ILLUMINATING THE DARKNESS:

DANCE/MOVEMENT THERAPY AS AN INTERVENTION DURING THE ANTENATAL PERIOD

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Dedication

For Josia Ruby & Marley Joy,
who have illuminated my darkness from the beginning.
You amaze me, you teach me, you inspire me.
Thank you for letting me be witness to your lives.
I love you so much.

And for Shai,
without whom I would not eat, drink, or sleep.
Thank you for helping me make this happen.
Love you.

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Abstract

A pregnant person's experiences during the gestational period are influential factors that shape the developmental trajectory of the fetus. The intricate interplay between a pregnant person's physical, emotional, and psychological well-being is significant in understanding this development. A pregnant person's past, present, and generationally transmitted psychological experiences may impact the cognitive, emotional, and physiological development of the fetus. High levels of maternal stress have been associated with an increased risk of adverse physical outcomes. Maternal mental health, encompassing conditions like post-traumatic stress disorder, depression and anxiety, has been linked to adverse outcomes in offspring. The emotional connection between a mother and their unborn child, or maternal-fetal bonding, is a key aspect of prenatal development. Positive maternal experiences, including a supportive social environment and strong perinatal bonding, have been associated with favorable emotional regulation and resilience in the child. On the contrary, maternal distress may contribute to a heightened risk of emotional and behavioral challenges later in life. Psychosocial support and mindfulness-based interventions during pregnancy have shown promise in improving maternal mental health and positively influencing fetal outcomes. Due to its capacity to address the body-mind connection, dance/movement therapy offers itself as a logical intervention during this time.

Keywords: dance/movement therapy, intergenerational trauma, generational trauma, trauma, depression, anxiety, pregnancy, antenatal, pregnant person, maternal, fetus, maternal-baby bonding, nervous system, cortisol, vagus nerve, grounding, Laban, rhythm, attunement, support

Personal Note

During my first pregnancy, I experienced a severe, long-lasting depressive episode and a different kind of anxiety than I had ever known. Over the course of the second and third trimesters, and well into my parenting years, I was awakened to the idea that my personal childhood traumas, some of which extended from generational circumstances of my mother and grandmother, laid an unstable developmental foundation. The body memory of those inherited experiences became enmeshed with my direct encounters of similar circumstances, creating a perfect internal storm of psychophysiological challenges that would follow me throughout my life. Desperate to better understand myself, my emotions, thoughts, and behavioral patterns, I began to question the connection between my personal history and the generational history that lived within me. Could I have been carrying around my family trauma while simultaneously taking on new trauma during my childhood? And if I could have, then the likelihood of transferring the body memory of those experiences to my unborn child was high. Author Robert Penn Warren is quoted in Bessel van der Kolk's *The Body Keeps The Score* as having said "You live through that little piece of time that is yours, but that piece of time is not only your own life-it is the summing up of all the other lives that are simultaneous with yours…What you are is an expression of History" (Warren, as cited in van der Kolk, 2014, p. 22). We are individuals made up of the experiences of those who carried us and raised us. We are carried within the wombs of our grandmothers, as our mothers' eggs develop in utero (Mahendra, 2021). Our biological histories begin long before we are conceived.

A Poem

A sound reaches through space and time
A simple gasp
And in that moment
In that moment always
Something begins
The world sings in A
In my dream last night I held my newborn daughter
As she cried
I heard an overtone
I do think that was God
The world came into color
Like the end of black and white TV
The room trilled
Her lips were pursed and her eyes stared up at me
Nothing has ever looked at me with awe before
I made her
I did it
Mama used to hum when I would fall asleep in her bed
Small and gentle
Her lips like my baby's
At the end I will curl up at the foot of God's bed
And I will give God back my rib
Because God has many
And I only have two
But he is still so lonely
And last night I had you
I woke up and she was gone
But the humming continued
Everything sings
I will know it is you when I hear your voice
And in that dream God called on me
Like he called on Abraham
I wonder if he called on my mother
But I pulled my baby closer
And I whispered no, no
And it turned into a song
Now in the morning world sings to me
The world sings yes, yes
I woke up
I looked in the mirror and I saw your eyes
I picked up a baby chick on my walk to school
And carried it in my pocket the whole way
I have known since I was little that I was born to be a mother
I want to hold you
How can I win
How can I win
How can I win when I know
What I need is two extra ribs
To make a human out of me like God did

(Joey Ruby, 2024)

Intergenerational Trauma

Intergenerational trauma is a unique breed of trauma through which individuals within families may exhibit emotional, mental, and psychosomatic symptoms as a result of familial events that occurred before their time. It is defined as “the transmission of trauma or its legacy, in the form of a psychological consequence of an injury or attack, poverty, and so forth, from the generation experiencing the trauma to subsequent generations” (American Psychological Association, 2020). Drevitch discusses how trauma has become a buzz-phrase, although its roots run deep, and its consequences are valid and at times severe (Drevitch, 2023). Because trauma lives unconsciously within the body, bodily sensations and felt memories may be the only connection to such experiences. When these hidden memories are triggered, both direct trauma survivors and their offspring may have an innate awareness of such sensations, thoughts, and feelings, just as their predecessors did during the actual traumatic event itself, even though they may not understand or may not know the origin (van der Kolk, 2014). Yehuda (2022) discovered differences in the genes in children born to those who survived traumatic experiences, such as the September 11th terror attacks, and those who did not. Their epigenetic pathways leave a presence of the traumatic experience imprinted in their DNA (Yehuda, 2022). Wolynn (2016) asserts that trauma can come from significant historical events experienced, such as war, or it can be a direct result of a family’s inner circumstances, such as the death of a loved one. The effects of these events can manifest in myriad ways, including dysregulated stress responses, maladaptive coping mechanisms such as drug or alcohol abuse, mental health concerns such as depression and anxiety, and challenges building and maintaining healthy relationships (Wolynn, 2016). Intergenerational trauma is the continuation of these effects across generations. They can even create a predisposition to physical ailments such as chronic fatigue syndrome (Wolynn,

2016), a disorder in which the body is so physically exhausted that it cannot perform typically, without any known cause (Dickerson et al., 2008).

This type of trauma can be particularly difficult to acknowledge, let alone understand and properly treat, because the symptoms are often hiding within misunderstood challenging behaviors (Conroy et al., 2014). Yehuda (1998) studied generational trauma by examining the relationship between cortisol levels and post-traumatic stress disorder, or PTSD. Cortisol is the stress hormone that helps the body regulate itself after a traumatic experience. Through her research on Holocaust survivors, war veterans, and pregnant people with PTSD as a result of the September 11th terror attacks, Yehuda discovered that these patients and their offspring expressed lower levels of cortisol than others, therefore preventing their bodies from returning to homeostasis after these traumatic events (Yehuda, 1998). While cortisol levels rise during moments of acute stress, the levels can become too low after prolonged periods of stress, such as from the body memories and triggers that remain (Dekel et al., 2017). Whether the levels rise because of acute stress or lower because of ongoing trauma, there is an imbalance of cortisol. Yehuda (1998) measured the low levels of cortisol in both maternal survivors of trauma and their children and discovered that some of these patients have comorbid major depression and/or anxiety disorder. Yehuda's research suggests that a person is significantly more susceptible to experience PTSD if a parent experienced it after a traumatic event, and this increases the likelihood of experiencing depression or anxiety later in life (Yehuda, 1998). When innate sensations combine with unconscious thoughts and uncomfortable feelings, however they arrive there, they are difficult to ignore; they become a part of the individual's daily behaviors. They contribute to each individual's personality in different ways, yet they are ever present from the epigenetic transmission of deeply rooted experiences (Yehuda, 2022). Because epigenetic

mechanisms regulate gene expression without altering the underlying DNA sequence, they are reversible (Aboud et al., 2021). Prenatal stress has been linked to epigenetic modifications in both maternal and fetal DNA, which can have long-lasting effects on the offspring's health and behavior. Jagtap et al. (2023) suggest that traumatic memories experienced by the pregnant person may trigger epigenetic changes that impact the fetus's genetic programming and predispose it to certain health or behavioral outcomes later in life. Stress hormones like cortisol can pass through the placenta and affect the developing fetus (Yehuda, 2022).

Memories held within the body at a cellular level can be from many different types of trauma. For example, trauma can consist of a significant event or series of events visible to outsiders, such as the events researched by Yehuda (1998), or it can consist of a low-level, veiled trauma, such as growing up with a preoccupied parent who is unable to provide consistent positive attention (Wolynn, 2016). All types of trauma can be stored in the body and leave offspring with parallel inner conflicts passed down through generations (Yehuda, 2022). Freud theorized that the body becomes addicted to trauma and pain, craving the stimulation it provides and has a “compulsion to repeat” (Freud 1975). It succumbs to triggers in order to create security from inherent familiarity. The pregnant person's unconscious compulsion to repeat their trauma through patterns of behavior can imprint its own patterns on the DNA of the unborn fetus, potentially influencing its developmental trajectory later in life. Trauma leaves marks on DNA, affecting gene expression and passing down certain predispositions or vulnerabilities to future generations (Yehuda, 2018). Its significance lies in these places within the body - in the expression of genetic factors, in the entrapment of physiological symptoms, and in the unearthed explanations of certain emotions, behaviors, and mental states (Wolynn, 2016).

Antenatal Depression and Anxiety

Depression and anxiety disorder affect members of the general population at varying levels of severity. Depression is defined by the World Health Organization as “persistent sadness and a loss of interest in activities that one normally enjoys, accompanied by an inability to carry out daily activities, for at least two weeks” (WHO, 2024). The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) requires at least five concurrently occurring symptoms to diagnose depression (DSM-5, 2013). In the DSM-5, anxiety is “defined as excessive worry and apprehensive expectations, occurring more days than not for at least six months, about a number of events or activities, such as work or school performance” and sometimes causes unexplained physical symptoms such as headaches and stomach pains (DSM-5, 2013). Like trauma, stress on the mind and body from depression and/or anxiety during the prenatal period can have consequences that span generations (Conroy et al., 2014). Pregnant people who had stressful experiences throughout their childhoods, experience intergenerational trauma, or live with depression and/or anxiety during pregnancy give birth to children who are more vulnerable to stress exposure than those born to mothers who did not (Conroy et al., 2014). If the fetus is predisposed to psychological challenges from the felt body memory of the mother, this can result in greater difficulty regulating emotional states (Conroy et al., 2014).

Many studies have shown a correlation between maternal prenatal depression and/or anxiety and adverse behaviors and decreased cognitive abilities later in life (Glover et al., 2014). Glover (2014) asserts that the gestational age of exposure to maternal stress greatly impacts the severity of consequences. Different types of stress can also impact fetal development in similar ways (Coussons-Read, 2013). Coussons-Read (2013) explains that psychosocial stressors, such as moving, financial concerns, or marital conflict, which can happen to anyone regardless of

pregnancy status, and pregnancy-specific stressors - worries related directly to the pregnancy - can each have unfavorable outcomes once the child is born.

Fetal Nervous System Development and the Parent's Psychological State

Pregnancy often brings up memories of one's own childhood as the parent-to-be contends with how they will raise their child and create the kind of family they imagine (Ozsahin, 2020). This is where trauma, depression, and anxiety can work alone or overlap to create an unstable in utero environment (Dekel et al., 2017). The body-brain connection becomes even more significant during this stage of life for both the pregnant person and the unborn baby. Wolynn (2016) states that the visceral sensations experienced by the pregnant person have an impact on their nervous system regulation, creating more difficulty in managing their thoughts, feelings, and behaviors, and subsequently, has an impact on the developing nervous system of the fetus.

The ability to regulate the nervous system begins before birth, particularly during "critical windows" (Cerritelli et al., 2021) of development. If there is a disruption during nervous system development in utero, the fetus could potentially develop long-term consequences that affect its regulatory capacity (Cerritelli et al., 2021). The nervous system encompasses several parts. The parasympathetic nervous system is responsible for calming the body after a stressful situation, and the vagus nerve is the longest cranial nerve in the parasympathetic nervous system (Barral & Croibier, 2009). It carries messages between the brain, heart, and digestive systems and therefore affects how the body learns to respond to trauma and feelings of depression and anxiety (Breit et al., 2018). Vagal NC (neural crest) cells, the cells of the vagus nerve connected to the development of the gut and gastrointestinal tract, play an important role in the development of the parasympathetic, sympathetic, and sensory systems (Cerritelli et al., 2021). Therefore, there is a connection between a person's sensory experiences, through communication

from the brain to the body, the heart as it circulates these messages throughout the body, and gut health from the very core of the body as it helps control the inflammatory response. The population of the gastrointestinal tract by vagal cells during fetal development can impact long-term susceptibility to depression, anxiety and trauma processing. The enteric nervous system, which is part of the peripheral nervous system controlling sensory input (Fleming et al., 2020), originates from vagal neural crest cells, emerges from the spinal cord, and moves into the gastrointestinal tract (Ling & Sauka-Spengler, 2019) The immune system's response to inflammation of any kind renders it less able to respond to challenges. Rakers et al. (2017) assert that these stressors can be present in generations to come as they gain access to the developing nervous system.

Kumar (n.d., as cited in Conroy et al., 2014) asserts that there is significant evidence that babies born to mothers with depression and/or anxiety are more likely to experience developmental challenges than those who are born to unaffected mothers (Conroy, et al., 2014). Acknowledging the significance of critical windows, Conroy et al. (2014) argues that the gestational age of exposure to such adverse circumstances can have a major bearing on the gravity of their effect. This creates an abnormal in utero environment which allows for transmission of stress to the unborn child, and this is where an adverse stress response and challenging behavioral trajectory lays its foundation in the fetal DNA (Conroy et al., 2014).

Conroy et al. (2014) further examines the hypothalamic-pituitary-adrenal (HPA) axis as the system that regulates the body's stress response. The HPA axis creates a negative feedback loop as high levels of cortisol are produced while the body's inflammatory response is compromised due to its weak handling of the stress response (Conroy et al., 2014). The HPA axis expresses hyperactivity during a biologically and psychologically normal pregnancy.

However, when the body is in a depressive state during the antenatal period, it becomes significantly more vulnerable to dysregulation and predisposes its unborn child to depression (Conroy et al., 2014). As discussed by Rakers et al. (2017), whatever the pregnant person is exposed to crosses the placenta and therefore becomes part of the fetus's environment, affecting the unborn child just as it affects the gestational carrier. There is a transfer of cortisol during stressful situations that is a "major mediator of maternal stress transfer to the fetus… [it] allows a trans-placental passage and thus excessive maternal cortisol could persistently impair the development of the HPA" (Rakers et al., 2017).

In the 1960's and 70's, there began an understanding that maternal-baby bonding originated in the womb when French obstetrician, Frederick Leboyoer, argued that prenatal care needed to move in a more gentle direction (Verney, 1981). He shared his theory that a pregnant person's experience had great influence over their conscious and unconscious thoughts and emotions and therefore threw "open the unborn child's mind" (Verney, 1981, p. 18). Verney (1981) discusses at length that these thoughts and emotions are the pregnant person's tools and can shape the unborn child through body-based communication. Fetal development is impacted as much by the carrier's psychological state as it is by genetics, diet, and drugs. Verney (1981) confirms that if the fetus is capable of awareness of the mother's mental and emotional state, their nervous system takes in the information with which it is provided and uses that as its foundation for development. Because there are no distractions in the womb and communication occurs only through shared felt experiences, what happens to the fetus happens directly. There are no cognitive filters to provide room for processing and understanding (Verney, 1981).

Tenets of the Dance/Movement Therapy Practice

The American Dance Therapy Association (ADTA) defines dance/movement therapy "as the psychotherapeutic use of movement to promote emotional, social, cognitive and physical integration of the individual" (ADTA, 2020). For movers, there is an intuitive expression which originates from the unconscious and provides a source of knowledge and understanding (Chodorow, 1986, as cited in Chaiklin & Wengrower, 2009). A foundational belief of the dance/movement therapy practice is that this sensory connection is rooted in a curiosity and understanding of the body and mind. Dance/movement therapy provides a collaborative approach between embodiment and neurophysiological theories, as it actively works to improve the body-mind connection (Biondo, 2023). When one lives with the effects of trauma, depression, or anxiety, they can grow conditioned, whether by their own doing or by their environments', to ignore their needs and desires. Instead of ignoring these "unthought knowns" (Bollas, 2001, as cited in Samaritter & Payne, 2017, p. 12) however, dance/movement therapy can support a process of leaning into them.

The dance/movement therapist utilizes many techniques to observe body communication of a mover. For example, by gaining an awareness of a person's state through Laban Movement Analysis using their body shape, weight distribution, the effort of their movement, and how they move in time, the therapist can help them explore and disentangle how they are affected by stress and sensory input in their daily lives (Tsachor & Shafir, 2017). Once there is a mutual trust and understanding between the therapist and the mover, they can work together to rewire the disconnected nervous system.

Another useful technique in the dance/movement therapy practice is grounding. As asserted by de Tord and Brauninger (2015), to mindfully live in the moment is grounding. One

can literally make contact with the ground and feel the earth's support beneath the feet. Observing and acknowledging body sensations and breathing patterns is a mindful practice. In psychological terms, grounding can be explained as a person who feels at home within themselves and values the body-mind connection and the way they relate to their environment. Homeostasis can be achieved physically by giving in to the pull of gravity in order to feel balanced and stable on the ground. When this balance cannot be achieved, the therapist is there to guide the mover through a shift, both literally and metaphorically, to their center, finding ways to return to a balanced state. With grounding comes both a deeper understanding of one's physical relationship to their environment as well as a deeper awareness of one's thoughts and feelings (de Tord & Brauninger, 2015). Grounding can come intuitively once the mover heeds the body's request to relax, and the vagus nerve within the parasympathetic nervous system allows that shift to occur. Dance/movement therapy shares the burden of both the body and the mind as it teaches them to work in partnership, and as a result, the mover is able to focus more clearly on their emotional needs and begin to explore their psychological blocks.

Dance/movement therapy aims to help the body reach homeostasis, a stable and balanced inner environment. Once it is free to explore the origin of its behavioral patterns, it can begin to heal from its mental health challenges. Consistently ignoring what the body and mind need to maintain homeostasis is symbolic of living in a state of great physiological distress (Marks, 2022). Tuning into the body through the practice of dance/movement therapy creates space to explore that which has been buried deep through trauma and living with depression and anxiety. As Espenak (1981) theorized, this process helps to build skills on a psychomotor level by using a physical experience to rewire the brain and rewrite the story. Dance/movement therapy uses a kinesthetic awareness, an awareness of how the individual moves in space, to guide its process.

This kinesthetic awareness helps direct the patient towards behavioral change when combined with psychotherapeutic techniques (Payne & Samaritter, 2017).

"Our bodies are the primary and most direct space to experience ourselves and our environment. The first relational experiences of being held, being carried (supported) and being regulated are body-related experiences" (Stern, 1985, as cited in Samaritter & Payne, 2017, p. 6) In cases where the healthy evolutionary trajectory is interrupted by the lack of these first relational experiences, going as far back as the womb, developing an internal awareness is essential to understanding oneself. Guiding the mover through the dance/movement therapy process can facilitate changes in one's ability to engage in healthy dyadic communication that may have bypassed their neurological development (Behrends et. al., 2012). Somatic acknowledgement opens one's mind to understanding their relationship with their environment and the people in it.

Within the dance/movement therapy space, rhythm can provide a structure for individuals to synchronize their movements with music, body sounds, or other rhythmic patterns. It allows individuals to express emotions nonverbally, which is beneficial when presenting with traumatic triggers or depressive and/or anxious symptomatology (Cruz, 2018). Rhythm also has the potential to regulate arousal levels in the nervous system which can help pregnant individuals modulate their energy levels, calming or energizing them as needed (Shalev et al., 2019).

Attunement in dance/movement therapy is vital. Attunement indicates shared expressions leading to shared emotional states (Stern, 2018). When a dance/movement therapist attunes to their patient, they can establish a deep connection that goes beyond verbal communication. It involves being fully present and sensitive to another's physical, emotional, and mental state

(Lacson, 2019). Attuning to a patient living with trauma, depression, and/or anxiety creates safety without the pressure to discuss what they are not yet ready to reveal.

There is a safe inclusivity that continues to grow within the mental health field through understanding the effectiveness of the body-mind connection and how to use it to harness a capacity to live mindfully and authentically within oneself and within relationships. As Adler (2002) stated, the word *seeing* encompasses an intuitive knowing connecting the senses. There is a consciousness crucial to the therapeutic relationship, and it is an effective way that humans with PTSD, depression, and/or anxiety can begin to heal and learn to live effectively within society and peacefully within themselves. A student of Hawkins once wrote in her journal that she felt like a stranger to herself before engaging in this therapeutic practice, and then she eventually began to reveal her true self (Hawkins, 1991). Once she began to open herself to the possibilities of healing through this process, it felt intuitive. The work of dance/movement therapy can become intuitive once practiced. The creators of this field put words to these innate feelings and found ways to communicate their purpose through the creation of a therapeutic process, filling a void in the mental health space.

Discussion

During pregnancy, the body puts its resources and energy into growing and caring for the health of the fetus, naturally placing a burden on the pregnant person; they literally and metaphorically carry all of the physical, emotional, and mental weight during this time. Just as every person reacts differently to trauma, depression, and anxiety, every pregnancy creates unique challenges to each individual body and psyche. When the body is preoccupied with protecting a growing fetus, the pregnant person’s daily experience can become more challenging and less manageable. If they are faced with trauma, depression, or anxiety during the pregnancy,

managing arduous thoughts, feelings, and behaviors can be an exhausting task for the gestational carrier and those around them. If the pregnant person's nervous system has always lacked regulatory capacity due to perpetual trauma, depression, and/or anxiety, it can be exacerbated by pregnancy. Dance/movement therapy can work to release what has been carried for generations.

The after-effects of generational trauma, combined with the intensity of psychological circumstances during pregnancy, are experienced by the fetus throughout its development in the womb. Because these conditions impact the developing fetal nervous system, a predisposition to a similar trajectory of life challenges for the unborn child is created. This is communicated solely through non-verbal conversations of felt experience between the pregnant person and fetus. Therefore, intervening during the antenatal period offers an opportunity for the pregnant person to focus on healing their own experience while simultaneously interrupting the succession of intergenerational trauma, depression, and/or anxiety. By providing a healthy neurophysiological environment in which the fetus can thrive, post-birth adverse outcomes can be mitigated. Providing the proper tools to both rewire and develop a regulated nervous system not only creates the opportunity for greater mental and emotional capacity in the two interconnected beings, it also lays a solid foundation for maternal-baby bonding and relationship building postpartum.

Pregnancy can reveal unresolved trauma, amplify depressive symptoms, and exacerbate anxiety. For some, the antenatal period is the first time in their lives that they may recognize their own trauma history or experience depression and/or anxiety and seek treatment. For others who have been living with trauma, depression, and/or anxiety, the physiological changes in their body during the antenatal period may contribute to the intensity of their thoughts, feelings, and behaviors, and they may be open to new treatment methods. The timing has to be right for

healing. Breaking the cycle of pain and suffering can become of utmost importance to the pregnant person as they face the responsibility of caring for another being. Evolutionarily, mothers are wired to protect and nurture their offspring. This instinctual drive can contribute to the strong bond that develops between a pregnant person and their fetus. The mind and body are primed for these healing experiences during pregnancy, and dance/movement therapy enables this work to happen from the inside-out. Rooted in the belief that the body and mind are interconnected, dance/movement therapy recognizes the therapeutic potential of movement to facilitate healing. In the context of pregnancy, this therapeutic technique offers a safe space for individuals to explore their emotions and connect with their bodies.

Unlike any other time in life, there are no outside influences for the unborn child. The maternal-fetal relationship is the only one the unborn child knows. The fetus can therefore only be impacted by what goes on in their parent's body and mind. The connection between these two lives cannot be underestimated. If the body only knows adverse experiences, they are always at an imbalance. What the pregnant person feels intensely is shared with the fetus. Without any filter between them, the fetus only knows the maternal experience.

As dance/movement therapy supports the pregnant individual presenting with dysregulation as an effect of their mental health history, it sheds light on the human's capacity to foster change towards a regulated nervous system in themselves and healthy development in their unborn baby. Through guided movement sequences, for example, individuals can release tension stored in the body, access buried memories, and develop coping strategies. The rhythmic nature of dance promotes relaxation, reduces stress hormones, and fosters a sense of empowerment, enabling pregnant individuals to navigate their challenges with greater ease. Neuroscience reveals the profound impact of dance/movement therapy on the brain. While

trauma, depression, and anxiety can alter neural pathways leading to dysregulation in emotional processing and stress response systems, dance/movement therapy counteracts these alterations by engaging the brain's plasticity and facilitating the formation of new connections and pathways. Through repetitive movements and sensory experiences, this therapeutic style stimulates emotional regulation and resilience. As a result, the mother's brain undergoes rewiring, enhancing her capacity to cope with stressors and provide a more modulated developmental process for the fetus’s nervous system.

Because the fetus is deeply attuned to the mother's emotional state, the nurturing environment that dance/movement therapy provides can directly impact them. Imagine a therapist attuning to their patient’s movement patterns; the fetus is able to do this from the inside. The fetus remains attuned to the pregnant person’s movement patterns at all times. This can create a shared emotional state between the pregnant person and unborn child. There is a consistent kinesthetic communication between the two beings. When the pregnant person is experiencing a calm emotional state, their nervous system is balanced. Their hormone levels, vagal cells, heartbeat, and everything else pumping through their body share information with the fetus that they are safe, secure, and balanced as well. The attunement between the pregnant person and their fetus is a complex and fascinating aspect of human development. It involves the developing emotional, psychological, and physiological connection that develops between a pregnant parent and their unborn child. The attunement between the two is a dynamic and multifaceted process that plays a crucial role in the health and development of both beings.

As the pregnant person engages in therapeutic movement, their physiological responses shift towards calmness and coherence. These physiological changes are transmitted to the fetus, promoting the development of a nervous system synchronized with their own. This is where the

cycle of suffering can be interrupted. Through the shared experience of movement, the parent and unborn baby establish a profound connection, laying the foundation for harmonized emotional well-being. Attunement can also occur between the dance/movement therapist and pregnant person during treatment. Therefore, the way in which the therapist is able to attune to their patient also affects the fetal experience. If the therapist creates a nurturing space for the pregnant person to work restoratively, the reverberations will be felt in the womb.

Once the therapist is attuned to their mover, then they can share many techniques for working together. Through Laban Movement Analysis, the therapist can observe the mover's physical body presentation to understand their emotional state as a foundation for therapeutic communication. For example, if a dance/movement therapist had observed me during my own antenatal depression, they may have noted that I exhibited sustained, pressing body actions as I walked. My spine was often curved, my shoulders hunched forward, as I leaned into the sagittal plane, unable to hold myself up. My feet hit the ground lightly, as if I was afraid to take up any space on the earth, even though the rest of me felt heavily pulled down by gravity. They could use these physical observations to gain insight into my emotional state and offer therapeutic exercises to counteract these body actions. We could also engage in verbal communication and discuss how these physical sensations feel in my body. I know that the ability to be truly seen by someone in this painful state would have comforted me during my pregnancy. This holistic approach would have allowed space for me to drop into those body sensations and research their origin, rather than disregard them altogether.

Incorporating grounding techniques into prenatal mental health care is another valuable technique dance/movement therapists utilize to help expectant people regulate their emotions, reduce stress, and foster a supportive environment for fetal neurological development. Offering

physical grounding activities, such as walking barefoot on the grass or in the sand, can help the pregnant person feel more connected to the earth. This physical connection to the ground can induce a sense of stability and security, which can positively impact their emotional state and subsequently influence fetal development. Another grounding technique which offers the opportunity to be fully present in the moment is deep breathing, and it also draws on the benefits of using rhythm to influence emotional regulation. Encouraging the expectant person to fully attune to physical sensations in their body can encourage a heightened awareness of their own body's cues. This can help them recognize triggers of their own intergenerational trauma, notice depressive thoughts and feelings, or modulate themselves in an anxious state.

Rhythm is a foundational element in dance/movement therapy that offers many different opportunities for intervention. Rhythm is found both inside and outside of the body and can therefore affect an individual's experience. The rhythm of the heartbeat, for example, is innate to everyone, including the unborn child. It can also be recreated by music, instruments, or body parts. There is a physical synchronization that occurs in combination with movements or other sounds. During pregnancy, it can facilitate a deeper connection to one's body as well as to the fetus through a shared experience. The maternal heartbeat creates comfort through a consistent, familiar presence and serves as a direct physical connection between the two beings. The rhythmic pulsations can foster a sense of emotional intimacy, even before birth.

If the pregnant person's heartbeat can provide such safety and security for the unborn child, it could have the same effect on the ability to regulate their own nervous system during treatment and healing. In the same way the pregnant person's self-regulation guides the fetus, what feels good to the fetus can naturally guide the pregnant person's experience as well. Imagine the following intervention: The pregnant person sits comfortably, held up by soft

pillows or by another body sitting behind them. They begin by placing their hands on their belly to attune to the rhythmic pattern of their breath. They hear the sound of their unborn baby's heartbeat from a sonogram and then recreate that rhythm by gently tapping on a part of their body such as their belly or legs. Establishing this connection with their unborn baby provides another avenue for soothing their own nervous system and inducing a regulated state within their own body. The pregnant person and the unborn child are so interconnected that they can support each other, thus further interrupting the traumatic chain of succession in both. There is a cyclical regulatory capacity between the two beings.

One of the most important things that dance/movement therapy can offer to a pregnant person living with the effects of trauma, depression, and/or anxiety is providing its own support system and guiding the outside support system. Members of the pregnant community sometimes lack their village; maybe it is a consequence of misunderstanding the pregnant experience, or perhaps it is because pregnancy, birth, and general well-being are undervalued. Whatever the reason, pregnant people need support. Above all else, having a support system reduces stress on the pregnant person's nervous system, therefore allowing fewer stress hormones to cross the placenta and directly affect fetal neurological development. By nature, dance/movement therapists provide support through their understanding of the body-mind connection and create space for the pregnant person to be seen as a whole, feeling, thinking being instead of a medical condition. This therapeutic approach fosters an environment safe enough for the pregnant person to express themselves, even if what they are feeling stands in conflict with the socially acceptable joyful pregnancy experience.

Having a support system in a partner, friend, family member, or medical professional who appreciates the value of the dance/movement therapy practice can help put the pregnant

person at ease. When a person is living with the effects of trauma, depression, and/or anxiety, daily tasks such as eating and drinking might be unmanageable. For example, having someone make sure they are fed, hydrated, and sleeping well releases the pregnant person of the burden of solely caring for themselves and allows them to focus on what they need to do to support the healthy development of their unborn child. Whoever is part of the pregnant person's village must be aware of their trauma history, depressed state, and/or anxious thoughts and feelings, so that they may proceed with their care as gently as a dance/movement therapist. Feeling supported and cared for during pregnancy can positively impact the mental and emotional health of the pregnant individual, which is closely linked to fetal development. Overall, a strong support system during pregnancy contributes to a nurturing and positive environment that fosters optimal fetal development, emotional well-being, and long-term positive health outcomes for the parent and child.

As the fetal nervous system grows, the dance/movement therapy practice enables the expectant person to foster regulated vagal development, healthy cortisol levels, and a strong inflammatory response, therefore endowing the fetus with the tools to build a balanced neurological state in utero and post-birth.

Conclusion

It is important to note that the exact nature and extent of the fetus's experience in response to the mother's traumatic memories are still being studied and understood. While the fetus may not consciously process or understand these experiences in the same way as an adult, its physiological and neurological development can be influenced by the intrauterine environment, which is a direct result of the expectant person's history and current life circumstances. Therefore, providing support and interventions to help pregnant individuals cope

with trauma and stress is crucial not only for maternal well-being, but also for the optimal development of the fetus.

In the pregnancy journey, dance/movement therapy emerges as a transformative beacon of healing for individuals grappling with trauma, depression, and/or anxiety. By harnessing the power of the body-mind connection, dance/movement therapy offers a pathway towards healthy emotional integration, neural rewiring, and a connected, harmonized relationship between the parent and child.

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