The Body: Accessing and Integrating Implicit Processes for Treating Trauma

by

Soo Sen Lee

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APPROVED BY

Jill Taggart, Ph.D, R.C.C., Capstone Supervisor, Associate Dean of the School of Education Program

Maria Stella, Ph.D., Faculty Reader, Director of MEd in School Counselling Program

Division of Arts and Sciences

Abstract

Individuals exposed to trauma, especially complex trauma, experience relentless suffering unless effectively treated. Unfortunately, current "go-to" trauma treatment modalities, like trauma-informed cognitive behaviour therapy and eye-movement desensitization reprocessing, have reported various limitations for this group of patients. One reason is the cognitive-based nature of the treatments and their sole focus on the explicit components of trauma. Traumatic symptoms consist of both explicit as well as implicit components that arise from psycho-social-emotional as well as neurophysiological sources. To ignore the implicit neurophysiological roots of trauma is to ignore the risk of retraumatization. In this capstone, I introduce an emerging group of therapies, called the somatic therapies, that have shown much promise in addressing the implicit aspects of traumatic symptoms with very low risk of retriggering unwanted symptoms. Somatic therapies are able to do so because they involve the body in all aspects of its work of healing. Various benefits of this approach are delineated in the essay below followed by the proposal of a model to guide those interested in pursuing competence in this modality.

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Chapter 1: Introduction

Background

Trauma, whether one-time aversive events or chronic childhood abuse, leaves a devastating legacy for those who have been exposed to it. It used to be that only horrific events, like the Holocaust and natural disasters, were believed to result in trauma. However, modern trauma therapists are advocating that trauma is less about the content of the event and more about the neural impact on the recipient (Briere & Scott, 2014). Ogden (2019) defines it as something that happens "too soon, too fast, and too much" for a person to cope with and that the automatic disruptive symptoms that arise from such an experience come from the deep imprint of its effect on the person's nervous system (5:16). According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V), these symptoms include problematic attachment behaviours, intrusive thoughts and emotions, persistent avoidance of trauma-related cues, impaired cognition, mood disorders, uncontrollable swings of arousal levels, and dissociative symptoms (American Psychiatric Association, 2013). Untreated, these symptoms are extremely disruptive to the lives of people. A review of literature shows that such individuals are more at risk for being on unemployment or disability benefits, more likely to misuse substances, perpetrate domestic violence, be criminalized, self-harm, have eating disorders, be diagnosed with personality disorders, be at risk for suicide, and experience serious chronic health ailments like cardiovascular diseases and diabetes (Bach et al., 2018; Bartholomew et al., 2001; Dakanalis et al., 2014; Kendall-Tackett, 2009; Sansone et al., 2005; Sherman et al., 2006; Tamar-Gurol et al., 2008). The younger the exposure to trauma, the deeper the neurophysiological impact and the more far-reaching the repercussions. The immediate consequence of childhood trauma is evident,

with hundreds of studies reporting troublesome externalizing behaviours, such as aggression, problematic behaviours and substance abuse, and internalizing symptoms, like depression and self-loathing (Pratchett & Yehuda, 2011). If such symptoms are not inadequately treated, they will continue to affect individuals across their entire lifespan. Gillath (2016) reports that childhood abuse of any form, whether sexual, physical and/or emotional abuse or neglect, negatively impacts both developmental milestones as well as one's fundamental survival systems including the attachment system. The attachment system influences proximity-seeking behaviours and manifests as anxiety over intimacy in primary relationships (Gilliath et al, 2016). High levels of avoidance and anxiety often characterize traumatized individuals' attachment styles, not only mediating many of the problems mentioned above but increasing their vulnerability to victimization and re-traumatization in later years (Pratchett & Yehuda, 2011). Among adult sexual assault victims, several studies found that a significant number of these individuals have also experienced childhood sexual assault (Elliott et al., 2004; Gidycz et al., 1995; Wyatt et al., 1990). The evidence was so convincing that Pratchett and Yehuda (2011) stated that sexual assault in childhood is the "single best predictor of subsequent victimization" (p.481).

The legacy of trauma is problematic because it is not only difficult for patients to live with, but also very challenging to treat. Currently, popular approaches such as cognitive-behavioural therapy (CBT) that have touted success in treating a wide range of mental illnesses, even in its transmuted form called trauma-informed CBT (TF-CBT), have faced limitations in the healing of trauma (David et al., 2018). Even though, TF- CBT, a type of exposure therapy, together with others like prolonged exposure therapy, have some evidence for improving symptoms, they have also reported high variability in attendance and low response rates (Imel et

al., 2013; Rauen, 2017). Response rates have been reported to be as low as 50 percent while drop-out rates vary widely among studies - from 0 to 48 percent (Hendriks et al., 2018). A lack of tolerance of treatment, poor outcome, retraumatization, and avoidance of traumatic memories have been cited as reasons that contribute to these rates (Herman, 2015; Hoge et al., 2014; Rauen, 2017). The focus of these treatments on addressing only explicit elements of the trauma while ignoring the implicitly-driven neurophysiological components are the underlying cause of the above factors (Fisher, 2017). Traumatized patients suffer from a profound sense of integrative failure where uncontrollable implicitly-driven experiences stay outside of consciousness but yet greatly affect their everyday lives (Spiegel & Cardeña, 1991). The disintegration of the psyche is a way of adapting to the horror suffered, but yet fails to fully contain the traumatic impact. For these patients, treatment that targets only explicit thoughts at the expense of implicitly sustained neurophysiological processes fails to address the core of their suffering (Fisher, 2017; Minton et al., 2006; Moodley & West, 2005; Jaffe, 2014). Here, I propose the importance of including an emergent group of therapies called somatic therapies in trauma treatment. Somatic therapies, via the body, are able to gently and effectively access and transform difficult implicit reactions. Integrating or concurrent use of somatic therapies with top-down modalities, like psychodynamic therapy, has shown potential to address both explicit and implicit processes that sustain traumatic symptoms (Levit, 2018).

In this capstone, I will synthesize the literature on the relationship between trauma, implicit processes, the body, and healing. In chapter two of the capstone, a systematic investigation of trauma and implicit processes will be explored using four theoretical frameworks: Bowlby's attachment theory and Shore's affective theory; Paul Maclean's triune brain; polyvagal theory; and the somatic lens. Current trauma modalities, such as TF-CBT and

prolonged exposure therapy, will also be explored together with what somatic therapies have to offer to the field of trauma treatment. Chapter three introduces a framework I developed as part of my recommendations for therapists who are exploring training in the field of somatic therapies. It is called the "Framework for Developing Competency in Somatic Therapeutic Core Skills" and it introduces five factors that influence competency. They are self-awareness with regards to body-awareness (or embodiment); sustained personal practices; theory and formal training; continued supervision; and, finally, to reflect on how social systems have impacted a person's sense of embodiment.

Purpose

In this paper, I seek to explore how trauma impacts both implicit and explicit brain processes, and how the inclusion of the soma in therapy may offer an expansion of skills for therapists to ameliorate symptoms safely. The questions that this paper seeks to answer are the following - what sustains traumatic responses, why top-down therapies have limitations in treating trauma, what are some of the main therapeutic benefits of using somatic therapies in trauma therapy, and how can this be done effectively?

Theoretical Framework

Four different theoretical lenses will be examined - attachment theory by Bowlby and affective regulation by Allen Shore; Maclean's triune brain model; polyvagal theory, and somatic core processes common to such traditions as Somatic Sensorimotor Therapy; Somatic Experiencing; Relational Somatic Transformation; dance/movement therapy, and "Movement for Trauma" therapy that have been proposed as engendering therapeutic change (Bowlby, 2005; Levine & Frederick, 1997; MacLean & George, 1992; Minton et al., 2006; Stanley, 2016).

Definition of Terms

Attunement is the connection between two persons characterized by the ability to sense each other's emotions and needs (Stern, 2004). This ability is largely intuitive, unconscious and occurs across a spectrum of behaviours from micro-expressions to overt intense emotional outbursts.

Body memory is one form of implicit event and can be interchangeably referred to as procedural memory (Koch et al., 2013). Some writers use the latter term interchangeably with implicit memories. This form of memory is created in embodied experiences as we live day-to-day.

Counter-transferences are the emotional reactions of the analyst to the subject's contribution (*Dictionary.com Is The World's Favorite Online Dictionary*, n.d.)

Transference is the redirection to a substitute, usually a therapist, of emotions that were originally felt in childhood (*Dictionary.com Is The World's Favorite Online Dictionary*, n.d.)

Implicit events consist of non-verbal memories, pre-reflective knowledge, and acquired dispositions that govern our day-to-day behaviours in the world that do not require explicit conscious decisions or anticipation (Koch, 2013).

Intersubjective space/field is facilitated by a right-brain to right-brain connection that is characterized by a grounded and present-moment bond between client and therapist(Jones, 2015)

Interoception is a term used to name the ability of the body to sense its internal physiological state and present the information as a subjective sense of well-being (Ceunen et al., 2016; Craig, 2002; Zaki et al., 2012).

Somatic empathy is a bodily *knowing* that comes from noticing the other's response and reactions through their body(Stanley, 2016)

Trauma is any event that overwhelms the ability of the individual to cope (Benyakar et al., 1989)

Somatic therapy is also called "Body-oriented or body-centered psychotherapy" and the body and its processes are central to the work of therapy (Rolef Ben-Shahar, 2014). These therapies use a "bottom-up" approach, the bodily responses, to unravelling the mysteries of problematic behaviours and symptoms instead of beginning with an explicit verbal description of events.

Significance of Study

This study is, first of all, significant for therapists who are interested in being more effective in treating trauma. As described, traumatic symptoms are sustained in part by implicit processes and a holistic lens that includes the body will increase access to and transformation of these processes. Today, most schools of counselling teach the importance of a holistic approach to healing yet due to a dichotomous view of the body and mind, therapeutic approaches taught in graduate school largely either completely exclude the body or only focused on the body. This paper will be a good starting point for learning about how including the body in therapy would extend the effectiveness of explicitly focused therapies. Secondly, all therapists who are interested in working to shift negative implicit experiences, whether trauma-related or not, will learn about the relevance of the somatics for such work. Finally, anyone who is interested in increasing their capacity to create safe containment would be interested in the information here. Somatic therapies have an inherent ability to do this well.

Chapter Summary

Trauma affects multiple domains of a person's life. Untreated symptoms can result in a variety of maladaptive behavioural problems and lower quality of life. Yet current go-to treatments, such as TF-CBT and prolonged exposure therapy have lower than expected treatment outcomes. Such treatments have been hampered by low response rates, variable attendance, and complaints of ineffectiveness. A main reason could be the neglect of the centrality of implicit

processes in traumatic symptoms that verbal cognitive processes are unable to illicit and transform (Kraehenmann et al., 2017; Shanks, 2010). Moreover, these latter methods are contraindicated for retraumatization due to a focus on the repeated re-telling of traumatic events within contexts that offer only a limited sense of safety. Somatic therapies that use the body in bottom-up processes have been reported to be a safe and emergent method for assessing and transforming implicit memories particularly with trauma clients (Applegate & Shapiro, 2005; Ogden & Fisher, 2015; van der Kolk, 1994). This capstone proposes that somatic therapies be integrated or used alongside traditional "talk" therapies to expand the effectiveness of therapists in trauma treatments. Eclecticism or an integrative approach have traditionally been frowned upon, yet the complexity of trauma necessitates a diversity of skills that can find alternate entry-points for shifting terrifying experiences.

Chapter 2: Literature Review

Introduction

Unprocessed traumatic responses will continue to intrude upon and disrupt the lives of people unless their explicit and implicit origins are systematically addressed. Current popular explicit focused therapies, such as trauma-informed cognitive behavioural therapy (TF-CBT), have some evidence for improving symptoms but are limited in working with the implicitly sustained aspects of trauma. These limitations contribute to low response rates, lack of tolerance for treatment, retraumatization, and low attendance (Herman, 2015; Hoge et al., 2014; Rauen, 2017). This is where somatic therapies can be helpful. Addressing implicit-driven symptoms via the body is emerging as a gentle and yet effective way in reducing the suffering of traumatized individuals. The eclectic or integrative use of both top-down and bottom-up therapies to address trauma would be a more holistic approach for treatment.

To better understand why somatic therapies are an important modality for trauma treatment, it will be helpful to better understand the implicit nature of traumatic symptoms. A general description of memories will be briefly described followed by a literature review that examines trauma through four lenses - Allen Shore's affect regulation, Bowby's attachment theory, Paul Maclean's triune brain model, and polyvagal theory. This will be followed by a description of the theories and limitations of explicitly-focused therapies, specifically TF-CBT. The chapter will end with an introduction to somatic therapies, how they are able to address implicit responses via the body, alleviate the limitations of current treatments, and provide a more holistic approach for treating trauma.

Theoretical Framework for Understanding Trauma

Types of memories. Memories can generally be divided into two types – explicit (declarative) and implicit (non-declarative). Explicit memories are (1) verbal, (2) stored in the left hemisphere and cortical region, (3) autobiographic, (3) not present at birth and only starts accumulating from 18 months of age, (4) involve the self and have a sense of time, (5) requires conscious awareness to encode and recall, and (6) made up of semantic and episodic memories (Goldstein, 2014). Implicit memories are (1) non-verbal, (2) stored in the right hemisphere and subcortical regions, (3) present prenatally, (4) time-blind, (5) do not require conscious awareness for encoding, (6) are recalled without conscious awareness, (7) made up of procedural memories, habituation/sensitization, priming, and associations (Goldstein, 2014). It is the latter category of memories that drive a large portion of traumatic symptoms. The following theories describe how implicit memories are formed and impacted by trauma and what must be done to help a person renegotiate them.

Attachment theory. Modern attachment theory tells us that our ability to form relationships with others is influenced by implicit brain processes set into motion by the earliest interactions between a child and their caregivers. These interactions form the neural and social foundation for psychosocial functioning across the lifespan by performing three crucial functions - the formation of unconscious cognitive schemas, called internal working models, the consolidation of attachment styles, and the development of neural substrate for affect regulation (Shore, 2001). Trauma at an early age disrupts these important developmental functions and sets up unhelpful patterns of behaviour, thoughts, and emotions that affect social and mental well-being.

Internal working models. Internal working models are unconscious mental representations of self and others that are composed of implicit perceptions, memories, and felt-knowledge that emerge from early back and forth interactions with significant others (Bowlby, 1979). These significant "others" demonstrate to the child how one should act towards another while mirroring to them their very soul - reflecting self-image and worth to the one who gazes into them. One can imagine how such an experience would have a devastating impact if the "mirrors" repeatedly reflected back negativity and unavailability. Subconscious cognitive messages of "unworthiness" or "the world doesn't care" begin within these interactions. Working models laid down in early years, therefore, create implicit anticipatory frameworks that predict and anticipate responses of "others". In childhood, these working models allow for adaptive cognitive-emotional-behavioural responses to those the child is surrounded by, allowing for thriving and survival (Bowlby, 1979). Trauma, however, produces working models that although initially maybe protective, are not helpful in other contexts, especially in adult years. These internal working models eventually harden into attachment styles as the child grows,

governing behaviours towards others especially in the areas of proximity-seeking, boundary setting, approach to conflict, and reactions to intimacy (Gillath, 2016).

Attachment styles. Attachment styles are, therefore, a conglomeration of implicitly governed patterns of behaviour, cognitive schemas, and automatic "predictions" of others that affect the interpersonal, and therefore the individual, well-being of humans (Bowlby, 1979). Attachment styles are heavily determined by one's need to seek a "felt-sense" of security within interpersonal relationships and have been conceptualized by two dimensions – insecure resistance/ambivalence in children which is later observed as preoccupation in adults (governed by either fear, anxiety or both) or insecure attachment avoidance (Fraley et al., 2015; Gillath et al., 2016; Shaver & Mikulincer, 2008). Anxiety is the fear or discomfort with loss of proximity, while avoidance is the behavioural action of moving away from proximity. The varying levels of anxiety and avoidance are determined by how responsive early childhood caregivers were to the child's needs (Bowlby, 2005). Individuals whose caregivers exhibited "good enough" attunement are found to be low on anxiety and avoidance and they are said to have secure attachment styles. Secure attachment allows for the most adaptive responses to changes of intimacy and proximity in relationships. Individuals whose caregivers were not available to them often walk down two different paths -they will either exhibit a high level of anxiety or a high level of avoidance. Those high on the anxiety dimension are unable to regulate their attachment needs – instead they tend to be over seeking, or over involved in seeking attachment to alleviate overwhelming fears or anxiety over the loss of the relationship. Those high in avoidance, on the other hand, struggle with an inability to access their attachment needs because they learned to dampen down their attachment requirements in the face of caregiver unavailability so as to avoid accessing and feeling their attachment needs (Fraley et al., 2015). The final type of attachment style is called

the unresolved/disorganized. Main and Solomon (1996) described this in children who exhibited a "diverse array of inexplicable, odd, disorganized, disoriented, or overtly conflicted behaviors" during the Strange Situation, a laboratory setting where children were observed while moderately stressed by temporary separation from their mother or parent (as cited in Hesse, E., & Main, M., 2000, p.1099). Separation from their parents produced high anxiety and sometimes states of immobility, but when the parent returned, the child exhibited contradictory behaviours such as initially moving towards them but would stop midway to rock on their hands and knees and cry inconsolably. The hallmark of disorganized attachment are these contradictory ways of proximity-seeking and avoidance behaviours. Literature have consistently reported this category of attachment to be associated with poorer outcomes in overall well-being (Fearon et al., 2010; Gillath et al., 2016; Selcuk and Gillath, 2009; Nanni et al., 2012; Cassidy et al., 2009). Furthermore, being cared for by abusive caregivers was associated with this latter style of attachment (Howe, 2011).

Results of childhood maltreatment. These early interactions form the "developmental crucible" that shape a person's internal and subsequent external realities (Wallin, 2007, p.3). It is, therefore, not difficult to understand why maltreatment in childhood, whether abuse or neglect, results in devastating repercussions throughout the lifespan. In fact, one's age of exposure to maltreatment is predictive of the severity of negative symptomatology in later life. As Brooks (2011) said,

> "People don't develop first and create relationships. People are born into relationships - with parents, with ancestors - and those relationships create people." (p.43)

Attachment styles are, therefore, indicators of how much care an individual received when young. Children exhibiting high anxiety or avoidance in attachment styles usually have

experienced some level of abandonment from caregivers. They might not have suffered from overt forms of abuse like physical beatings, verbal degradation, and sexual assault, but neglect alone affects the safety they feel in relationships. Low-self-esteem, hypersensitivity towards rejection, and insecurity in their relationships are common challenges for adults high on anxiety, and typically results in maladaptive means of either securing connections or avoiding intimacy (Shorey & Snyder, 2006). However, the category of attachment style most at risk for psychopathology is the disorganized attachment. These children are often suspected of being subjected to abuse and frequently grow into adults with a plethora of psychological and/or social issues (Gillath et al., 2016). They are reported to be at higher-risks of internalizing symptoms like depression and anxiety, externalizing behaviors in childhood like aggression and high-risk behaviours, emotional dysregulation, personality disorders, and lower satisfaction in social relationships compared to those with secure attachments (Fearon et al., 2010; Gillath et al., 2016; Selcuk and Gillath, 2009; Nanni et al., 2012; Cassidy et al., 2009).

Attachment styles intersect with trauma in multiple ways. Not only are the styles indicative of developmental trauma, they compound the treatment of trauma. For example, they affect help-seeking behaviours and the ability to build trust in treatment. Avoidant attachments are reported to be less likely to seek help for mental health issues while both avoidants and insecure attachments struggle with trust and openness in the therapeutic alliance (Gillath et al., 2016). Even though more research needs to be done to look at attachment and help-seeking for mental health issues, the reasons cited by military personnels for not seeking treatment might indicate the influence of attachment styles (Hoge, 2014). The top two reasons for not seeking treatment for post-traumatic stress disorder are “Felt like you could take care of your problems on your own” and “Didn’t feel comfortable with mental health professional” (Hoge et al., 2014,

p.1001). Even when they do finally see a therapist, emotional regulation or lack of is another major trauma legacy to contend with in session. Early attachment is linked to the ability to manage one's distress when stressed. Clients who experienced lack in attachment will experience a greater need for safety and trust in therapy than those who are secure.

Affect regulation. Affect or emotional regulation is the ability to influence one's level of physiological arousal and intensity of subjective experiences associated with emotions so as to adapt to changing expectations of situations (Butler & Randall, 2013). Affect regulation is crucial for managing overwhelming emotions in the face of distress and an inability to do so can result in various negative outcomes. For example, affect dysregulation has been linked to failure to attain to life goals, harmful ways to self- soothe like substance misuse and eating disorders, anxiety disorders, mood disorders, somatoform disorders, and personality disorders (Harrison et al. 2010; Hu et al. 2014; van Dijke 2012; Gilboa-Schechtman et al. 2006; Prosek et al. 2018). In fact, certain quarters of the psychotherapeutic world have conceptualized some psychopathologies as "emotional dysregulation disorders".

Emotional regulation development begins at birth. Shore (2014) posits that it is the attuned interaction within the parent/mother-child dyad that serves as blueprint for building psychobiological neural processes for eventual self-regulation. The organic source of emotional regulation is laid down within the responsive intersubjective space of the parent/mother-child dyad. These dyadic engagements are particularly important during times of childhood distress. According to Siegel (2020), during such moments, a caregiver's "showing up" and "presence" are key factors for helping the child feel safe and for supporting budding abilities to self-sooth. Without access to such responses, the child's nervous system remains under-developed and self-regulation is limited (Pretorius 2007). Shore (2014) asserts that this is a right-brain-to-right-brain

implicit process that involves embodied responses such as voice prosody, facial expressions, eye-contact, and various bodily gestures and postures. In watching and experiencing these embodied interactions, a child begins to internalize them and learns to eventually regulate themselves. Still face research by Tronick (2003) demonstrates how important an embodied interaction with the parent is to the child. When the parent stops all facial expressions and interactive behaviours, the distress level of the toddler is palpable. If these relationships are further characterized by maltreatment, it is not difficult to imagine the catastrophic effects experienced by the child. Therefore, it is not surprising that most, if not all, individuals who suffered developmental trauma also struggle with emotional dysregulation. To further our understanding of how emotional or affect regulation is central to the treatment of trauma, I will refer to Maclean's triune brain model as a heuristic way for describing the relationship between hierarchical brain structures, trauma, and one's ability to emotionally regulate.

Triune Brain

The brain can be metaphorically described as consisting of three hierarchical parts that evolved separately and has different functions (MacLean & George, 1992). The reptilian brain is the most evolutionarily primitive and the first to develop - it is made up of the brainstem and cerebellum. All messages from the peripheral nervous system flow through this part of the brain, allowing it to serve the basic function of integrating these signals for homeostasis. It automatically regulates breathing, blood pressure, sleep, consciousness, programmed movement, and processes sensorimotor information (Martin et al., 1989). This part of the brain is also responsible for instinctual behaviours that are related to survival, such as the dissociative states of collapse in traumatized patients. Surrounding the reptilian brain is the "emotional brain", called the limbic system, that first emerged in mammals. It is where the amygdala, hypothalamus

and hippocampus are found. It mediates emotions, memories, learning, and the fight or flight responses (Cozolino, 2002). According to Panksepp (1998), it also mediates "social emotions such as separation distress/social binding playfulness and maternal nurturance" (as cited in Minton et al, 2006, p.37). Finally, the latest to evolve is the neocortex, the seat of higher order cognitive functions such as morality, judgment, meaning-making, and self-awareness. The neocortex consists of the right and left hemispheres with their own separate functions (Siegel, 2012). The left brain is the rational, verbal, and logical part of the brain, whereas the right is non-verbal, perceptual, creative, and more connected to the limbic brain. The right brain, together with the limbic, senses the social intention of others via body language and works together to coordinate responses during social engagement interactions (Siegel, 2012).

The degree that these horizontal and vertical *parts* are in communication and coordination with each other directly correlates with the ability of each part to function well (Panksepp, 1998). The parts are activated differently by different stimuli and will dominate and override the others depending on the level of neural integration and what is happening in the environment. The right brain and limbic systems when stressed will become emotionally flooded without the work of the left brain to help make sense of the stressful situation (Siegel, 2012). However, if the right brain is shut down and the person simply runs away from all their emotions, they will experience a disconnection from their emotional-self and a struggle to connect with others. Brain integration is therefore vital to mental health. Not only must the brain experience right and left integration, vertical integration is also important. The lack of vertical integration between the neocortex with the more primitive brain parts result in a reduced capacity to tolerate distress. When faced with stressful situations, the person's capacity to think and act rationally is compromised because of what Siegel (2012) calls "flipping the lid" – the brainstem

and limbic system takes over and they get emotionally overwhelmed. The seamless integration of the vertical and horizontal parts of the brain is imperative for emotional regulation. Coordinated flow of information between the two hemispheres of the neocortex, as well as between the limbic and reptilian brain is important for the development of an optimal ability to regulate oneself. Integration begins within the context of caregiver-child interactions as described in the section above and a lack of securely early attached relationships typically result in the absence of the necessary neural substrate for emotional regulation. Furthermore, traumatic memories have been postulated to be encoded in the right brain. Without adequate integration with the left hemisphere, individuals cannot verbally describe or consciously recall what actually happened during trauma (Ogden & Fisher, 2015; Siegel & Bryson, 2020).

Window of tolerance. Emotional dysregulation directly affects a person's window of tolerance. The window of tolerance, according to Siegel (1999) defines the optimal range of human arousal for functioning. When arousal is within this optimal range, the three levels of the triune brain - neocortex, limbic system, and the brain stem act in a coordinated and mutually influencing state and the person is at their best in meeting day-to-day challenges. A narrow or non-existent window results in vast vacillations between defense states of hyperarousal, hypoarousal states, and freeze states (Minton et al., 2006). These states are meant to facilitate survival in the face of threat. For example, freeze is a primitive defense mechanism mediated by the dorsal vagal nerve in conjunction with the reptilian brain. This defense is activated in the face of extreme powerlessness and/or impending death where a cascade of physiological reactions is triggered to prepare for a painless demise (Levine & Frederick, 1997). Even though its most extreme forms is hypo- or hypertonia of musculature and collapse, freeze also shows up in a variety of other forms including sensations of derealization, numbness or disorientation (Porges,

2011). In individuals with trauma, especially developmental trauma where the neural substrate for emotional dysregulation is often affected, these defense states are often chronically activated. Therefore, one of the primary tasks of therapists is to help clients develop emotional regulation for daily life and for sessions. Success of therapy hinges on clients staying within the window of tolerance and engaging their neocortex. Shutdown freeze states or hyperarousal states of "flipping the lid" disconnects the neocortex from the rest of the brain and impacts the patient's capacity for renegotiating and making sense of what happens in therapy (Fisher, 2017).

Neuroception. Emotional regulation is especially difficult to achieve for traumatized individuals because not only is their window of tolerance narrowed, trauma also heightens neuroceptive abilities. Neuroception, according to Porges (2011), is the implicit ability of the midbrain to survey the environment for "danger". This capacity lies in the limbic region of the brain where with the detection of "danger", the ventral vagal nerve is shut down and the amygdala works with the anterior cingulate to send the person into fight, flight or freeze modes (Lanius et al., 2014). Polyvagal theory proposes that these defense mechanisms are enacted hierarchically. The first line of defense is social engagement where the neocortex is engaged to use strategies of placating, calling for help or befriending. If that fails, the subcortical structures take over and fight or flight is engaged, this is finally followed by states of freeze and collapse as the last resort (Porges, 2011). This entire process is reflexive, and automatic, meant to evolutionarily equip the person for safety enacted through instant reactive responses. When accurate, this perceptive ability can save, for example, a person from being hit by a flying ball.

Normally, when a person comes away from a highly stressful situation, their bodies are able to downregulate from states of hyperarousal and return to optimal levels. For traumatized individuals, these implicit defense systems are stuck in highly activated states where

physiological stress responses are chronically triggered. A vicious cycle ensues where the already heightened and distorted sensitivity to threat is further sensitized with the advent of new stressors resulting in even non-innocuous stimuli like thinking or talking about traumatic events becoming triggering events (Aas et al., 2017; Steele & Kuban, 2013). Traumatized individuals often see danger where there is none, and for some, danger seems to be everywhere (Porges, 2011). With the combination of a narrow window of tolerance and distortion of neuroceptive abilities, safe containment of traumatized individuals in session is one of the most important and challenging tasks for therapists. Yet this is one of many areas where traditional forms of explicitly-focused therapies have been found to be lacking (Levit 2018; Gaston 2015).

Interventions for Trauma: Explicitly-Focused Therapies Versus Somatic Therapies

Explicitly-focused therapies. Trauma Focused – Cognitive Behavioural Therapy (TF-CBT) belongs to a group of therapies called exposure therapies. Other forms of exposure therapy include trauma-informed narrative therapy, prolonged exposure therapy, and eye-movement desensitization reprocessing. TF-CBT's key intervention is exposing patients to traumatic memories through either "imaginal exposure" and/or "in vivo exposure" (Monson & Shnaider, 2014, p.23). With the first technique, patients are asked to recall and engage as deeply as they can with memories of the traumatic events while with the second, in vivo exposure requires the client to interact with cues, such as places and people, who trigger the traumatic response. The theory behind this type of intervention is the brain's ability to habituate to fear stimuli and to unlearn fear associations with repeated exposure to the stimuli. Imaginal exposure is performed through talking about the event, journaling about it, and/or talking about the content of intrusive symptoms, like flashbacks. Despite evidence that exposure therapy is helpful to some people, there have also been reports of limitations (Imel et al. 2013; Rauen 2017; Gaston 2015). Two

major problems reported are an inadequate amount of emotional regulation of clients during sessions and a high risk of iatrogenic traumatization.

Lack of safety. Studies are emerging where patients with post-traumatic stress disorder are reporting a lack of tolerance for trauma-related exposure because of a "limited capacity for affect-modulation and habituation" (Blanchard et al. 1982) (as cited in Gaston 2015, p.32). Gaston (2015) and Levit (2018) also report that community patients who take part in explicitly-focused therapies are experiencing uncontrollable dissociations, severe side effects after sessions, and refusing to continue with more therapy. One reason is the inadequate regulation of patients during treatment. Distortion in the perception of safety plus a narrowed window of tolerance makes containment in face of provoked-distress incredibly challenging for such clients. The exposure to traumatic content required by TF-CBT, or other forms of explicit-focused therapies, often test their emotional regulation limits, and results in uncontrollable dysregulation and retraumatization. Levit (2018), a psychoanalytic trained therapist, who turned to somatic therapies to help his client modulate their persistent state of dissociations said,

> … despite our attempts to offer holding and containment, some patients continue to undergo relentlessly repetitive suffering and overwhelmed states, causing tremendous disruption to their outer and inner lives, as well as disintegrating their capacity to learn from treatment. A number of nonpsychoanalytic approaches to trauma emphasize ways to help patients sustain greater stability while facing into the unbearable, to therapeutically revisit the past without relentlessly and destructively reliving it. These neurobiologically based models focus on the body and levels of the nervous system beneath words. They offer enormously important insights about working with catastrophic states. However,

> psychoanalysis has looked to these approaches in only limited ways at this point. (Levit, 2018, p.589)

As Levit pointed out, it takes more than just talking to regulate traumatized people. The "felt-sense" of safety where the person is able to operate within their window of tolerance is via their senses/body, rather than through their intellect and words (Watson, 2013). Similarly, Ogden et al (2006) insists that safety must include resourcing through body postures, movements and behaviours because these physical expressions directly impact traumatic symptoms. Just as the mind affects the body, so does the body, the mind. Safety must, therefore, be created physiologically in the body for the person to truly experience regulation (Heller, 2020). Without this type of safety, the risk of iatrogenic traumatization is high.

Verbal recall and retraumatization. Zgoda et al (2016) defines retraumatization or iatrogenic traumatization as "a conscious or unconscious reminder of past trauma that results in a re-experiencing of the initial trauma event" (p.1). We need to keep our clients safe from retraumatization because literature shows us that it can lead to undesirable outcomes including increased substance use, self-harm, decrease in desire to continue or seek treatment, and worsening of traumatic symptoms (Smyth, 2013). Unfortunately, explicit focused therapies, especially those that require direct recall of traumatic events, put clients at risk of this phenomenon (Herman, 2015; Hoge et al., 2014; Rauen, 2017). According to Gaston (2015), the side-effects of retraumatization during these types of treatments are well-known in the therapeutic world, but often unpublished,

> ... iatrogenic effects are at times severe when trauma-focused techniques are employed. These techniques ask participants to intensely relive and face what they spend most of their energy avoiding, that is, traumatic memories. In the literature, reports of negative

> side effects are parsimonious since the 1990s, but such scarcity does not mean that they do not happen in clinical practice. (Gaston, 2015, p.15)

Trauma-informed therapies that were pointed out as producing deleterious side-effects were prolonged exposure therapy and Eye-Movement Desensitization and Reprocessing (Gaston, 2015). Reports of side effects were not uncommon, and in fact have been woven into the contraindications that are read to patients before treatment. Problems with iatrogenic traumatization are not just relegated to these two types of therapies, retraumatization is a reality for modern day forms of exposure therapies like TF-CBT and trauma-informed narrative therapy. Even though traditional CBT protocols have been transmuted to create greater safety in order to navigate implicit fear responses, it still falls short when treating complex cases of trauma (Fisher, 2017). The protocol, called trauma-informed CBT, incorporates multiple embodied activities to stabilize the person before engaging in exposure. For example, the body-affect connection is used as a means to help clients detect rising emotions that signal early dysregulation and embodied relaxation techniques taught to the client to promote emotional regulation are activated to ensure stability (Yasinski et al., 2018). The importance of involving the whole-person, especially the body, is demonstrated here. However, for some clients, reaching complete stabilization itself is nigh impossible because of the severity of their symptoms (Fisher, 2017). The inability to stabilize the client in Levit's (2018) case resulted in her repeated collapse into states of dissociations with only a few words uttered. The opportunity to "talk" about his client's trauma was hampered at every turn by such responses. Such experiences have led therapists, like Levit, to turn to a different school of psychotherapy - the somatic therapies. Embodied therapists have shown that helping patients develop a new relationship with

implicitly-driven symptoms while acknowledging the past but without vivifying the events have been a helpful and more humane way to help patients heal (Fisher, 2017; Minton et al., 2006).

Somatic Therapies. Somatic therapies view the mind and body as intricately connected entities, where both are treated with equal importance in the healing process. Ogden (2020) said that the body sustains the hidden cognition and emotions of one's mind, and the mind can do much to influence the body. Such therapies have reported good outcomes in using the body and its proxy cues in helping clients "befriend" symptoms and to effectively titrate the exposure to volatile memories (Fisher, 2017; Payne et al., 2015). High quality data on the effectiveness of somatic therapies for trauma treatment is still emerging. However, qualitative studies and case studies are showing promising results (Kelleher, 2008; Krioukova, 2016). Somatic therapies referred to in this capstone are Somatic Experiencing, Sensorimotor Psychotherapy and Relational Somatic Transformation. Each somatic tradition has a unique means to address traumatic symptoms and healing but they all share common core practices and benefits. Due to space constraint, I will only present the following strengths and benefits of somatic therapy: (1) the ability to cultivate sensitive attunement, (2) effective co-regulation and a low risk of retraumatization during treatment, and (3) effectiveness in eliciting and transforming implicit memories.

Embodied Attunement. Scott Miller (1997) in his description of the core "curative elements" of successful psychotherapy identified the therapeutic alliance as one of four core elements (p. 24). In fact, he holds that it is the foundational element upon which all other factors are built and contributes to as much as 30 percent of variance in treatment outcome. Creating safe containment facilitates client comfort promotes client participation, the "single most important determinant of outcome" (which accounts for 40 percent of variance) (Miller et al.,

1997; Orlinsky et al., 1994) Together these two factors determine much of the success of a therapeutic session. But how does a counsellor cultivate a strong therapeutic alliance? Rogers, (2012) proposes the "core conditions" of empathy, unconditional positive regard, and congruence (genuineness) as essential contributors (Rogers, 2012). Of the three, Rogers (2012) asserted that empathy is the most important. Empathy is described as the ability to move within the client's world, to walk in their shoes and yet be able to keep oneself distinct from the person. Empathy is most effective if it is perceived by the other.

Somatic empathy. Somatic therapies have the ability to expand what Rogers (2012) has described as "empathy" - which, according to Stanley (2016), is a left-brain verbal process. Characteristic of Rogerian expressions of empathy are the verbalization techniques of reflecting, paraphrasing, and empathic statements that seek to help the other know that they are understood. "Somatic empathy", coined by Stanley (2016), is instead a right-brain to right-brain connection, called attunement, where the therapist forms a sensitive connection with their clients not only through listening to their story but notices and detect unspoken cues via the client's body. Levine (1997) calls this *body narrative* – the body has a story to tell as well. Somatic therapists are sensitized to the body's message by noticing nuanced bodily expressions, such as a quick dart of the eye, a slight flexing of the fingers, and a small change in voice intonation. These body signals all serve as potential signs of the fluctuation of neurophysiological arousal that the client is experiencing (Stanley, 2016). These shifts in arousal need to be noticed, tracked, and regulated to prevent dysregulation. Stanley (2020) said that the energy that needs to be shifted is not in the story, it is in the body as the story is being told. This way of attunement sets up an intersubjective dance between client and therapist that speaks of a togetherness that cognitive-based therapists find hard to match. Therefore, for the somatic therapists, empathy is more than

just words, it is an embodied process (Shore, 2014). The words from Merlueau Ponty (1962), a French phenomenological philosopher, sums this up well, “It is through my body that I understood other people” (p. 186). According to Shaw (2004), who interviewed 14 therapists on their embodied experiences, such “bodily reactions in response to clients are not unusual” (p.279). The *knowing* described by the therapists were literal bodily reactions to their clients. For example, the somatic empathy can be so strong that one therapist felt the nausea of the pregnancy of her client, who she did not know was pregnant until the second session. Other therapists recalled feelings of tension in different parts of their bodies that they attributed to those of the clients’. Similarly, Strait (2014) found that this empathy existed even in the most dreaded therapeutic experience - client dissociation. When clients dissociated during sessions, at least three quarters of the therapists interviewed did as well. The therapists claimed a “shared experience”, “induced feeling”, and “feeling the patient’s feeling” (p.323). These findings led Strait (2014) to propose a mirror effect of the phenomenon.

Mirroring through mirror neurons and resonance circuits. Mirror neurons were discovered in the 1990s by Giacomo Rizzolatti in brain scans of monkeys who watched another monkey reach out a hand (Hegarty, 2011). The same group of neurons that fired with the movement of the hand would fire when the monkey watched another do the same action. Vilyanur Ramachandran (2007) proposed that this same group of neurons was also responsible for our ability to evoke empathy, a postulation that has since been the subject of intense research. The precise ability of somatic therapists to embody the clients’ experiences is indeed partially due to mirror neurons. They enable an observer to “internally simulate” the movements of the other, without moving, and to activate the ability to internally deduce the feelings, sensations, perceptions of the other (Praszkier, 2016). Gallese (2006) who was part of the team to discover

this system calls this an *embodied simulation*, because they allow an observer to "experientially penetrate the world of the other by means of a direct and automatic process of simulation" (p. 43). However, these neurons contribute only partially to somatic empathy. Siegel (2007) asserts that it is the connection of the mirror neurons to the rest of the resonance circuitry that brings about "physiological and affective shifts (within the observer) that simulate those perceived in another person" (p. 351). And this has been the tool of somatic therapists - the resonance system. Somatic therapists have trained themselves to not only observe the client but to keep one eye on their own internal reality (Masero, 2017; Stanley, 2016). When the therapist opens themselves up this way, to their own bodily experiences as well as to the client's, synchronization within the intersubjective space occurs (Siegel, 2012). The result is a free-flowing exchange of emotional information in a two-way stream between the client and the counsellor. What results is a heightened ability for trust and safety between client and therapist.

Felt-sense of being known and being safe. Clients of somatic therapists frequently report a deep sense of being known and of trust in their therapists (Krioukova, 2016). Somatic therapists call this a physiological "felt sense" rather than a cognitive perception - it encompasses a *bodily knowing* of being seen, heard, and understood (Levit, 2018; Masero, 2017; Stanley, 2016). Such a resonance in the dyad is reminiscent of that between a parent/mother and her child (Weber et al, 2012). In fact, it is this very type of synchronization that is needed for the child and hence the client to begin to develop brain integration for emotional regulation. The therapist-client relationship, therefore, takes on the role of the parent that some clients never had and to start a process that they should have completed in childhood. Such an attuned relationship developed with the therapist will also help individuals who have had inadequate attachment security in childhood earn security in their attachment. The felt-knowledge that one is seen,

heard, and known is a powerful antidote to the deep-rooted insecurities that characterize those who experience high anxiety in attachment.

Besides the felt-sense of being known, clients also reported a felt-sense of safety. Krioukova's (2016) research on the phenomenological experience of change in somatic therapies noted that a key recurrent theme was safety. According to her subjects, this feeling of safety and trust was the "most important factor in their process of transformation" (Krioukova, 2016, p.119). For those who have avoidant attachments, a somatic therapist, via the body, would be able to more accurately titrate levels of proximity with these individuals. Avoidant attachments inherently mistrust others and do not like vulnerability or proximity. They rather try to fix things on their own. The somatic therapist would have the attunement to manage the development of trust and closeness at a rate that is comfortable for them. Too much closeness, too fast would cause such individuals to not return for therapy. Yet not enough trust and therapy will stay on the surface of issues without evoking change. When the level of intimacy is optimal, individuals will report feelings of being "entirely held, contained and safe in the therapeutic relationship" (Jones, 2015, p.54). For this person, it freed her to "explore and listen to the wisdom of her body and primal instinct", to "feel uninhibited to move however she needed to" (Jones, 2015, p.54). This felt-sense of safety and of being known translates into good outcomes for therapy. It also fosters effective co-regulation for both client and therapist.

Co-regulation of clients. Co-regulation is an important task that all therapists engage in, its success will determine if clients can stay within their window of tolerance despite intrusion of painful traumatic symptoms. The skill is especially crucial for therapy with traumatized clients. Co-regulation, according to Butler and Randall (2013), is a dynamic process where partners mutually influence each other in such a way that they can "dynamically organize behavior and

physiology within optimal bounds" (p.203). An attuned parent/mother and child interaction is a good example of co-regulation. This dyad would mutually adjust their individual levels of "arousal, stimulation, and attention" so that their affective and physiological states become in sync with each other (Butler & Randall, 2013, p.329). Within such an interaction, the fussing child's nervous system begins to settle when alone it cannot. As mentioned before, synchronization is both an embodied process and a psycho-biological one (Weber et al., 2012). It involves facial expressions, voice prosody and bodily actions. Overtime, the child internalizes these sensory expressions and develops their own ability to self-regulate.

Similarly, co-regulation occurs within the intersubjective space of the client and therapist. Somatic therapists have an advantage over explicitly-focused therapies in this area because of the importance placed on attunement and resonance through bodily cues. Cognitive-behavioural therapists are not trained in such skills and neither are they taught the importance of embodied forms of attunement and resonance (Fisher, 2017). As mentioned above, the dyadic co-regulation process requires more than just words, it involves responsive and reciprocal shifting of nonverbals and sensory cues in response to the other. Because of the somatic sensitivity to their clients and their own bodily expressions, somatic therapists are able to discern what is needed and to provide the relevant bodily expressions to help clients achieve emotional regulation (Stanley, 2016). It is only within the "window" of tolerance that the client can actually engage with the therapist and "do" therapy.

Social engagement. Polyvagal theory (2011) tells us that humans only exhibit prosocial behaviours when they have a perception of safety. Perceived threat in the environment causes the ventral vagal nerve to remove its "brakes" from the sympathetic nervous system and the fight-flight responses of the sympathetic nervous system. Simultaneously, the ventral vagal nerve

shuts down the social engagement system, therefore, cutting off prosocial behaviours. For example, if a socially anxious person "perceives unfriendliness" in the face of people around them, they are less likely to engage in conversations with others. However, it is also through the social engagement system that safety can be signaled to this individual (Porges, 2015). The social engagement system is made up of the ventral vagal nerve innervating facial muscles, the eyes, the voice box, and the lungs, and heart (Stanley 2016). It also indirectly controls the muscle tone of the back body by regulating the sympathetic nervous system. Signals of safety are, therefore, best conveyed through an *embodied empathy* that engages all these body parts to express "friendliness" - relaxed facial muscles, soft gaze, sing-song voice prosody, and neutral muscular body tone. The sensorial and bidirectional nature of the social engagement system explains why somatic therapists has an advantage in co-regulating clients. In their embodiment, these therapists are more eloquent in the language of safety than those trained in top-down therapies. This form of highly attuned co-regulation enables such therapists to work with the most traumatized clients - those who have suffered trauma upon trauma where current aversive events are compounding effects of childhood abuse. The ability to sense body narrative allows somatic therapists to engage clients with attachment injuries without under or overwhelming their attachment systems, regardless of the attachment style. Stanley (2016) wrote about a case study where the client had suffered serious abused as a child and in adult years continued to be victimized. In sessions, she would sit like a statue with a still face. Stanley would simply sit with her, taking on her posture and movements as companionship, and only occasionally expressing small gestures of invitation to engage – a gentle soft gaze here and a tiny smile there. All this was done in oscillation with the stillness and quietness of being in silent companionship.

Overtime this lady came to develop trust with Stanley because of her skillful use of an embodied form of social engagement that few of us would think of and she was able to gradually heal.

Co-regulation of therapist. To sustain effective co-regulation, it is important for the therapist to stay resourced and grounded while responsively regulating traumatized clients. Initial stages of therapy will require greater containment because clients have not developed self-regulation. Therapists, thus, have to have an expanded capacity to detect what clients need to stay safe, act as stabilization anchors, and concurrently be able to resource themselves to stay within their own window of tolerances. Co-regulating these clients can be extremely taxing and, according to Kim (2019), who is a Relational Somatic Transformation practitioner, unless one knows how to bodily ground and resource oneself, such sessions can "totally wipe out" one's resources (Kim, S., personal communication, September 6th, 2019). This is especially taxing if the therapist has to provide containment not only for the traumatic responses but also for attachment triggers. For clients with insecure, avoidant or disorganized attachment, additional safety needs to be considered in terms of level of proximity and vulnerability during sessions. The therapist, therefore, has to manage multiple aspects of safety simultaneously. According to Kim (personal communication, September 6th, 2019) and Stanley (2016), relational somatic therapies are recognized as providing an advantage to counsellors in this area because they are actively resourcing, not only for the client but the therapist. The somatic way of relating between counsellor and client embodies such a consciousness of each other and of self that it helps each person in the dyad to develop fresh and new ways of perceiving, relating, being, and doing, resulting in the breaking of old rigid patterns and finding "fresh resources of vitality and meaning" (Stanley, 2016, p.14). The relationship becomes a resource in itself as resonance and reflection on new information arises. Stanley says that this type of activity "invites the spirit back

into the body" (p.82). In as much as the client is experiencing this within the relationship, so is the therapist as they evolve together.

Accessing non-verbal implicit memories. Successful trauma intervention must include the ability to work with intrusive nonverbal memories despite a lack of recollection of the content of the memories. Therapies that utilize left-brain cognitive processing of trauma materials are often limited in their ability to do so. Shore (2011) agrees and said,

> "studies of the output of the explicit functions of the conscious mind in verbal transcripts and narratives can never reveal the implicit psychobiological dynamics of the unconscious mind (p.5).

Verbal recall and nonverbal memories arise from different parts of the brain. The former is left hemispheric while the latter is stored in the right hemisphere outside of consciousness. In "Waking the Tiger", Levine (1997) described how he serendipitously chanced upon a technique that brought healing to a woman who had been untreatable up until that point. His technique triggered a cascade of implicit procedural memories which then unleashed the explicit recall of what had happened to the client when she was a young child. She had been put under with ether for a tonsillectomy and was severely traumatized by the event but unable to recall it. When childhood trauma or maltreatment occurs, studies show that memories are stored implicitly rather than autobiographically, especially during the preverbal period of zero to 18 months, (Pretorius, 2007). However, even though verbalization of these events are not possible, enactment through play suggests that the memories are very much alive and if triggered safely, like Levine's case, will yield surprisingly distinct details (Jauregui, 2006; Pretorius, 2007; Simcock & Hayne, 2002). Preverbal trauma memories are stored as timeless nebulous valenced-body sensations in the right brain without words. Unless these bodily perceptions are noticed, brought into full awareness,

and reflectively explored, the content of the intrusion will continue to activate defense states while remaining hidden from consciousness. When these trauma fragments are triggered, the right brain in its time blindness will activate a cascade of physiological responses that feels like the trauma is happening "right now" (Siegel, 2012). Therefore, according to Fisher (2017), one of the first tasks of the therapist is to make explicit the unconscious processes at play so that clients can safely differentiate the past and the present and what is real and what is not (p.43). Somatic therapies using bodily proxy cues are able to do this via the body because of its interoceptive abilities.

Interoception. Somatic therapists believe that the physiological states of the body are connected to implicit memories, the psyche, and emotions. Support for this work comes from research in the sensory systems where the construct of interoception has gained much popularity since its inception in the early 2000s. It is a term used to name the ability of the body to sense its internal physiological state and present the information as a subjective sense of well-being (Ceunen et al., 2016; Craig, 2002). It integrates bodily sensations, such as heart rate, muscle constrictions, pain, and temperatures, with emotional states. Magnetic Resonance Imaging has shown that the region of the brain called the dorsal posterior insula is involved in communicating with interoceptors inside the body to detect physiological changes, and the cingulate cortex is responsible for integrating these perceptions with moment-to-moment emotional information to produce the subjective sense of well-being (Zaki et al., 2012). The body is not only the pathway to non-verbal memories, it is also the site for their storage. With sufficient repetition of an experience or if the experience was traumatic, bodily-connected memories are laid down as emotional-laden procedural/implicit memories in the right-hemispheres and in the body muscles. According to Ogden (2015), the implicit memories laid down this way are more significant as

"drivers of behaviour" than rationale explicit thought. To resolve them, one must go through the body. Similarly, Stanley (2016) believes that subtle gestures, shifts in facial expressions, and postures in her client's body are entry points to possible implicit processes occurring in the moment. The clients, themselves, are often unaware of these movements. However, when their attention is drawn to these subtle sensations or behaviours, a fuller engagement of their proprioceptive senses allows for greater self-awareness and the opportunity to reflect on what is happening. Clients are often able to connect to internal states and narratives that they were previously unaware of. Such moment-by-moment connections between the therapist, client and self intuitively provide rich opportunities for interventions, whether physiological, reflective or imaginal. Levine (1997) similarly works with clients interoceptively to notice and track body sensations as a way to identify areas holding implicit procedural memories, residues of truncated movements. Somatic experiencing practitioners believe that interoception not only brings awareness that traumatic symptoms are based on physiological changes, this awareness can help shift the physiological states (Levine, 2018). For the somatic experiencing practitioner, to heal means to have these memories unleashed to complete movements that they were meant to perform.

Core techniques. Two core techniques used by all somatic therapies are the practices of mindfulness and embodiment.

Embodiment. Embodiment is the "grounded habitual awareness of one's inner world and the environment through clear bodily-based perceptions" (Stanley, 2016, p.60). According to Stanley (2016), people who are traumatized often live disconnected from their bodies without even being aware of it. This is especially true for clients with avoidant attachment styles. Literature describe avoidant clients as individuals who "deactivates their emotional processing"

and “inhibit emotional needs” so as to maintain aloofness in relationships (Liu et al, 2017, p.1). By avoiding their emotions, they would naturally avoid embodiment. Even when untraumatized, these individuals live in disconnection with parts of themselves, what more when traumatized. In order to break the cycles of unconscious traumatic reactions, individuals have to first become connected with their bodies and from there become aware of its sensations, emotions, thoughts, and actions. Stanley (2016) said, “The work of healing trauma is to slowly uncover the intense emotions and unbearable sensations that lie in bodily states and find a way to embody them.” (p.66). Fisher (2017) calls this the embodied consciousness. It allows patients to “befriend” instead of running away from traumatic symptoms. Fraleigh (2015), herself a trauma survivor, agrees and says that such a state allows traumatized people to “stay present, feel safe, communicate their experience, and feel empowered,” (Fraleigh, 2015, p.113).

Embodiment practices are unique to somatic therapies and are taught in a variety of ways. Ogden et al (2006) and Levine (1997) use tracking journals and a list of body sensation words to help clients notice and describe bodily sensations and feeling states. Fisher (2017) uses a dissociative experience log where, like the tracking journal, patients note their thoughts, behaviours, and bodily sensations and subsequent reactions. Stanley (2016), however, begins in sessions first by using somatic inquiry to bring attention to bodily postures, gestures, and nuanced facial expressions, helping patients notice these subtle shifts happening in the moment. Even though Stanley (2016) does augment these sessions with embodiment exercises outside of sessions, she believes that embodiment is most successful when guided by the presence of an attuned other. Within a safe intersubjective space, patients will find the courage and ability to come into their bodies despite encountering difficult bodily traumatic responses.

Embodiment is not just for the client. In somatic work, it is imperative that the healer is fully embodied because their body is the instrument for sensing "immediate sensory, emotional and imaginal data" that "indicates safety, danger, or life threat" within the intersubjective space (Stanley, 2016, p.192). With such an embodied awareness, somatic therapists are able to remain grounded, present and responsive to their clients despite challenging material arising in sessions. Embodiment also affords them the sensitivity to pick up emergent, and barely perceptible, cues that may provide important clues for dissolving traumatic symptoms. For somatic therapists, connection to their bodies give them access to "gut feelings", "hunches", and "flashes" which they believe are implicit forms of embodied communication that is flowing within the intersubjective space. When offered to their patients, these "hunches" can potentially be useful new information for making previously hidden traumatic responses explicit (Stanley, 2016). Such forms of attunement when evaluated and confirmed by clients creates deep resonance with the therapist and a "felt-sense" of safety that are not present in other top-down therapies.

Embodiment is always concurrently practiced with mindfulness. Together they create the psychological distance from triggers and the ability to develop a new relationship with them that other therapies cannot (Fisher, 2017; p.11). Such somatic practices open up cerebral space for alternative action instead of being overwhelmed by the tsunami of internal upheaval and automatic responses (Hayes et al., 2006).

Mindfulness. Kabat-Zinn (1994) defined it as "paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally" (p.3) In somatic therapy, this mindfulness is intentionally directed towards noticing and acknowledging bodily sensations that arise when triggered but without allowing them to take over one's nervous system. Stanley (2016) calls this *somatic inquiry,* and Levine (1997) and Ogden and Minton (2000), *noticing and tracking*.

Patients are guided to attend to, notice and verbally describe sensations one step at a time. Questions may be used, “What are you noticing in your body? Where do you experience that in your body? As you feel that sensation, what begins to happen next in your body?” And to help patients to describe them, a list of descriptive words is usually provided with such words like cold, hot, shivers, tingling, and numbness. The process of noticing, tracking, and verbally describing sensations can increase tolerance to these sensations, widen the window of arousal leading to greater self-regulation, and differentiate that what is happening is something from the past (Levine & Frederick, 1997; Minton et al., 2006). Ogden and Minton (2000) asserts that the combination of mindful-connection, embodiment and top-down cognitive verbalization supports integration of these sensorimotor signals allowing the clients to develop a new relationship with them. Such a relationship may mean that the person comes to a greater clarity about the context around what these sensations mean and where they are coming from, greater self-understanding and self-compassion, and a wider cognitive buffer where the person can be present and not overwhelmed (Fisher, 2017).

Despite the fact that the data is still emerging on the effectiveness of the inclusion of the body for trauma treatment, what is available in literature has convinced many that the body, like Levitt (2018) asserts, is an effective and gentler way for accessing the implicit. Without it, verbal recalls can be traumatizing and implicit recall like a game of chance.

Summary

Trauma symptoms consist of explicit as well as implicit components that arise from psycho-social-emotional as well as neurophysiological sources. Trauma impacts one’s mind, relationships as well as nervous system. In traditional trauma treatment, it is the latter component that has been ignored. For example, current go-to treatments, such as TF-CBT, focus on

desensitizing patients to traumatic symptoms by asking them to repeatedly recall the parts of the story that they are cognitively aware of. Implicitly driven responses arising from brain-stem activations are not directly addressed. Yet, it is these neurophysiological responses that sustain much of what is experienced - automatic avoidance behaviours, intrusive flashbacks, uncomfortable bodily sensations, and devastating emotions of hopelessness and shame. Treatment, therefore, has to address these implicit processes in order to adequately ameliorate the roots of traumatic symptoms. Here is where somatic therapies come in.

Somatic therapies can be used in conjunction with top-down therapies like CBT to form a more holistic approach for trauma treatment. It complements top-down therapies in that it addresses the neurophysiological origins of trauma - the symptoms that arise from the brainstem. Via the body, somatic therapists are able to form highly attuned relationships that help clients overcome attachment trauma as well as regulate brain stem activations despite noticing and engaging in bodily expressions of traumatic responses. It expands the capacity of co-regulation for both the client and therapist, enabling both to stay within the comfort of the window of tolerance where successful therapeutic engagement occurs. The inclusion of the body also allows access to bodily proxy cues that often connect to implicit material that is hidden, allowing for gentle access and transformation of implicit memories. Trauma treatment modalities could use the "extra help" provided by somatic therapies. The incorporation of these key advantages with other modalities has been shown by a few recent publications, but more research will need to be done to evaluate outcome, feasibility and safety measures to prevent misinterpretation of bodily responses.

Chapter 3: Summary, Recommendations and Conclusions

Summary

Trauma, when untreated, can have a lifetime of negative repercussions. It can cripple multiple life domains, affecting social, mental, emotional, physical and vocational health. Undiagnosed trauma is now believed to be linked to substance abuse, school delinquency, aggression, violence and a whole host of behaviours which were previously thought to be due moral failings or sequelae of diseases (van der Kolk, 1994). To further compound the sufferings of trauma survivors, current trauma-informed treatments are very challenging. Trauma-informed cognitive behavioural therapy (TF-CBT) and other prolonged exposure-type therapies require repeated revisits of painful details of the traumatic events. For some, especially the most severely traumatized, this is simply suffering because they are not able to reach stabilization to safely endure re-exposure and some even when re-exposed do not habituate (Fisher, 2017). As a result, they suffer needless retraumatization through the very treatments that are supposed to bring healing. What these cognitive-based treatments fail to do is address the implicit effects of trauma that repeatedly trigger the biophysiological defenses of fight, flight and collapse (Payne et al., 2015; Ogden and Fisher, 2015).

To heal from trauma, an integrative approach that addresses both explicit and the implicit expressions of trauma is essential for success (Ogden and Fisher, 2015). This is where the somatic therapies have been most helpful. The inclusion of the body in therapy has enabled therapists to deeply co-regulate and enhance client sense of safety across their body, soul, and mind (Stanley, 2016). As a result, even the most severely traumatized clients are enabled to stay within their windows of tolerance and engage in reflective therapeutic processes (Porges, 2011; Ogden and Fisher, 2015). They are given a respite from fixed-patterned fight, flight, and freeze responses to notice with the therapist new bodily entry points to alternate perspectives and ways of being. The body also provides safer access points to processes that might have been deeply

embedded and even entrenched in the unconscious, allowing integration of these disavowed memories/processes.

Finally, a “mother-child” dynamic is often generated in the attuned intersubjective space so that healing from developmental trauma is facilitated (Stanley, 2016). This dynamic restarts and promotes the developmental processes of affect regulation and brain integration that were interrupted by early childhood trauma, enabling clients to move towards maturation and socio-emotional health (Shore, 2001).

These positive outcomes have caught the attention of the psychotherapeutic world and interest in this field is burgeoning. However, guidelines for standards of practices and training have been slow to emerge. These elements have been left to the different somatic therapy schools to implement. Furthermore, other modalities like Internal Family Systems (Schwartz and Sweezy 2019) and Emotion-Focused Therapy (Johnson 2019) are including embodied techniques within their frameworks. An online search for “somatic therapy training” will reveal various training organizations and individuals who are touting that attendance at their week long workshops will teach you all that is required to become competent. What is not mentioned is that the fundamental criteria of being embodied is a process and what they also fail to point out is that proficiency with body-focused skills, even for the most embodied therapists, takes discipline, commitment, and practice (Stanley, 2020). This modality is certainly not something that is learned overnight or even in a week, instead, it is a process of becoming.

Recommendations

Here in chapter three, I recommend that therapists who are interested in somatic training first seek answers to several questions – with the foremost being, “What commitments and investments are needed to become a proficient somatic practitioner?”. Somatic skills are not

manualized techniques applied mechanically to solve issues; they are embodied skills that are an extension of the therapist's relational self (Stanley, 2016). This embodiment is a journey that is influenced by multiple factors. Being informed about what they are would allow those interested to be systematic in their pursuit of competency. I have designed a "Framework for Developing Competency in Somatic Therapeutic Core Skills" to conceptualize what these factors are and how they impact embodiment and skill acquisition (See appendix A: Figure 1). The model will guide those who are asking the above question about competency while serving to prompt reflection from those who have not considered what is involved in the process (See appendix A: Figure 1). It is easy to be swept along with the tide of excitement and start down a path without first realizing the cost and commitment required to complete the journey. The framework was inspired by a supervision model for training mindfulness-based teachers but the content has been mainly informed by my current journey in training to become a somatic therapist (Evans et al. 2015).

The Framework

The framework describes five important factors that, I belief, will influence the level of adeptness and speed at which somatic therapeutic skills are learned. Four factors directly surround the heart of the model - which represents the skills that somatic therapists aspire to learn. These four factors "sustained personal practice", "self-assessment", "theory and training", and "clinical and peer supervision" directly impact skill acquisition serving as either barriers or facilitators (See appendix A: Figure 1). While the fifth factor called "embodied presence and systems", is the container that holds the heart of the model and all the other factors. This fifth factor nuancedly shapes skill delivery and therapeutic encounters just as the embodied presence

of the therapist is shaped by the systemic forces of family, society, and culture. Here in this section, I will describe each area starting from the center of the model.

The heart of the model. Skillful use of core somatic skills is the goal of this model and is therefore positioned at its heart (See appendix A: Figure 1). Somatic therapies are here-and-now focused, and interventions are usually delivered in the present moment. The therapist is an active participant in the therapeutic process using their whole-being, body, mind and spirit, to invite clients to explore their perceptions of and relationships with challenges, self, others, and the world (Ogden & Fisher, 2015; Stanley, 2016). This is done through embodied interactions that involve movement, meditative activities, breath work, and mindful bodily encounters that invite awareness to posture, gestures, facial expressions, sensations, and muscular tone (Minton et al., 2006; Levine and Frederick, 1997; Stanley, 2016). Here are three specific examples. The first is the use of the embodied self to co-regulate and invite engagement from clients. Mentioned in chapter two, Sharon Stanley (2016) described her responses to a still-faced client, who would sit in stony stillness and silence for the entire session. Sharon would join her in her seated silence and then oscillate this with subtle bodily invitations to engage - a smile here, an open gaze there. The companionship alternating with engagement broke the ice and the client was eventually able to respond. A second type of skill is the support of clients as they acquire resources that help them with self-regulation in times of stress. Resources are any activities that can calm or up-regulate a person's nervous system so that arousal remains within the optimal range for life functioning (Ogden & Fisher, 2015). Somatic therapists help clients (1) learn to orientate through their five senses, (2) experiment with movements to find what is regulating, (3) use their interoception to track safe spaces in the body, (4) meditate, and/or (5) engage their imagination to find soothing imagery. Whenever clients are learning to resource or are resourcing themselves,

a somatic therapist's receptive embodiment can augment this process. For example, as a client is directed to notice the softest or the most soothing sounds around them. The somatic therapist can perceive moment-to-moment changes in the client's facial muscles, voice, breathing, posture, muscular tone, and bring attention to these nuanced bodily expressions saying, "I notice your face lighting up and your shoulders relaxing as you talk about hearing bird sounds. Where is this sensation in your body?" Attention brought to these subtle changes in the client's body not only helps them discover soothing resources but also helps develop a fuller experience of their embodied state. For individuals who are insecurely attached, an increasingly embodied self can be the beginning of earned security (Stanley, 2016).

Finally, the last example of a skill used in somatic therapy is where therapists use their own bodies like a tuning fork to interocept shifts that are imperceptible to the direct senses. For, example, the therapist might notice their own gut clenching as their client talks about a relationship, even though there was nothing out-of-the ordinary about the story or no visible reaction from the client. The therapist can offer this piece of experience to the client, "While you were describing that moment of silence with your dad, I felt my own reaction to it, a clenching in my stomach. What was happening for you then?" These are the intuitive, interoceptive bodily responses that somatic therapists will come to notice and use in their work.

These skills, especially sensitivity to the body of either self or client's, are developed over time and proficiency in them are influenced by five factors. The model illustrates these factors as four overlapping circles that surround the heart of the model which are then nestled within the container of the embodied presence (See appendix A: Figure 1). The following four circles are described below:-

Self-assessment. Before a therapist embarks on investing energy, money and time to train somatically, it is important to reflect on three questions. The first is "Do I have a natural inclination for the philosophy and lived-experiences of embodiment and body-focused work?" Embodiment has been defined as the sense of one's body and is "intimately related to the sense of self, and is often taken as the starting point of individual psychological identity" (Arzy et al., 2006, p.979). It has been referred to as the "bodily self" by some (Aryz et al, 2006, p. 979). Somatic therapists need to have a strong connection to their bodily self, be comfortable being in their bodies, and hold a core belief that the body is an important part of holistic health. Interviews with six research subjects, three who are somatic therapists and the rest depth psychologists, revealed that the somatic practitioners naturally used their bodies for sensing while the depth psychologists leaned towards intellectual and verbal personalities in day-to-day communication (Loerch, 2018). The three somatic practitioners also held deep beliefs of body work being crucial to health. These tendencies existed prior to their training. In order to become successful in wielding a particular modality in therapy, it is important that our way of relating, our beliefs and lived-experiences are congruent with the therapeutic modality we are trying to use with clients. This ensures that our skills are extensions of ourselves and therefore an offering of authentic and genuine ways of relating and helping rather than manualized application of techniques. According to Adams (2016), skills are "owned ways of being" and they develop through,

> "a gradual process of understanding of the personal meaning of the activity such that the skill becomes embodied, and owned through attention, perseverance and understanding of mistakes, rather than being simply remembered" (p.58).

Nowhere is this truer than with somatic skills. Our beliefs about and comfort with our own bodies will show through in therapy and can either foster or inhibit our continued growth as practitioners. One way to tell if you are inclined towards somatic work is to determine how embodied you are. As mentioned above, the fundamental success of using somatic approaches is highly dependent on a person's sensitivity and comfort with their own body narrative. Here is a suggested questionnaire (validated and reliable) that can be used to determine and track one's level of embodiment: The Embodied Sense of Self Scale (Asai et al., 2016). Another way is to cultivate practices that allows us to tend to our subjective embodiment. This leads us to the second question, "Do my vocational and personal practices have components that promote embodiment and mindfulness?". These practices, which I called "sustained personal practices", are an important factor that allows us to check in with ourselves and tend to areas where life has triggered a state of disembodiment. Radical changes, such as the pandemic, can trigger emotional dysregulation and related numbing states that can result in a split between the body and mind. As counsellors, we are not immune to the activation of such defenses and require intentional practices that will help us tend to and integrate these areas as they show up in the body. This factor will be further discussed in the next section.

The final question for the "self-assessment" factor is, "Who are my clients?". Somatic therapies, though very helpful for trauma treatment, may not be as crucial with clients who prefer cognitive and verbal ways of processing. In fact, there are people who are averse to mindfulness activities or to locating "sensations/feelings" in their bodies. They come into counselling for the space and freedom to verbally process their thoughts and are needing a sounding board instead of working through trauma. A somatic approach might also not be as useful in certain formats of therapies like family therapy and couples counselling. Pat Ogden is just now developing a

somatic approach for family work, but it is in its early phases (Ogden & Goldstein, 2020). Our clients are an important determinant of the importance of becoming somatically literate for this this type of work.

Sustained personal practices. The "use of the embodied self" is central to somatic interventions and the quality of a therapist's embodied presence is crucial to success of therapy. Without a sustained practice of tending to one's embodied subjectivity so that areas that reflect traumatic responses are cared for, therapists' well-being and hence their work can be deeply compromised by the ever-present challenges of living. The current pandemic is a reminder of the need for this type of practice. An example of such a practice is the mindfulness practice of scanning one's body on the outside and inside. It uses interoception that gently probes for areas of tension, contraction, numbness, or just lack of presence. When these areas are found, the practice of letting it either "fall to the earth" in relaxation or noticing with curiosity and non-judgement are helpful. As one waits with gentle attention on these areas of the body, body narratives of imagery and words usually emerge. However, I and many other embodied practitioners whom I met, can attest that the cultivation of such bodily attunement takes practice. Initially, a person may have no idea what they are supposed to be "feeling" or "sensing". It can take many months before one develops the ability to consistently tune into their bodily sensations/feelings and reflect on their bodies' narrative and integrate what they have experienced. Eventually, the in-the-moment awareness of one's body and the body of the other is so heightened that one starts noticing subtle shifts with curiosity, patience, and non-judgment, even if what arose was distressing or nuanced with ambiguity. This journey is reminiscent of those exhibited by mindfulness practitioners who spend much time in meditation and training before they are able to gain some level of mastery over the turbulence of their minds (Raab,

2017). Similarly, regular embodied practices facilitate for somatic therapists a greater attunement with their bodily selves that sharpen their innate intuition and bodily ways of knowing; allowing the therapists to access knowledge that is beyond the cognitive and conceptual. Stanley (2020) teaches:

> When I gently and slowly attend to my own subjective embodiment, and take responsibility for subjective embodied experiences, I can be far more present, perceptive, and connected to people that I am around... The more I can be responsible for my embodied emotional regulation, the more I have access to information, strategies that are helpful... (workshop)

Receiving somatic therapy. Some somatic schools suggest that trainees be recipients of somatic therapy as part of their training. Being a client is helpful because it provides a lived-understanding of how these therapies operate. Experience is especially important in this modality because somatic therapies are experiential therapies. Talking about the concept of resonance is far removed from having experienced embodied resonance as a client. Conceptually knowing that implicit memories can be processed via bottom-up entry points is different from actually having experienced the process before. As mentioned earlier, part of skills learning comes from a gradual development of understanding through a lived-experience, and this can be obtained by being a client in somatic therapy. Stanley (2016), herself, believes strongly that to become more attuned to clients, one needs to have been a client of somatic therapy at one point.

Training and Theory. A strong theoretical understanding of the neurophysiological mechanisms of body-focused work is essential for becoming a competent therapist. For example, in Sensorimotor training, students are taught how trauma impacts neural processes through the lenses of polyvagal theory, affect regulation theory, and attachment theory (Ogden & Fisher,

2015). Theory helps therapists organize their knowledge around a framework that provides the rationale and guidance for skill use so that interventions can be targeted and effective (Marie Hartwell-Walker, 2017). Integration with other therapeutic practices may also be smoother as the user understands where the areas for complementation and substitutions exist and where they do not. Following training, participation in peer supervision and clinical supervision will provide further enrichment of skill learning.

Clinical Supervision. Supervision is an essential part of the rites of passage for all new therapists. It is a means for gatekeeping as well as a form of support for one who is new to the landscape of therapy (Falender et al., 2014). When learning body-focused therapy skills for the first-time, therapists who are used to verbal and top-down ways of therapy can feel like a "new" therapist all over again. It is like learning a new language. Clinical and peer supervision during this process is important, and has a strong influence on attaining competency. A body-focused clinical supervision presents with multiple opportunities for the learning of the practical and experiential aspects of embodied skills (Bownas & Fredman, 2016). As the supervisory dyad revolves around the clinical material, the supervisor displays the skills and hence the type of attunement and resonance expected of the supervisee with their client. For example, implicit processes of countertransference may arise in the supervisory space and gentle somatic guidance from the supervisor will demonstrate how to make this explicit through bottom-up processes. The supervisor may point to the muscular tone of the supervisee as they talk about the client, the postures they automatically take in re-remembering clinical sessions, or the changes in voice tone when they speak about a particular client. Much of embodied therapeutic skills are learned through experiencing and modelling rather than left-hemispheric teachings. Theory, as mentioned above, is important to guide practice, but it needs to intersect with rich opportunities

of skill use to cultivate competence. As one of my instructors said, “How the supervisor-supervisee relationship is, so will the client-therapist relationship be” (F. Markman, personal communication, March, 2020). The necessity of clinical supervision cannot be emphasized enough because learning is on-going and the therapeutic space will always have its challenges and issues.

Peer supervision. Peer supervision group is also encouraged, especially within a group setting. The increased number of bodies fosters more opportunities to experience a complex and rich intersubjective space as clinical material is processed (Desmond & Desmond, 2019). How different bodies react and respond to the material discussed allows for a diversity of experiences to be shared and learned from.

Embodied presence and systems. How we present ourselves, move, talk, what we bodily express, and what we do not are largely shaped by our interaction with the systems within the larger social and cultural contexts. Factors like gender, race, sexual orientation, size, health, class, and profession affect our embodied presence deeply. Hardham (1996) said,

> “‘Embodiment’ describes not only how we experience and define ourselves within the boundaries of our bodies, but also how ‘we are boundaried, defined and located by others - and so we are also embodied by others.” (As cited in Bownas and Fredman, 2016).

For therapists to truly embody the ability to do no harm, reflexive and reflective practices of their own embodied experiences are therefore crucial to their therapeutic practice. Under the “personal reflection” section, I shared how my own embodied experiences had inevitably affected the intersubjective space.

Limitations to Capstone

After reading the body of literature on somatic therapies, my main critique is the paucity of high-level empirical evidence to show causality, efficacy and generalizability to diverse populations and types of trauma. According to Putty and Wilkins' (2011) "Continuum of Evidence", the highest level of evidence to show conclusive causality between treatment and outcomes is randomized controlled trials (RCT). Randomized controlled trials strictly controls for confounding variables that can affect the outcome of therapy and therefore provide greater confidence that the outcomes can be directly attributed to the approach it is testing. So far only somatic experiencing has two RCTs published - one is treatment of clients with post-traumatic stress disorder (PTSD) and the other, chronic lower back pain co-morbid with PTSD (Brom et al., 2017; Elmose et al, 2017). Brom et al., (2017) showed strong support for the efficacy of the therapy, even though reversal of clinical symptoms as measured by Clinician- Administered PTSD Scale was moderate at 44.1 percent. However, the second RTC did not demonstrate a similar level of effect, all outcomes were not clinically meaningful (Elmose et al, 2017). Other studies performed were mostly exploratory studies that did not have controls, not randomized or repeated (Leitch et al., 2009; Parker et al., 2008). Other modalities of somatic therapies were mainly studied qualitatively (Krioukova, 2016; Kelleher, 2008; Jones, 2015).

Furthermore, more research with robust sampling sizes and stringent designs needs to be done to explore the effects of these therapies a diversity of populations and across different types of traumatic experiences. A current search in the databases at City University has mainly shown exploratory studies with small sample sizes that often produce conflicting results. More research needs to be conducted to support the claims that have been made by somatic practitioners and to gain a more complete picture of what somatic therapies can do for trauma treatment. This evidence should include exploration of client characteristics who benefit best from this form of

therapy, types of trauma they are effective for, any limitations and contraindications, and persistence of outcomes. As yet these limitations have not been documented.

Personal Reflection

As a middle-aged immigrant Southeast Asian woman with an accent, I am often asked by Caucasians, “So do you come from China?”; even though I came from Malaysia and am a Canadian citizen. These seemingly innocent encounters often leave me feeling slightly embarrassed about my accent and bring up feelings of inferiority regarding my Canadian citizenship. My official citizenship status does not matter because what is experienced by others is my bodily presentation. It is of great importance for developing somatic therapists to reflect on how these systemic influences how we embody our assumptions and attitudes towards self and others, and to seriously explore the power and privileges they endow, or not endow on us (Hardman, 1996 as cited in Bownas & Fredman, 2016). All these elements will implicitly display themselves through our postures, gestures, facial expressions, and tone of voice as we show up in our interactions with others, including the counselling space. They influence the encounters with our clients. Hidden attitudes and biases can be sensed via neuroception and may taint the safety of the intersubjective space. For example, my discomfort with my accent had to be acknowledged, reflected upon, and new meanings integrated into a new narrative. The hidden narrative would have been triggered whenever I had clients who were Caucasians and would be a barrier to an effective therapeutic alliance. Another example was my own attitudes of ableism. In my recreation work with individuals with disabilities, I had to work through the subconscious pity I had for those who had disabilities. These feelings were implicitly lurking in my subconsciousness. Unbeknownst to me, it would show up on my face and tone of voice as I communicated with my clients. Someone expressly said to me one day, “Even though I might

need your help, I don't need your pity.". As somatic therapists, one of the greatest strengths of our approach is the ability to create safety and deep connections. However, unconscious prejudices, attitudes, and preconceived notions that come from systemic sources can implicitly be transmitted via bodily encounters to harm this space and our clients. It is, therefore, very important to practice embodied reflection where we explore in personal practice, supervision and therapy, the bodily encounters we have had with others and how they have shaped our interpretation of self, of others and the world and to uncover how these elements emerge in our encounters with others. We can never be entirely free from preconceived notions, biases and assumptions; however, we can strive to make the therapeutic space as equitable as possible through reflexive and reflective practices.

Conclusions

Becoming a competent somatic therapist is a process. It takes time, practice and intention. The "Framework for Developing Competence in Somatic Therapeutic Core Skills" conceptualizes important factors that need to be considered when pursuing competence in this modality of therapy. It guides those who are interested in making decisions on how and where they need to invest their time and energy as they develop their somatic skills. It will also help them assess where they are in the journey of embodiment and where they need to go next. The factors within the model are not comprehensive by any means but are meant to be a starting point in the journey of an embodied therapist.

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Appendix A

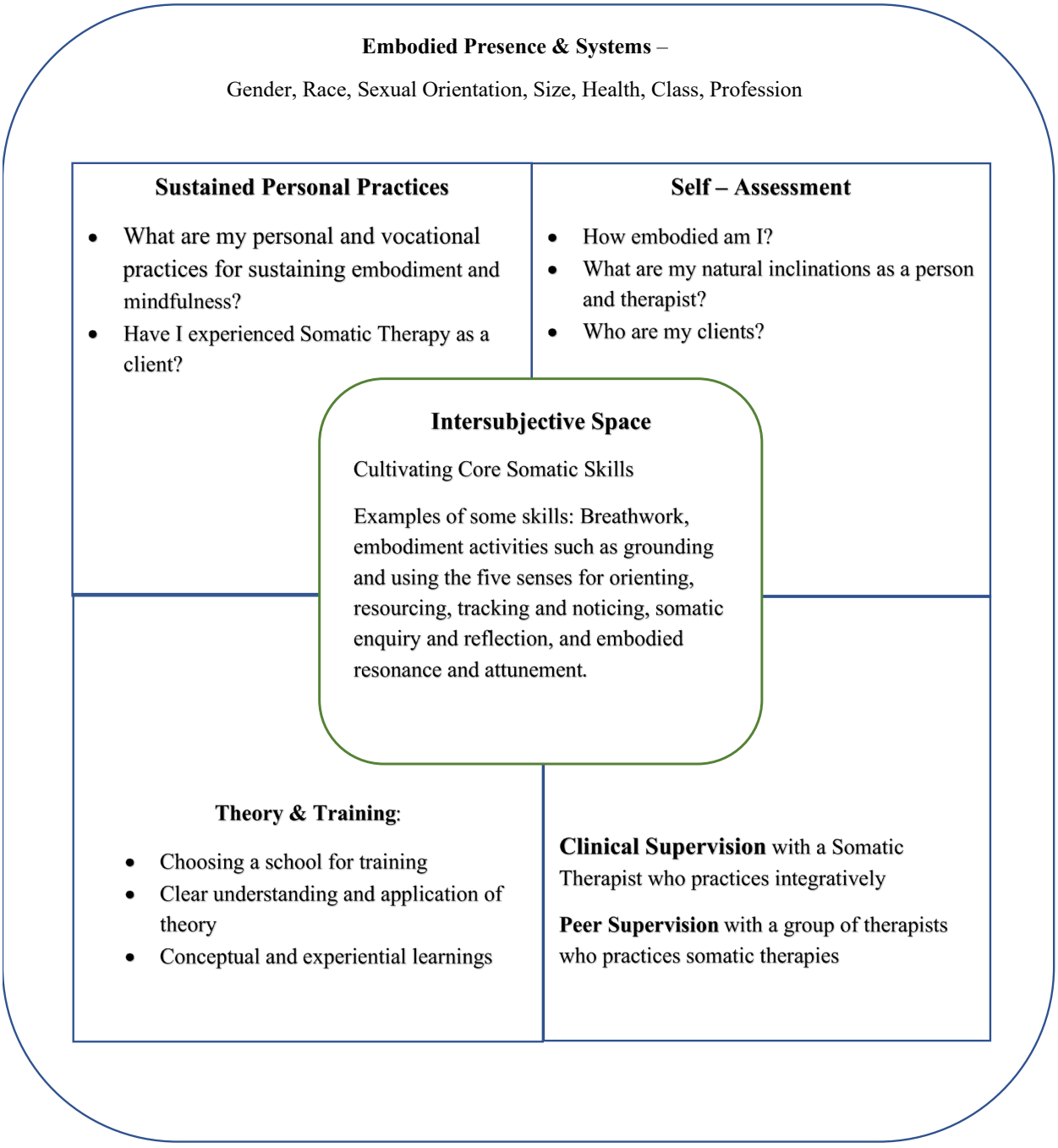

Figure 1. Five factors that influence the development of competencies in Somatic Core Skills (adapted from the work of Evans et al., 2015)