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Dance/Movement Therapy Combined with Tai-chi as a Regulation Strategy for Children Who Have Experienced Trauma: Developing a Method

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Dance/Movement Therapy Combined with *Tai-chi* as a Regulation Strategy for Children

Who Have Experienced Trauma: Developing a Method

Capstone Thesis

Lesley University

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Dance/Movement Therapy

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Abstract

This capstone thesis examines the question of how dance/movement therapy can be combined with *tai-chi* to support the emotional regulation of children who have experienced trauma. The paper examines a possible method that combines dance/movement therapy with *tai-chi*, grounded in the theories of Trudi Schoop. It highlights the application of *tai-chi* as a movement intervention that impacts participants ability to engage in treatment. Through the literature it was found that dance/movement therapy techniques of deep breathing, balance, and slow, rhythmic movements can impact emotional regulation. In combination with dance/movement therapy and *tai-chi* principles of internal awareness, body alignment, and weight control a method was developed. There were seven participants who engaged with the method. Through the development of the method, dance/movement therapy when combined with *tai-chi* was found to have an impact on participants ability to regulate and engage in treatment.

Keywords: dance/movement therapy, *tai-chi*, emotional regulation, trauma, children

Author Identity Statement: The author identified as a straight-passing, pansexual, White woman from New England of mixed European ancestry.

Dance/Movement Therapy Combined with *Tai-chi* as a Regulation Strategy for Children Who
Have Experienced Trauma: Developing a Method

Introduction

The American Dance Therapy Association defines dance/movement therapy as, "...the psychotherapeutic use of movement to promote emotional, social, cognitive, and physical integration of the individual" (Hoyt, 2020). Dance/movement therapy utilizes movement and our bodies as a tool for treatment and healing. Techniques of dance/movement therapy such as deep breathing, slow and rhythmic movement, and balance have been shown to impact the ability to regulate one's emotions and engage in treatment. Emotional regulation is defined by the American Psychological Association as, "the ability of an individual to modulate an emotion or set of emotions" (n.d.). Emotional regulation allows for a person to modulate their emotions by assisting them to calm down after experiencing anger, anxiety, or sadness. The techniques of slow, rhythmic movements, and balance come from Trudi Schoop, a dance/movement therapy pioneer. Schoop's theoretical framework examined the importance of opposition in the body, and achieving balance through the opposition, "After she has encouraged a split-body exaggeration, her goal then is to bring back unity and unison" (Levy, 2005, p.89). Split-body exaggerations allowed participants to explore opposites of movements, posture, and expressions to gain a better understanding of their own needs and identity. Schoop also examined the importance of repetition and rhythm in movement which promotes, "1) a sense of self control; 2) trust of the body and therefore a deeper identification with one's physical self; and 3) flexibility and strength in coping with life experiences" (Levy, 2005, p.91). These ideals help to promote a better understanding of one's identity and needs. Schoop's exploration of rhythm and balance assisted

participants to ground their own understanding of their needs and allowed for expression of their deepest needs and desires.

These same techniques, deep breathing, slow and rhythmic movements, and balance, also line up with those of *tai-chi*. *Tai-chi* is defined as, “*Tai-chi* is an ancient Chinese form of exercise involving slow, gentle movements and diaphragmatic breathing” (Niles et al, 2019, p.2). *Tai-chi* principles include an internal awareness, body alignment, and weight control. These principles line up with the techniques of dance/movement therapy and *tai-chi*, with internal awareness being achieved through deep breathing, body alignment being achieved through slow and rhythmic movement, and weight control being achieved through balance. The dance/movement therapy and *tai-chi* techniques of deep breathing, balance, and controlled movements have been shown to be effective in the management of trauma. Trauma is defined as an event that threatens injury, death, of the integrity of self or others which causes horror, terror, and hopelessness when it occurs (American Psychological Association, 2011). Trauma can come in many forms, according to the American Psychological Association a traumatic event can include but is not limited to, physical abuse, sexual abuse, domestic violence, community violence, disasters, suicides, or other losses (APA, 2011). For the purposes of this capstone, trauma experienced during childhood will be examined. This capstone thesis will be examining the impact of dance/movement therapy when combined with *tai-chi* for emotional regulation for children who have experienced trauma.

Dance/movement therapy techniques can assist in treating trauma as well as helping manage the symptoms of trauma, such as assisting with emotional regulation. People who have experienced trauma can struggle with emotional regulation, especially children, “These effects can interfere with a person’s sense of self and sense of safety, as well as the capacity for

emotional regulation and the navigation of social relationships” (Lapum et al, 2019, p.566). For children who experienced trauma it can become difficult for them to regulate their emotions, such as calming down when angry or becoming focused. These effects interfere with a child’s ability to grow and reach their fullest potential by making it difficult for a child to form relationships, emotionally regulate, feel safe, and have a clear sense of self. Dance/movement therapy practices allow for a top-down and bottom-up regulation method, “These employ top-down regulation that reactivate abilities for social engagement plus bottom-up regulation methods centered around engagement of breath, movement, and touch work to resolve bodily tensions” (Van der Kolk, as cited in Forcum, 2016, p.15). *Tai-chi* also focuses on a bottom-up regulation method by focusing on breathing and movement to resolve tension in the body and allowing the mind to focus. Victims of trauma often struggle to emotionally regulate themselves, resulting in large outbursts of different emotions when dysregulated. Dance/movement therapy when combined with *tai-chi* allows participants to focus fully on deep breathing and slow movements to help focus themselves and calm their bodies.

To fully understand the purpose of this capstone thesis, context must be provided for the site where the participants were engaged. The participants of this paper all attend a school known as The Lighthouse School in Massachusetts. This school is a human services cooperation that serves students with a wide range of disabilities. This treatment center services students both academically and therapeutically and promotes total life development. The students at Lighthouse School come from across New England and often come to the school after failing to receive adequate service from their public school system. The students at Lighthouse School have experienced adverse childhood experiences (ACEs), many dealing with trauma on top of other diagnoses such as anxiety, depression, ADHD, obsessive compulsive disorder (OCD), or

autism. Lighthouse focuses heavily on helping students learn to emotionally regulate and find coping strategies to assist them through moments of dysregulation. With these facts in mind, this capstone thesis focuses the impact of dance/movement therapy when combined with *tai-chi* to assist in emotional regulation that focuses on deep breathing, balance, and slow controlled movements.

Through research it has been established that dance/movement therapy is a viable self-regulation technique for trauma. There are articles outlining the merit of dance/movement therapy as a technique for various populations struggling with trauma. For example, Colace (2017) explored the concept of enactment, breath, and attunement to help a client process their trauma. Colace (2017) examines how one's breath and movement communicates the experiences and expression, "Through these patterns of movement, supported by breathing, the individual communicates what he/she is experiencing in his/ her connection with the outside world and ultimately expresses his/herself." (p.37). Colace's research explored how movement, breath, and attunement can be used to help client's process their trauma and start the healing process. Dieterich-Hartwell (2017) explores safety, regulating hyperarousal, and attending to interoception. This article explores how assisting in regulating hyperarousal can assist client's struggling with PTSD to heal from their trauma, "Nevertheless, an overarching theme in creating this model has been the realization that slowing down and taking simple and small steps with much repetition seem to be crucial elements for many in this population" (Dieterich-Hartwell, 2017, p.44). Dieterich-Hartwell shows through their research that utilizing slow moving and repetitive regulation tactics to be an effective method for treating PTSD. Lapum et al. (2019) develops a dance therapy experience that assists children to cope with their trauma. The experience "Sole Expression" focuses on using hip hop to build community, safety, and

expression for children who have experienced trauma. Lapum et al found that Sole Expression improved feelings of anxiety and depression in some participants, "There is evidence of improvement in some trauma symptoms, such as anxiety and depression" (Lapum et al, 2019, p.577). These few example articles show how dance/movement therapy is a viable and strong treatment method for trauma. These articles explore the basic idea of utilizing dance to heal from trauma, and each article concludes that movement can be beneficial to help a client cope and heal from traumatic events.

Further research showcases how when combined with dance/movement therapy *tai-chi* can assist clients in their path to engage in treatment of trauma. Niles et al (2019) investigate the power of *tai-chi* to treat clients dealing with trauma, this article focused specifically on the treatment of veterans with PTSD. Nile et al (2019) conducts their session to follow a specific format, starting with a warm-up and review of the principles of *tai-chi*, then performing the *tai-chi* movement, and finally ending with breathing techniques and relaxation. Niles et al (2019) finds that following this structure helps the clients manage their symptoms, "Participants found *Tai-chi* to be helpful with managing distressing symptoms. One veteran reported having decreased intrusive visions or flashbacks over the course of the study. Other participants commented on how *Tai-chi* was a helpful stress reduction technique" (Niles et al, 2019, p.6). This article showcases how *tai-chi* can be helpful in managing symptoms and helping clients struggling with PTSD decrease intrusive thoughts and stress. Waechter & Wekerle (2015) research how *tai-chi*, yoga, and meditation can assist in promoting resilience in children who have experienced maltreatment. Waechter & Wekerle found through their literature review that *tai-chi*, yoga, and meditation improved client's confidence and resilience, "This review concluded that youth were able to improve emotion regulation and gain confidence in their

ability to manage life challenges” (Monshat et al., 2013, at cited in Waechter & Wekerle, 2015, p.28). These articles showcase how *tai-chi*, along with other meditative movement activities, can be a powerful regulation technique for clients struggling with trauma.

Looking through the research, it shows a clear picture that dance/movement therapy combined with *tai-chi* can be a viable and powerful way to assist in regulation. Niles et al (2019) discusses that *tai-chi* is more than just a martial art, “*Tai-chi* is also a mind–body practice that incorporates mindfulness, breathing, active relaxation and deliberate movements” (Niles et al, 2019, p.2). *Tai-chi* focuses on deep breathing paired with slow repetitive movements and balance. It has been shown how deep breathing techniques, balance, and slow repetitive movements can promote relaxation and regulation, “...the repetitive, patterned, and rhythmic nature inherent in dance can heal profound trauma, particularly early trauma that has caused brainstem dysregulation” (Perry, 2006, as cited in Lapum et al., 2019, p.568). When looking at these facts, it can be inferred that dance/movement therapy combined with *tai-chi* can be an impactful regulation method for a client with trauma. The method developed for this paper will be building on these ideas to examine the impact dance/movement therapy combined with *tai-chi* has on emotional regulation for children who have experienced trauma.

Literature Review

Dance/movement therapy combined with *tai-chi* as an emotional regulation technique is a topic that still needs research. For the most part, articles about dance/movement therapy and *tai-chi* are reviews of literature or meta-analyses that include mindfulness-based interventions such as yoga. These articles will be examined to analyze the role of dance/movement therapy and *tai-chi* has as a regulation technique. There are three core principles of dance/movement therapy and *tai-chi*, as discussed by Dr Paul Lam an expert in *tai-chi* who has studied *tai-chi* for over 40

years. The first of the core principles of dance/movement therapy and *tai-chi* is an internal principle, this principle focuses on Jing and Song. Jing is defined as a quietness of the mind, developing an ability to quiet one's thoughts and focus on the exercises of *tai-chi* (Dr Paul Lam, 2018). Song is defined as an expansion of the joints, allowing for a gentle expansion and relaxation of the joints to allow your energy to flow freely (Dr Paul Lam, 2018). Deep breathing assists in finding Jing and Song, focusing on one's breath helps to quiet the mind and assists in relaxing the muscles and joints of the body. The second core principle is that of body structure. This principle focuses alignment by standing in an upright posture to assist with balance (Dr Paul Lam, 2018). This principle also focuses on weight transfer, allowing for the body to move smoothly and slowly to achieve better physical balance (Dr Paul Lam, 2018). The final core principle of *tai-chi* is that of movement control. By focusing on slow, smooth, and controlled movements the assists the body in finding quietness, or Jing (Dr Paul Lam, 2018). There is also a gentle resistance which assists in building inner strength of the muscles and assists with balance and control (Dr Paul Lam, 2018). By examining these three core principles it shows how dance/movement therapy when combined with *tai-chi* can be impactful in assisting children with regulation.

Deep Breathing

Dance/movement therapy and *tai-chi* focus on the importance of deep breathing, dance/movement therapy and *tai-chi* exercises are strongly linked to the breath as it gives life and energy to the movements. Deep breathing assists in the internal principle of dance/movement therapy and *tai-chi*, that of quietness and relaxation of the joints and muscles. Colace (2017) examines the effectiveness of dance/movement therapy through breath, enactment, and attunement as a regulation method for trauma. This article explores the concept of enactment,

breath, and attunement to help a client cope with their trauma. Deep breathing in dance/movement therapy is a core technique of the artform, when combined with *tai-chi* it can assist in relaxing and regulating our bodies Colace (2017) focused on breathing as a connecting force, “Breathing is deeply connected to whom we are, our emotions and the way we can regulate them, the way we relate to others” (Colace, 2017, p.38). Breath can assist in regulating our emotions, utilizing this idea with movement allows for participants to connect to their bodies and connect to others. *Tai-chi*’s utilization of deep breathing assists participants to focus solely on connecting their breath to their slow movements, each movement focuses on inhaling and exhaling during certain movements. Colace (2017) found that within their case study that movement and enactment with effective methods for helping the client integrate and process their trauma.

Deep breathing when paired with slow rhythmic movements, as done in dance/movement therapy and *tai-chi*, can promote regulation and relaxation. This article examines the importance of some of dance/movement therapy and *tai-chi*’s core techniques, breathing, and slow movements. Dieterich-Hartwell examines interoception and proposes a starting model for clients with PTSD. Dieterich-Hartwell’s model consists of three components, “...the general model that includes three main components: safety, regulating hyperarousal, and attending to interoception” (Dieterich-Hartwell, 2017, p. 42). Each of these components contribute to the eventual management of symptoms, safety must be established first, then hyperarousal and interoception can be attended to. To regulate hyperarousal, safety must be established first, one way to assist in the establishment of safety is to practice deep breathing. Deep breathing allows for the body to regulate itself by balancing the autonomic nervous system:

One way to regulate hyperarousal is through breath. According to Brown and Gerbarg (2005), specific breathing techniques are helpful in balancing the autonomic nervous system by stimulating the vagal nerve. Slow breathing (2–4 cpm) for example enhances parasympathetic activity and heart rate variability. (Brown and Gerbarg, 2005, as cited in Dieterich-Hartwell, 2017, p.42).

Using breath is scientifically shown to assist in regulation and relaxation by stimulating the vagal nerve. Through this article's development of a dance therapy application model, Dieterich-Hartwell found that slow movements and slow breathing were indeed beneficial for this population, “Nevertheless, an overarching theme in creating this model has been the realization that slowing down and taking simple and small steps with much repetition seem to be crucial elements for many in this population” (Dieterich-Hartwell, 2017, p.44). This article finds that slow breathing and slow movements are beneficial in helping trauma victims regulate themselves, dance/movement therapy and *tai-chi* utilizes these same techniques. Deep breathing in dance/movement therapy and *tai-chi* helps the participant achieve a mental quietness, or Jing, and focus on relaxing the muscles and joints, or Song. This mental quietness and relaxation assist in regulating our body by helping it slow down and focus on processing and then expressing our feelings. These similarities show that *tai-chi* as a movement technique can also be beneficial in assisting trauma victims emotionally regulate.

Deep breathing and slow movements help to ground our bodies in moments of emotional dysregulation, by allowing our mind to focus on simple tasks. Movement allows for our bodies to release energy and provides feedback to our minds to help us emotionally regulate. Without releasing this energy one can experience dissociation, “a defense mechanism in which conflicting impulses are kept apart or threatening ideas and feelings are separated from the rest

of the psyche” (APA, n.d., definition 1). Pierce (2014) investigates the integrative power of dance/movement therapy and the implications of it in treatment of developmental trauma and dissociation. This article offers a theoretical look into dance therapy and how it could assist in the treatment of developmental trauma, it offers a theoretical framework. The theoretical framework is grounded in the work of Pierre Janet and focuses on three stages, safety and stabilization, integration of traumatic memories, and development of the relational self and rehabilitation (Pierce, 2014). Pierce (2014) discusses deep breathing to regulate hyper-arousal and promote safety and stabilization. The article discusses the importance of self-regulation to regulate hyper-arousal, “By sequentially focusing attention on simple sense perceptions, the client orients away from traumatic re-experiencing and toward the relative safety of the present moment, serving to down-regulate hyper-arousal” (Pierce, 2014, p.12). It is suggested that by focusing on simple perceptions a participant can regulate themselves. This can also be achieved using dance/movement therapy combined with *tai-chi* as the movements of *tai-chi* are simple, slow, and controlled allowing the participants to focus on their breath and movements. The first stage of Pierce’s framework also discusses the importance of breath to regulate, “Teaching clients a simple means to voluntarily modulate their breath may offer powerful tools for autonomic self-regulation” (Pierce, 2014, p.12). Deep breathing can assist a participant regulate themselves by forcing their body to slow down and lower the user’s heartrate and stopping the fight or flight response. This can be achieved using dance/movement therapy combined with *tai-chi* as deep breathing is intrinsically linked to its practice and paired deep breathing with slowed movements to help a participant focus.

Slow rhythmic movements

Trudi Schoop's theory of dance/movement therapy discussed the importance of rhythmic movement to promote self-control, trust in one's body, and flexibility. *Tai-chi* exercises are meant to be done slowly with a continuous rhythm, this allows for participants to focus on relaxing the muscles and achieve a mental quietness. Combining these two ideas can show that dance/movement therapy when combined with *tai-chi*, can promote regulation through the building of trust in one's body, self-control, and flexibility. Mills (2002) explores the experiences of 5 adult women who have experienced trauma, and how dance/movement therapy impacted them. Mills (2002) discusses different facets of dance therapy and how it can be used to facilitate mind, body, and emotional integration, "The movement component of dance therapy can include rhythmic dance, spontaneous and creative movements, thematic movement improvisations, unconscious symbolic body movement, group dance, and range of movement and relaxation exercises" (Mills, 2002, p.76). Rhythmic movement was shown to assist in emotional regulation. As discussed by Trudi Schoop and *tai-chi*, rhythmic movements promote self-control and trust in their bodies which helps to facilitate emotional regulation and integration.

Rhythmic and repetitive movements in dance/movement therapy can be beneficial in the regulation and relaxation of the body, as discussed by Trudi Schoop. Pliske et al. (2021) discusses how experiences with play, creative, and expressive therapy serves as a coping strategy for clients exposed to ACEs (Adverse Childhood Events). Pliske et al. (2021) interview participants on the role of both informal and formal expressive arts to assist in coping with multiple ACEs. Participants discussed the benefits of rhythmic and repetitive movements in their healing:

Participants described repetitive, rhythmic activities within art, music, and play as calming and soothing experiences that improved emotion regulation through mastery-

oriented play: 'It was kind of an escape when I would play music. ... I was able to kind of detach a little bit from everything that was going on for me. Life was very confusing, and it was very overwhelming otherwise (Jane). (Pliske et al., 2021, p.251)

Jane's testimony reinforces a core technique of dance/movement therapy and *tai-chi*, that of rhythmic and repetitive movements being beneficial in calming the bodies and assisting in emotional regulation. *Tai-chi* exercises are often repetitive, with Jane's testimony in mind dance/movement therapy and *tai-chi* can be linked with this idea of repetition helping calm and regulate participants.

Trauma can be deeply seated into our subconscious, and therefore difficult to verbally process. Dance/movement therapy assists by allowing our bodies space to express feelings that we cannot put into words. Lapum et al. (2019) discusses dance as an alternative modality to talk therapy as it addresses where trauma is held and allows for agency in one's own body, "Traditional forms of therapy are not always optimal because abuse and violence can be difficult to talk about. Additionally, cognitive, and behavioral focused therapies may not address where the trauma is often held (i.e., the body)" (p.566). Dance/movement therapy allows for clients to access deep emotions that formed before they were able to speak and assists them in processing and healing from those emotions. *Tai-chi*, when combined with dance/movement therapy could also act in this same way, as it focuses on techniques such as deep breathing and slow movements to help emotionally regulate participants. Lapum et al. (2019) continues the discussion of utilizing repetitive and rhythmic movement to assist in the healing of trauma, "...the repetitive, patterned, and rhythmic nature inherent in dance can heal profound trauma, particularly early trauma that has caused brainstem dysregulation" (Perry, 2006, as cited in Lapum et al., 2019, p.568). Rhythmic movement is inherent in dance/movement therapy and

when combined with the *tai-chi* technique of slow rhythmic movements it can be shown to have an impact on trauma.

Rhythmic movement promotes self-control and trust in one's own body.

Dance/movement therapy when combined with *tai-chi* helps to promote emotional regulation using slow and rhythmic movement. Tortora (2010) developed a program that uses repetition and rhythmic movement as a way of healing from early infancy trauma. Tortora (2010) presents a single case study utilizing The Ways of Seeing method, a 16-month-old named Jessica, her mother, and her father. This study gives insight into how dance can be used to process early trauma. Over 7 months of treatment, Tortora explored a movement game with Jessica to help her process her early trauma. Tortora (2010) found, "Through our dance-play Jessica transforms these events from painful preverbal memories to playful re-enactments, which facilitate healing and strengthen her attachment relationship" (Tortora, 2010, p. 49). Using dance/movement therapy, Jessica was able to process her early trauma using a repetitive movement game. As discussed by Trudi Schoop, repetition and rhythm promote self-control and trust in one's body. Dance/movement therapy and *tai-chi* allows for participants to focus solely on the movement and breath and promote self-control and regulation so they can express themselves.

Dance/movement therapy and *tai-chi* support emotional regulation through utilizing slow, rhythmic movements, which as discussed by Trudi Schoop helps to promote self-control, trust, and flexibility. Betty (2013) examines supporting emotional regulation through dance/movement therapy for maltreated children through a comprehensive literature review. Betty (2013) examines different movements that promote emotional regulation, "Other movement-based interventions to increase emotional awareness include moving with full effort, breathing deeply, and exaggerating or repeating a movement. These techniques can enable previously

unacknowledged feelings to come to the surface and become available for processing” (Homann, 2010, as cited in Betty, 2013, p.49). Deep breathing and repeating movements are two core techniques of dance/movement therapy and *tai-chi*. As discussed by Trudi Schoop, rhythmic movements in dance/movement therapy promotes self-control, trust, and flexibility, and deep breathing is also shown to help us relax through the vagal nerve. Slow, rhythmic movements help to achieve the dance/movement therapy and *tai-chi* principle of body alignment. Emotional regulation can be achieved by utilizing these two dance/movement therapy and *tai-chi* techniques. Betty (2013) goes on to discuss more about rhythms and repetition, “When helping children to de-escalate, a progressive transition towards these rhythms can be quite effective. Over time, children will internalize these rhythms and be able to use them for self-soothing” (Betty, 2013, p.50). A core technique of dance/movement therapy and *tai-chi* is that of slow, controlled rhythmic movement, these movements allow participants to focus of their breath and achieving a quietness of the mind, or Jing. By quieting the mind, participants can achieve emotional regulation by quieting their thoughts and processing what is causing them to dysregulate.

Balance

Trudi Schoop also discusses the importance of balance through opposition, Schoop believed that by exploring exaggerated opposites one could then be brought back to unity and unison. Dance/movement therapy and *tai-chi* use balance to transfer their weight smoothly, as well as helping them find a mental quietness. Bernstein (2019) proposes a method focusing on building emotional resilience and memory-focused interventions to assist in healing from trauma. Bernstein grounds this approach in the works of Blanche Evans and facilitated a month-long workshop in Kolkata, India This workshop focused on dance experiences that addressed the

effects of trauma through expressive freedom. Bernstein investigates the importance of balance in dance therapy. Balance is a technique of dance/movement therapy and *tai-chi*, balance affects the dance/movement therapy and *tai-chi* principle of weight control as it allows participants to move smoothly and cleanly between forms and from one foot to the other. Bernstein discussed how balance can assist in improving self-control, “Mastering balance skills inspires confidence in self-control and in standing up for oneself” (Bernstein, 2019, p.203). Balance can inspire self-control and an ability to advocate for one’s needs. When looking at trauma, the idea of balance can help clients self-regulate their emotions so they can appropriately express their feelings and properly advocate for what they need. Bernstein found that the Kolkata Sanved community benefitted from dance/movement therapy, “... Empowerment-Focused Dance/Movement Therapy provides an emotionally safe approach which utilizes the full potential of dance for developing inner strengths and professional skills” (Bernstein, 2019, p.212). Through the development of balance and inner strength, this helps victims of trauma feel more in control of their emotions and their ability to control them. Dance/movement therapy when combined with *tai-chi* incorporates balance to achieve weight control and transfer smoothly between movements. It can be believed that by using *tai-chi*, trauma victims can begin to develop a better sense of self-control and help promote self-regulation using balance in movement.

Tai-chi

Dance/movement therapy and *tai-chi* techniques include balance, slow rhythmic movements, and deep breathing. Niles et al. (2019) explored *tai-chi* as an effective treatment for PTSD in veterans. Niles et al. (2019) utilized a program where participants engage in a warm-up, self-massage, and review of *tai-chi* principles, then *tai-chi* movements, breathing techniques, and finally relaxation all derived from the *tai-chi* Yang style (p.3). Participants engaged in an open-

ended interview after the program where they noted feeling calmed down during and after each session, “Participants found *Tai-chi* to be helpful with managing distressing symptoms. One veteran reported having decreased intrusive visions or flashbacks over the course of the study. Other participants commented on how *Tai-chi* was a helpful stress reduction technique” (Niles et al, 2019, p.6). This study found that *tai-chi* indeed helped participants manage their symptoms and feeling calmer by assisting them to quiet their mind and helping them reduce the stress they were feeling. This idea supports the claim that dance/movement therapy when combined with *tai-chi* can impact participants ability to regulate and feel calmer by achieving a quietness in the mind.

Dance/movement therapy and *tai-chi* utilize the ideas of Trudi Schoop and deep breathing to promote self-control, flexibility, and trust in one’s body, this helps participants self-regulate and engage in treatment. Taylor et al. (2020) examines if mindfulness and yoga and effective for treating psychologically trauma, specifically looking at mindfulness-based interventions (MBIs) that incorporate breath, relaxation, and meditation. Taylor et al. (2020) conducted a meta-analysis that analyzed the effectiveness of mindfulness-based interventions, “Mindfulness, yoga, and integrative exercise interventions are effective adjuncts to clinical programs targeting trauma-exposed people” (Taylor et al, 2020, p.564). By utilizing breath, relaxation, and meditation it was found that mindfulness-based interventions were effective. Dance/movement therapy when combined with *tai-chi* could offer similar results as they also utilize breath to relax the body, but also pair this with slow, rhythmic movements and balance as discussed by Trudi Schoop. It was discussed that mindfulness-based interventions are effective for those processing trauma. This article found that mindfulness-based interventions, such as *tai-chi* can be an effective regulation technique for those dealing with trauma.

When combined dance/movement therapy and *tai-chi* could help in the emotional regulation of participants with trauma. By utilizing balance, breath, and slow rhythmic movements, participants could promote regulation through trust of one's own body, self-control, and flexibility. Waechter & Wekerle (2015) conducted a literature review examining the promotion of resilience among maltreated children using *tai-chi*, yoga, meditation, and qigong. This article provides insight into the research of *tai-chi* and mindfulness-based interventions. Waechter & Wekerle (2015) found that the articles they were reviewing did show positive results, "Seven of the eight studies included in the scoping review indicated at least partial positive outcomes associated with the intervention. The outcomes mostly measured included emotional wellbeing, psychological distress, post-traumatic stress, depression, hopelessness, and self-esteem" (Waechter & Wekerle, 2015, p.28). Using dance/movement therapy and *tai-chi* were found to increase one's emotional wellbeing and increase their ability to handle emotional distress. By increasing the participants ability to handle emotional distress they could more easily emotional regulation by increasing their self-control. This is a main principle of the theory of Trudi Schoop who theorized that by using rhythmic movements one could increase their self-control.

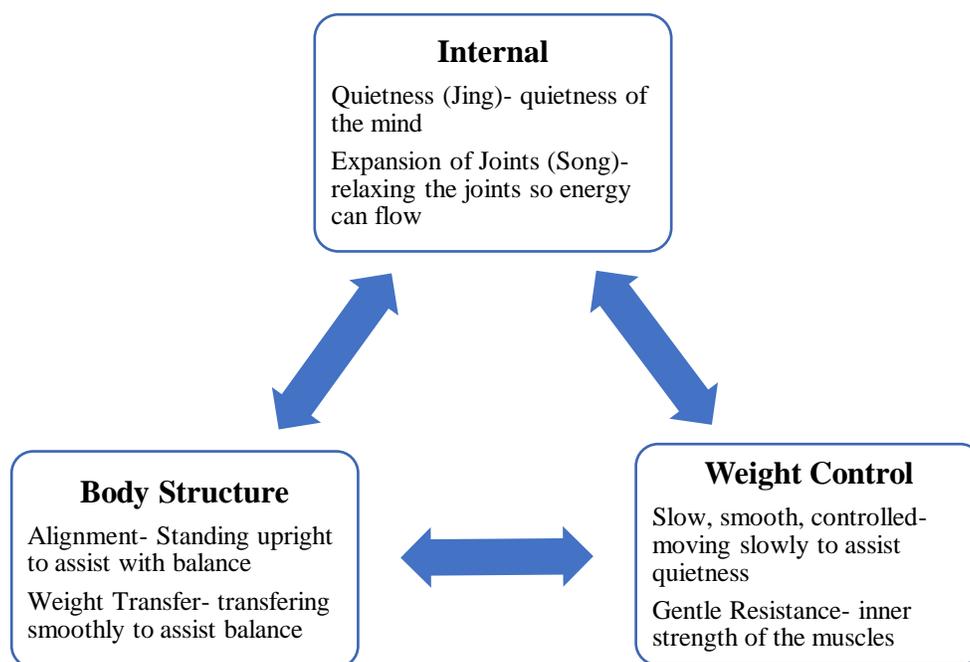
Methods

The method was formulated by combining dance/movement therapy and *tai-chi*. Utilizing videos and personal experience, visuals were created to explain the principles of dance/movement therapy and *tai-chi* (Figure 1). Through research four *tai-chi* exercises were chosen to fit into the method format. The four exercises included Dan Tien Breathing (also known as belly breathing), Stretch of the Spine, "Fair Lady working at the Chateau", and Stretch of the Knee (Dr Paul Lam, 2020). The exercises were placed into the format as follows, 5 Dan

Tien Breaths, 4 Stretches of the Spine, 3 “Chateau” exercises, 2 Stretches of the Knee, and 1 Dan Tien Breath. This format was chosen due to its similarity to many other grounding techniques used to help manage anxiety. The method would be presented to participants by first teaching them the *tai-chi* principles and how to properly execute the exercises, and then leading them through the method. The participants would be asked at the beginning and end of the session how they felt.

Figure 1

Dance/movement therapy and Tai-chi Principles



Note. This is a visual that gives a brief explanation of the dance/movement therapy and *tai-chi* principles as explained by *Tai-chi* expert Dr Paul Lam, who has studied *Tai-chi* for over 40 years (Dr Paul Lam, 2018).

Participants were found through the current internship at Lighthouse School. Lighthouse School is a bio-development treatment center, that is focused on treating students who struggle

with various mental health and/or learning disabilities that were not being treated properly by the student's public school system. The maintained caseload was searched, and participants were identified who had a history of trauma and had the physical ability to perform the exercises. The participants chosen were two individual clients and a group of 5 members. There was a total of 7 participants in this study. Of the 7 participants 6 were male and 1 was female, they were between the ages 9 and 11. Two sessions of the method were conducted with each of the individuals and the group, sessions were held at each participant's regularly scheduled therapy time. The sessions were conducted in a classroom with desks moved to the side to have room to move. A computer was used during sessions to display visual aids created in PowerPoint to explain dance/movement therapy and *tai-chi* to the participants.

To collect and record information a journal was kept noting what happened during each session. The journal was also used to record what thoughts or feelings came up during the session, how the session went and changes in participants affect. The principles of dance/movement therapy and *tai-chi* were reviewed with the participants. The participants were then led through each of the exercises, reminding them of the principles, and proper hand and foot work of each exercise. The participants executed the method and were reminded of the principles throughout each demonstration. At the end of each session, the forms were gathered, and paper clipped them together to keep track of participant's check-in and check-out information and filed them in a folder marked with "group" for the group or "individual 1" or "individual 2" for the individual clients.

Results

The purpose of this paper was to examine the impact of dance/movement therapy when combined with *tai-chi* to assist in emotional regulation for children who had experienced trauma.

Trudi Schoop's theory of dance/movement therapy was used as a theoretical framework, which discussed opposition to bring unity, and rhythm as a tool to increase self-control, trust, and flexibility. This framework was combined with *tai-chi* which also utilizes principles of an internal awareness, body alignment, and weight control. These principles were physicalized through the techniques of balance, slow and rhythmic movement, and deep breathing to relax and regulate. There were 7 participants total, they were chosen based on their history of trauma, physical ability, and availability. Each session began with a check-in and warm-up, which reviewed each exercise and went over the principles of dance/movement therapy and *tai-chi*. Participants were then lead through the exercises in a descending pyramid structure, 5 Dan Tien Breaths, 4 Stretch of the Spine, 3 "Fair Lady working at the Chateau", 2 Stretches of the Knee, and 1 Dan Tien Breath. At the end of the session, participants were asked a check-out question about how they were feeling. After each session, journaling was used to record what happened during the session, any noted feelings, and any changes in participant's affect.

Through observation, dance/movement therapy combined with *tai-chi* had an impact on the participants. When observing each of the participants affect during the exercises and immediately after the exercises some patterns were noted in the journal. It was noted that after completing the exercises each participant was more relaxed and willing to engage in treatment. One participant in the group, was noted at the beginning of the exercises to be uninterested in participating, remarking that the exercises sounded "boring and stupid". During the exercises, the participant was encouraged to try the exercises and at the end of the session the participant presented much calmer and was able to ask for what they needed appropriately. An individual participant presented at the beginning of the session as frustrated, remarking that they "didn't want to be here". During the exercises the individual participant began to engage, there was a

noticeable relaxation of tension in the participant's shoulders and jaw. After completing the exercise, they were able to express that they were "feeling stressed about history class". The individual participant was able to express their feelings and engage in a non-preferred topic without having a behavioral outburst. Through the observations it was found that participants were more likely to appropriately express their feelings, ask for what they need, and engage in further treatment.

As discussed in Trudi Schoop's theory of dance/movement therapy, the slow rhythmic movements, and balance could have assisted the participants to increase the self-control, trust in their bodies, flexibility, and unity. Deep breathing may have assisted participants in calming the autonomic nervous system and thus calm their bodies. It was seen through the observations that participants were more likely to engage in further treatment after completing the exercises, and appropriately ask for help. Though some participants remarked that "nothing changed" or that "we didn't do anything", it could be seen through observing their affect that they were regulated and were willing to engage in treatment. These observations support the claim of the capstone thesis that dance/movement therapy when combined with *tai-chi* can be used as an emotional regulation technique for children who have experienced trauma.

Discussion

This capstone thesis discusses the impact of dance/movement therapy when combined with *tai-chi* as an emotional regulation technique for children who have experienced trauma. Trudi Schoop's theory of dance/movement therapy was used as a theoretical framework, as it discusses the importance of balance through opposition to assist in creating unity, and slow and rhythmic movement to increase self-control, trust in the body, and flexibility. Dance/movement

therapy and *tai-chi* principles discuss the use of an internal quietness achieved through deep breathing, body alignment achieved through slow and rhythmic movement, and weight control achieved through balance. There were 7 total participants in the method, 2 individuals and one group with 5 members. Though the diagnosis of the 7 participants were ideal for the purposes of this capstone, it would have been beneficial if more participants were identified. More participants would allow for a greater understanding of the impact of dance/movement therapy when combined with *tai-chi*. Looking into other diagnoses also would have been beneficial to examine the additional impact of the method. This could be a possible avenue for further research into dance/movement therapy and *tai-chi*'s impact.

As shown in the literature review earlier in this paper, dance/movement therapy and *tai-chi* can be impactful in the processing of trauma. The literature review looked in the three dance/movement therapy and *tai-chi* techniques of deep breathing, slow, rhythmic movement, and balance, and *tai-chi* on its own. Betty (2013) found that rhythmic movements help children de-escalate, "When helping children to de-escalate, a progressive transition towards these rhythms can be quite effective. Over time, children will internalize these rhythms and be able to use them for self-soothing" (Betty, 2013, p.50). Through observation, this was also found in the method executed as participants were able to calm their bodies using the slow, rhythmic movements of dance/movement therapy and *tai-chi*. As discussed in the theories of Trudi Schoop, balance is key in increasing unity after opposition. Bernstein (2019) found that balance inspired self-control and confidence, "Mastering balance skills inspires confidence in self-control and in standing up for oneself" (Bernstein, 2019, p.203). When observing participants after the exercises, an increase in confidence and self-control was seen. Participants were able to appropriately ask for things they needed or wanted and engage in non-preferred activities after

the exercises, this suggests that they had more self-control as they were able to control their emotions and how they asked for things. Deep breathing is intrinsically linked to dance/movement therapy and *tai-chi*, it helps us calm our autonomic nervous system and assists us to focus. As discussed in Colace (2017), “Breathing is deeply connected to whom we are, our emotions and the way we can regulate them, the way we relate to others” (Colace, 2017, p.38). Through observations it was shown that deep breathing assisted participants to relax and calm their bodies. After completing the exercises participants were notably more relaxed and regulated, noticeably releasing tension in the shoulders. The literature review and the outcome of the capstone shows the impact of dance/movement therapy combined with *tai-chi* by examining the impact the techniques and principles of dance/movement therapy and *tai-chi* have as regulation technique for those dealing with trauma.

This capstone thesis shows the impact of dance/movement therapy combined with *tai-chi* as an emotional regulation tactic for children who have experienced trauma. This method contributes to dance/movement therapy by combining the theories of Trudi Schoop with the ideas of *tai-chi* to develop an emotional regulation technique. It is the hope that more expressive arts therapists will research dance/movement therapy combined with *tai-chi* and conduct more research to continue to investigate the potential of this combination. Further steps to be explored is testing this method with other populations to research its possible utility with other diagnoses or other age groups. Recommendation includes looking into wider age ranges of participants, other diagnoses, and other *tai-chi* exercises for further research. As this study investigated specific *tai-chi* exercises in combination with dance/movement therapy, the next step for research could entail the general practice of *tai-chi* in combination with dance/movement therapy as an emotional regulation technique. After developing this method, it is the belief that

dance/movement therapy when combined with *tai-chi* has the possibility of being an impactful technique for many different populations. Through further research, the combination of dance/movement therapy and *tai-chi* can showcase its ability to promote regulation and relaxation and assist in the continual support of those dealing with mental health struggles.

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THESIS APPROVAL FORM

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Student's Name: **Brenna Meindersma**

Type of Project: Thesis

Title: **Dance/Movement Therapy Combined with *Tai-chi* as a Regulation Strategy for Children Who Have Experienced Trauma: Developing a Method**

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In the judgment of the following signatory this thesis meets the academic standards that have been established for the above degree.

Thesis Advisor: **Carla Velazquez-Garcia**