned to this need"). Similarly, the TSNQ data, although it was predominantly framed in terms of the client, identified that what was most helpful was when the client was engaged in work elicited by the LI protocols.

I found the whole argument about common factors versus LI-specific factors in both rebuttals to be a red herring. The reality is that the therapist provided both common and specific factors in session (by definition, it is virtually impossible to not provide these common factors and the data make it clear that she also engaged in LI specific interventions each session (with the possible exception of the initial information-gathering session). If I had to make a judgment around which was more important, the HAT and TSNQ data suggest that, for Jane, both were important contributors to change, but LI treatment effects may have been slightly stronger than common factors effects. However, as the skeptic case rightly points out, case study research is not designed to be able to separate out common from specific treatment effects.

4. Which characteristics and/or personal resources of the client (moderator factors) do you feel enabled the client to make the best use of therapy? *(Use as much space as needed).*

I cannot get away from the fact that the client was a high-functioning individual (at pre-treatment, all CORE scores were in the non-clinical range, and she was securely attached) who is not only a therapist (and therefore invested in the effectiveness of talk therapy), but had received her own training in LI and was explicitly motivated by an interest in experiencing the therapy for professional reasons. All these factors would have contributed to her "buying in" to the process. They may have also sustained her motivation for continuing in therapy even when it was difficult (e.g., after she dissociated in session seven, after sessions where her PQ scores indicated that she was getting further away from her goals) in a way that people who don't share her background may not be able to do.

Felicity: Judge B

1. To what extent did the client change over the course of therapy?

			Considerably 60%		

1a. How certain are you?

	80%				

1b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? *(Use as much space as needed).*
Affirmative:
page 24, point 1 attribution by client.
Reduction in PQ scores (pre-post therapy)
Skeptic:
PQ results
Applying own therapeutic skills.

2. To what extent is this change due to therapy?

			Considerably 60%		

2a. How certain are you?

	80%				

2b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? *(Use as much space as needed).*
-clear focus in most goals during sessions.
Felicity: HAT: helpful events in particular sessions 3 and 7.
TSNQ, therapist's comments: mainly sessions 4, 5, 10, 11.
The process overall is coherent (therapy as an inter-relational process is obvious by notes from client and therapist as well as results)

3. Which therapy processes (mediator factors) do you feel were helpful to the client? *(Use as much space as needed).*

Adapting/attuning protocols according to client's needs in sessions.
TL repetitions: decreasing reactivity and integrating material from childhood memories into present.
Very focus on goals for each session
Focusing on specific memory to get to an understanding of patterns.
Use of mindfulness, mainly while accessing childhood memories

4. Which characteristics and/or personal resources of the client (moderator factors) do you feel enabled the client to make the best use of therapy? *(Use as much space as needed).*

Determination
Having clear goals
Experience in attachment issues and insight into problems
Positive transference
Able to self-regulate

Felicity: Judge C

My initial thoughts on the case of Felicity prior to reading the affirmative and skeptic arguments:

The client's prior knowledge and use of the therapy as a professional may impact her endorsement and belief in the specific effects of the therapy on her personal shifts with regard to her therapeutic goals.

The post-therapy AAI result from unresolved/secure to preoccupied is a shift toward security. She is no longer unresolved for the trauma of abuse, and is more in process around the aspect of betrayal trauma (Freyd) that would be represented in a more preoccupied state of mind with regard to attachment. (The shift from unresolved toward security often seems to be through an insecure, organized state of mind, at least initially.) To shift toward full prototypical security in 11 sessions would be unexpected in the best of circumstances with this client's specific presenting concerns.

I found the TSNQ less helpful given the complete absence of any potentially hindering aspects within sessions (despite client identification of hindrances).

On page 20, when the client describes the value of being able to lean in to her past experiences, it brought to mind her earlier description of the therapist as seeming immediately supportive and attuned. The sense of support in order to lean in brought to mind the research on common factors, and the contribution of overall empathy and person of the therapist. This capacity to lean in, however, is contrasted from her work with her primary, long-term therapist, with whom she seems to have a working alliance.

The client clearly describes the achievement of trauma-recovery goals described by van der Hart, Nijenhuis and Steele (2006) of realization (connecting fully within the self with what one has experienced in the past) and presentification (connecting with the passage of time since the traumatic experiences), with the therapy contributing specifically to presentification unlike her previous experiences in therapy.

Adjudication Response Form

Please highlight your answers on the scales provided (for example, use your mouse to highlight the appropriate answer and change to bold type or to a different colour). Choose only from the descriptors/percentage intervals provided. In answering the rest of the questions, please use whatever space is needed to give a full response.

1. To what extent did the client change over the course of therapy?

No change 0%	Slightly 20%	Moderately 40%	Considerably 60%	Substantially 80%	Completely 100%

1a. How certain are you?

100%	80%	60%	40%	20%	0%

I am confident that the client experienced substantial change (based on the results from all measures used as well as the qualitative self-report) during the 11 sessions of the therapy.

1b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? *(Use as much space as needed).*

Both the affirmative and the skeptic teams identified substantial changes in the client's perceived difficulties and overall achievement of goals. In the affirmative brief, the identification of changes in the AAI, PQ, HAT and overall Change interview data were all compelling support for client change. In the skeptic brief, it was also noted that the PQ, Change scales and Change interviews provided sufficient evidence for client change.

How did you make use of this evidence?

The assessment of client change from the affirmative and the skeptic teams supported my individual assessment of client change.

2. To what extent is this change due to therapy?

Not at all 0%	Slightly 20%	Moderately 40%	Considerably 60%	Substantially 80%	Completely 100%

2a. How certain are you?

100%	80%*	60%	40%	20%	0%

I am approximately 75% certain* that the extent of the change is due to the therapy protocols specifically. The client's descriptions of change and prior therapeutic experience with alternative modalities were the most compelling with regard to establishing my sense of certainty.
[*Primary investigator's note: since the instructions were to select only one of the descriptors/intervals this rating of 75% has been rounded up to 80%.]

2b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? *(Use as much space as needed).*

Affirmative case:

For the affirmative case, I found the support with regard to the retrospective attributions, process outcome, and within therapy process the most compelling in support of client change. The following were identified as the evidence contributing to my confidence level in assessing overall change:

1) Retrospective attributions: the client attributes specific, goal-directed changes directly to the therapy, with direct comparisons to previous therapeutic experiences in which the achievement of goals were limited.
2) Process outcome: the downward shift over time of overall symptomology is compelling evidence toward an overall trend of change.
3) Within therapy process: the shift from unresolved-secure state of mind to a preoccupied state of mind with regard to attachment may also have to do with trauma protocols being the specific focus, whereas additional building the self protocols may have been helpful following these 11 sessions to foster a more secure organized state of mind rather than an insecure organized state of mind. (Resolution of unresolved trauma is clear.)
4) The argument against possible relational buy-in by the affirmative team is substantial, although the client's prior exposure to the therapy itself as a clinician remains a concern to a limited degree.
5) The relational focus on achieving presentification does seem unique to the client's experience of the therapy as opposed to prior therapeutic interventions that were similar in achieving the goal of "realization" and processing of the trauma. Returning to the

affirmative team's noting of the client's description of her therapeutic achievements as "surprising" does support the contribution of the therapy itself.

Skeptic case:

There is a paucity of evidence toward non-improvement, self-correction, extra-therapy life events, and psychobiological factors (as the skeptic team noted). Additionally, I do not find compelling evidence for relational artifacts or for reactive effects of research (the client's goals appeared to have been addressed in prior therapeutic experiences with limited achievement of client goals).

There is some plausibility to the arguments for the statistical artifacts (AAI angry preoccupation) and wishful thinking, as noted by the skeptic team. While I do not feel there is evidence to the relational artifact of buy-in based on the client attempting to please the therapist or researcher, it is arguable that the client, a therapist herself, who has training in this approach, may have buy-in (wishful thinking) from her own training and her professional, therapeutic work with clients.

It is difficult to differentiate between broad expectations the client may have had as a result of her training and use of the therapy within her profession versus the specific achievements in her personal life that she described as surprising. However, the common factors argument does not take into account the specific achievement of particular goals (for example, the experience of greater presentification), as described by the client.

How did you make use of this evidence?

With regard to the evidence proposed by both the affirmative and the skeptic teams, I predominantly centered my focus on the client's self-report experiences as well as the overall outcome data. Comparing this with the specific arguments put forward by the respective teams, I assessed whether or not I had gleaned similar evidence for these arguments within the findings and specific data, and to what degree the findings seemed to bolster these arguments.

3. Which therapy processes (mediator factors) do you feel were helpful to the client? *(Use as much space as needed).*

Therapist support and attunement were clearly central to the benefit the client experienced in therapy. This foundation allowed the client to slow down her internal processes with a noted shift in reflective capacity, describing a persistently developing sense of agency throughout the process (through languaging of personal ability, e.g. "I was able to confront").

4. Which characteristics and/or personal resources of the client (moderator factors) do you feel enabled the client to make the best use of therapy? *(Use as much space as needed).*

The client's background experiences both professionally and personally with therapeutic process appeared to contribute to the client's clearly established goals and awareness of the process. She entered the study with enthusiasm for the therapeutic approach itself, and with a prior knowledge

of the therapy and its various elements. This alone would facilitate the client in feeling more resourced prior to beginning the treatment itself.

Kappa: Judge A

1. To what extent did the client change over the course of therapy?

					Completely 100%

1a. How certain are you?

100%					

1b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? *(Use as much space as needed).*

Setting aside the fact that the skeptic team didn't even try to argue against change, it is clear from all three types of outcome measures that change occurred between the beginning of the session and the end: The PQ revealed substantial clinical change, the CORE revealed that Kappa shifted from being within the clinical range in many areas of her life to being below the mean for non-clinical women across all dimensions, and the AAI revealed a shift from secure/autonomous attached to an insecure (specifically dismissing) attachment style. Although the change is in a negative direction, it is still change.

This third indicator of change (the AAI interview scores) requires further elaboration. Although the PI framed the change in scores as being reflective of going deeper, the alternative possibility also needs to be acknowledged: LI may be effective in reducing CORE symptoms and promoting achievement of client goals (PQ scores), but it is possible that a side effect of the type of work involved in LI therapy may actually shift clients' attachment state of mind from secure to insecure, at least for clients who were securely attached before entering therapy.

2. To what extent is this change due to therapy?

				Substantially 80%	

2a. How certain are you?

	80%

2b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? *(Use as much space as needed).*

Data from the HAT, TSNQ, and Change interviews converge to suggest that it was the therapy rather than other circumstances that was responsible for the change. Although there is some possibility that developmental maturation played a role, the amount and types of changes that occurred (e.g., the shift from secure to dismissive attachment) seem to go beyond what could be attributed to development alone. None of the other reasons raised by the skeptic team were compelling.

3. Which therapy processes (mediator factors) do you feel were helpful to the client? *(Use as much space as needed).*

The various protocols appeared to be the key drivers of change for Kappa, as suggested by the HAT and TSNQ data

4. Which characteristics and/or personal resources of the client (moderator factors) do you feel enabled the client to make the best use of therapy? *(Use as much space as needed).*

The client's development stage may have played an important role. Apart from the issue of moderator effects, I wonder if she was open to learning / not as entrenched in her behavioural patterns as someone older may have been.

Kappa: Judge B

1. To what extent did the client change over the course of therapy?

				Substantially 80%	

1a. How certain are you?

100%					

1b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? *(Use as much space as needed).*
Affirmative:
CORE-OM changes pre and post therapy.
PQ results pre and post therapy
HAT and TSNQ also highlights her improvements very coherently.
Retrospective attribution: Kappa attributes her changes to "going through the timelines." She was able to reconnect with lost happy memories involving her mother which had an impact in resolving some reactivity towards her mother in the present. Able to address issues related to mother's boyfriend and making healthy boundaries in relation to them.
Able to get insight into her relational patterns and apply this to her current situation.

Her pain towards her father was greatly resolved which had an impact in other ongoing male relationships.
The choice of LI protocols, and the progress of therapy has a clear internal coherence.

Skeptic:
I do not agree with any of the skeptical points. I would like to emphasize that developmental changes /maturation: this can go in either direction towards maturity or further regression at this point in life.
In addition there are no specific neurophysiological markers that can be done to see therapy outcomes, so often these are evaluated by change in behavior or at times by evaluation questionnaires.

2. To what extent is this change due to therapy?

Substantially 80%	

2a. How certain are you?

	80%

2b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? *(Use as much space as needed)*.
The client was able to use the sessions appropriately and implement the new learning and insights into her daily life.
The choice of protocols was appropriate to the clinical presentation and client's difficulties.
Kappa explains coherently her experiences in therapy.
The most important point is the strong coherence of the whole process. All of this highlighted in questionnaires by client and therapist.

3. Which therapy processes (mediator factors) do you feel were helpful to the client? *(Use as much space as needed)*.

Birth to present protocols very important. The specificity of aims for the therapy. The ongoing support by therapist.

4. Which characteristics and/or personal resources of the client (moderator factors) do you feel enabled the client to make the best use of therapy? *(Use as much space as needed)*.

She is well motivated; intelligent; insightful. willing to experiment with ways of dealing with her problems and emotions in ways she has never done before.

Kappa: Judge C

Initial response prior to reading the affirmative or skeptic cases:

PQ problem trends across sessions appear much more varied than the mean score across the study. Also curious about the decreases post-treatment and at the follow up compared with the scores at the final session.

Regarding the pre- and post-AAI differences from a secure to unresolved-dismissive (possibly cannot classify), my personal critique of the AAI coding for unresolved is that it is sometimes insufficient in assessing early developmental trauma, covert dissociation, and dysregulation that may be overt but unrelated to a described trauma. For example, some individuals who may have had a disorganized attachment in their early years but no overt trauma that they're able to describe cannot receive an unresolved classification, despite persistent dysregulation expected in someone with unresolved disorganized attachment, which is different from unresolved trauma or loss, which requires some form of explicit memory. The therapist in the TSNQ notes the client's freeze response in the first session; a limitation to the AAI is this could occur in the interview itself but unless it is within the context of the interviewee describing a trauma or loss, it will not be coded as anything significant.

Client difficulties with completing the HAT in a timely manner will have an impact on the findings and is appropriately flagged by the author(s). Also noted that, similarly with the other participants, the TSNQ rating of helpfulness of the session focus is scored more highly by the therapist than by the client. I appreciated the reflective awareness on the part of the therapist on what was both helpful and hindering in sessions.

Post-therapy interview: client comments on feeling 100% better despite the difficulties during the therapy (but AAI reflects possible need for further work).

Adjudication Response Form

Please highlight your answers on the scales provided (for example, use your mouse to highlight the appropriate answer and change to bold type or to a different colour). Choose only from the descriptors/percentage intervals provided. In answering the rest of the questions, please use whatever space is needed to give a full response.

1. To what extent did the client change over the course of therapy?

No change 0%	Slightly 20%	Moderately 40%	Considerably 60%	Substantially 80%	Completely 100%

1a. How certain are you?

100%	80%*	60%	40%	20%	0%

I feel less confident (70-75%)* that the client experienced substantial changes compared with the other participating clients. While it is clear that the client experienced measurable change, it is unclear to what degree these changes occurred, particularly as she described touching on layers of difficulties that she had previously repressed (that may have quite significantly affected her AAI attachment representation post-treatment).
[*Primary investigator's note: since the instructions were to select only one of the descriptors/intervals this rating of 70-75% has been rounded up to 80%.]

1b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? *(Use as much space as needed).*

Both the affirmative and the skeptic teams identified changes in the client's level of functioning, although the affirmative team was more confident in the degree of change compared with the skeptic team. Most compelling for the affirmative brief were the shifts in the client's sense of self and the significant changes (as seen with the PQ scores especially) in what had been enduring issues of concern for the client.

How did you make use of this evidence?

The affirmative and the skeptic teams noted significant changes in the outcome measures for the client. The client and therapist both described notable changes, and the client herself identified specific and remarkable changes with clear examples from her daily life.

2. To what extent is this change due to therapy?

Not at all 0%	Slightly 20%	Moderately 40%	Considerably 60%	Substantially 80%	Completely 100%

I would say that I am 85-90% certain the change was due to therapy based predominantly on the client's own descriptions, particularly in identifying specific protocols herself, despite no previous exposure or training in the approach.

2a. How certain are you?

100%	80%	60%	40%	20%	0%

I am approximately 80% certain that the extent of the change is due to the therapy protocols specifically.

2b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? *(Use as much space as needed).*

Both the affirmative and the skeptic teams identified changes in the client's level of functioning, although the affirmative team was more confident in the degree of change compared with the skeptic team. Most compelling for the affirmative brief were the shifts in the client's sense of

self and the significant changes (as seen with the PQ scores especially) in what had been enduring issues of concern for the client.

The skeptic team's identification of the possible relational artifact of the client wishing to please the therapist (as is her pattern in relationships) is a compelling argument. The affirmative team does make a case for Kappa noting the difficulties with the process early on (e.g. "I was opening things I hadn't dealt with. So that was hard.") This, however, may not have a direct link or a specific impact on her desire to please the therapist.

The skeptic's team identification of psychobiological factors such as her frontal lobe development are weak, given the duration of the study was over the course of several months, in which natural neural development alone would be highly unlikely to shift significant post-traumatic reactions. This was noted by the affirmative team.

How did you make use of this evidence?

With regard to the evidence proposed by both the affirmative and the skeptic teams, I assessed the arguments on the degree of plausibility in comparison to the assessment measures and findings from interview data. The assessment of client change from the affirmative and the skeptic teams supported my individual assessment of client change. The affirmative team's identification of aspects of client change were of value, although the rebuttals to the skeptic team's alternatives were not as convincing in the case of the possible relational artifacts.

3. Which therapy processes (mediator factors) do you feel were helpful to the client? *(Use as much space as needed).*

Therapist support and attunement were clearly central to the benefit the client experienced in therapy. The client also identified specific protocols within the therapy as being especially helpful, with clear descriptions as to how they have been helpful in her daily functioning.

4. Which characteristics and/or personal resources of the client (moderator factors) do you feel enabled the client to make the best use of therapy? *(Use as much space as needed).*

The client presented with a clear motivation and, even when experiencing ambivalence toward the process at one point in the therapy, was able to address her concerns and complete her treatment trajectory. Kappa provided detailed examples of how the therapy specifically helped her to make changes in her life, describing with clarity her internalization (most notably through imagery) of greater self-compassion and a boundaried sense of self.

Jane: Judge A

1. To what extent did the client change over the course of therapy?

			Considerably 60%		

1a. How certain are you?

				20%	

1b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? *(Use as much space as needed)*.

My low level of certainty is due to specific aspects of the case that weaken it as a potential illustration of the effectiveness of LI: the non-clinical pre-treatment CORE scores (plus alternative motivation to learn about LI that the client reported) indicate that this client may not have been in need of treatment to begin with. The lack of change in PQ scores in the latter half of treatment could also indicate that this client did not really require treatment to begin with. Additionally, the inconclusive post-treatment AAI interview scores make me wonder about the degree to which the PI, who is not blind to the purpose of the study and yet still conducted the interview, could have subtly influenced the participant's responses from ones clearly indicating little change in unresolved loss/trauma (which would have run counter to the PI's desires) to ones that were ambiguous.

Balanced against all this inconclusive change data is the reported experience of both the client and the therapist, which make it clear that they believe that substantial change occurred, as presented in the affirmative case "retrospective attribution" and "process-outcome mapping" sections. This is why my estimation of change is relatively strong, despite my low confidence in the accuracy of my estimation.

The extent of change is not any greater than 60% because of the aforementioned problems with the CORE, PQ and AAI results. I am not convinced by the affirmative case's claims around change in stable problems, since problems with the CORE and the AAI (combined with the fact that the client 's relationship status (reflecting the goal of finding a suitable partner) remained unchanged) precluded adequate triangulation of evidence from multiple different sources. Note that I am not saying that the evidence indicated that LI was ineffective with Jane. I am simply stating that there is insufficient evidence to make a strong judgment either way, due to the nature of the client and her presenting problems.

2. To what extent is this change due to therapy?

				Substantially 80%	

2a. How certain are you?

100%					

Note that these numbers reflect my interpretation of the question that was posed to me, which is whether change was due to being in therapy or other factors. If the question had been whether the

change was due to specific aspects of LI therapy in particular versus factors that LI shares with other kinds of therapy, then the percentage attributable to LI-specific factors would have been closer to 40%, with another 40% due to aspects that are present in many kinds of high quality therapies, and 20% due to within-person characteristics.

2b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? *(Use as much space as needed).*

The skeptic case (at least as it is presented in the summary written by the PI) was not compelling. It seemed to boil down to (a) weak (as in supported by a minority of the data) arguments for non-improvement and statistical artifacts, and somewhat stronger arguments for relational and expectancy effects. [Incidentally, I really don't like the label "wishful thinking," because it minimizes the real power that hope / expectation of change can have in precipitating improvements in clients- that's not wishful thinking, that's a non-specific / common factor aspect that any good therapist would seek to maximize in her work.]. The psychobiological / developmental issue was also not compelling, given the short duration over which the therapy occurred (i.e., I see being post-menopause as being more of a constant rather than a variable in this case).

In contrast, the affirmative case provided much more extensive arguments, grounded in the data, for attributing the observed changes to the therapy.

3. Which therapy processes (mediator factors) do you feel were helpful to the client? *(Use as much space as needed).*

I found the whole argument about common factors in both rebuttals to be a red herring. The reality is that the therapist provided both common and specific factors in session (by definition, it is virtually impossible to not provide these common factors and the data make it clear that she also engaged in LI specific interventions each session (with the possible exception of the initial information-gathering session). More importantly, the client identified a combination of common (session 1, session 4, and to some degree session 2) and specific (session 3, 5, 6, 7, and to some degree 2) factors as being most effective in the HAT.

Consequently, I would argue that the therapeutic relationship AND the use of specific LI protocols were helpful. It is not possible for me to distinguish WHICH protocols were more/less helpful, since so many were used and there was a lack of comparative statements were made around which ones were perceived to be better.

4. Which characteristics and/or personal resources of the client (moderator factors) do you feel enabled the client to make the best use of therapy? *(Use as much space as needed).*

As I explained in my discussion I believe that the client's high level of pre-treatment functioning (i.e., there were no areas of clinical concern identified by the CORE; the AAI revealed that Jane has an "earned secure" classification even before she began the work) was a major contributor to the outcome.

An additional potentially moderating factor is the fact that Jane is a therapist herself, which (a) predisposes her to expectancy effects around the benefits of talk therapy (remember, I view expectancy to be an important factor in achieving positive change; I don't see it as "wishful thinking," even though this was how it was initially presented in the skeptic case), and (b) provided her with a sophisticated level of pre-existing knowledge to engage with the therapist (this was alluded to in the Affirmative Rebuttal, in terms of Jane's ability to distinguish between and reflect on common versus specific factors).

Jane: Judge B

1. To what extent did the client change over the course of therapy?

		40%			

1a. How certain are you?

		60%			

There are reactivity changes reported by client and therapist. However, the aims of therapy in this case , although the client focuses on future relationships (romantic) these are indicative of a wide set of difficulties, which in the time available could not be addressed (therapist appeared not to have thought strategically about this).

2. To what extent is this change due to therapy?

			Considerably 60%		

2a. How certain are you?

	80%				

2b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? *(Use as much space as needed).*

Neither the affirmative or the skeptic teams highlights the dynamics of the issues in this complex case.

3. Which therapy processes (mediator factors) do you feel were helpful to the client? *(Use as much space as needed).*

The use of some of the protocols may have helped the client reach these changes, for instance PTSD protocols and also relational protocol in relation to mother. The one in relation to mother, led to gaining insight into her own evaluations.

4. Which characteristics and/or personal resources of the client (moderator factors) do you feel enabled the client to make the best use of therapy? *(Use as much space as needed).*

Her own long term experience with therapy and her intelligence.

Jane: Judge C

Initial response prior to reading the affirmative or skeptic cases: the client is a therapist by profession, with prior training in the therapy. One of her primary stated motivations for participating in the study is professional.

The authors also note some shifts in Jane's AAI classification, with an emerging derogation toward her father. This is not unexpected as one addresses unresolved trauma, especially when involving betrayal trauma (Freyd). Often resolution of unresolved states of mind toward greater security do so by first shifting toward an insecure organized state of mind with regard to attachment.

On page 21, the client describes the specific contributions of the therapist with regard to her attunement. While aspects of this reflect common factors, the client also describes the ways in which the therapist's attunement was specific to utilization of therapy-specific protocols.

The shift in PQ scores was impressive, and as an adjudicator, I appreciated the follow up question with regard to the PQ scores. I also valued the TSNQ from Jane's therapist, given the therapist reflected on a balance of helpful and hindering aspects within sessions.

Adjudication Response Form

Please highlight your answers on the scales provided (for example, use your mouse to highlight the appropriate answer and change to bold type or to a different colour). Choose only from the descriptors/percentage intervals provided. In answering the rest of the questions, please use whatever space is needed to give a full response.

1. To what extent did the client change over the course of therapy?

No change 0%	Slightly 20%	Moderately 40%	Considerably 60%	Substantially 80%	Completely 100%

1a. How certain are you?

100%	80%	60%	40%	20%	0%

I am approximately 80-85% confident that the client experienced substantial change (based on the results from all measures used as well as the qualitative self-report) during the 7 sessions of the therapy.

1b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? *(Use as much space as needed).*

Both the affirmative and the skeptic teams identified substantial changes in the client's perceived difficulties and overall achievement of goals. In the affirmative brief, the identification of changes in the PQ, Change scale, HAT, and the TSNQ provided evidence of significant client change toward positive achievement of the client's goals. Also, their rebuttal with regard to skeptic critiques over the absence of behavioral evidence and potential relational artifacts were especially compelling with regard to the client's pre-existing agentic sense of self and her internal awareness of changes in reactivity with regard to specific goals related to engagement with her family of origin.

How did you make use of this evidence?

The assessment of client change from the affirmative and the skeptic teams supported my individual assessment of client change. The affirmative team's identification of aspects of client change and the resulting rebuttals against the skeptic team's critiques regarding lack of behavioral evidence and potential relational artifacts were of particular value.

2. To what extent is this change due to therapy?

Not at all 0%	Slightly 20%	Moderately 40%	Considerably 60%	Substantially 80%	Completely 100%

I would say that I am 85-90% certain the change was due to therapy based predominantly on the client's own descriptions.

2a. How certain are you?

100%	80%	60%	40%	20%	0%

I am approximately 80-85% certain that the extent of the change is due to the therapy protocols specifically.

2b. What evidence presented in the affirmative and skeptic cases mattered most to you in reaching this conclusion? How did you make use of this evidence? *(Use as much space as needed).*

Affirmative case:

For the affirmative case, I found substantial support with regard to the retrospective attribution, process-outcome mapping, within therapy process outcome as well as change in stable problems.

With regard to retrospective attribution, the awareness of the client in her own assessment of how much of her own motivation versus the therapy-specific processes affected the outcome is important. This is further supported by her previous experience with alternate trauma therapies. Additionally, combined with the within therapy process outcome correlation, the direct impact of affect regulation building protocols on stable patterns of reactivity into fight or flight survival responses is especially persuasive in evidence for client change.

Process outcome mapping was helpful in summarizing the gains made by the client throughout the therapeutic process. The descriptions of the therapist-specific interventions (relational shifts directly experienced through the therapeutic relationship), when considered with other information the client described with regard to her experience of the therapist, provide substantial and therapy-specific rationale for client change.

Skeptic case:

The identification of potential lack of behavioral evidence, relational artifacts, and wishful thinking/confirmatory bias by the skeptic team provided valuable areas requiring clarification and acknowledged potential external influences. Specifically, the client's prior exposure to the therapy itself and her professional work as a therapist may have influenced her assessment of change processes.

The affirmative team provided strong rebuttals to these identified concerns, especially with regard to concerns over the lack of behavioural evidence and the potential for relational artifacts. Addressing the former, the affirmative team noted client descriptions of shifts in her internal experience in anticipation of contact with her family, as well as a reduced need to contact them (this in itself being a behavioural change). For the relational artifact of the client potentially wanting to please the therapist, the affirmative team noted a specific instance in which the client declined to respond to a therapist question.

The skeptic team reflected my own concern with regard to the prior exposure to the therapy and possible over-attribution to the therapy for what may instead be common factors. It was noted, however, that the client described therapy-specific factors with regard to the relationship, making a strong case for client awareness of LI versus common factors.

The identification of the psychobiological factor of the client being [potentially] post-menopausal appeared weak, at best, particularly with regard to shifting posttraumatic symptoms. It can easily be assumed that her symptoms would have resolved prior to the study had this been the case and the skeptic response appeared weaker overall as a result of this inclusion. If this is a legitimate proposal, I would have liked to see specific research cited given the skeptic team provided references for other points of non-LI related influences they proposed.

How did you make use of this evidence?

With regard to the evidence proposed by both the affirmative and the skeptic teams, I assessed the arguments on the degree of plausibility in comparison to the assessment measures and findings from interview data.

3. Which therapy processes (mediator factors) do you feel were helpful to the client? *(Use as much space as needed).*

Therapist support and attunement were clearly central to the benefit the client experienced in therapy. Additionally, the client consistently integrated her description of the relationship-specific benefits to her therapeutic experience with particular LI protocols (particularly with imaginal nurturance toward her younger self).

4. Which characteristics and/or personal resources of the client (moderator factors) do you feel enabled the client to make the best use of therapy? *(Use as much space as needed).*

The client presented with a clear sense of personal agency and awareness of herself and of her specific goals. Her previous therapeutic experience both personally and as a professional were of benefit in providing clarity to her descriptions and in pre-empting particular concerns presented by the skeptic team (and from my own questions when first reading of her background).