# **Lesley University**

# DigitalCommons@Lesley

**Expressive Therapies Capstone Theses** 

Graduate School of Arts and Social Sciences (GSASS)

Spring 5-18-2024

# Utilizing Dance/Movement Therapy for Children with Attention-Deficit/Hyperactivity Disorder: Development of a Method

Jayda Pearson Lesley University, jpearso8@lesley.edu

Follow this and additional works at: https://digitalcommons.lesley.edu/expressive\_theses



Part of the Dance Movement Therapy Commons, and the Social and Behavioral Sciences Commons

#### **Recommended Citation**

Pearson, Jayda, "Utilizing Dance/Movement Therapy for Children with Attention-Deficit/Hyperactivity Disorder: Development of a Method" (2024). Expressive Therapies Capstone Theses. 793. https://digitalcommons.lesley.edu/expressive\_theses/793

This Thesis is brought to you for free and open access by the Graduate School of Arts and Social Sciences (GSASS) at DigitalCommons@Lesley. It has been accepted for inclusion in Expressive Therapies Capstone Theses by an authorized administrator of DigitalCommons@Lesley. For more information, please contact digitalcommons@lesley.edu, cvrattos@lesley.edu.

Utilizing Dance/Movement Therapy for Children with Attention-Deficit/Hyperactivity Disorder:

Development of a Method

Capstone Thesis

Lesley University

April 18, 2024

Jayda Pearson

Dance/Movement Therapy

E. Kellogg, PhD

Utilizing Dance/Movement Therapy for Children with Attention-Deficit/Hyperactivity Disorder:

Development of a Method

#### Abstract

While there is limited research on the use of dance/movement therapy (DMT) with attention-deficit/hyperactivity disorder. This thesis introduces an intervention focused on utilizing (DMT) to assist children with ADHD in self-regulation during periods of dysregulation associated with the disorder. The research is backed by literature reviews covering various topics related to ADHD symptoms such as dysregulation, impulsivity, and attention difficulties. Furthermore, the thesis delves into the background of dance/movement therapy and explores how DMT can be integrated with other modalities such as play therapy for a comprehensive therapeutic approach.

Keywords: dance/movement therapy, attention-deficit/hyperactivity disorder, children

#### Introduction

In recent years, mental health has seen growing recognition of alternative therapeutic approaches to complement traditional interventions for various neurodevelopmental disorders. Attention-deficit/hyperactivity disorder (ADHD) stands out as a prevalent condition characterized by persistent challenges in attention, hyperactivity, and impulsivity. As the demand for holistic and personalized interventions increases, the intersection of ADHD and Dance/movement Therapy (DMT) appeared as a compelling area of exploration.

This thesis looks at the potential of Dance/movement Therapy as a therapeutic modality for individuals diagnosed with ADHD. Dance/movement therapy is a form of expressive therapy, harnesses the inherent connection between movement and cognition, offering a unique avenue for emotional expression, self-regulation, and interpersonal engagement. It will also focus on individuals diagnosed with ADHD who present with anger and the incorporation of play therapy during the client's intervention. The intent was to be able to use dance/movement therapy and its techniques to help alleviate symptoms and allow the client to begin to understand who they are as well as who they are within their own body.

The intervention and game proposed within this thesis focused on emotions, where they were felt within the body, and developing an ability to describe it whether through movement, speech, or drawing. By utilizing this game within a therapy session, it is helping "the child to better understand his/her behaviors and underlying emotional needs, learn healthy coping skills, increase delayed gratification skills, and improve the parent-child relationship" (Mellenthin, 2018, p. 12).

# **Internship Site Experience**

Throughout the 2023/2024 academic year, I have been doing a clinical internship through an agency that provides in-home therapy to its clients. The agency works with people ranging from the age of three to twenty-two. The main population that I have served has been white children between the ages of eight and fifteen, and most of them had attention-deficit/hyperactivity disorder. Something I noted was that the one child of color they worked with was diagnosed not only with ADHD, but also with oppositional defiant disorder (ODD) at an extremely young age.

When comparing the presentation of the white child and the black child, the white child's behaviors were much more extreme to the point where I decided to speak with their supervisor about the diagnosis of ODD and the age the child of color received it at. When speaking to my supervisor about it, I began to think about critical race theory (CRT) because racism is still prevalent within society. Black children are diagnosed with ODD while their White counterparts receive a diagnosis of ADHD (Ballentine, 2019).

Racial and cultural bias still exists within the mental health field, whether intentional or not. This has appeared to have a negative effect on the black child's life. The internship chosen includes working with the child and their family within the home, and speaking to their school, primary care physician, and any other major person in their life. I had noticed that the school has really focused on the black child due to him having ODD on his chart. Their goal is to work with the child to redirect and replace his behaviors within the classroom and with his peers. The child and his parents feel as if everyone is always watching them, which appeared to have negative impacts on his relationships with staff, peers, and coaches of extracurricular activities.

Although the white child presented with more extreme behaviors, they were allowed to continue participating in activities, even though they had altercations with teammates and difficulties with adults. Even when White and Black children demonstrate similar behaviors.

Black children are more likely to be diagnosed with disruptive behavior disorder (DBD) than White children (Ballentine, 2019).

# **Intervention Inspiration**

While working with this population, one client inspired this intervention. What was noticed while working with this client was that the best way to connect, teach, and collaborate was through play therapy. Play therapy is defined as "a systemic use of a theoretical model to establish an interpersonal process wherein trained play therapists use the therapeutic powers of play to help clients prevent or resolve psychosocial difficulties and achieve optimal growth and development" (The Association for Play Therapy, n.d). This client had difficulties understanding their emotions, identifying where emotions were felt within the body, acknowledging what was happening when they were dysregulated, and being able to self-regulate. Due to factors outside of my control, I had to remove the client from my caseload for my safety due to physical aggression aimed towards me.

#### **Literature Review**

#### **ADHD**

As previously mentioned, ADHD is a neurodevelopmental disorder that "is frequently associated with emotional dysregulation (ED) that is characterized by excessive and inappropriate emotional reactions" (Vacher et al., 2020, par. 1). Onset of ADHD usually begins during childhood and often persists into adolescence and adulthood. The disorder is

characterized by persistent patterns of inattention, hyperactivity, and impulsivity that significantly affect an individual's daily functioning.

According to the National Institute of Mental Health (NIMH), ADHD has three types: predominantly inattentive, predominantly hyperactive-impulsive, or combined. Someone with predominantly inattentive ADHD has difficulties organizing or finishing tasks, following instructions, or paying attention to details. Predominantly hyperactive-impulsive ADHD presents itself through difficulties sitting still for a long time, such as at the dinner table or doing homework, fidgets, and talks a lot. They may also interrupt others during conversations, speak at inappropriate times, or grab items from others if the person also has difficulties with impulsive control. As the child becomes older and enters adolescence, "symptoms of inattention and impulsivity typically continue and may cause worsening academic, organizational, and relationship challenges" (NIHM, 2021).

Within children, ADHD is characterized by hyperactivity and impulsivity and can interfere with academic performance and peer relationships. As the child matures, their symptoms of hyperactivity become lessened and can appear as restlessness or fidgeting (NIHM, 2021). As for teens, symptoms that arise tend to involve risky behavior which may include unsafe sexual activity and/or substance use (NIHM, 2021). Some treatments used to help alleviate symptoms include medications, psychotherapy, and utilization of academic supports.

Within the Diagnostic and Statistical Manual of Mental Disorders 5<sup>th</sup> Edition, Text Revision (DSM-5-TR), ADHD is defined as "a persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development, as characterized by..." inattention and/or hyperactivity and impulsivity (American Psychiatric Association [APA], 2022, p. 69). Characteristics of inattention include struggling to continuously maintain completing a

single task such as homework and can become easily distracted. Hyperactivity "refers to excessive motor activity" (APA, 2022, pp. 70) while impulsivity refers to doing something at a rapid speed without prior thinking which could possibly cause harm to the individual. Hyperactivity can be seen through someone interrupting the conversation to answer before the sentence is finished, leg tapping, or squirming within their chair (APA, 2022).

Criteria for being diagnosed with attention-deficit/hyperactivity disorder require the person to have symptoms for at least six months, negatively affecting their social and academic/occupational activities. When diagnosing someone under 17, they must have six or more characteristics. For those older than 17, at least five of the symptoms must appear (APA, 2022).

The exact causes of ADHD are not fully understood, and it likely involves a combination of genetic, neurological, developmental, and possibly environmental factors. There are studies that also suggest that exposure to certain environmental factors during pregnancy, such as smoking, alcohol use, or exposure to toxins, and stress may increase the risk of ADHD (Grizenko et al., 2012). It's important to note that ADHD is a complex and multifaceted condition, and the interplay of these various factors can vary from person to person. Further research is ongoing to deepen our understanding of the precise causes and contributing factors associated with ADHD.

### **Executive Function and Memory**

Executive functioning refers to a set of mental processes that enable individuals to plan, organize, manage time, focus attention, regulate emotions, and achieve goals effectively. A fundamental aspect is working memory, which involves the ability to store and manipulate information in the mind for short periods. People with ADHD tend to struggle with working

memory tasks, which leads to difficulties in following instructions, organizing tasks, and staying focused (Alderson, et al., 2013). Studies have shown that working memory plays a crucial role in cognitive tasks such as problem-solving, decision-making, and learning (Baddeley, 2012).

Another key component of executive functioning is inhibitory control, which refers to the capacity to suppress irrelevant or impulsive thoughts, behaviors, and responses. Inhibitory control is essential for self-regulation and impulse control, contributing to goal-directed behavior and emotional regulation (Diamond, 2013). Executive function deficits play a significant role in ADHD. "Emerging evidence suggests that higher levels of irritability in childhood is linked to executive dysfunction. EF is a set of cognitive processes that enable deliberate, topdown regulation of thought, behavior, and emotion" (Brænden et al., 2024, p. 116).

As stated, difficulties with memory are commonly observed in individuals with ADHD. One area of memory affected in ADHD is working memory, which involves the temporary storage and manipulation of information for cognitive tasks. It has been shown that individuals with ADHD generally exhibit deficits in working memory which contribute to academic difficulties and impairments in cognitive performance among individuals with ADHD.

Individuals with ADHD may experience challenges in episodic memory, which involves the encoding, storage, and retrieval of specific events or experiences as well as prospective memory, which involves remembering to perform tasks or actions in the future, may also be impaired in individuals with ADHD. Some individuals with ADHD may exhibit weaknesses in episodic memory tasks, such as recalling past events, remembering details of personal experiences, and organizing autobiographical information (Biederman et al., 2004). These episodic memory difficulties can impact learning, social interactions, and daily life functioning. Others may have challenges with prospective memory which can lead to difficulties in

remembering deadlines, appointments, and obligations, affecting organizational skills and time management (Kerns, 2000). These challenges in prospective memory contribute to difficulties in planning, goal setting, and task completion among individuals with ADHD.

#### **Children and ADHD**

As stated prior, attention-deficit/hyperactivity disorder is often being easily distracted, hyperactivity, and impulsivity. It can manifest as difficulty in modulating emotional responses, emotional reactivity, impulsivity, and mood swings (Shaw et al., 2014). Some children may rapidly become dysregulated when things do not go their way. They may have an angry outburst and destroy things (Wender & Tomb, 2016).

Impulsivity also plays a role within ADHD, often resulting in hasty decisions or actions that may have negative consequences (APA, 2022). It can show up in a variety of different ways such as engaging in risky behavior without considering potential outcomes or blurting out answers (APA, 2022). It can lead to difficulties in academia through assignments being incomplete, conflicts with peers, and difficulties in maintaining friendships due to impulsive behaviors and difficulties in emotional regulation (Pelham & Fabiano, 2008).

Impulsivity and hyperactivity can lead to social challenges such as interrupting others, difficulty taking turns, and impulsive responses that may be perceived as disruptive or inappropriate (APA, 2022). Hyperactivity can also affect children's social interactions and relationships. They may have difficulty engaging in activities that require sustained attention or remaining calm during group activities or conversations (Pelham & Fabiano, 2008).

## Emotional Challenges with Self-regulation within ADHD

Within this site, I have seen clients who have thrown objects and broken things, such as toys, electronics, and doors. Some children have been witnessed engaging in physical aggression such as kicking, biting, and punching people within their household. There has also been aggression shown with peers during school hours, on the playground, during sports practice, and in public spaces such as the supermarket. It can be seen through pushing, intimidation, yelling, and more. From working at the internship, it appeared that these symptoms would appear lot of the time when someone told them no or if they did not get their way.

Within the DSM-5-TR criteria for ADHD, there is no explicit symptom of anger. However, emotional dysregulation is often observed in individuals with ADHD. According to research, approximately 54% of children with ADHD have occurrences of aggression (Rahman et al., 2023). Some individuals experience challenges with controlling their emotions, leading to frustration and angry outbursts; issues regarding impulsivity are also common, and "tend to display more inappropriate behavioural and aggressive responses in social relationships" (Mphahlele et al., 2023, p.10).

ADHD and self-regulation are closely intertwined concepts, as individuals with ADHD often face challenges in regulating their behavior, emotions, and attention. Self-regulation refers to the ability to manage one's thoughts, emotions, impulses, and behaviors in a goal-directed and adaptive manner. Individuals with ADHD commonly exhibit difficulties in self-regulation across various domains. These difficulties manifest as impulsivity, hyperactivity, inattention, emotional dysregulation, and difficulties in planning and organization.

The window of tolerance is often used in the context of mental health and emotional regulation. It is used in trauma-informed care and interventions that target emotional regulation.

It refers to an individual's optimal zone of arousal where they can effectively process and respond to stimuli without becoming overwhelmed or shutting down.

The concept is especially relevant in understanding how individuals manage stress, regulate emotions, and cope with challenges. The window of tolerance framework suggests that individuals have a range of arousal levels within which they can function optimally. When arousal levels are within this window, individuals can think clearly, regulate their emotions effectively, and engage in adaptive behaviors (Ogden et al., 2006). However, when arousal levels exceed the upper limit of the window, individuals may experience heightened anxiety, panic, or emotional dysregulation. When in the lower limit of the window, individuals may experience dissociation, numbness, or a shutdown response (Siegel, 2010).

The window of tolerance framework can be used for assessing and monitoring clients' emotional states. It also helps the clients learn and recognize when they are dysregulated so they can implement coping strategies (Siegel, 2010). Having the client understand the window of tolerance can create collaboration when developing a safety plan. The client can help identify triggers and establish coping mechanisms to help stay within their optimal arousal zone (Cloitre et al., 2012).

# ADHD and Oppositional Defiant Disorder

Within the DSM-5-TR oppositional defiant disorder appears as a differential diagnosis for attention-deficit/hyperactivity disorder. They have similar characteristics such as they may "resist work or school tasks that require self-application because they resist conforming to others' demands" (APA, 2022, p. 73). They also are "...related to irritability" (Brænden. et al, 2024, p. 116). Both diagnoses also have difficulty with controlling their impulses and negative emotions.

With both ODD and ADHD, is the earlier they are diagnosed, "the more likely it is that the symptoms can be managed" (Biscontini, 2024).

In order to be diagnosed with oppositional defiant disorder there must be "A pattern of angry/irritable mood, argumentative/defiant behavior, or vindictiveness lasting at least 6 months as evidenced by at least four symptoms from any of the following cate-gories and exhibited during interaction with at least one individual who is not a sibling" (APA, 2022, p.523). For children younger than 5 the behavior must occur for at least six months and occur most days unless otherwise noted. (APA, 2022). For children older than 5 years old, the period of time is the same, but it only needs to occur at least once a week (APA, 2022).

#### Treatment for Children with ADHD

Treatment for children with ADHD typically involves a multimodal approach that addresses both behavioral and cognitive aspects. Behavioral therapies including behavior modification techniques and parenting training have been effective in improving behavior in children and managing symptoms (Pelham & Fabiano, 2008). Cognitive-behavioral therapy (CBT) can also be used to focus on the improvement of self-regulation, emotional regulation, and executive functioning skills (Safren et al., 2005).

Psychoeducation for parents of children with ADHD may include strategies for behavior management, organizational support, and boosting their child's self-control. In a school setting, various academic accommodations can also help create a supportive environment for students with ADHD. This may include an individualized education program (IEP) which can be used to help meet the needs of child (CDC, 2023). For children older than six, medications including both stimulant and non-stimulant options may be prescribed.

Individual or group counseling sessions with a mental health professional can provide children with coping strategies, social skills training, and emotional support. Creating a structured and consistent environment, breaking tasks into manageable steps, and incorporating positive reinforcement are essential components of managing ADHD. Collaborative efforts between parents, educators, and healthcare professionals are crucial for tailoring the treatment plan to meet the specific needs of each child with ADHD, promoting their overall well-being and success in various aspects of life.

#### **COVID-19 and ADHD**

The COVID-19 pandemic has had a widespread and profound impact on various aspects of people's daily lives. There was uncertainty in the world with a global pandemic which caused an abrupt disruption within people's lives and contributed to increased stress and anxiety. Parents and children were in the house together more during the pandemic and had to learn a new way of life for an unknown amount of time.

The world became isolated and access to healthcare and treatment was strained due to the increased demand for health care and mental health. Within the educational system there were changes made to continue facilitating class online through multiple new digital platforms, causing extra strain for educators (Dayal, 2023). Within the educational system, there were abrupt school closures which caused the shift to remote learning.

Educators had to learn a new way to teach students while simultaneously learning new applications such as Zoom. Students had to adapt to their new learning environment, while also facing possible distractions. Some teachers began to host classes that were originally synchronous as asynchronous classes causing stress in grasping the material and getting the work in on time. There was the digital divide that showed the disparities in accessing technology and

the internet for those who had disadvantaged backgrounds. It made it more difficult for participation and learning due to the lack of reliable internet, electronic devices, or a suitable work environment (Jackson et al., 2023)

Covid-19 impacted children with ADHD in a few ways such as physical activities, motivation, social isolation, caregiver responsibilities, etc. Some children during the pandemic had a decrease in physical activity due to "social distancing requirements, decreased motivation, facility closures, and an overall decrease in physical and mental health" (Seal, et al., 2023, par. 20. Others found the opposite because they found ways to engage in different activities such as hiking, biking, or at-home workouts. (Seal, et al., 2023, par. 24.) A lot of people felt socially isolated, including children with ADHD. With that social isolation some guardians of children with ADHD had difficulties having time to themselves with "Limited options with daycares, babysitters, and an overall diminished social network due to social distancing mandates prevented opportunities for respite and self-care" (Seal, et al., 2023, par. 24). Some benefits that came from the pandemic for children with ADHD included Zoom. Having classes being provided through zoom provided an opportunity to better accommodate their needs through having a schedule that was less rigid. It allowed for personalized learning opportunities (Riley, 2021).

#### **Dance/Movement Therapy**

Dance/movement therapy is a holistic and expressive form of psychotherapy that utilizes the language of movement to foster emotional, cognitive, and physical well-being. Grounded in the belief that the mind and body are interconnected, DMT recognizes that movement can serve as a powerful tool for self-expression and communication. In a therapeutic setting, individuals engage in various dance and movement activities, allowing them to explore and process their

emotions, thoughts, and experiences. Trained dance/movement therapists guide clients through this process, facilitating self-discovery and promoting a deeper understanding of one's inner world.

Dance/movement therapy is applicable to a wide range of populations, including those dealing with mental health challenges, trauma, developmental disorders, and physical disabilities. It offers a non-verbal and creative approach to therapy, promoting self-awareness, emotional regulation, and personal growth (American Dance Therapy Association [ADTA], 2020).

Dance/movement Therapy was founded by Marian Chace. She helped develop the ADTA and was its first president from 1966-1968 (ADTA, 2020) The ADTA helps promote the use of dance as a therapeutic tool and provides training and support for professionals in the field. Marian Chace's contributions to the development of dance/movement therapy continues to influence the practice and growth of this field. As previously stated, DMT is a valuable form of therapy that integrates movement, creativity, and the mind-body connection to support individuals in their emotional and psychological well-being.

#### DMT & ADHD

Dance/movement therapy can be a valuable therapeutic approach for individuals with ADHD. While there is limited research specifically on using DMT for ADHD, the principles and benefits of DMT align with the needs of individuals with ADHD. A few benefits to implementing DMT include being adaptable to the child's needs, collaborative and interactive movement-based play, and catering movement activities to the diverse sensory needs of the child (Koch et al., 2014).

A critical skill to have is emotional regulation. Children with ADHD often struggle with managing their emotions effectively. Aside from cognitive-behavioral therapy (CBT), which is used to help is used to help children with ADHD learn, identify, understand, and regulate their emotions. Dance/movement therapy is a great technique to integrate into the work done with someone who has ADHD as well. It can address the unique needs of these children using a holistic approach that promotes physical, social, emotional, and cognitive well-being. It can be used to work with emotional regulation, somatic awareness, and self-esteem. Dance/movement therapy can be used "as a tool for developing more self-confidence in them" (Bhattacharya et. al, 2023, p. 29). It can improve the overall quality of someone's life and can remove negative emotions and allow them to express them through movement.

Emotional Regulation. Emotional regulation refers to the ability to effectively manage and respond to one's emotions in a healthy and adaptive manner. It involves being aware of emotions, understanding triggers, and employing strategies to modulate emotional experiences. Emotional regulation plays a crucial role in mental health, interpersonal relationships, and overall well-being. Emotional regulation begins with awareness and recognition of emotions. This involves identifying and labeling emotions accurately, such as distinguishing between anger, sadness, joy, fear, and so on. Awareness helps individuals understand the intensity and impact of their emotions on thoughts and behaviors (Gross, 2015).

Dance/movement therapy is a powerful intervention that can support emotional regulation through providing focus on social-emotional learning, which can be done within groups. Participants can engage in movement-based interactions, practice empathy, communication, and conflict resolution skills, and develop emotional intelligence within a supportive and therapeutic environment. It also incorporates mindfulness practices that support

self-regulation skills through breathing exercises, body-centered awareness, mindful movement, stress management, modulating emotional responses, and learning to regulate arousal levels (Koch et al., 2019). Dance/movement therapy can also be used to help create environments that are predictable and structured to help support the child.

Somatic awareness. Somatic awareness refers to the ability to examine, recognize, and understand sensations, and movements within one's body. It involves being attuned to internal bodily sensations, to identify different factors needed for self-regulation (Bakal & Schaefer, 2008). Somatic awareness plays a crucial role in various aspects of human functioning, including emotional regulation, stress management, self-awareness, and overall mind-body connection. Through movement and body-based work, individuals can learn to identify and tolerate, and regulate their emotional states which can lead to greater emotional resilience and well-being in the future. (Koch et al., 2019). Using DMT can help individuals to reflect on their experiences and gain a deeper understanding through movement.

**Self-esteem.** Individuals with ADHD often experience challenges that can affect their self-esteem. Difficulties with attention, organization, impulse control, and social interactions can contribute to their low their lower self-esteem (Daley & Birchwood, 2010). These challenges may manifest in different ways and can have cumulative effects on how individuals perceive themselves and their abilities.

Dance and self-esteem can help wash away negative emotions and allow them to express them through movement. Dance/movement therapy has the ability to improve someone's creativity and wellbeing (Brocklehurst et. al, 2022, p. 10). It integrates physical movement, emotional expression, as well as cognitive processes.

This type of therapy encourages individuals to connect with their bodies to slowly develop a positive relationship with their physical selves. It allows individuals to become more aware of their bodies, embrace the sense of embodiment and acceptance, and gives for a chance of exploration (Koch et al., 2019). Dance/movement therapy can also provide opportunities for autonomy, creative expression, and choice. Dance/movement therapy encourages those who participate to make their own decisions about their movement choices, take part in fostering a sense of agency and empowerment through exploring their creative potentials.

#### Multimodal Approach/Play Therapy

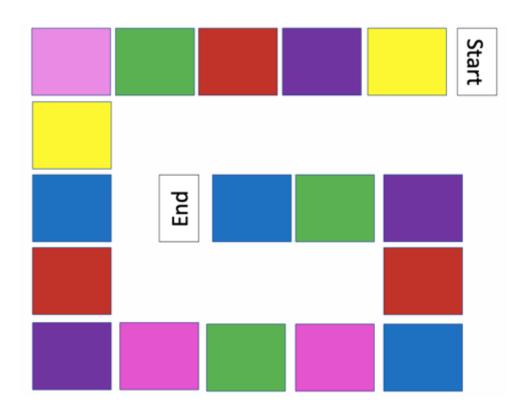
A multimodal approach for children with ADHD involves combining various interventions and strategies from different domains to address the complex needs of these individuals; combined approaches can support their cognitive, emotional, social, and behavioral challenges. This approach recognizes that ADHD is a multifaceted condition that requires comprehensive assessment and tailored interventions. Using a multimodal approach that incorporates play therapy can be highly beneficial for children with ADHD. Incorporating play therapy to incorporate current and relevant media can be an avenue to help create emotional intelligence by being able to "(a) recognize or perceive emotions, (b) utilize emotions to inform thought, (c) regulate emotions, and (d) manage emotions" (Ali, 2017, p. 378).

An effective tool to explore emotions and enhance emotional regulation skills is through the movie *Inside Out*. It can help children with ADHD recognize and label their own emotions through the way the emotions are portrayed which can make it easier for children to understand and identify each emotion. It can also show how emotions may influence behavior and decision-making and encourage empathy through scenes within the movie to teach children strategies for managing intense emotions, effective problem-solving, and coping with frustration (Trentacosta

& Fine, 2010). It also illustrates healthy and unhealthy coping strategies for dealing with emotions and normalizes the range of emotions including sadness and anger, which can reduce stigma and help the client feel validated through their emotional experiences.

#### **Intervention**

The proposed intervention would be completed at the client's home and includes a weekly check-in, the main intervention activity conclusion in one 90-minute session. The weekly check-in helps cultivate a relatively safe and supportive environment to help strengthen trust and openness (Geller & Greenberg, 2012). As that trust and openness is becoming established, it can help the client become more comfortable expressing their thoughts and feelings to an outside party. Check-ins also allows the therapist to assess the client's emotional and mental well-being.



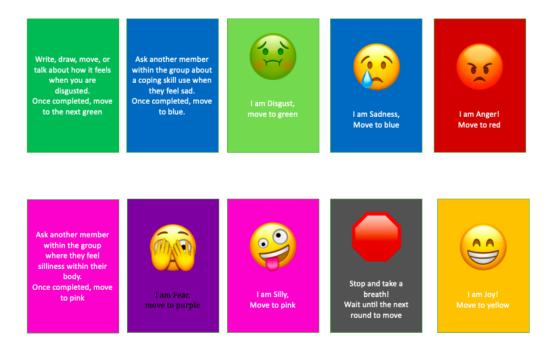


Figure 1

Emotions Board Game created in 2024 by J Pearson.

The intervention includes built-in play, coping strategies, and psychoeducation around emotions, which is important because it offers valuable information, skills, and resources to those who are learning. It also incorporates turn-taking, self-regulation, and rule following. The goal for the closing was to offer time for the participants to reflect on what was learned throughout the session. It is a space to ask questions, reflect, and have a conversation about what came up during the game. A sense of closure to the session can help the client transition to their next task once the intervention is completed.

#### Check-In

- 1. Emotions check-in: The client is asked about their week.
  - a. Positive moment: Client would be asked to think about a moment within the last week that was positive for them.

- They would be prompted to explain how they felt during that event or moment, and where within their body it was felt.
- b. Moment of dysregulation: Client would be asked about a moment within the last week where they felt upset, mad, or angry, what was the trigger (starting point), and what happened?
  - ii. When they felt said emotion (event).
  - iii. Where did they feel it within their body?
  - iv. How did they react?
  - v. When reflecting back on the event, what could they have done differently?

#### 2. Inside Out Board Game

- c. Before starting the game, rules would be explained.
  - Cards included within the deck invite the participants to either talk, move, draw, or write the emotion.
    - There are also stop and take a breath cards, cards that invite the
      participant to show where they feel said emotion in their body, and
      cards that invite the participant to ask someone else a coping skill
      they use when they are angry.
- d. During moments of dysregulation, the participants (the client, me, the therapeutic training and support, and the client's guardian) will be invited to use techniques that have been taught such as breathing and/or moving through the space (walking within the space or utilizing something of comfort within the client's home) while also practicing breath to bring them back to a regulated state.

#### 3. Closing

- e. If there is time after the game, I would invite the participants to summarize what they got out of the game preferably through movement, but the other modalities would be allowed as well.
- f. If there is little to no time after the game is completed, the clinician would invite the participants to do a movement phrase of what they got from the game.
  - The movement phrase can be as short or as long as the participants would like it to be.
    - I would ask if the participant would like to share what the movement meant to them.
- g. The conclusion would be an invitation to have a group deep breath before the therapeutic training support and I leave the home.

#### Discussion

My hope for this was to be able to complete the intervention that was created. Due to an unforeseen event, the intervention was not able to be execute resulting in the inability to create a results section. The outcome that is hypothesized is that over time the client would have become be able to self-regulate in the future.

This intervention along with extra psychoeducation and take-home exercises would help the child learn to identify features of when they are becoming dysregulated and have access to the techniques that work best for them. As the client begins to utilize the techniques learned within this intervention. Their interactions with peers and adults will also become better resulting in a better quality of life for the child because they will be able to make friends and have positive interactions with them and others.

This game was played once with the client prior to creating the entire intervention for this thesis. The board only included cards that incorporated different therapeutic options for the client to choose from and the faces of the current characters. The intention behind the different therapeutic option cards was to let them pick the option they felt the most comfortable sharing in the group. Prior to the game, the client had difficulties understanding their emotions and did not understand how they would become abruptly dysregulated.

A change that was added to the game for this thesis included improving the type of cards that were in the deck. Improvements that were made to the deck itself were creating cards that asked the participants to ask someone about their coping skills and cards that tell you to take a breath. The coping skills cards were added after initially playing this game with the client for them to learn other ways to cope through familiar people. The card about breath was added because within dance/movement therapy, breath work is something that is used to help self-regulate. That card is also helpful if the child becomes dysregulated throughout the game. It can also be used as a reminder to take a moment to breathe during tense or uncomfortable moments. It has been observed that the client's breath lessens.

Where this intervention could expand and continue in the future. A few things that would be incorporated into the updated version would be the new characters from new movie would be incorporated. There would also be a few cards that would have the participant go backwards. The purpose of that card would be two things. To help work with the participants on their frustration tolerance and to also not have the focus be on getting to the end and winning. I may also add a card to allow the participant to create their own prompt or question.

When this intervention is completed in the future. I would have the intervention be broken up into multiple sessions with multiple sections of this intervention within each. The

main focus for the first two or three 90-minute sessions would be psychoeducational focusing on the different emotions, where they are felt within the body, and different self-regulation techniques. After each session was completed, the client would be given the task of trying out the different coping strategies to find out which ones worked best for them.

When the client would come back for the following session, there would be a check-in regarding how their week went, if they had tried the techniques, and which ones they found successful or unsuccessful. There would be a brief summary of what happened in the prior session. Once those initial sessions were completed, the intervention within this thesis would happen.

The pros for the intervention that was created are that it gives autonomy to the participants to choose which route they would like to go in regard to expressing their emotions. It also allows for collaboration because it allows you to ask others about their coping strategies as well. Another pro is that this intervention is inspired by a movie that is relevant to the child's life. It gives the participants talking points, can help the facilitator break down sections within the movie and connect it to real life experiences, and a gives the child a visual representation of each emotion.

A few cons about this intervention is that the game may appear infantile for older children, so the age limit for this specific intervention may work better for children on the younger side. If a child appears to be uninterested in the movie *Inside Out* that may cause the child to not want to participate within the intervention which could possibly lead into them becoming dysregulated. They could also become dysregulated if they lose, which could also be seen as a pro because that is a moment to help the child use the skills learned from the prior sessions to self-regulate.

#### Conclusion

A limitation was incompletion of this intervention. Since the intervention was unable to be completed, there is no information as to what came out of it. Everything that has been stated about what the possible results could be are only hypothesized. If the intervention was able to be produced, the collection of data would not be allowed.

Another limitation that came up was that there was not a lot of research regarding the utilization of dance/movement therapy for people with attention-deficit/hyperactivity disorder. There were a lot of articles that would talk about one or the other so a suggestion that I would give to someone who is also interested in researching this topic, is to start researching topics that are symptoms of ADHD instead of looking directly at ADHD. Looking for specifics can make it more difficult when trying to look for articles related to your specific modality. Once you can find articles within broader topics, start looking for niches within what you are looking for. On that same note, breaking the symptoms down into chunks and finding articles that go along with that and then tying in dance/movement therapy is the easier route to go instead of trying to either find exactly what you are looking for within those two topics, or omitting things to try to fit exactly what you are looking for.

The hope of this thesis was to be able to start the conversation around using dance/movement therapy with children with ADHD. Hopefully in the future there will be more information regarding the topic because DMT can be beneficial for a multitude of populations and especially with children. DMT enables individuals to tune into their body, gin self-awareness, exercise agency, and achieve self-regulation. Researching this topic has expanded my knowledge of attention-deficit/hyperactivity disorder, which will be invaluable in my future work with this population.

In the future, I aim to conduct this intervention with a willing participant. I plan to refine and improve the game based on participant feedback, adapting it to suit their needs. Additionally, I intend to incorporate more dance/movement therapy techniques into the game and explore other therapeutic modalities to expand its scope.

#### References

- Alderson, R. M., Kasper, L. J., Hudec, K. L., & Patros, C. H. (2013). Attention-deficit/hyperactivity disorder (ADHD) and working memory in adults: A meta-analytic review. *Neuropsychology*, 27(3), 287–302.
- Ali, S. (2017). *Inside Out* and counseling: Creative interventions to facilitate emotional intelligence. *Journal of Creativity in MentalHealth*, 12(3), 377–387. <a href="https://doiorg.ezproxyles.flo.org/10.1080/15401383.2016.1275995">https://doiorg.ezproxyles.flo.org/10.1080/15401383.2016.1275995</a>
- American Dance Therapy Association. (n.d.) *Marian Chace Biography*. https://www.adta.org/marian-chace-biography
- American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.). https://doi.org/10.1176/appi.books.9780890425787
- Association for Play Therapy (n.d). Why play therapy?

  https://www.a4pt.org/page/WhyPlayTherapy
- Baddeley, A. (2012). Working memory: Theories, models, and controversies. *Annual Review of Psychology*, 63, 1-29.
- Bakal, D., Coll, P., & Schaefer, J. (2008). Somatic awareness in the clinical care of patients with body distress symptoms. *BioPsychoSocial medicine*, 2(6), 1-6. https://doi.org/10.1186/1751-0759-2-6
- Ballentine, K. L. (2019). Understanding racial differences in diagnosing ODD versus ADHD using critical race theory. *Families in Society*, 100(3), 282-292. <a href="https://doi.org/10.1177/1044389419842765">https://doi.org/10.1177/1044389419842765</a>

- Bhattacharya, D., Karmakar, R., & Majumdar, A. (2023). An evaluative analysis on self-esteem, aggression orientation and resilience on adult dancers. *Indian Journal of Positive Psychology*, 14(1), 27–30.
- Biederman, J., & Spencer, T. (2004). Attention-deficit/hyperactivity disorder (ADHD) as a noradrenergic disorder. *Biological Psychiatry*, 55(11), 981–982.
- Biscontini, T. (2023). Oppositional defiant disorder (ODD). Salem Press Encyclopedia of Health.
- Brænden, A., Coldevin, M., Zeiner, P., Stubberud, J., & Melinder, A. (2024). Executive function in children with disruptive mood dysregulation disorder compared to attention-deficit/hyperactivity disorder and oppositional defiant disorder, and in children with different irritability levels. *European Child & Adolescent Psychiatry*, 33(1), 115–125. https://doi-org.ezproxyles.flo.org/10.1007/s00787-023-02143-6
- Centers for Disease Control and Prevention. (2023). What is ADHD. *Centers for Disease Control and Prevention*. https://www.cdc.gov/ncbddd/adhd/school-success.html
- Cloitre, M., Courtois, C.A., Ford, J.D., Green, B.L., Alexander, P., Briere, J., Herman, J.L., Lanius, R., Stolbach, B.C., Spinazzola, J., Van der Kolk, B.A., Van der Hart, O. (2012). The ISTSS expert consensus treatment guidelines for complex PTSD in adults. *ISTSS StressPoints*, 5(2), 4-9.
- Daley, D., & Birchwood, J. (2010). ADHD and academic performance: Why does ADHD impact on academic performance and what can be done to support ADHD children in the classroom? *Child: Care, Health and Development*, 36(4), 455-464
- Dayal, S. (2023). Online education and its effect on teachers during COVID-19—A case study from India. PLOS ONE, 18(3). https://doi.org/10.1371/journal.pone.0282287

- Geller, S. M., & Greenberg, L. S. (2012). Therapeutic presence: A mindful approach to effective therapy. American Psychological Association (APA)
- Grizenko, N., Fortier, E., Zadorozny, C., Thakur, G., Schmitz, N., Duval, R., & Joober, R. (2012). Maternal stress during pregnancy, ADHD symptomatology in children and genotype: Gene-environment interaction. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, 21(1), 9-15.
- Gross, J. J. (2015). Emotion regulation: Current status and future prospects. *Psychological Inquiry*, 26(1), 1-26. https://doi.org/10.1080/1047840X.2014.940781
- Jackson, A., Melvin, G. A., Mulraney, M., Becker, S. P., Bellgrove, M. A., Quach, J., Hutchinson, D., Westrupp, E. M., Montgomery, A., & Sciberras, E. (2023). Associations between anxiety and home learning difficulties in children and adolescents with ADHD during the COVID-19 pandemic. *Child Psychiatry & Human Development*, 54(5), 1347– 1359. https://doi-org.ezproxyles.flo.org/10.1007/s10578-022-01338-3
- Kerns, K. A. (2000). The CyberCruiser: An investigation of development of prospective memory in children. *Journal of the International Neuropsychological Society*, 6(1), 62-70. https://doi.org/10.1017/s1355617700611074
- Koch, S. C., Riege, R. F., Tisborn, K., Biondo, J., & Martin, L. (2014). Effects of dance movement therapy and dance on health-related psychological outcomes: A meta-analysis update. *Frontiers in Psychology*, 5, 1-15. <a href="https://doi.org/10.3389/fpsyg.2019.01806">https://doi.org/10.3389/fpsyg.2019.01806</a>
- Mellenthin, C. (2018). Play therapy: Engaging and powerful techniques for the treatment of childhood disorders. PESI.

- Mphahlele, R. M., Pillay, B. J., & Meyer, A. (2023, January 31). Symptoms of oppositional defiant disorder, conduct disorder and anger in children with ADHD. South African *Journal of Education*. https://eric.ed.gov/?id=EJ1392586
- National Institute of Mental Health. (2021). *Attention-deficit/ hyperactivity disorder in children and teens: What you need to know*. [Brochure]

  https://www.nimh.nih.gov/health/publications/attention-deficit-hyperactivity-disorder-in-children-and-teens-what-you-need-to-know
- National Institute of Mental Health (n.d.). Attention-deficit/hyperactivity disorder

  <a href="https://www.nimh.nih.gov/health/topics/attention-deficit-hyperactivity-disorder-adhd">https://www.nimh.nih.gov/health/topics/attention-deficit-hyperactivity-disorder-adhd</a>
- Ogden, P., Minton, K., & Pain, C. (2006). Trauma and the body: A sensorimotor approach to psychotherapy. WW Norton & Company
- Pelham Jr, W. E., & Fabiano, G. A. (2008). Evidence-based psychosocial treatments for attention-deficit/hyperactivity disorder. *Journal of Clinical Child & Adolescent Psychology*, 37(1), 184-214. https://doi.org/10.1080/15374410701818681
- Rahman, F., Maqbool, S., Ali, A., Mahmud, T., Azhar, H., & Farid, A. (2023). Parenting practices and aggression in Childhood Behaviour Disorders. *Pakistan Armed Forces Medical Journal*, 73(1), 74–78. <a href="https://doi.org/10.51253/pafmj.v73i1.6920">https://doi.org/10.51253/pafmj.v73i1.6920</a>
- Safren, S. A., Otto, M. W., Sprich, S., Winett, C. L., Wilens, T. E., & Biederman, J. (2005).
  Cognitive-behavioral therapy for ADHD in medication-treated adults with continued symptoms. *Behaviour Research and Therapy*, 43(7), 831-842.
  https://doi.org/10.1016/j.brat.2004.07.001

- Seal, E., Vu, J., Winfield, A., & Fenesi, B. (2023). Impact of COVID-19 on physical activity in families managing ADHD and the cyclical effect on worsening mental health. *Brain Sciences*, *13*(6), 887. <a href="https://doi.org/10.3390/brainsci13060887">https://doi.org/10.3390/brainsci13060887</a>
- Shaw, P., Stringaris, A., Nigg, J., & Leibenluft, E. (2014). Emotional dysregulation and attention-deficit/hyperactivity disorder. *American Journal of Psychiatry*, 171(3), 276-293. https://doi.org/10.1176/appi.ajp.2013.13070966
- Siegel, D. J. (2010). The mindful therapist: A clinician's guide to mindsight and neural integration. WW Norton & Company.
- Trentacosta, C. J., & Fine, S. E. (2010). Emotion knowledge, social competence, and behavior problems in childhood and adolescence: A meta-analytic review. *Social Development*, 19(1), 1-29. Trentacosta, C. J., & Fine, S. E. (2010). Emotion Knowledge, Social Competence, and Behavior Problems in Childhood and Adolescence: A Meta-analytic review. *Social Development*, 19(1), 1–29. https://doi.org/10.1111/j.1467-9507.2009.00543.x
- Vacher, C., Goujon, A., Romo, L., & Purper-Ouakil, D. (2020). Efficacy of psychosocial interventions for children with ADHD and emotion dysregulation: a systematic review.
  Psychiatry Research (Print), 291, 113151.
  https://doi.org/10.1016/j.psychres.2020.113151
- Wender, P. H., & Tomb, D. A. (2016). ADHD: A guide to understanding symptoms, causes, diagnosis, treatment, and changes over time in children, adolescents, and adults. Oxford University Press, Incorporated.

# THESIS APPROVAL FORM

Lesley University
Graduate School of Arts & Social Sciences
Expressive Therapies Division
Master of Arts in Clinical Mental Health Counseling: Dance Movement Therapy, MA

Student's Name: Jayda Pearson
Type of Project: Thesis
Title: Utilizing Dance/Movement Therapy for Children with Attention-Deficit/Hyperactivity Disorder: Development of a Method
<b>Date of Graduation: 5.18.2024</b> In the judgment of the following signatory this thesis meets the academic standards that have been established for the above degree.
Thesis Advisor: Dr. E Kellogg