THE RELEVANCE OF ATTACHMENT THEORY PRINCIPLES TO PSYCHOTHERAPY AND HOW IT CAN CONTRIBUTE TO FOSTERING THERAPEUTIC ALLIANCE AND THE CHANGE PROCESS FOR CLIENTS: A LITERATURE REVIEW

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Abstract

This study is focused on how attachment theory can help explain the importance of the therapeutic alliance as a key factor for effective psychotherapy and how a felt sense of safety and care can help to establish and foster a therapeutic alliance through the application of clinical strategies to promote change and growth of the client through the therapeutic alliance. This study is relevant to psychotherapy is because of the key role attachment styles play in therapy (Taylor, Rietzschel, Danquah & Berry, 2015). Attachment theory informs how therapists can create a safe and caring relational environment and how this in turn can support the exploration and reconstruction of the client's internal working models (IWMs) of self and others and insecure attachment patterns for effective affect regulation.

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The Relevance of Attachment Theory Principles to Psychotherapy and How it can Contribute to Fostering Therapeutic Alliance and the Change Process for Clients: A Literature Review

Chapter 1: Introduction

In this chapter, I will outline the purpose of study and its relevance. I will describe its significance and offer a section with scholarly context. I will offer the theoretical framework for the study, define key terms and phrases and present the structure of the thesis.

Purpose of Study

The purpose of this study is to explore how attachment theory principles can help explain the importance of the therapeutic alliance as a key factor for effective psychotherapy and how a felt sense of safety and care can help to establish and foster a therapeutic alliance through the application of clinical strategies to promote change and growth of the client through the therapeutic alliance.

Relevance

This study is relevant to psychotherapy is because the "attachment system is believed to play a central role in guiding interpersonal relationships including those that develop within therapy, attachment representations may play an important role in determining the working alliance during therapy" (Taylor, Rietzschel, Danquah & Berry, 2015, p. 241). Attachment theory informs how it is critical for a therapist to create a safe and caring relational environment with the client and how these conditions can support the exploration and reconstruction of the client's internal working models (IWMs) of self and others and insecure attachment patterns for

effective affect regulation based on neuroscience and its role in relational nonverbal communication patterns.

Significance of Study

This study is written for grad students studying counselling and current therapist because attachment theory principles play an important role in the dynamics of how and why the therapeutic alliance is such an important factor in psychotherapy. Also attachment theory can provide clinical implications to foster deeper therapeutic alliance and as such, better or more positive therapeutic outcomes related to change and growth for a client.

Scholarly Context

The development of self happens within a relational context and the transformation of self often happens through relationships (Wallin, 2015). Therapeutic change in psychotherapy occurs within a relational context between a client and a therapist and the therapist's ability to create a safe and secure environment is an important element of therapeutic change (Geller & Porges, 2014). According to Wallin (2007) psychotherapy should attempt to provide a healing relationship by the therapist towards the client by striving to support a client to grow beyond the limits established by their history and encourage the development of a different self in a relational context. Duncan, Hubble, Miller and Wampold (2009) acknowledged that since the introduction of psychotherapy, deliberations have been plentiful on what causes change, specifically looking at the methods borrowed from theoretical modalities. Regardless of 40 years of research, no evidence has been identified to provide a specific ingredient to resolve the particular challenges related to change of clients to psychotherapy (Duncan et al., 2009). It has been stated that psychotherapy does not function in the same manner as medicine because distinct psychological treatments for specific challenges is an illusion (Duncan et al., 2009).

According to Ross (2006) literature examining the working relationship between therapist and client confirms the notion that it is the quality of the alliance that best concluded change regardless of the nature of the therapy. The following ‘ four common therapeutic factors’ have been recognized as the essential ingredients that predict positive outcomes for all forms of psychotherapy (Duncan et al, 2009). Based on Lambert (as cited in Duncan et al., 2009) the four common therapeutic factors are (1) extratherapeutic variables (40%), (2) therapeutic relationship/alliance (30%), (3) hope, expectancy and placebo (15%), and (4) model and technique (15%). These common factors are interdependent, dynamics, and changing as therapy is a reciprocal process through the interactions of the client and therapist (Duncan et al, 2009). Confirmation regarding the influence of the therapeutic alliance is manifest in more than 1,000 findings (Orlinksy, Ronnestad & Willutski as cited in Duncan et al., 2009) based on copious studies over the past decade, over a range of modalities and research frameworks (Bachelor, 2013).

The literature states that the therapeutic alliance is a well-established factor that has been associated with positive outcome to psychotherapy and the change process for clients and the most important factor producing successful client outcomes (Duncan et al; Gelso and Hayes as cited in Ross, 2006). A therapeutic alliance entails three connected elements: (1) unison of therapeutic tasks and strategies, (2) unison on therapeutic goals, and (3) the therapist’s ability to establish a well-founded alliance (Norcross, as cited in Imel, Hubbard, Rutter & Simon, 2013). According to the Working Alliance Inventory (WAI: Horvath & Greenberg as cited in Bucci, Seymour-Hyde, Harris & Berry, 2016) recognition of mutual goals and tasks were confirmed along with the essential need for an emotional bond within the client-therapist dyad based on respect, trust, confidence, and personal attachment to therapist by the client for positive

outcomes. Therapeutic alliance is created when a therapist is able to be present and has the ability to demonstrate emotional attunement, empathy, genuineness, and collaboration with the client (Geller & Greenberg, 2012). According to Bowlby (as cited in Ross, 2006) attachment theory conceptualizes the therapeutic alliance as an attachment relationship because the therapist can operate as an attachment figure by establishing a secure base for the afflicted client and a safe haven to return to in times of distress. Attachment theory can be seen as a framework within which to analyze and understand the importance of the therapeutic alliance (Bucci et al., 2016).

According to Bowlby (as cited in Wallen, 2015), attachment theory is based on the notion that

> Intimate attachments to other human beings are the hub around which a person's life revolves, not only when he is an infant or a toddler, but throughout his adolescence and his years of maturity as well, and on into old age. (p. 442)

Based on attachment theory concepts, our early interpersonal experiences with attachment figures contribute to our development of characteristic patterns of relating to others, specifically in times of anguish and distress, and how we learn to regulate affect (Wallin, 2015). Based on how our physical and emotional needs are met by attachment figures in times of distress, a person will develop an internal working model (IWM) of self and others and attachment styles as a means to adapt in times when the attachment system is activated (Mikulincer, Shaver, & Pereg, 2003). According to attachment theory, in times of anguish and distress, the attachment system is activated. This system is considered to play a role in influencing the therapeutic relationship because the IWMs inform our relational way of being. Our attachment style of either insecure or secure is present in our ways of relating in relationships in times of stress. These dynamics can

play a role in the development and establishment of a therapeutic alliance, which is an essential element of effective psychotherapy (Mikulincer et al., 2003; Bucci et al., 2016).

Individuals generally seek psychotherapy in times of threat and distress due to challenges in their interpersonal relationships or because they have destructive mental representation or IWM of themselves and others that need to be explored to support change (Bucci et al, 2016). The therapy process can evoke strong negative effect for clients and the sense of emotional safety, care and understanding a client feels towards their therapist is what build the therapeutic alliance and foster change and growth in the client (Bucci et al, 2016). According to Bowlby as cited in Davila and Levy (2006) attachment theory has specific applications for psychotherapy and serves five main functions: (1) a therapist establishing a secure base from which a client can explore uncomfortable aspects of life; (2) a therapist supporting a client to explore expectations, feelings and behaviours related to past and present attachment relationships; (3) a therapist using the therapeutic alliance as a means to explore the relational dynamics and how they can relate to relationships or experiences outside of therapy; (4) a therapist can foster the linking of past experiences to present ones by supporting awareness of how current relationships may be related to the past and (5) a therapist can support a client to reexamine their IWMs, which is related to how a client feels, thinks and acts in different ways in their relationships.

Theoretical Framework

According to Crowell et al as cited in Sabe (2008) attachment theory is a life span developmental theory pertinent for understanding how our early relational experiences impact our emotional and physical well-being not only in childhood but throughout the lifespan. These relational experiences with attachment figures contribute to the development of IWMs of self and others and the manifestation of the four distinct attachment styles which often play a role in

how we regulate affect in times of distress (Mallinckrodt, Coble, & Grant, 1995). The IWMs of self and others and insecure attachment styles can negatively impact interpersonal challenges of people and these are often the core elements that need to be examined in psychotherapy through the therapeutic alliance (Mallinckrodt et al, 1995). According to Mallinckrodt et al. (1995), "the psychotherapy relationships contains many features which activates an adult client's ingrained attachment expectations and behaviours" (p. 308). The therapeutic relationship dynamics can contribute to the development and maintenance of a therapeutic alliance and a therapist's ability to behave in a similar way to a client as a caregiver or parent for emotional support, caring presence, affect regulation and secure base can support and enhance a client's ability to examine their inner and outer world for change and growth (Mallinckrodt et al, 1995).

Definitions of Terms

Definitions for the term therapeutic alliance in psychotherapy differ among theoretical practices (Imel et al., 2013). The terms therapeutic alliance, therapeutic relationship, working alliance, and intersubjectivity are all used interchangeably to refer to positive client-therapist relationship (Duncan et al, 2009). For the purpose of this thesis, the term therapeutic alliance will be used to refer to the above terms within the literature. In attachment literature, there are different labels researchers place on attachment concepts because the findings in attachment are varied based on different populations, ages or measures of attachment (Johnson & Whiffen, 2003). Several terms have been identified and used interchangeably to describe insecure ways of relating to others such as attachment styles, attachment strategies, attachment patterns and habitual forms of engagement (Johnson & Whiffen, 2003). For the purpose of this thesis, the term attachment styles will be used to apply to the above terms. Also within the literature the insecure attachment styles are given different terms based on the age of the population being

studies (Johnson & Whiffen, 2003). For the purpose of this thesis, the following terms will be used to describe the three attachment styles which are secure, precocuppied (fearful or anxious), and avoidant . There is a forth attachment pattern of behaviour which is termed "disorganized" which was found later my Main and Goldwyn (1980). An individual can be anxiously/disorganized, or fearful/disorganized. Interestingly, an individual can also be secure/disorganized (Johnson & Whiffen, 2003). In interpersonal neurobiology literature, the terms co-regulation and dyadic regulation are used interchangeably (Shaver & Pereg, 2003). For the purpose of this thesis the term co-regulation will be used.

Attachment Theory: "Attachment theory, credited to the work of John Bowlby, Mary, Mary Ainsworth, Mary Main amongst others was seen as a significant addition to understanding human social behaviour. Drawing on concepts form ethology (the study of animal behaviour), evolutionary biology, systems theory, and cognitive psychology, as well as his training in psychoanalytic object relations, Bowlby advanced a point of view that emphasized the influence of affectional relationships and experiences on personality development, whether healthy or pathological" (Sable, 2004, p. 3).

Internal Working Models (IWMs): Cognitive and emotional representations of self and others that operate fairly automatically and unconsciously to monitor attachment-related experiences on an ongoing basis and that forms the basis of behaviours" (Pearlman & Courtois, 2005, p. 451).

Attachment Styles: The systemic pattern of relational expectations, emotions, and behaviours that result from internalization of a particular history of attachment experiences and consequent reliance on a particular attachment-related strategy of affect regulations (Fraley & Shaver; Shaver & Mikulincer as cited in Mikulincer et al, 2003, p. 79) .

Secure Attachment Style: "Easily seeks proximity and contacts to others with little or no avoidance or angry resistance when frustrated or disappointed. Able to resolve soothing and calming and able to return to auto-regulatory strategies when support is unavailable" (Fisher, 2012, p. 6).

Preoccupied/Anxious Attachment Style: " Here today, gone tomorrow type of bonding leads to continual frustration and insecurity in relating that may manifest as feeling incapable of ever being truly loved or lovable enough and an over-focus on the 'other' and an under-focus on the self. Since we learn to abandon our self, we feel only external sources of comfort and regulation will work" (Poole Heller, 2012, p. 5).

Avoidant Attachment Style: "Unavailability, hostility, and lack of fulfillment from caregivers can result in a feeling that relationships and intimacy are so difficult that we tend to stay on the sidelines... perhaps a major 'disconnection' from relationships as a source of comfort in life. We have learned that we meet our needs better ourselves. We have learned to dismiss others and live in an isolation bubble of self" (Poole Heller, 2012, p. 5).

Disorganized Attachment Style: "When parents are overly fearful themselves, chaotic or terrifying, we may become so frightened and confused in relating. This describes a conflict between two major biological drives that occur when a child looks for a safe attachment figure and find instead a need to protect oneself through the survival instinct to dis-attach" (Poole Heller, 2012, p.5).

Affect Regulation: "As psychological strategies designed to maintain and restore biological and psychological homeostasis during times of overwhelming emotions" (Havas, Svartberg & Ulvenes, 2015, p. 239).

Co-Regulation: "Human beings are neurobiologically impacted by each others constantly moment to moment via body-based implicit and explicit communications- not just in our early years but throughout our lives. It means that affect and autonomic arousal are communicated not just in words but through the exchange od nonverbal language" (Fisher, 2014, p. 8).

Relational Trauma: Emotional misattunement and neglect (Allan as cited in Pearlman & Courtois, 2005).

Therapeutic Alliance: The quality to which a therapist and client are engaged in collaborative and meaningful work (Hatcher & Barends as cited in Imel et al, 2014).

Neurobiology: "The branch of biology that is concerned with the anatomy and physiology of the nervous system" (Dictionary.com)

Interpersonal Neurobiology: "Not as a form of therapy but a form of integrating a range of scientific research into a picture of the nature of human reality" (Siegel, 2011, p.70).

The Polyvagal-Social Engagement System: "How each of the three phylogenetic stages in the development of the vertebrate autonomic nervous system is associated with a distinct autonomic subsystem that is retained and expressed in mammals. These autonomic subsystems are phylogenetically ordered and behaviourally linked to social communication (e.g., facial expression, vocalization, listening), mobilization (e.g., fight-flight behaviours), and immobilization (e.g., feigning death, vasovagal syncope, and behavioural shutdown)" (Porges, 2009, p. 3)

Implicit Memory: This memory system is coordinated to recognize safety and threat, provide emotional attitude about events, and is internally experiences as emotional memory

(Schore, 2012). They are often unconscious and develop as a result of repeated interactions that become routine and adaptive (Wilson as cited in Cortina, 2013).

Explicit Memory: This memory system is coordinated to use factual information and verbal memory such as event details and contextual parts of experiences and set down in long-term memory storage (Applegate & Shapiro; Carter et al as cited in Schore, 2012). They are often consciously accessible and often remembered after a few experiences so they can be changed and altered more easily (Schore, 2012).

Right Hemisphere: This hemisphere is unconscious and implicit while utilizing feelings, images, intuition, metaphors and bodily sensory experiences to understand the world (Quillman, 2012).

Left Hemisphere: This hemisphere is conscious, explicit, more rational, and analytical while utilizing language, grammar and words to understand the world (Quillman, 2012).

Therapeutic Presence: Involves having one's whole self in the experience with the client by being unconditionally in the moment spiritually, emotionally, mentally and physically by being open and receptive to the present moment (Geller & Greenberg, 2012).

Situating the Author

I was first informed about attachment theory by a classmate when I started my Master's in Counselling while taking a course on sexuality. My classmate encouraged me to explore how attachment theory concepts related to attachment styles and the internal working models (IWMs) of self and others often influence our interactions in our most important relationships and how our behaviours with others are often rooted in our early relational experiences as children with our caregivers. After I began to learn about this theory and saw the relevance of its concepts in my own relationships pertaining to how I often felt, thought and act with others, I began to

develop a passion for its principles and I could see its relevance to many aspects of psychotherapy and the types of challenges clients face when seeking support from a therapist.

When I was able to identify with the insecure anxious attachment style, I decided to put more time and effort in attending therapy to develop a felt sense of security within myself and with others in order to have healthy and interdependence in my relationships and in order to provide a secure attachment relationship with my future clients as a therapist. Through my therapist's ability to be fully present in the moment, emotionally attunement to my nonverbal and verbal communications, and the establishment of a safe and secure relational environment, we established a therapeutic alliance, and this relationship is what has continued to provide me with the emotional support to delve into my pain to heal and repair my relational injuries through the accompaniment of my therapist. I hope to act as a surrogate attachment figure to my future clients to help them acknowledge, address, and heal their relational traumas so they can experience co-regulation within the therapeutic alliance to be able to take their experienced gained in therapy and apply it to their interpersonal relationships.

Structure of the Thesis

Chapter 2 will cover the fundamental concepts and tenets of attachment theory. Chapter 3 will explore how attachment theory principles are related to psychotherapy and how it can be used to foster and nurture a therapeutic alliance and support a client towards healing and change. Chapter 4 will explain the interconnection of neurobiology in related to therapeutic communication and provides knowledge to better understand the importance of a therapist creating a safe and secure environment to create therapeutic alliance and to provide support to the healing process of clients. Chapter 5 will examine the role of therapist self-disclosure and therapeutic presence to enhance the therapeutic alliance and how these two ways of being and

relating with clients can help to readjust insecure attachments style, reconstruct IWMs and support a client to develop greater affect regulation and growth. Chapter 6 will identify the relevance of this literature review to the effectiveness of therapist to support their clients in the change process. Furthermore I have provided five appendices of information and tools to support a therapist to foster greater self-awareness and understanding of their client through exploring the aspects of attachment styles, the relevance of presence, the role of felt security in the therapeutic relationship, and how body sensations relate to feelings.

Conclusion

In this chapter, I offered the purpose of study and its relevance. I described its significance and offered scholarly context for the study. I described the theoretical framework for the study, defined key terms and phrases and presented the structure of the thesis. The next chapter discusses attachment theory.

Chapter 2: Attachment Theory

In this chapter, I offer historical context for the study, discuss attachment behavioural system, attachment throughout the lifespan, I will discuss Internal Working Models (IWMs) and I will also discuss attachment styles.

Attachment Theory

O'Neil, Guenette and Kitchenham (2010) suggest that attachment theory is a behavioural-motivational control system, the primary social system, with the purpose to provided security for an infant through seeking and maintaining proximity to a caregiver. Pearlman and Courtois (2005) state that an infant's need to attach serves a biological and survival purpose to entail a secure and consistent attachment relationship for care and protection. When a caregiver is reliable, emotionally attuned, and responsive, a child feels protected and is prevented from being over-stimulated or to feel threatened, which contributes to a child developing the capacity to deal with social interactions, foster life skills, and regulate affect, which contributes to both physiological and psychological growth and optimal development (Pearlman & Courtois, 2005). Emotionally accessibility and responsiveness nurture secure attachment with others (Johnson and Whiffen, 2003). Children who experience unresponsiveness from their attachment figures cope with the negative response in limited ways and their means of regulating affect by coping along three dimensions of insecure attachment styles referred to as anxious, avoidant and disorganized (Fraley & Waller as cited in Johnson and Whiffen, 2003). These insecure attachment styles can contribute to psychological difficulties regulating emotions, relating to others, and stimulating a vulnerability to psychological suffering (Sable, 2007). Our early relational experiences often shape the organization of broad skills, capacities and patterns of regulation, each of which impacts interpersonal functioning (Fraley, LaForce, Roisman & Owen, 2013).

Historical Context

Attachment is fundamentally a theory on relational trauma (Atkinson & Johnson as cited in Johnson and Whifften, 2003). John Bowlby, the founder of attachment theory, started his profession as a health professional observing maternal deficiency and separation and its effects on children. Relational trauma such as loss, rejection, deprivation, and abandonment by those we need the most has an immense impact on us. These traumatic stressors can impact personality formation and a person's ability to deal with and manage stress and interpersonal relationships (Johnson and Whiffen, 2003).

Bowlby's concepts and tents were empirically certified and eventually expanded by Mary Ainsworth (Wallin, 2015). Ainsworth conducted a series of field observations, first in Uganda and then in Baltimore, which led to the development of a laboratory procedure called 'the strange situation' as a way to assess differences in attachment security in infants (Sroufe & Siegel, 2011; Levy, Ellison, Scott, & Bernecker, 2011). Through her method of watching the behaviours of infants in a staged playroom, through which the infant, caregiver and a stranger interact, she was able to identify three distinct attachment styles in infants with their caregivers and these styles have been termed secure, anxious, and avoidant (Levy et al, 2011). Ainsworth provided the idea that a secure attachment figure encompassed two interconnected components where they provide a secure base from which a child can explore his environment and someone who acts as a safe haven whom the child can return to in times of distress (Cassidy, Jones, & Shaver, 2013). Ainsworth's ground-breaking methodology was essential in testing Bowlby's concepts empirically and her contributions have helped to expand the theory to adulthood and its relevance to psychotherapy in relation to the role of a therapist to act as a secure attachment figure (Bretherton, 1992).

The development of Bowlby' and Ainsworth's work was continued through the efforts of Mary Main, who brought the spotlight of attachment research from infancy to adulthood (Wallin, 2015). Main and her colleagues for nearly 20 years after Ainsworth's original work on the three attachment styles discovered and identified a fourth attachment style called disorganized (Johnson and Whiffen & Main and Solomon as cited in Levy et al, 2011). Furthermore, she elaborated on Bowlby's concepts of individual difference in attachment styles being connected to the individual's internal working models (IWMs) of self and of others by her contribution of the Adult Attachment Interview (AAI, Johnson and Whiffen, 2003). The Adult Attachment Interview (AAI: George, Kaplan, & Main; Main, Kaplan, & Cassidy as cited in Levy et al, 2011) is a one hour attachment history interview based on descriptions of early relationships and attachments and its impact on adult personality (Levy et al., 2011). The AAI consists of a series of questions designed to "surprise the unconscious" or "prime the attachment system" related to the history of a person's early caregiver relationships, including experiences of separation, rejection and loss (Main as cited in Johnson & Whiffen, 2003, pp. 436-437).

Theoretical Framework

Attachment theory provides a framework for comprehending affect regulation as it draws attention to the distress buffering and physical protection purposes of close relationships, conceptualized through proximity seeking as a substitute to instinctive fight-flight responses (Bowlby as cited in Mikulincer et al., 2003). From this perspective, seeking proximity is a natural affect-regulation device (attachment style) devised to safeguard a person from physical and psychological danger and to lessen distress (Mikulincer et al, 2003). The presence of attachment relationships can provide ease, safety, which can act as a shield from stress and uncertainty (Johnson and Whiffen, 2003). Connecting with others in times of stress is a natural

means for emotional regulation because secure relationships can be a protection against feeling powerlessness and insignificant (McFarlane & Van der Kolk as cited in Johnson & Whiffen, 2002). Attachment theory stresses the importance of relational experiences as a base of individual differences in affect regulation throughout life (Bowlby as cited in Mikulincer et al, 2003).

Attachment Behavioural System

According to Mikulincer et al. (2003) the attachment behavioural system originated over the course of evolution to strengthen the survival of human infants due to them being unable to care and protect themselves. What has been identified to activate the attachment behavioural system is the perceived potential or actual threat by the individual during, or immediately after, experiencing distress or anguish (Kobak & Duemmler; Lazarus & Folkman as cited in Mikulincer et al, 2003). Infants are born with a range of behaviours (attachment behaviours) for the purpose of seeking and maintaining proximity to supportive others (attachment figures) as a mean to regulate distress. Attachment behaviours such as pursuing, observing, and striving to establish the security of closeness, through viewing the attachment figure as a secure base from which to explore the world and viewing the attachment figure as a safe haven to return to in times of distress (Ainsworth as cited in Wallin, 2015). Physical proximity is more related to the availability of a caregiver, which is not just pertinent to accessibility but emotional responsiveness as well (Wallin, 2015). Even though the attachment behavioural system is more fundamental to the survival of a child during the early years of life, Bowlby proposed that it is active throughout the lifespan and it is relevant in behaviours and thoughts in adulthood demonstrated by support seeking in times of distress (Mikulincer et al, 2003).

Attachment Throughout the Lifespan

Attachment should be viewed as an ongoing human need rather than a childlike tendency that we outgrow as we become adults (Bowlby as cited in Wallin, 2015). Health is defined by a felt sense of interdependency that being separate from others or self-sufficient (Johnson and Whiffen, 2003). The expansion of attachment theory pertaining to adulthood begins in the early 1970s with the study of adult bereavement, marital separation, and marital relationships (Weiss, as cited in Bretherton, 1992). Bowlby (as cited in Cassidy et al. 2013) believed attachment is a process that characterizes humans "from the cradle to the grave" (p. 129) and the emotional accessibility and receptiveness of others contributes to ability to regulate affect through our soothing connections with others (Johnson & Whiffen, 2003).

Internal Working Models

Internal working models (IWMs) emerge from our early relational interactions with our attachment figures (Pietromonaco & Barrett, 2000). The IWMs of self and of others are created based on thousands of interactions and can become expectations and biases that are used to view ourselves and how we see others in relation to ourselves (Johnson & Whiffen, 2003). Through our early relational interactions, our experiences with others facilitate the unfolding and maintenance of cognitive schemas, mental representations of the self and others, and this is translated into a practical script for understanding our surroundings, connect to others and form a psychological sense of felt security (Bretherton; Sroufe & Waters, as cited in Pietromonaco & Barret, 2000). IWMs are rules we internalize based on our first relationships about what works in relation to others and they can become the rules by which we live by (Main, as cited in Johnson & Whiffen, 2003). They are established, expounded, maintained, and changed through emotional communication and people can have more than one model depending on the relational context

(Johnson and Whifften, 2003). The IWMs influence feelings, thoughts, and behaviours in relationships and they often form expectations about the self, significant others, and the exchange between the two, which may include distinct content, related to interpersonal experiences, and emotions associated with it (Pietromonaco & Barret, 2000).

The IWMs of self and of others are assumed to be the foundation for attachment styles (Pietromonaco & Barrett, 20002). The IWMs of self and of others are associated with each of the four attachment styles in the following ways: individuals who have both a positive view of self and of others hold a secure attachment style; individuals who have a negative model of self and a positive model of others hold an anxious attachment style; individuals who have a positive model of self and a negative model of others hold an avoidant attachment style; and individuals who have both a negative model of self and of others hold a disorganized attachment style (Pietromonaco & Barrett, 2000).

Attachment Styles

The elements that influence attachment styles are often associated with early infant-attachment interpersonal experiences, and ongoing relational experiences throughout childhood and adolescence (Hazan & Shaver as cited in Fraley et al, 2013). These behavioural styles are based on ways of adapting to attachment needs and stem from the different underlying IWMs of self and of others based on either felt security, or anxious, avoidant, and disorganized forms of insecurity (Pietromonaco & Barrett, 2000). Furthermore, the styles demonstrate ways of processing and managing our affect (Johnson & Whiffen, 2003). The two insecure attachment styles serve the purpose of helping a child manage the unresponsiveness of attachment figures (Johnson and Whiffen, 2003). There are various perspectives about the permanence versus adaptability of attachment styles. Fraley et al. (2013) suggest that attachment styles tend to be

relatively permanent styles of feeling, thinking and behaving in close relationships and can have a broad consequence for interpersonal functional, affect regulation, and overall well-being. Others like Johnson and Whiffen (2003) believe the styles are constantly re-created in people's ongoing experiences and can be modified in new relationships while they may become habitual styles of engagements in close relationships throughout life and helpful to understand them on a continuum and not seen as an absolute characteristic or attribute of an individual (Johnson & Whiffen, 2003; Fraley et al., 2013).

Conclusion

In this chapter, I described the historical context for the study, discuss attachment behavioural system, attachment throughout the lifespan, I discussed Internal Working Models (IWMs) and I discussed attachment styles. The next chapter discusses attachment concepts related to psychotherapy.

Chapter 3: Attachment Concepts Related to Psychotherapy

In this chapter I will discuss attachement as it pertains to and impacts therapy. I will describe the therapeutic alliance, the therapist as an attachment figure. I will discuss the change process and goals and outcome of psychotherapy. Next, I will exploring attachment Styles and their impact on psychotherapy. Then a discussion about clients who may display various attachment styles is discussed, followed by attachment styles of the therapist.
After this, I discuss brain development as well as self-disclosure. This chapter will close with a discussion of therapeutic presence.

Therapeutic Alliance

Clients often seek psychotherapy due to histories of relational trauma and maltreatment and tend to demonstrate insecure attachment styles (Cortina, 2013). Relational trauma can impede a person's ability to regulate emotions and she or he may develop maladaptive feelings, thoughts and behaviours as a way to manage and cope with his distress and challenges (Cortina, 2013). Within the literature pertaining to psychotherapy and attachment theory, psychopathology is a common theme, which is repeatedly mentioned because many clients who attend therapy have been diagnosed with a mental disorder or tend to demonstrate symptoms associated with the DSM-V. A thorough exploration of psychopathology is beyond the scope of this thesis, however it is important for the reader to have a basic understanding about. According to Sable (2007) and Sroufe and Siegel (2011) attachment theory views adult psychopathology as a multifaceted outcome of the series of adaptations people make in light of attachment gone off center. Psychopathology is often associated with early traumatic attachment experiences, physiological stress responses, as well as associations with inconsistencies via the HPA axis related to affect regulation (Cassidy et al., 2013). Symptoms of depression, anxiety, or violence can reflect the

internalization of contrary affectional experiences, often related to early relational experiences associated with bereavement, separation, or conflicts with attachment figures (Sable, 2007). Insecure attachment styles have been associated with the start of developmental pathways that without corrective experiences may increase the likelihood of psychopathology (Cassidy et al, 2013). An attachment framework about psychopathology can provide a therapist with insights about why people may behave as they do and may enhance a therapist's empathetic understanding of a client, especially those struggling with certain defined disorders and diagnosis.

What Fosters Therapeutic Alliance

Based on Bankart (1997) most outcome research acknowledged that one variable predicts proportionate success of the therapeutic alliance: personal style, personality, and psychological presence of the therapist. Bachelor (2013) stated that a therapist's sense of security can facilitate her ability to provide a secure base and safe haven to a client, which has been associated with forming a strong therapeutic alliance. A client's perspective of the therapeutic alliance is a strong indicator of outcome and the therapist's perception is the least (Bucci et al; Bachelor & Horvath as cited in Duncan et al., 2009).

Based on Mallinckrodt, Porter and Kivlighan (as cited in Lilliengren, Sandell, Falkenstrom, Mothlander & Werbart, 2015) the therapeutic alliance and a secure attachment to therapist have similar features and may be viewed by the client in a similar way. The strength of the therapeutic alliance is based on both the quality of the client and the therapist's capacity to form a relationship with the client (Black, Hardy, Turpin and Parry, 2005). A secure attached therapist who is able to foster a therapeutic alliance is warm, flexible, open, honest, respectful and trustworthy (Black et al., 2005). Mikulincer, Shaver and Berant (2013) states how a

therapist's ability to provide comfort, encouragement, unconditional positive regard, and safety can enhance the client's capacity to manage negative affect when discussing painful interpersonal experiences, memories, and conflicts. The establishment of a therapeutic alliance is built on mutuality, hope, and trust, which all provide the essential framework to support a client with histories of insecure attachment styles in order to foster confidence to explore past wounds as well as repair the inevitable disturbances that will occur in therapy (Cortina, 2013). As stated by Ogden, Minton, and Pain and Schore (as cited in Stable, 2007) a therapeutic alliance can widen the client's ability to experience pleasure and engage more fully in relationships and opportunities.

Therapist as an Attachment Figure

Bowlby (as cited in Wallin, 2015) claimed, "the therapist's role is analogous to that of a mother who provides her child with a secure base from which to explore the world" (p. 140). Also Bowlby (as cited in Romano, Fitzpatrick, & Janzen, 2008) reiterates that the role of a responsive caregiver promotes a secure attachment relationship and facilitates the infant's ability to explore the world. This can parallel the role of a therapist to offer a feeling of acceptance, comfort, and safety to encourage a client to handle distress linked with the potentially painful identifications in therapy. With the therapist's ability to mirror features of an attachment relationship, a therapist can create a secure base from which a client can examine significant experiences for change to take form (Romano et al., 2008). Similar to how a responsive and attuned mother causes a sense of attachment security in her infant, which facilitates the infant's experimentation and exploration of the world, a therapist can serve a similar role as a secure base and safe haven from which a client can question and reflect on distressing experiences and memories (Mikulincer et al., 2013).

Bowlby (as cited in Cortina, 2013) stated that one of the main tasks of a therapist is to create a secure base and safe haven for the client so that collaboratively they can address and inspect conflicts and problems. This task can be challenging as trust and security can take time to establish, especially when a client has a history of abandonment or relational trauma at the hands of those most intimate to them (Cortina, 2013). The concept of creating a safe and secure environment for clients is not new; however attachment theory clearly connects forming a secure base in therapy with a mirroring process during infancy between the child and his attachment figure (Cortina, 2013). Through the therapeutic relationship, a therapist can serve as an alternative to an adverse caregiving attachment via a trusting therapeutic alliance (Guina, 2016). A secure attachment relationship can promote deeper self-disclosure and more in depth exploration of painful experiences of the client, which can enhance therapeutic change and outcome (Bachelor, 2013). By the therapist acting as an attaching figure to the client through providing care and support, this experience can support and model to the client the capacity to develop the means to build secure attachment style out of the relational experiences within the therapeutic alliance (Fisher, 2014).

Furthermore, according to Lilliengren et al. (2015) attachment to a therapist is founded in a particular socio developmental concept that reflects how a client can utilize the therapist through the therapeutic alliance as a secure base to explore struggles, a safe haven to return to in times of distress and viewed as a strong and wiser figure as a resource for guidance.

Change Process

Based on empirical findings, psychotherapy can be one of the most effective means to achieve change for people who are struggling with interpersonal difficulties and have histories associated with relational trauma (Simon-Dack & Marmarosh, 2014). According to Hoffart and

Hoffard (2014) psychotherapy is a relational exercise between a client and therapist for the purpose to bring change in the client's life. Bowlby (as cited in Davila & Levy, 2006) identified several key elements of therapy as being essential to effective change in psychotherapy: (1) nurturing positive expectancies for change via motivation, (2) encouraging an ideal therapeutic alliance through empathetic bond between therapist and client and collaboration on goals and strategies, (3) expanding awareness pertaining to feelings, thoughts, and behaviours, (4) stimulating a restorative experience by helping a client employ in new behaviours and experiences, and (5) supporting the client to enlist in continued reality testing by examining other domains of their lives. Based on Mikulincer et al (2013) attachment principles related to core aspects of change are related to exploring attachment experiences, the identification and revision of IWMs of self and of others by reconstructing them into more secure models, and the acquisition about ways to reach both intimacy and confident autonomy.

Other fundamental attachment concepts that are important to address with a clients are the following: exploring client's histories and patterns of interacting throughout their lives; how their pattern of interacting manifest via enactment and transference within the therapeutic alliance; the various defense mechanisms they employ in their interpersonal interactions; emotions and how they regulate them with others and under stressful circumstances; and what are the client's intentions and motivations (Cortina, 2013).

Goals and Outcome of Psychotherapy

From an attachment theory perspective, a therapist is encouraged to be mindful about a client's attachment style and IWMs of self and of others and to use this knowledge as a means to establish and nurture a therapeutic alliance and via the relationship, goals can be identified and worked towards (Connors, 2011). Some potential goals for psychotherapy could be the

reassessment of insufficient, out-dated IWMs of self in relation to attachment figures when these relationships have not allowed repair and healing (Bretherton, 1992 & Connors, 2011). Bowlby (as cited in Mikulincer et al. 2013) outlined several therapeutic tasks that support the revision of insecure IWMs of self and others: to provide clients with a secure base and safe haven from which to start to explore distressful memories, damaging and maladaptive assumptions and actions; to motivate clients to recognize how expectations about themselves and others impact how they feel, think, and behave in relationships, including the therapeutic relationship; to support a client to appraise how present feelings, thoughts, and actions may have started in childhood relationships with attachment figures and with proceeding interpersonal relationships; and to guide a client to recognize that prior cognitions and behaviours may not be suited to present relationships to proceed to practice different, more constructive ways of coping and relating. According to Guina (2016) through the establishment of a therapeutic alliance, a client with an insecure attachment style can establish a secure attachment to the therapist through the reparative process of psychotherapy. The therapeutic alliance may influence and change a client's insecure style and the development of a earned security with the therapist could be a natural goal and outcome of treatment (Levy et al, 2011).

Attachment Styles and their Impact on Psychotherapy

Bowlby (as cited in Mikulincer et al., 2013) stated that insecure attachment styles lead to emotional and relational challenges. According to Bachelor et al. (2010) insecure attachment styles are often associated with susceptibilities to psychological distress. Attachment styles are often manifested in therapy and they often demonstrate the operation of internalized representations of self and of others which are both "reality-reflecting and reality-creating" (Bretherton & Munholland, as cited in Connors, 2112, p. 107). At times, before a client has been

able to establish a basic level of safety and trust with therapist and foster a therapeutic alliance, a premature activation of the attachment bond experiences may create re-activation of the relational trauma of clients (Cortina 2013). The re-activation of the relational trauma may manifest as leaving therapy, violence, shame, and or feelings of helplessness or paranoia (Cortina, 2013). Fonagy and his colleagues have demonstrated that the capacity to maintain a perspective of self and others (mentalization) can break down when relational exchanges signal memories of traumatic or chaotic attachment experiences in clients (Allen, Fonagy & Bateman as cited in Cortina, 2013). Clients who have a history of childhood trauma, specifically disorganized, need to feel supported and have trust towards their therapist to make gradual modulation in the fight/flight/freeze defensive operations and to develop the ability for mentalization of intolerable emotions and mental states (Cortina, 2013).

A therapist can anticipate challenge in the attempt to establish a therapeutic alliance with a client who struggles with insecure attachment styles (Geller & Farber, 2015). In order for a therapist to foster a therapeutic alliance, it is constructive for her to be cognizant of how clients with insecure attachment styles may struggle with the following issues: dyadic connection and disconnections, which can be viewed as empathetic misattunement and ruptures in the alliance; discrepancies in the therapist's depth of self-disclosure; involvement and level of compassion; and changes with the boundaries of therapy in the way of cancelling sessions, fee charges, and alterations about the time and length of appointments (Geller & Farber, 2015). Based on Levy et al (2011) a therapist's awareness and ability to assess a client's attachment style can be important for the following reasons: attachment styles influence the quality of the therapeutic alliance; a client's and therapist's attachment styles can impact the process of psychotherapy; attachment styles impact the responses of both client and therapist; and the outcome of treatment.

Assessment of attachment styles can be done using the Adult Attachment Interview (AAI, Levy et al, 2011). In addition, understanding clients' attachment style may provide insights about how the client might respond to treatment, and the types of challenges that could arise depending on their attachment styles and the therapist's ability to build a therapeutic alliance (Levy et al, 2011). For example, longer treatment and support might be helpful for clients with an anxious style in comparison to a client who tends to demonstrate a secure style (Levy et al, 2011). Furthermore, different attachment styles may demand a therapist to anticipate different responses from the client when collaborating, implementing interventions and determining treatment goals (Levy et al, 2011). If a client is more avoidant, a therapist may want to be more engaging, while if a client is more anxious, the therapist may consider a stance focused to help the client hold his emotional experiences rather than contributing to the client feeling more overwhelmed and helpless (Levy et al, 2011).

Clients with a Secure Attachment Style

Clients with a secure attachment style tend to be more open in exploring and engaging in the therapeutic process, participate more in self-disclosure, interpret and integrate past experiences and remember narratives in a more coherent way (Romano et al, 2008). They often display the following characteristics: collaborative, committed, compliant, proactive in their treatment, trusting of therapist and able to incorporate their therapist's suggestions (Dozier; Korfmacher, Adam, Ogawa, & Egeland; Riggs as cited in Levy et al, 2011). These clients often view their therapist as responsive and emotionally attuned (Bachelor, Meunier, & Laverdiere, 2010).

Clients with an Preoccupied/Anxious Attachment Style

Clients with an anxious attachment style tend to have their attachment system persistently activated (hyper activation) resulting in heightened feelings of anguish and expressing negative affect (Kobak & Seerey as cited in Romano et al, 2008). These clients can be more sensitive to clues of possible rejection and abandonment by significant others, they may feel unworthy of care and worry that attachment figures will not be available and receptive in times of distress (Fraley & Shaver as cited in Romano et al, 2008). Due to their over focus on the relationships, they may struggle with obsessive jealousy, intense stalking, suicidal tendencies, and demonstrate symptoms related to psychological distress such as anxiety, depression, social alienation, hostility and interpersonal sensitivity due to hyper activation style used to secure support and care from others, which often contributes to problems in emotional control (Bachelor et al., 2010 & Connors, 2011). Intense grief reactions to relational loss can be explained in terms of how these individuals experience loss as a danger to their physical and psychological survival, and their desire to preserve and restore bonds from this perspective provides deeper understanding about the processes at play (Connors, 2011). Furthermore, these clients often focus on others to manage their affect and experience overwhelming anxiety when alone (Marmarosh et al, 2014). Due to their concern with interpersonal relationships, initially in therapy, they may seem very engaging and easy to treat (Levy et al., 2011). They may be open to discuss and explore their relational difficulties as well as take ownership of their own role in their problems (Dozier as cited in Levy et al, 2011). Furthermore, they tend to have chaotic and contradictory depictions of self and of others and may appear needy but often are more compliant with treatment plans while showing less improvement (Fonagy as cited in Levy et al., 2011).

Clients with an Avoidant Attachment Style

Clients with an avoidant attachment style tend to have their attachment system deactivated to lower feelings relating to needing attachment figures in times of stress and discomfort (Connors, 2011). These clients may sense discomfort with intimacy, have challenges in relying on others in times of distress and often devote more time to work than relationships so they may be professional successful so they may not turn to therapy as a support (Connors, 2011). Outwardly within Western society, these clients may seem to have it all together but they can become vulnerable to various difficulties when in distress, including addictive disorders as a means to self-regulate in the pursuit of no relational means (Connors, 2011). Furthermore, they avoid dependency and minimize their emotions related to others (Marmarosh et al, 2014). In therapy, these clients tend to be hesitant in making personal disclosures, may feel threatened and suspicious that the therapist may be disapproving and seem unaffected by treatment, struggle to ask for help and tend to withdraw from help when it is offered (Bachelor et al., 2010 & Dozier as cited in Levy et al., 2011). In addition, they might become upset and confused when challenged with emotional issues in therapy (Dozier, Lomax, Tyrell & Lee as cited in Levy et al., 2011).

Clients with a Disorganized Attachment Style

Clients with a disorganized attachment style tend to have their attachment system in both hyper activation and deactivation due to early relational experiences with attachment figures being a source of comfort and danger and these conflicting states can be transferred to the therapeutic relationship (Pearlman & Courtois, 2005). These clients have a high risk of experiencing persistent hopelessness, dissociation, self-loathing, impulse control challenges and greater harm to self and to others (Pearlman & Courtois, 2005). This style has been associated with several disorders and manifests as a dissociative reaction in individuals, particularly with

clients who have experiences repeated experiences of trauma in childhood (Pearlman & Courtois, 2005).

Attachment Styles of Therapist

There are inconclusive findings across studies with regards to the relationship between therapist's attachment style and the therapy process (Marmaroth et al., 2014). The therapist's attachment style may be less likely to impact the relationship than the client's attachment style however the therapist's style is activated in the therapeutic dyad (Black et al.; Dozier et al; Dunkle & Friedlander; Mohr, Gelso & Hill; Rubino et al.; Sauer et al. as cited in Marmarosh et al, 2014). Therapists with an anxious attachment style may struggle to handle difficulties in therapy, especially if the client has a similar style, and this may have negative consequences on the therapeutic alliance (Black et al., 2005). Romano et al. (2008) stated that it is important to device training strategies to help therapists who have a disposition for more anxious tendencies to be able to work with various clients. Variations among a therapist's avoidant attachment style and a client's anxious style may explain lack of depth in the middle sessions if therapeutic alliance has not been established (Romano et al., 2008). Bucci et al. (2016) mentioned the importance of a therapist examining attachment theory in their work with clients because a therapist's ability to be a caregiver to a client is often directly related to her or his own childhood experiences and attachment style, which impacts his or her ability to create therapeutic alliances. Furthermore Daniels (as cited in Marmarosh et al., 2014) acknowledges that therapists' inability to work through their beliefs and expectations from prior insecure relationships may stand in the way of establishing a secure therapeutic alliance. Therapists who are aware of their vulnerabilities and reactions to particular attachment styles of clients may be pulled into

responses that maintain, rather than reduce defenses, which can disrupt the therapeutic alliance (Dozier, Cue & Barnett as cited in Bachelor et al, 2010).

Conclusion

I have discussed attachement as it pertains to and impacts therapy in this chapter, including the therapeutic alliance, the therapist as an attachment figure, the change process and goals and outcome of psychotherapy, attachment styles and their impact on psychotherapy, various attachment styles in clients and therapists, brain development as well as self-disclosure. This chapter ended with a discussion of therapeutic presence.

The next chapter will cover the neurobiology of communication.

Chapter 4: The Neurobiology of Communication

In this chapter, I will cover the Polyvagal- Social Engagement System and Co-Regulation, which is followed by a discussion of interpersonal neurobiology. I then discuss the role of relational trauma and stress on brain bevelopment, the role of stress on development, and implicit and explicit memory. This chapter ends with a discussion about windows of tolerance.

Neuroscience invites us to acknowledge our fundamental relational nature (Cozolino; Porges; Siegel as cited in Geller & Porges, 2014). Establishing a therapeutic alliance based on a secure attached relationship is a complex process which entails interactions among client and therapist factors, in-session growth and adaptations and timing of specific strategies and not simply a matter of time (Lilliengren et al, 2015). A secure relationship supports flexible and adaptive learning based on empathy and attunement to encourage social and emotional processing (Cozolino & Santos, 2014). According to Cozolino and Santos (2014) a therapist connects with the client through the exchange of energy and information in the ways of input, output, and interconnection. Input is demonstrated through listening, understanding, attunement, empathy, support, cheerleading, and companioning and these qualities can help a therapist to foster emotional and cognitive connection (Cozolino & Santos, 2014). Output is demonstrated through questioning, suggesting, interpreting, educating, clarifying, self-disclosing, and sometime advice giving. This process can help a client gain clarity, make the unconscious conscious and broaden emotional, cognitive and physical awareness while supporting risk taking (Cozolino & Santos, 2014). Interconnection is the coming together in an attempt to bridge emotional attunement and empathy to support a client to use the therapist's brain as a means to reshape the client's own in a more adaptive and productive way through co-regulation (Cozolino & Santos, 2014).

The Polyvagal- Social Engagement System

To establish a therapeutic alliance, a client needs to feel safe and secure in the therapeutic relationship (Geller and Porges, 2014). Effective communication can only happen during states when a person experiences security because this inhibits the sympathetic and parasympathetic systems of the autonomic nervous system (Geller & Porges, 2014). The need for a felt sense of safety and security is articulated through the polyvagal theory, which is based on the premise that the autonomic nervous system (ANS) and certain behaviours have an association (Geller & Porges, 2014).

The ANS has three involuntary subsystems that are hierarchically related and that support adaptive behaviours in reaction to specific environmental characteristics of safety, danger, and life threat (Porges as cited in Geller & Porges, 2014). The three subsystems are ordered and behaviourally associated according to the evolutionary development of each system and the newest circuits have the functional capacity to inhibit the older ones (Geller & Porges, 2014). The three subsystems are; (1) social communication/social engagement in the way of nonverbal markers related to facial expression, listening and vocalization, (2) defensive strategies of mobilization, as with fight-flight behaviours, associated with the sympathetic nervous system (SNS) and (3) defensive strategies of immobilization, a with behavioural shut-down, dissociation an feigning death, associated with the parasympathetic nervous system (PNS) (Geller and Porges, 2014, p. 181). When a client feels safe, two aspects are expressed: (1) the regulation of bodily states are activated by slowing the heart rate, the inhibition of the SNS and (2) regulation of the face and head muscles, which is a behavioural reflection of the social engagement system manifested via nonverbal markers that control the facial expression, gaze, head gestures, and prosody (Geller & Porges, 2014). Furthermore, through the therapeutic alliance, a therapist can

support a client's ability for non defensive social engagement, which can lessen the client's reactivity over time through being in the presence of a therapist who is perceived as being safe through her non verbal behaviours (Geller and Porges, 2014).

Co-Regulation

According to Cortina (2013) human beings are not born with the capacity to regulate their emotions by themselves. Infants turn to their caregivers to help with emotional regulation and the management of states of high arousal and this is the primary role of an attachment figure (Cortina, 2013). Initially, others regulate emotions during infancy, but over time, the infant is learning how to become self-regulated as a result of early relational experiences of attunement, misattunement and re-attunement (Schore & Schore, 2008). The nonverbal expressed communication through the infant-caregiver interactions constitutes the first example of "felt affective-relational communication between persons" (p. 13) and this process of relating continues throughout life (Schore & Schore, 2008). The attachment styles can be identified as styles children habituate to adjust to various affective responses for their need for security and care (Cortina, 2013). Affect regulation is related to implicit nonverbal communication, bodily based affectional states (Sable, 2007).

Based on attachment processes, the ability of a caregiver being able to provide psychobiological attunement to the changes in the infant's bodily-based internal states of central and autonomic arousal is essential for affection regulation capacities (Schore and Schore, 2008). Through accessing the nonverbal communications of the infant's needs, attunement of the caregiver to the infant mediates a dyadic regulation of affect, where the caregiver co-regulates the infant's central (CNS) and (ANS) (Schore & Schore, 2008).

Our emotions and bodily feelings can be influenced by others (Geller & Porges, 2014). Bidirectional communication between the brain (central nervous system) and the body is one aspect of this as well as bidirectional communication between the nervous system of people in our social environment (Cozolino; Porges; Siegel as cited in Geller and Porges, 2014). The social engagement system is the newest of the three subsystems and it starts to function during states when a person experiences safety because it inhibits the other two subsystems (Gellera & Porges, 2014). Warnings of danger or safety are detected by "cortical areas and shifts physiological states are communicated interpersonally from movements of the upper part of the face, eye contact, prosody of voice and body posture" (p. 184). The existence of safety is observable by physiological markers related to nonverbal communication (Geller and Porges, 2014). The essence of this system is bidirectional communication between the heart and face (Porges as cited in Geller & Porges, 2014, p. 182). Through mutual interactions, via gestures, facial expressions and patterns of stress and sounds in language, attunement is experienced among the social engagement system of two people. Attunement helps to regulate affect and behavioural states, which concurrently build growth, restoration and health for individuals (Geller & Porges, 2014).

In psychotherapy, it is essential that a therapist is present and strives to create safety for a client so that the involuntary defense systems can be inhibited or down-regulated for the social engagement system to be engaged for therapeutic alliance and positive change outcomes for therapy (Geller & Porges, 2014). Through a client feeling safe and secure, his or her physiological state can provide the condition for therapeutic alliance (Geller and Porges, 2014). Furthermore, this can down-regulate their defenses because safety is felt and this allows for the activation of the social engagement system (Geller & Porges, 2014). Safety is often felt without

awareness and it is communicated via nonverbal cues and these cues contribute to defensiveness being inhibited (Geller and Porges, 2014).

Interpersonal Neurobiology

According to Fisher (2014), " the therapeutic relationship is an encounter between two attachment systems. How we 'dance' together reflects very early experiences encoded in the body and nervous system" (p. 1). Based on interpersonal neurobiology, trusting relationships and communication have the capacity to heal the mind just a trauma can cause brain dysregulation (Baldini et al; Cozolino and Santos as cited in Guina, 2016). According to Siegel (2011) interpersonal neurobiology has contributed greatly to our understanding about the psychobiological underpinning of attachment and infant development and how it is often impacted by early relational experiences within a psychosocial context. From this perspective, a psychotherapist is encouraged to view a client as an integrated whole consisting of body, brain, and mind within a cultural and social context (Schore, 2012). In order for a person to change, the mind must change and the concept of the mind is approached from both an interpersonal process and from brain structure and neurobiology (Siegel, 2011). Furthermore, Siegel (2011) asserted, "the mind emerges at the interface of neurobiology and the interpersonal transactions of experience between minds" (p. 71).

Neuroscience research empathizes how it is important for a therapist to be aware of how early attachment can impact brain development, interpersonal functioning, and affect regulation and how this impact can contribute to the symptoms and challenges that clients face (Simon-Dack & Marmarosh, 2014). Based on empirical findings, psychotherapy can be one of the most effective means supported to change for people who are struggling with interpersonal difficulties and have histories associated with relational trauma (Simon-Dack & Marmarosh, 2014).

Role of Relational Trauma and Stress on Brain Development

Brain Development. Shonkoff, Richter, Gaag, and Bhutta (2012) recognize how the early years of life are foundational and can be a prerequisite for healthy development throughout life by new discoveries in molecular biology and epigenetics. The physical and social environments in infancy that endanger development is stress, instability and inadequacy, and these factors can cause short-term physiologic (brain development, cardiovascular system and other body organs) and psychological (behavioural) modifications essential for immediate adaptation and survival but which may negatively impact long-term results in behaviour, learning, health, and longevity (Shonkoff et al, 2012).

The brain is the body's central control system and its role is to interpret and regulate the body's neuroendocrine, autonomic, and immunological responses to stressful experiences (Shonkoff et al, 2012). The brain influences both physiological and psychological responses to danger as well as the growth of coping skills in the face of hardship (Shonkoff et al, 2012). Shonkoff et al (2012) stated the construction of the brain begins before birth, continues into adulthood and forms either a strong or frail foundation for all behaviour, learning and health. Brain development is tremendous in the first few years of life (Cozolino & Santos, 2014). Curran (2016) stated that brain development in children is a sensitive developmental period because the whole structure of the brain is being organized. If an infant is often frightened, the brain becomes organized to detect threat and focused on survival (Curran, 2016**)**. Curran (2016) and Cozolino and Santos (2014) state that a baby's brain adapts and is shaped by the emotional environment and mutual responsiveness of adults in the life of a child for optimal brain development and affect regulation.

Role of Stress on Development

According to Curran (2016) stress is both a psychological and biological event. O'Neil et al. (2010) examines the interconnection between trauma and brain development through the common premise of stress or danger in the areas of the infant. O'Neil et al. (2010) suggests that when a child experiences abuse or neglect, the brain registers this as danger and goes through a series of events, which starts with the release of cortisol and other stress hormones, which put the body in fight or flight mode in order for the child to deal with the emergency. If the child continues to experience stress in the way of danger, physiological alterations start to disrupt the body by impacting the developmental systems, repressing the immune system and decreasing brain cell and physical growth of a child (O'Neil et al, 2010 & Curran, 2016).

O'Neil et al. (2010) has attributed disturbed attachment relationships of infants with their caregivers to be traumatic due to the vulnerability of this age lacking cognitive awareness about the reason for disruption and not knowing how to attend to their emotional and physical needs. Research from neurobiology and epidemiology propose that early life stress such as neglect, abuse and related adverse experiences produce lasting brain dysfunction and inability with affect regulation, which in turn influences healthy and the quality of life through the lifespan (Anda, Felitti, Bremmer, Walker, Whitfield, Perry, Dube, & Giles, 2006). The impact of these hardships can dysregulate a person's stress response system, which can contribute to intensified vulnerability to social maladjustment, illness, disability, and weakened learning in both the short and long term (Shonkoff et al, 2012). When the stress response system in a child is over-stimulated, the brain adapts to the environment by expecting a certain outcome to prevent further harm. Often times, individuals who have experienced relational trauma cope with difficult emotions and their sense of desperation through disconnection or other psychological defenses

and self-destructive behaviours (self-injury, aggression against others, substance abuse, etc.) as a means of self-soothing (Pearlman & Courtois, 2005). Pearlman and Courtois (2005) examined the features of attachment relationships with children and their caregivers on a neurobiological level and found that impaired attachment without restoration or support for the child can be traumatic due to a child feeling psychologically alone and unable to manage, which increases the dysregulation of affect states, thus creating further trauma that contributes to mental health and emotional disturbances. A consequence of a child not experiencing positive attachment relationships is the inability to regulate strong emotions (affect tolerance), experiencing sadness, disappointment, fear, emotional pain and shame, which can perpetuate the feeling of desperation which can have long-term ramifications (Pearlman & Courtois, (2005).

Brain Hemispheres

The two hemispheres of the brain are actually two separate brains, each with a unique processing system (Schore, 2012 & Quillman, 2012). The right hemisphere (RH) is in it maturing development during the first two years of life but continues more minor growth throughout the lifespan and because of its plasticity, change is possible (Schore, 2012). The RH forms a more global assessment and vision of the inner and outer worlds based on an implicit sense of self that is connected by emotionally sound experiences and memories (Schore, 2012). The RH operates using nonverbal communication, which includes gestures, facial expressions of affect, tone of voice, and perceptions based on signals from the outer world (Schore, 2012). Furthermore, it is directly linked to the autonomic nervous system and "'holds the awareness of physiological states coming up from the body" (Carter et al as cited in Schore, 2012, p. 57). The left hemisphere (LH) begins maturing at 18 months and become prevalent at three years of age

and involves language and uses intellectual processes to understand the world (Quillman, 2012; Schore, 2012).

The two hemispheres at times seem to be in conflict with one another as in when a person says yes in his words (explicit) while shaking his head from side to side (implicit) (Quillman, 2012). According to Schore (as cited in Quillman, 2012), the ability of the LH to think critically in a crisis depends upon the well functioning of the RH to manage strong and frightening affect generated. Stern and Schore (as cited in Quillman, 2012) express that the relational implicit awareness resides in the RH and it is the core element related to therapeutic alliance. According to Schore (as cited in Quillman, 2012) the RH can be predominant over the LH in treatment and that psychotherapy is not "the talking cure but the affect and regulating cure" (p. 138). Emotional feelings held in the body can be addressed more directly as they are stored in the RH compared to cognitive information stores in the LH (Panksepp as cited in Quillman, 2012). According to Schore (2012), "relational trauma experiences are stored in the RH implicit memory" (p. 95) and within the RH system is where affective, bodily-based self is explored within the psychodynamic psychotherapy as compared to explicit system when it comes to cognitive-behavioural therapy.

Implicit and Explicit Memory

The two memory systems that are relevant to psychotherapy are: (1) nonverbal, procedural or implicit memory, and (2) verbal, declarative or explicit memory (Schore, 2012). The implicit memory system is existent from birth and functions unconsciously and quickly and is strongly interconnected to the autonomic nervous system (Schore, 2012). They are consolidated slowly through multiple repetitions and can be difficult to change because they become procedural and automatic (Cortina, 2013). Our expectations and views about others, which are made often without thinking are a part of implicit memories and can become

problematic when clients have a history of relational trauma, which is reflected in insecure attachment styles (Cortina, 2013). The earliest type of memory is right lateralized, bodily-based, emotional, and unconscious as the infant perceives the world and understands it in sensory experiences that are often unconscious or not explicitly recalled but can be implicitly felt (Schore, 2012). On the other hand, the explicit memory system does not mature until after age two and it includes verbal memory and contextual parts of experiences and is stored in long-term memory (Schore, 2012). In an adequate developmental context the two memory systems become profoundly integrated, however under risk of extreme distress and relational trauma in childhood, the two systems can dissociate so that linguistic memory and emotional details become disengaged (Schore, 2012). According to Schore (2012) memory processing is relevant to psychotherapy:

> Memory processing consists of encoding and retrieval, and plays a vital part in allowing us to develop a sense of self as well a sense of self in relation to others over time Memory make possible the pattern matching and memory making processes that allow us to build on earlier experience in a creative way, that enable us to make sense of current experiences, and to regulate our affect in light of past experience. (p. 29)

Window of Tolerance

Relational experiences that produce positive affect can expand a client's manner of feelings, thinking, and behaving, increasing resilience and develop social, intellectual, and physical capacities, which can be drawn on later to manage feelings related to others and self (Sable, 2007). A therapist is encouraged to support a client to remain within "a window of tolerance" (Siegel as cited in Quillman, 2012, p. 253). A window of tolerance entails a condition below sympathetic arousal and above parasympathetic hypoarousal, ideally within the social

engagement system (Siegel, 1995). This is possible when a therapeutic alliance is based on a felt sense of security and being seen by the therapist, which contributes to a client developing a greater capacity to remain within the engagement system while experiencing intense emotions and sensations (Quillman, 2012). By developing a stronger ability to remain in the social engagement system during therapy, a client can refer to the therapeutic relationship as an example for ways to self regulate in times of distress and work through relational injuries in childhood (Quillman, 2012). For example, when a client is dysregulated, either in sympathetic or parasympathetic states, the therapist's calming and comforting nonverbal behaviour can help a client to regulate distress (Sable, 2007).

Conclusion

In this chapter, discussed the Polyvagal- Social Engagement System and Co-Regulation, as well as interpersonal neurobiology. I explored the role of relational trauma and stress on brain bevelopment, the role of stress on development, implicit and explicit memory, and windows of tolerance. The next chapter, Chapter 5, discusses Clinical Implications.

Chapter 5: Clinical Implications

In this chapter, I will cover right hemisphere communication, followed by a section on attachment styles of RH Communication and self-disclosure. I will also cover what to Look for when self-disclosing and therapeutic presence.

Implicit Communication

According to Schore (2012) and Simon-Dack and Marmarosh (2014) a client's brain functions and structures change in psychotherapy. Schore and Schore (2014) mention the role of affective exchange in communication that is often felt on an implicit relational level within the therapeutic alliance via nonverbal communication interactions. Schore and Schore (2008) convey that the personality of a therapist is communicated through the RH via nonverbal tendencies rather than conscious verbalization. Scaer (as cited in Schore and Schore, 2008) outlined the fundamental implicit communication ingrained within the therapeutic alliance:

> Many features of social interactions are nonverbal, consisting of subtle variations of facial expression that set the tone for the content of the interactions. Body posture and movement patterns of the therapist...also may reflect emotions such as disapproval, support, humor and fear. Tone of volume, patterns of speech in verbal communication and eye contact also contain elements of subliminal communication and contribute to the unconscious establishment of a safe, healing environment. (p. 13).

Right Hemisphere Communication

According to Quillman (2012) the implicit unconscious right brain to right brain communication that occurs in therapy has been identified as motivating therapeutic alliance, therapeutic change as a means of understanding the role of the ANS. When it comes to RH communication, it is important to remember that there are two narratives being told concurrently;

what the client is stating in language based on who she think she is (explicit LH) and what the client's body is doing based on who the client really is (implicit RH) (Quillman, 2012). RH communication can be viewed as dyadic regulation via the therapeutic alliance. It is well established that the ideal model of this can be examined through the caregiver-infant language to comfort and soothe the infant's negative affect and experiences to positive ones (Stern; Tronick as cited in Quillman, 2012). An effective psychotherapist who is skilled in RH implicit communication is able to demonstrate empathy, regulate her own affect, can pick up and communicate nonverbal communication, is sensitive to and able to recognize slight changes in another's assertions and emotions and present to her own subjective and intersubjective experiences in the therapeutic relationship (Schore and Schore, 2014). It is important to pay attention to small shifts in emotional states of clients based on perception of subtle changes in their nonverbal behaviours and of own states based on somatic and kinesthetic experiences (Bucci, as cited in Schore & Schore, 2008). Schore (as cited in Sable, 2007) describes that repeated affective interactions during therapy expand right brain systems that are concerned with coping and stress. A therapist's ability to accept a client's communications and be present and attuned can assist to restructure emotions of affect regulation and behaviour (Sable, 2007).

Attachment Styles Ways of RH Communication

Schore (2012) stated, "Attachment is mediated by nonverbal emotional communication" (p. 98). People are unique in their ability to understand and convey nonverbal messages and different attachment styles have been identified to have different abilities in this capacity (Schore, 2012). Clients with a secure style may be more skilled in translating nonverbal communication more accurately and their own nonverbal messages may be more direct and clear (Schachner, Shaver & Mikulincer as cited in Schore, 2012). Clients with an anxious style tend to

demonstrate the opposite when it comes to receiving nonverbal communication by being overly responsive, often imagining signs instead of precisely perceiving them (Wallin as cited in Schore, 2012). Clients with an avoidant style can be restricted in their expressive dimensions by less facial expression, gaze, and touch and tone of voice is less expressive (Schore, 2012). Clients with a disorganized style have a history related to abuse and unconcern so they tend to have the lowest ability to read faces and can become dissociated under stress (Schore, 2012).

Self-Disclosure

According to Quillman (2012), self-disclosure is not used to describe disclosure of the therapist's personal history or experiences outside of the therapy sessions to the client. Quillman (2012) defined self-disclosure in the context of psychotherapy through the therapist describing her somatic and or affective experiences of the present moment-to-moment interactions with the client as a relevant and influential strategy to deepen the client's capacity for self-regulation and as a means to reconstruct the client's internal world. Self-disclosure of the therapist's feelings and thoughts related to the therapeutic experience can support the regulation of the RH processes (Quillman, 2012). This relational exchange can deepen the therapeutic alliance through helping to make explicit what the client's implicit system may be processing from the therapist (Quillman, 2012).

Therapist self-disclosure can be powerful in three main areas: first, lessening client anxiety and distress about negative affect; two, supporting the client to recognize that negative affect, either client's and or therapist's, is not only less harmful than initially feared but can advance to a greater level of connection and safety; and three, heightening the transformational power of positive affect for self-regulation and reconstructing of the internal world of the client (Quillman, 2012). Porges as cited in Quillman (2012) states according to neuroscience, self-

disclosure can help to alter the client's autonomic nervous system (ANS) out of either parasympathetic shutdown (dissociation) or sympathetic hyperarousal (fight/flight) to the social engagement system.

A therapist's self-disclosure can be helpful to access the client's social engagement system (Quillman, 2012). When a therapist self-discloses, it is a technique that uses language (LH) to express the therapist's (RH) experience of herself and/or the client (Quillman, 2012). LH language can be used to express either affective or somatic RH experiences (Quillman, 2012). The LH is less skilled than the RH at reading the implicit communication of others. Based on Schore as cited in Quillman (2012) the principles of co-regulation is about implicit, affective, and nonverbal communication, and that unconscious affect regulation plays a critical role within the mother-infant and therapist-client dyad. Another way of stating the above is that the client often responds more to how we say something (implicit communication) and less to what we say (explicit communication) (Quillman, 2012).

Implicit communication is often expressed on an unconscious level via "(a) prosody-pitch and the rhythm and timbre of voice, as well as (b) body posture, (c) gesture, and (d) facial expression" (Schore; Siegel as cited in Quillman, 2012, p. 3). When a therapist is able to make explicit self- disclosure about her RH experience (I feel frightened/worried/moved by what you have said) to the client during highly charged affective therapeutic exchanges, this experience can support a client's capacity for self regulation to reconstruct aspects of their internal world (Quillman, 2012). An example of the right brain to right brain communication using therapist self-disclosure could be, "I wonder if we can pause for a minute and try to listen to the story that is being expressed right now by your tapping left foot". In addition, the therapist could state " I am losing interest in what you are telling me right now but i have not lost interest in you". These

two examples can demonstrate the therapist's interest of the client's implicit, nonverbal story being expressed by his RH rather than the narrative of his verbal LH to understanding her inner world (Quillan, 2012).

In order for RH communication via therapist self-disclosure to be most effective, a therapist is encouraged to be grounded or centered in her body in order to connect somatically to the client. When the therapist is connected to the experiences of her own body, she will more likely be connected to the experiences of her client's body and then the client would feel connected to her (Quillman, 2012). Sound of the voice is what can resonate positively with the client's ANS rather than the words spoken that can often promote or deny the preverbal child still frightened in the body who may feel lost, ashamed and terrified (Quillman, 2012). In addition, the therapist has to take responsibility to hold her own somatic and affective experiences as to not convey to the client that she need to be cared for (Quillman, 2012).

What to Look for when Self-Disclosing

Therapist self-disclosure during the initial sessions of psychotherapy may feel confusing for clients who have previous therapy experiences because they may feel over-stimulating, or may view therapist's self-disclosure as her attempt to request something from them or to blame them for making the therapist feel uncomfortable (Quillman, 2012). It is imperative that a therapist is matter of fact about her ability to feel all sorts of emotions and sensations and her understanding that expressing herself at certain moments in therapy is a fundamental and normal part of the therapeutic process (Quillman, 2012). Furthermore, a therapist is urged to process with the client her reactions to disclosures whenever the therapist feels uncertain about how these communications were received (Quillman, 2012). A therapist needs to be mindful that they are not using self-disclosure to relieve their own anxieties or insecurities (Quillman, 2012). When

therapists self-discloses, it is imperative that they are aware of how they deliver the message via their nonverbal RH communication (prosody, facial expression, posture, gesture) and how these elements will impact how the client's receives the disclosure and feedback (Quillman, 2012). Furthermore, the self-disclosure needs to be genuine for it to be effective to really engage the implicit and explicit systems, which entails the logical mind and body of the client (Quillman, 2012). Another element of therapist self-disclosure, which is an element of dyadic regulation, is when the therapist is able to mention empathetic failure when they are striving to repair a rupture in the therapeutic alliance. According to Maroda (1998 as cited in Quillman, 2012) "the communication of affect is critical to the change process and it does not seem possible to express adequately affective states without self-disclosure" (p. 98).

Therapeutic Presence

Therapeutic presence is demonstrated in therapists' ability by "using their whole self to be both fully engaged and receptively in the moment, with and for the client, to promote effective therapy" (Geller & Porges, 2014, p. 178). A therapist's ability to show consistent open presence, groundedness, spaciousness, and resolution of being with and for the client contributes to the formation of a therapeutic alliance (Geller and Porges, 2014). Furthermore these qualities help regulate the client's nervous system responses, and support a therapist in being able to recognize signs that demonstrate a client not feeling safe to sustain authentic attunement and nurture the therapeutic alliance (Geller & Porges, 2014). Therapeutic presence and engagement have been recognized as core qualities associated with therapeutic alliance (Geller and Porges, 2014)

The present moment is essential because in it, we are focused on the client's ANS as well as our own. A therapist can use her body to regulate the dysregulated ANS of the client and in

order to do this, one has to be actively attuned to what is taking place in the present moment, while the client's ANS is activated (Quillman, 2012). According to Schore (2007 as cited in Quillman, 2012) "within the therapeutic alliance the most difficult clinical decisions occur in spontaneous moment-to-moment unconscious transactions in the co-created subjective field" (p. 13). This ability to be present allows for genuine attunement based on sensing the other's as well as one's own experience and the interactions between them (Geller & Greenberg, 2012). This attunement and receptiveness is communicated nonverbally by such things as tone of voice, gaze and verbally by pace and timing (Geller & Greenberg, 2012).

Conclusion

In this chapter, I discussed right hemisphere communication, attachment styles of RH Communication, self-disclosure, and therapeutic presence. The next and final chapter of this thesis covers recommendations.

Chapter 6: Summary, Recommendations, and Conclusions

In this final chapter, I offer summaries of main findings, recommendations, and conclusions.

Change in psychotherapy happens with a relational context through the establishment of a therapeutic alliance build on a secure attachment relationship between a client and therapist. A therapist who is able to be present, emotionally attuned and provide a safe and secure environment can support a client to address their relational traumas to create a secure attachment relationship to act as an example for future relationships. In the psychotherapy research, the therapeutic alliance has been recognized as the main factor that contributes to positive outcome and the change process for clients. Attachment theory is based on the importance of relationships for our well-being not only when we are infants for our physical and emotional protection and care but that our needs to have support and care from others extends throughout a person's lifespan. Attachment concepts are very applicable to psychotherapy and they can provide many insights and awareness about how a person's early relational experience can continue to be the lenses in which they see themselves and relate to others in a relational context and these dynamics can help explain the reasons behind the challenges a client may be facing. When a therapist is able to act as a secure attachment with a client, a safe and nurturing relationship is established which can be seen as a therapeutic alliance. A therapist's ability to be present, create a secure base and seen as a safe haven as a person a client can go to in times of stress, can help engage a client's social engagement system so they can begin to explore complex memories and experiences and to be with negative affect because of the safety they experience with knowing their therapist is able to provide a safe and secure foundation to support them with their discomforts and experience co-regulation. Because the therapy process can induce negative

affect and cause a client to feel stressed, a client can be functioning from a place of feeling threatened and not safe so the importance of a therapist being aware of these dynamics at play for a client can encourage a therapist to use their nonverbal behaviours to communicate safety and care to a client.

By understanding the presence of attachment concepts in psychotherapy, a therapist can use this knowledge to better understand the context of what might have contributed to a client's challenges and the therapeutic alliance can be the tool in which these areas can be explored for long term healing and growth for the client.

Recommendations

Neuroscience brings awareness about the importance of therapists being informed about early attachment based experiences and how they can impact brain development, influence psychopathology, interpersonal functioning and affect regulation of clients (Simon-Dack & Marmarosh, 2014). One of the benefits of psychotherapy, specifically the therapeutic alliance, is how it can provide co-regulation. Therapists are encouraged to understand the importance of affect regulation by encouraging clients to explore their nonverbal behaviours and how they relate to their thoughts and behaviours to help provide a greater means of self-awareness to cope with present concerns and a means to manage stress outside of therapy (Simon-Dack & Marmarosh, 2014).

Therapists should be encouraged to consistently check in and get feedback from the client about perceptions and expectations regarding the relationship and goals related to therapeutic progress (Bachelor, 2013). At the same time, therapists should not be extreme in comparing client's attachment styles and trying to compensate for the different attachment styles with clients (Levy et al, 2011). Therapists who have a secure attachment may be able manage the

various reactions of a client and demonstrate flexibility in meeting the needs of clients with insecure attachment styles without getting pulled into one way of responding (Marmarosh et al., 2014). When a therapist is aware of attachment processes, they can initially respond to the client based on their unique attachment needs and defenses to help foster a therapeutic relationship (Bachelor et al., 2010). Insights about attachment concepts and the importance of a therapist to build a secure base can contribute to successful treatment for clients who struggle with interpersonal relationships (Marmarosh et al., 2014). Therapists who are new at self-disclosure are encouraged to keep supervision and support as this process can create deeper intimacy and increase felt energy through the therapeutic alliance and having the support of a more experienced and or trusted colleagues can help one to manage challenging clinical moments (Quillman, 2012). Psychoeducation can be an important element of psychotherapy because it can help to inform a client about the underlying mechanisms of the ANS and how it contribute to dissociation and the fight and flight response which clients often have little control due to unawareness about the process (Quillman, 2012). According to Geller and Farber (2015), a therapist is encouraged to consistently check in with clients about the nature of their therapeutic relationships and their perceptions of the progress or lack of to foster positive regard, and establish more securely and consistent images of the therapist as an attachment figure. Therapists who are informed about the clinical needs and resources of clients struggling with insecure attachment styles and IWMs of self and others may be able to identify the different emotional challenges and clinical tasks to focus on during therapy to help alleviate the distress of their clients (Geller and Farber, 2015). It is helpful for therapists to be aware of their attachment histories, beliefs and expectations so they can recognize how their own challenges can influence

their ability to regulate emotions, be curious with clients when challenging and to demonstrate empathy (Marmarosh et al, 2014).

According to Geller and Greenberg (2012) training in psychotherapy often lacks focus with respect to the importance of focus and skill in knowing and developing inner spheres as well as with skills of learning to be present in ourselves and in our relationships.

According to Farber et al (1995) therapists informed about attachment principles are often mindful to the ways separation and reunion are experienced by the client- moments of silence, missing appointments or cancellations and the termination process. Attachment styles can be viewed as defensive mechanisms for affect regulation and all theories should be used with care and an open mind (Cortina, 2013).

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Adult and Infant Patterns of Attachment (Johnson and Whiffen, 2003, p. 33)

APPENDIX A

Adult State of Mind with Respect to Attachment	Infant Strange Situation Behaviour
Secure/Autonomous: Coherent, collaborative discourse, valuing of attachment, but seems objective regarding any particular event-relationship. Description and evaluation of attachment-related experiences is consistent, whether experiences are favorable or unfavorable. Discourse does not notably violate any of Grice's maxims.	Secure: Explores room and toys with interest in preseparation episodes. Shows signs of missing parent during separation, often crying by the second separation, Obvious preference for parent over stranger. Greets parent actively, usually initiating physical contact. Usually some contact maintaining by second reunion, but then settles and returns to play.
Dismissing: Not coherent. Dismissing of attachment related experiences and relationships. Normalizing ("excellent, very normal mother") with generalized representations of history unsupported or actively contradicted by episodes encountered, thus violating Grice's maxim of quality. Transcripts also tend to be excessively brief, violating the maxim of quantity.	Avoidant: Fails to cry on separation from parent. Actively avoids and ignores parent on reunion (i.e., by moving away, turning away or leaning out of arms when picked up). Little or no proximity or contact-seeking, no distress, and no anger. Response to parent appears unemotional. Focuses on toys or environment throughout procedure.
Preoccupied: Not coherent. Preoccupied with or by past attachment relationships/experiences, speaker appears angry, passive, or fearful. Sentences often long, grammatically entangles, or filled with vague usages ("dadadada," and that") this violating Grice's maxims of manner and relevance. Transcripts often excessively long, violating the maxim of quantity	Resistant or ambivalent: May be wary or distressed even prior to separation, with little exploration. Preoccupied with parent throughout procedure; may seem angry or passive. Fails to settle and take comfort in parent or reunion, and usually continues to focus on parent and cry. Fails to return to exploration after reunion.
Unresolved/Disorganized: During discussions of loss or abuse, individuals shows striking lapse in the monitoring of reasoning or discourse. For example, individual may briefly indicate a belief that a dead person is still alive in the physical sense, or that this person was killed in childhood thought. Individuals may lapse into prolonged silence or eulogistic speech. The speaker will ordinarily otherwise fit dismissing, preoccupied and secure categories.	Disorganized/disoriented: The infant displays disorganized and/or disoriented behaviours in the parent's presence, suggesting a temporary collapse of behavioural strategy. For example, the infant may freeze with a trance-like expression, hands in the air; may rise at parent's entrance, then fall prone and huddled on the floor; or may cling while crying hard and leaning away with gaze averted. Infants will ordinarily otherwise fit avoidant, secure and resistant-ambivalent categories

(Geller and Greenberg, 2012, p. 231-254)

APPENDIX B

Therapeutic Presence Exercises and Practices

Before and During Session

A five-minute break to breathe, pause and get grounded before a session with a client can promote being present and move therapy in the direction of change and healing. Focus to bring your focus and bodily sensations back in the present moment during sessions can help engage the brain and body in the the process (p.). Starting with a breath can help us connect to the following concepts: attention to the breath can foster an openness to the unknown and encourage us to be in touch with the depth of the moment as it presents itself; attention to the part of the body which experiences breath, can provide us with a metaphor to view the nostrils and lips as the place where the inner and outer worlds meet; through this deepening experience, an openness to the idea what there is a flow of the internal and external, or self and other; the breath is present-time centered, tuning into the here and now; and finally research confirms that being mindful about the breath can help to bring our respiration rate to a slower and deeper rhythm, which can relax and calm the nervous system and promote greater attention and calmness (Geller and Greenberg, 2012).

Breathing deeply into the moment by taking longer and slower breaths can promote a healthier connection of the body to the moment (Geller and Greenberg, 2012). The following are practical strategies to deepen breathing:

- Find a upright comfortable position, pause and get curious about what is happening in your body and mind right now
- Relax your body, place your hands on your lap and soften your eyes

- Focus your attention to your breath
- Inhale for four seconds, pause briefly, then exhale for five seconds (exhale for slightly longer than your inhale)
- Visualize your breath becoming slower, deeper and more calm and relaxed
- Open your eyes, look around and become curious about how you are feeling in this moment
- Use objects in the room as an anchor of attention to become present

Breathing and centering to our body

The following are practical strategies for using the breathe to become centered in the body:

- Connect to the breath then notice where it is felt in the body and the rhythm of the inhalation and exhalation
- Pay attention to the lower half of your body: your feet, legs, sexual center, buttocks, lower torso or pay attention to your upper body; head, neck, shoulders, upper back and chest and notice the sensations you feel
- Pay attention to where your lower and upper body meet, such as your belly or abdomen. Feel and sense the strength, security and unshakeable feeling that is part of your center

Acronym for Cultivating Presence (Geller and Greenberg, 2012, p. 236-237)

PRESENCE

*P*ause

*R*elax into the moment

*E*nhance awareness of your breath

*S*ense your inner body, awareness to your physical and emotional body

*E*xpand sensory awareness outwards (seeing, listening, touching, sensing what is around you)

*N*otice what is in the moment, within and around you and get curious about the relationship between the two realms

*C*enter and ground in body and yourself

*E*xtend and make eye contact

Acronym for helping therapist in sessions during moments of reactivity with clients. This is often used to support clients with addiction and it can help them to calm the sympathetic nervous system and activate a more relaxed parasympathetic nervous system to respond to circumstances with less reactivity and return to present moment (Geller and Greenberg, 2012, p. 237)

SOBER

*S*top- pause for a moment and remove yourself from the cycle of emotional reactivity

*O*bserve- pay attention to what you are feeling, sensing and experiencing and the main emotion that underlies the reactivity

*B*reathe- pause and take in a few breaths to calm yourself and assess the situation

*E*xpand- expand your consciousness and see the larger perspective about what is happening within you and around you

*R*espond- respond, instead of react to the present moment and approach it from a more genuine emotional experience

rather than basic reactivity

According to Fisher (2014) the acronym of PACE demonstrates the following therapeutic attitudes a therapist needs to demonstrate throughout a therapeutic session with a client (p. 17):

P= Playfulness

A=Acceptance

C=Curiosity

E=Empathy

Clinical Techniques to Enhance Presence

Presence Exercises and Practice (Geller & Greenberg, 2012, p. 231-254).

Opening to the body, one's self and others is foundational to develop the ability to be present (Geller and Greenberg, 2012). We need to not only be aware of how to be present with others but what are the barriers that prevent us from being present, such as busyness, distractions, trauma and disconnection (Geller and Greenberg, 2012). The development of a presence practice entails a doing element which involves moving towards slowing down, pausing, opening up and take time and space to clear our mind and body for a deeper stillness to immerge (Geller and Greenberg, 2014). Appendix B outlines several exercises and practices.

According to Fisher (2014) the following types of questions can help clients to connect to their body sensations and affective states:

- "When you feel panic come up, what happens inside? Do you feel more tense, more jittery or more frozen?" (p. 7).
- "As you feel that anger, is it more like energy, muscle tension or does it want to do something?" (p. 7).
- "When you feel like talking about nothing, what does nothing feel like? It is more calm, or numbing or freezing?" (p. 7).

Fisher (2014) outlines ways to perform co-regulation in therapy with clients:

- *Rhythm:* start with echoing the client's language. " You feel scared… Things start to feel frightening, huh? And then your hearts starts pounding…" (p. 14)

- *Play with pace, energy and tone:* Allow your tone of voice and body language to echo the client's energy and tone. " Yeah you're pissed off- that doctor was really disrespecting you" (p. 14).
- *Express curiosity:* "It is the fascinating how resourceful and creative you have been in your situation" (p. 14).
- *Experiencing resonance with the client's body language and words, will contribute to them feeling heard and understood.* " Yes, I get that" or " Help me to understand that- this feels important" are the concepts to communicate (p. 14).

According to Fisher (2014) the following strategies can help a therapist to "go with" resistance rather than "resisting the resistance" (p. 15):

- "*Going with" the resistance to hope*: "Yes, I can see that you would be scared to hope. It's so much worse to hope sometimes-so much safer to fly below the radar" (p. 15)
- "*Going with" the resistance of to self-soothing:* " I can see why you would be sickened by this idea of self-soothing- it probably feels as if I'm saying, ' You still have to take care of yourself'"(p. 15).
- "*Going with" the resistance of suicidal, self-destructive clients:* " Knowing that you can die is self-protective, isn't it? It gives you a way to live another day…" (p. 15).

Interventions for becoming an affect regulator of client's dysregulated states (Fisher, 2014).

- "Varying voice tone and pace: soft and slow, hypnotic tone, casual tone, strong or energetic tone, playful tone" (p. 16)
- Energy level: " Very 'there' and energetic versus very passive (p. 16).
- Empathy vs. challenging: Does the client need empathy or more challenge. Does the client need limits to regulate (p. 16).

- Amount of information given: Noticing the effect of psychoeducation or therapist self-disclosure (p. 16).
- Titrating vs. encouraging affective expression: Either minimizing affect when clients are uncomfortable with or unable to tolerate emotions (p. 16).
- Providing more vs. less support: Does more or less contact or support regulate or dys-regulate the client? (p. 16).

(Geller and Porges, 2014, p. 186)

APPENDIX C

How Does Therapeutic Presence Promote Safety and Therapy Effectiveness?

Therapist's Attunement to Self… Therapist Attunement to Client… Client feeling felt, calming, becoming present with (safety)... (a) and (b) and (c)

a. Cient feeling safe to open and engage in therapeutic work
b. Strengthening of therapeutic relationship
c. Therapist responses and interventions attuned to the optimal moment for the client to receive

(Wallin, 2015, p. 295)

APPENDIX D

Lexicon of Affect

Based on Wallin (2015) certain universal emotions have been identified to have a somatic expression that are registered as bodily sensations and externally as muscular/skeletal response that are seen on the face and in the posture and audible via tone, rhythm, tone and pitch of voice. The following is a summary in ways of translating body language into feelings that are expressed in language:

Happiness: " Breathing is deep, sighs, smiles, laughter and eyes bright" (p. 295)
Sadness: "Choked up feeling, lump in throat, turned down lips, wet, reddened eyes, slowed body movement and crying" (p. 295)
Fear: " Racing heart, mouth dry, rapid shallow breathing, and tremblings" (p. 295).
Anger: "Muscular tension, particularly in jaw and shoulders; pursed lips, clamped jaws (often thrust forward), lowered eyebrows drawn together, glaring eyes, upper eyelids raised; reddened neck, yelling and impulse to fight" (p. 295)
Disgust: " Nausea, nose wrinkled, raised upper lip and turning away" (p. 295).
Shame: " Rising heat in the face, blushing averted gaze and impulse to hide" (p. 295).

"...much of what we pick up from our patients, we may first feel in our bodies and perhaps most immediately in our breathing" (Lewis Aron as cited in Wallin, 2015, p. 296).

(Fisher, 2012, p. 22)

APPENDIX E

SOMATIC RESOURCES TO ADDRESS TRAUMATIC REACTIONS

Traumatic Reactions	**Resources**
Shaking, trembling	Deep breath, heavy sigh
Numbing	Movement
Collapse	Lengthening the spine
Agitation, desperation	Reaching out
“Spacing out”	Grounding with legs/feet
Pulling back	Physical support (e.g. chair)
Looking away/down	Orienting