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**Dance/Movement Therapy in the Treatment of Emotional Dysregulation in Children with
Emotional, Social, and Behavioral Challenges: A Literature Review**

Capstone Thesis

Lesley University

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Sarah E. Scarbrough

Dance/ Movement Therapy

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Abstract

This literature review examines the topic of emotional regulation as it relates to children with emotional, cognitive and behavioral impairments and the effectiveness of current treatment modalities. In this paper emotional regulation is conceptualized as the ability to modulate the intensity and/or duration of emotional responses. Emotional regulation is explored for both its intrinsic and extrinsic features and how they interact with treatment outcomes. Current psychotherapeutic and dance/ movement therapy interventions aimed at improving emotional awareness, expression, and regulation coping skills are discussed. Group interventions are investigated for their unique contributions to the development of emotional regulation skills. The importance and efficacy of school-based programs as a proactive action against the negative long term impacts on continuous emotional dysregulation is brought into consideration. Directions for future research and the need for the development of a framework for a dance/ movement therapy program that uses group interventions for emotional regulation with children with emotional, behavioral, and cognitive problems in schools are discussed.

Keywords: *emotional regulation, extrinsic emotional regulation, dance/ movement therapy, children, adolescents, behavioral problems, social interactions, group interventions, school-based programs*

Positionality Statement

The author identifies as a white, cis-gender woman who was born and raised in the United States. She has had experience with dance and movement as a performer, choreographer, and emerging clinician. The author is a graduate student in a Clinical Mental Health Counseling program specializing in dance/movement therapy (DMT). She is currently interning at a private therapeutic school in Northeastern Massachusetts with children ages 10-14 with emotional,

behavioral, cognitive and/or social impairments. The concept for this capstone thesis originated from the author's own observations of the need for DMT groups targeting emotional regulation at her internship site.

Dance/ Movement Therapy in the Treatment of Emotional Dysregulation in Children with Emotional, Social, and Behavioral Challenges: A Literature Review

Introduction

Emotional regulation is a growing field of research which studies the process of increasing or decreasing the intensity and/or duration of emotional responses (Gross, 2013). Current literature indicates that there is a link between continuous emotional dysregulation and psychopathological conditions including depression, substance-abuse, post-traumatic stress disorder, and suicidal ideation later in life (Bradley et al., 2011; Brotman et al., 2006; Waxmonsky et al., 2016). Certain populations are more likely to struggle with emotional dysregulation including those with attention-deficit hyperactivity disorder, mood disorders, anxiety, and histories of trauma (Berkovitz & Baker, 2014; Betty, 2013; Bradley et al., 2011; Brotman et al., 2006; Grönlund et al., 2005; Gross, 2013; Sökmen, & Karaca, 2023; Waxmonsky et al., 2016). Children with executive functioning and emotional expression challenges experience limitations in daily functioning, a lack of prosocial interactions and decreased quality of life (Berkovitz & Baker, 2014; Bradley et al., 2011; Brotman et al., 2006; Hammud et al., 2023; Waxmonsky, 2016). Schools represent a potential important setting for children to learn to manage emotional dysregulation in order to prevent its impact to their well-being in adulthood (Goodgame, 2007; Hammond et al., 2009, Karkou et al., 2010; Moula et al., 2022; Mullane & Dunphy, 2017).

Therapeutic interventions may help clients, particularly children, develop emotional regulation skills and improve their well-being. Existing interventions aimed at improving the emotional awareness and regulation skills of children with emotional and behavioral difficulties

include psychoeducation and movement activities (Betty, 2013; Grönlund et al., 2005; Ortuño-Ibarra, & Rodríguez-Jiménez, 2023; Sökmen, & Karaca, 2023; Waxmonsky, 2012; Waxmonsky, 2016). The use of group work may be another particularly important element for building emotional regulation skills due to the interpersonal aspects of regulation (Grecucci et al., 2005; Gross, 2013; McCann et al., 2023; Nozaki & Mikolajczak, 2020). Dance/ movement therapy (DMT) groups are a potential source for gaining emotional awareness, increasing expression skills and developing coping strategies (Efer & Ziv, 2006; Goodgame, 2007; Schmais, 1985).

The American Dance Therapy Association describes dance/movement therapy as, “... the psychotherapeutic use of movement to promote emotional, social, cognitive, and physical integration of the individual” (ADTA, 2009). DMT interventions have been developed to help children with a variety of psychopathologies, problematic behaviors, and histories of maltreatment in gaining the ability to regulate their emotions (Betty, 2013; Grönlund et al., 2005; Kornblum, 2002; Ortuño-Ibarra, & Rodríguez-Jiménez, 2023). Additionally, DMT has been used in school environments to help children learn functionally adaptive coping skills across settings and situations (Goodgame, 2007; Moula et al., 2022). There is potential for DMT interventions that target emotional dysregulation within groups of children with emotional, social, and behavioral problems to decrease the likelihood of negative long-term impacts to their well-being. This capstone thesis will examine the existing literature on DMT and how it is used in school contexts for emotional regulation for children with cognitive, emotional, and behavioral problems.

Methods

Articles for this literature review were searched for using the Lesley University Library database which connects to numerous online databases such as ProQuest Central, JSTOR, Science Direct, and SAGE Journals. Additional resources were found using the Google Scholar search engine, through the references cited in other articles, and from recommendations made by peers and advisors. Keywords and phrases for the article search included “emotional regulation”, “emotional regulation long-term effects”, “group interventions for emotional regulation”, “dance/movement therapy AND emotional regulation”, “dance/movement therapy with children with emotional difficulties”, and “dance/movement therapy groups in schools”. The literature collected was analyzed for recurrent themes and organized by main topics covered.

Literature Review

This literature review explores the challenges faced in emotional regulation by children with social, emotional, cognitive, and behavioral impairments and how dance/movement therapy interventions may address these issues. A recommendation for the development of a group DMT program in schools for children who struggle with emotional regulation is made and future applications are discussed.

Emotional Regulation in Children

Emotional regulation is an important mechanism that is developed throughout childhood and is malleable even when a person has reached adulthood (Gross, 2013). There are three main processes involved in emotional regulation: emotional awareness, use of coping strategies to address the current situation, and external emotion management (Gross, 2013; Hammond et al., 2009). During infancy, a child’s ability to regulate is primarily influenced by interpersonal interactions with their caregivers (Betty, 2013; Gross, 2013; Kornblum, 2002). A child’s

temperament may have some effect on their sensitivity to external stimuli, however this is typically mediated by environmental factors (Hammond et al., 2009; Kornblum, 2002). As children mature, they gain skills to regulate their emotions by internalizing the modeling of regulation of adults and using their cognitive abilities to impact the thoughts related to their emotional experiences (Gross, 2013). There are numerous factors that can prevent a child from learning how to effectively understand, identify, and manage their emotions.

Challenges and Comorbidities

Emotional dysregulation is characterized by difficulties identifying emotions, rapid changes in emotion, intense/ inappropriate expression, and/or inability to cope with emotions (Bradley et al., 2011). Failure to effectively regulate emotions can stem from challenges with one or several of the processes within regulation (Bradley et al., 2011; Gross, 2011). Successful emotional regulation requires a person to accurately assess their emotions and their intensity, then select an appropriate coping strategy and apply it within the current situation (Gross, 2013; Hammond et al., 2009). Emotional dysregulation can present as internalizing problems such as anxiety or mood disorders or externalizing behaviors including rule-breaking and aggression (Hammud et al., 2023). A person's ability to access functionally adaptive coping skills can be impacted by their childhood experiences with emotional events and their caregivers' responses to emotions (Betty, 2013; Bradley et al., 2011; Gross, 2013).

Childhood Maltreatment. Early experiences of abuse and neglect can significantly impact a child's ability to regulate their emotions. When primary caregivers respond to emotional outbursts in controlling and/or negative manners, children typically learn to suppress the expression of their emotions leading to a lack of development of adaptive coping skills (Betty, 2013). Children exposed to abuse or inter-adult violence tend to more easily become aroused and

will react to external stimuli in a more extreme manner than peers without this history (Betty, 2013; Bradley et al., 2011; Kornblum, 2002). Sensitivity to states of arousal puts a child at risk of either responding with behavioral outbursts, or experiencing teasing or violence from their peers or adults (Bradley et al. 2011; Kornblum, 2002). Young children are highly influenced by their environment and take their cues on how to manage emotions from caregivers and peers (Betty, 2013; Gross 2013; Kornblum, 2002).

Anxiety and Mood Disorders. Anxiety and mood disorders are defined by an inability to effectively regulate emotions (Gross, 2013). Anxiety disorders involve persistent fear and/ worry that is disproportionate to the threat of harm from the trigger(s) and the related behavioral responses (APA, 2013). Severe mood dysregulation (SMD) is a condition that involves extreme irritability with hyperarousal symptoms (Brotman et al., 2006; Waxmonsky et al., 2012; Waxmonsky et al., 2016). While SMD is not a diagnosis in the DSM-V, it shares criteria with disruptive mood dysregulation disorder (DMDD) (Waxmonsky et al., 2012; Waxmonsky et al., 2016). Criteria for a DMDD diagnosis includes recurrent and intense temper outburst manifested verbally or behaviorally, and ongoing anger and/or irritability in children between 6-18 years of age (APA, 2013). Children who experience anxiety and/or mood disorders struggle to manage their emotions and often rely on maladaptive coping skills (Gross, 2013).

Attention-Deficit/Hyperactivity Disorder. The DSM-V classifies ADHD as a continual pattern of hyperactivity, impulsivity, and/or inattention that significantly impacts a person's functioning and/or development (APA, 2013). While not a defining characteristic, difficulties in self-regulation are often associated with ADHD (Grönlund et al., 2005; Redman, 2007; Sökmen, & Karaca, 2023; Waxmonsky et al., 2012; Waxmonsky et al., 2016). Emotional dysregulation in children diagnosed with ADHD typically presents in observable behaviors such as reactivity to

external stimuli, excessive physical activity (fidgeting, climbing, running, etc.), verbal interruptions, aggression toward others, and lack of resistance to provocation by peers (APA, 2013; Grönlund et al., 2005; Redman, 2007). The development of emotional regulation skills in children with ADHD is complicated by diagnostic features such as impulsivity, deficits in executive functioning, and sensitivity to stimuli.

Long-term Impacts of Emotional Dysregulation

On-going emotional dysregulation in childhood can have a significant influence on a person's physical, social, and emotional well-being later in life. Physical symptoms of long-term emotional dysregulation include increased risk of cardiovascular disease, digestive problems, poor sleep quality and overall decreased well-being (Gross, 2013; Hammond et al., 2009; Moula et al., 2022). Social interactions can be affected by a lack of emotional regulation as evidenced by increased involvement in bullying and violence, high levels of peer rejection, and difficulties in forming and maintaining prosocial relationships (Berkovits & Baker, 2014; Hammud et al., 2009; Kornblum, 2002; Redman, 2007). Emotional dysregulation during development is also linked to certain psychopathologies including post-traumatic stress disorder, anxiety and mood disorders (particularly depressive disorders), borderline personality disorder, suicidal ideation, and substance-use disorders later in life (Bradely et al., 2011; Brotman et al., 2006; Gross, 2013). Early interventions aimed at improving emotional regulation skills in children could proactively address these problems before they develop.

Existing Interventions for Emotional Regulation

Psychotherapeutic and Psychoeducational Techniques

Numerous techniques have shown efficacy with improving participants' emotional regulation skills in clinical settings. Cognitive-behavioral therapy (CBT) is a well-known

psychotherapeutic framework used with a variety of populations. In interventions for emotional regulation, CBT aims to change behavior and conscious thoughts that contribute to subjective experiences of distress (Grecucci et al., 2005). Similarly, mindfulness-based techniques guide a person to be aware of internal sensations and thoughts related to their emotional states so that they can manage their reaction to these feelings (Grecucci et al., 2005; Greenberg & Pascual-Leone, 2006). CBT and mindfulness strategies for regulating heightened emotions include deep breathing, progressive muscle relaxation, controlled exposure to triggers, identifying and modifying dysfunctional thought patterns, and controlling the amount of attention given to external stimuli (Grecucci et al., 2005).

Experiential-dynamic techniques combine cognitive, behavioral, and other elements of treatment to provide a holistic approach to emotional regulation (Grecucci et al., 2005). These interventions have participants learn to identify emotions, recognize defense mechanisms, improve emotional expression and develop awareness of their bodily responses (Grecucci et al., 2005; Greenberg & Pascual-Leone, 2006). Through a strong therapeutic relationship, the client will explore significant past experiences, the defenses related to them, and how their current emotional functioning has been impacted (Grecucci et al., 2005). The client can then apply the skills they have developed to situations that occur in their daily life to limit their experiences of on-going distress.

Psychoeducational programs have also been useful in teaching participants about the processes involved in emotional regulation. Specific psychoeducation interventions include learning to sense and label emotions, understanding the behavioral responses people have in response to their emotions, and identifying potential coping strategies for self-regulation (Grecucci et al., 2005; Sökmen, & Karaca, 2023, Waxmonsky et al., 2012). Sökmen, & Karaca

(2023), conducted a study with children diagnosed with ADHD in an outpatient clinic in Turkey who struggled with emotional dysregulation. Results indicated that participants in their Self-Regulation Based Cognitive Psychoeducation Program (SRBCPP) significantly increased in their internal emotional regulation skills as measured immediately after and six months post interventions (Sökmen, & Karaca, 2023). Understanding the mechanisms underlying emotional regulation can be an influential aspect of learning to manage experiences of dysregulation.

Programs for Children

Programs have been developed to specifically build childrens' skills for emotional regulation across multiple settings and populations. Skills and Tools for Emotions Awareness and Management (STEAM) is a school-based 12-week program developed for children with difficulties in regulating their emotions which also includes psychoeducation for their parents (Betty, 2013; Hammond et al., 2009; Westhues et al., 2009). Temper-Taming is an equivalent version of the STEAM program designed for use in community settings over 8 weeks (Betty, 2013; Hammond et al., 2009; Westhues et al., 2009; Williams et al., 2004). These CBT-based programs involve developmentally appropriate education about emotional vocabulary, bodily awareness, and decision-making and problem solving skills (Hammond et al., 2009; Westhues et al., 2009; Williams et al., 2004). Additionally, STEAM and Temper-Taming programs teach children to take accountability for their actions and to understand that external factors are outside of their control (Westhues et al., 2009). Participation in these programs has lead to increases in emotional awareness, emotional expressiveness, number of identified bodily cues of dysregulation and number of calming activities identified after the first set of sessions and after booster program undergone years after (Betty, 2013; Hammond et al., 2009; Westhues et al., 2009; Williams et al., 2004).

Waxmonsky et al. (2012) developed a therapeutic method entitled ADHD plus Impairments in Mood (AIM) to reduce symptoms of behavioral and emotional dysfunction in children with severe mood dysregulation. AIM combines elements of cognitive-behavioral therapy, social cognitive programs for decreasing aggression, and behavioral parent training (Waxmonsky et al., 2012; Waxmonsky et al., 2016). The curriculum includes psychoeducation about emotional recognition, calming techniques, coping skills, communication and problem-solving through group activities, discussions and watching video vignettes. Concurrently, parents are taught ways to support their child's development of skills learned in the program, how to recognize their child's strengths and how to more effectively respond to problem behaviors (Waxmonsky et al., 2012). The results of a study about the efficacy of the AIM program indicated the feasibility of this methodology for reducing irritability, hyperarousal, and mood symptoms; however, additional studies are required in order for this research to be generalized to additional populations (Waxmonsky et al., 2016).

Additional Treatment Models

While not explicitly targeting emotional regulation, the Sanctuary Model and Stop-Gap Model for residential treatment contain elements that could be beneficial for addressing emotional dysregulation in children and adolescents. The Sanctuary Model is a trauma-informed framework that aims to create organizational-level change through the involvement of both staff and clients (Esaki et al., 2013; James, 2010). Treatment in the Sanctuary Model focuses on the categories of safety, emotional management, loss and future (S.E.L.F.) with CBT techniques to promote healing from traumatic experiences (Betty, 2013; Esaki et al., 2013; James, 2010). Studies found that the application of this model resulted in decreased instances of interpersonal conflict and verbal aggression and clients' improved abilities in personal control and

problem-solving (James, 2010). Elements of the Sanctuary Model may increase the effectiveness of interventions with children who have histories of maltreatment because of the trauma-informed lens.

The Stop-Gap Model was developed to address increasingly disruptive behaviors in children and adolescents within group care settings and promote positive growth post-discharge (James, 2010; McCurdy & McIntyre, 2004). This model uses a behavioral token economy to encourage prosocial interactions, academic and social skills interventions, and anger management and problem-solving training with the goal of community reintegration (Betty, 2013; James, 2010; McCurdy & McIntyre, 2004). More research is necessary to determine the efficacy of the Stop-Gap Model as it relates to constructs related to the regulation of emotions. However, the format of the Stop-Gap Model could be particularly impactful with children with behavioral challenges as they learn to manage their emotional responses.

Dance/movement Therapy Interventions for Emotional Regulation

There are numerous dance/movement therapy interventions that target the various phases of emotional regulation. These interventions are categorized below by the primary impact they have of emotional regulation, however several of the included interventions influence more than one part of the emotional regulation process.

Emotional Awareness and Identification

Before a person can apply strategies to modulate their emotions, they must first be able to accurately identify what they are feeling and the intensity of those feelings (Gross, 2013; Hammond et al. 2009). Interventions that target bodily awareness and the labeling of sensations may allow a person to learn how to interpret cues within the body when specific emotions occur (Betty, 2013; Goodgame, 2007; Kornblum, 2002; Ortuño-Ibarra & Rodríguez-Jiménez, 2023).

With younger children, this process may begin with concrete identification of body parts to bring awareness to the varying sensations within them (Goodgame, 2007). Furthermore, DMTs or caregivers involved in the intervention can prompt children to describe feelings in their body to help them understand the connection between bodily sensations and emotions (Betty, 2013). Visualization exercises such as having children imagine blowing up a balloon and noticing how anxiety manifests in their body as a balloon gets closer to popping may be useful for drawing attention to the body during emotional experiences (Kornblum, 2002). Another intervention that incorporates sensations would be having participants shake specific body parts then describe the difference in feelings before and after the action (Ortuño-Ibarra & Rodríguez-Jiménez, 2023). Depending on the population, building awareness of bodily sensations may take longer, particularly for maltreated children who may have limited tolerance for being aware of their bodies (Betty, 2013).

A continuation of the process of building emotional awareness could include the use of different movement qualities to connect felt sensations to emotions (Betty, 2013; Ortuño-Ibarra & Rodríguez-Jiménez, 2023). Two primary modes of categorizing movement qualities within DMT are Laban Movement Analysis (LMA) and the Kestenberg Movement Profile (KMP). LMA incorporates elements of time, space, weight, flow, and direction to describe qualities of movement. Educating participants on these different aspects of movement and having them experience how they relate to different emotional states can increase their ability to identify their own bodily cues of specific emotions (Ortuño-Ibarra & Rodríguez-Jiménez, 2023). KMP is related to LMA but it focuses more on tension flow attributes and rhythms and how they express a person's needs. When working with young children, DMTs and caregivers can consciously employ KMP movement patterns to help a child explore emotional states within a contained

environment (Betty, 2013). Manipulating movement qualities allows participants to explore a range of bodily sensations while reflecting on the emotions they feel.

A common dance/movement therapy technique is called mirroring, and it involves a person or group observing another's movement and repeating it back to them simultaneously (Betty, 2013; Efer & Ziv, 2006; Goodgame, 2007; Karkou et al., 2010; Kornblum, 2002; Ortuño-Ibarra & Rodríguez-Jiménez, 2023). When mirroring is used by caregivers, they can intentionally put words to the feelings that they are noticing in the child to expand the child's emotional vocabulary and awareness (Betty, 2013). The person being mirrored gets the opportunity to see their own bodily expression reflected on another person which may allow them to notice bodily cues that they otherwise are unaware of (Betty, 2013; Kornblum, 2002). Additionally, seeing their movement reflected back to them can increase a person's feelings of being understood and accepted, which can improve their tolerance for experiencing challenging emotions (Betty, 2013). The person who is mirroring the movement of another gets to explore different movement patterns and notice how they feel in their own bodies, thus expanding their awareness of the connection between emotions and the body (Efer & Ziv, 2006; Kornblum, 2002; Ortuño-Ibarra & Rodríguez-Jiménez, 2023).

Emotional Expression

Being able to express emotions in an appropriate manner is another important aspect of the process of emotional regulation (Gross, 2013; Hammond et al., 2009). Props are commonly used in DMT interventions, particularly with children, as transitional objects. Props such as buddy bands, stretch cloths, balls, and exercise balls have the potential to aid the development of emotional regulation and expression skills (Grönlund et al., 2005; Karkou et al., 2010; Kornblum, 2002; Redman, 2007). During DMT sessions, children can learn appropriate ways to

express strong emotions such as anger or stress by using a prop instead of acting out behaviorally by harming themselves, hurting others or damaging property. Additionally, children can communicate their feelings through props when there are obstacles to being able to verbally express themselves (Grönlund et al., 2005; Kornblum, 2002; Redman, 2007). This may appear as squeezing a ball to convey anger or wrapping themselves in a stretch cloth when anxious.

Story-telling and role-playing are DMT techniques that are closely related to drama therapy and that are pathways for safely exploring a wide expanse of emotions (Betty, 2013; Goodgame, 2007; Karkou et al. 2010; Kornblum, 2002; Moula et al., 2022; Redman, 2007). Story-telling through movement allows the participant to track their bodily sensations as they embody different scenarios. Participants can connect bodily cues for emotions as they occur throughout the narrative (Goodgame, 2007; Karkou et al., 2010; Moula et al., 2022).

Role-playing can be used to allow children to explore body language connected to different emotions and observe how they impact their body. One form this may take is playing an emotion guessing game, where one participant embodies an emotion and others try to identify them. (Betty, 2013, Goodgame, 2007; Kornblum, 2002; Redman, 2007). The more experiences that children have to embody and observe bodies in relation to emotion, the easier it will become for them to understand how to express their own feelings in their bodies.

Movement itself is a powerful form of nonverbal expression that can be explored within the container of a DMT session. One manner of doing so is asking participants to use movements to describe their current feelings. This provides the mover with a method of communicating feelings that may be difficult or too complex to verbalize (Karkou et al., 2010; Moula et al., 2022; Schmais, 1985). Movement practices can also be used to help participants discover more appropriate ways of expressing their emotions. One method is having them explore the LMA

concepts of time and space to build their capacity to determine when and where emotional expression is appropriate (Ortuño-Ibarra & Rodríguez-Jiménez, 2023). Children may benefit from having DMTs or caregivers examine their movement and show them alternative movements to express and release high-intensity emotions (Betty, 2013). The ability to accurately and appropriately express emotions can allow for an effective coping strategy to be accessed in the moment of dysregulation.

Emotional Regulation Skills

The most influential part of the emotional regulation process is the ability to select and access appropriate strategies to modulate emotions in the moment (Gross, 2013; Hammond et al., 2009). Rhythms have been incorporated into DMT interventions as a method returning a person to their baseline when emotionally dysregulated (Betty, 2013; Goodgame, 2007; Grönlund et al., 2005; Karkou et al., 2010; Kornblum, 2002; Moula et al., 2022; Redman, 2007; Schmais, 1985). In group DMT sessions, activities involving building shared rhythms through clapping, stomping, and tapping have been successful at allowing individuals to focus on the rhythm to help them regulate (Goodgame, 2007; Grönlund et al., 2005; Karkou et al., 2010; Kornblum, 2002; Moula et al., 2022). Connecting external rhythms to internal ones, such as breathing and heart rate, can help ground a person in the present with their own body awareness (Betty, 2013; Schmais, 1985). Younger children could benefit from exposure to KMP rhythms that can soothe states of high arousal or increasing arousal levels when they are low (Betty, 2013; Redman, 2007, Schmais, 1985). There are numerous DMT methods that involve using the body itself as a tool for emotional regulation.

Different methods of muscle relaxation have been applied as a coping strategy for emotional dysregulation. Self-applied touch and massage can help participants focus on bodily

sensations and their boundaries instead of potentially overwhelming internal or external stimuli. These practices entail applying pressure through squeezing or rubbing tense muscles to help participants relax (Grönlund et al., 2005; Moula et al., 2022; Ortuño-Ibarra & Rodríguez-Jiménez, 2023). Progressive muscle relaxation involves consciously tensing and relaxing muscles throughout the body to release stress and tension (Ortuño-Ibarra & Rodríguez-Jiménez, 2023). These practices can be used as self-regulation techniques when a person is aroused as they require focus on the body and soothing sensations as well as empower the participant to consciously make choices that involve their own bodies.

DMT interventions often include elements of mindfulness, meditation, and breath control as methods of relaxation. Breathing exercises that require a person to focus on the rate, depth, and quality of breath can calm physical symptoms of dysregulation such as shallow breathing, increased heart rate, and bodily tension (Grönlund et al., 2005; Kornblum, 2002; Ortuño-Ibarra & Rodríguez-Jiménez, 2023). Meditations may involve use of visualization and imagery to induce a state of regulation as the participant focuses on the prompts given by the DMT (Goodgame, 2007; Moula et al., 2022). Mindfulness practices aim to connect a person to the present moment to calm racing thoughts and overwhelming emotions. This includes grounding exercises, finding rest, and gentle movement either in silence or with music and/or prompts (Moula et al., 2022; Redman, 2007). Participants can learn to engage with mindfulness, meditation, and breathing practices on their own to use as a coping strategy for emotional dysregulation.

Group Dynamics in Emotional Regulation

The majority of research about emotional regulation focuses on intrinsic emotional regulation, or the ability to manage one's own emotional experiences. However, there is a

growing interest in extrinsic or interpersonal emotional regulation as a method for influencing the emotions of others (Grecucci et al., 2005; Gross, 2013; McCann et al., 2023; Nozaki & Mikolajczak, 2020). This first appears in infancy when a child takes cues about how to respond to their feelings by observing the actions of their caregivers (Betty, 2013; Gross, 2013; Kornblum, 2002). Extrinsic emotional regulation can involve positive or negative impacts on how individuals are able to regulate in a group setting (Grecucci et al., 2005; Gross, 2013; Nozaki & Mikolajczak, 2020). Kornblum (2002), describes how most violence occurs when a person or group is emotionally aroused due to the perception of danger. However, appropriate use of interpersonal emotional regulation can decrease the frequency of social conflicts and increase levels of empathy and acceptance for both the target and the regulator (Grecucci et al., 2005; Kornblum, 2002; McCann et al., 2023; Nozaki & Mikolajczak, 2020). The influence of extrinsic emotional regulation suggests the importance of developing group-based interventions that target improving skills for emotional regulation.

Current Literature on Group Care

Group care presents unique opportunities for therapeutic growth as participants can learn from and support their peers throughout the therapeutic process (Goodgame, 2007; Karkou, 2010; Moula et al., 2022). James (2010), reviewed the limited literature regarding the efficacy of group care models for the treatment of children in the welfare system. However, the author determined that there was a lack of significant support for any particular methodology due to the lack of research (James, 2010). Additionally, Betty (2013) found that current models for treatment of emotional dysregulation of children within residential settings are limited by the small amount of literature that tests the efficacy of these models. Feedback from adolescent group participants however, highlighted the empowerment and value that came from receiving

their peers' input (Karkou et al., 2010; Moula et al., 2022). Since emotional regulation exists in both intrinsic and extrinsic forms, it is important to explore the use of group interventions to address emotional dysregulation.

Dance/movement Therapy Group Interventions for Emotional Regulation

Group dance/movement therapy has shown the potential to promote improvement in clients' expression, integration, social cohesion, and regulation skills (Efer & Ziv, 2006; Goodgame, 2007; Schmais, 1985). Activities where all participants form a circle is a common practice used in DMT groups. The circle promotes empowerment as each participant is given equal value and they can view and be seen by all the group members. Interventions may include name games, using props, and mood check-ins where each person gets the opportunity to observe and contribute equally (Efer & Ziv, 2006; Goodgame, 2007; Karkou et al., 2010; Kornblum, 2002; Moula et al., 2022). The circle can contribute to a feeling of support between group members, which can aid in the participants' development of the skills necessary for emotional regulation.

Rhythmic practices are another method that can help develop cohesion and trust within a DMT group (Efer & Ziv, 2006; Karkou et al., 2010; Kornblum, 2002; Moula et al., 2022; Schmais, 1985). As mentioned previously, rhythms themselves, including clapping, stomping, and tapping, can be a tool to ease emotional dysregulation. Following a group rhythm can help children learn to modulate their energy and build their impulse control (Efer & Ziv, 2006; Kornblum, 2002; Schmais, 1985). Participants may also take turns in leading the group rhythm which can empower them in expressing themselves while being supported by others (Efer & Ziv, 2006; Kornblum, 2002; Moula et al., 2022). The group setting provides opportunities to connect and learn beyond what individual experiences and knowledge can provide.

Partnering and weightsharing can also be incorporated into DMT groups as a method of exploration and support for emotional regulation. Mirroring and emotional embodiment is one method through which participants can familiarize themselves with a range of emotions and their impact on their body within a partnership (Efer & Ziv, 2006; Goodgame, 2007; Karkou et al., 2010; Kornblum, 2002; Moula et al., 2022). Other partner activities include giving and receiving pressure, leader/follower activities, and sharing weight through props such as stretch cloths and buddy bands (Goodgame, 2007; Kornblum, 2002; Moula et al., 2022). These practices can improve the participants' awareness of bodily sensations while also increasing the level of comfort they find in others. This can be especially impactful for children with emotional, social, and behavioral problems as they often experience isolation or negative interactions with peers.

Schools as Settings for Emotional Regulation Interventions

Many children and adolescents spend the majority of their time between the ages of 5-18 in a school setting. This makes the school environment particularly influential to how students learn to regulate their emotions as they interact with others (Goodgame, 2007; Karkou et al., 2010; Kornblum, 2002, Mullane & Dunphy, 2017). School staff tends to be in an important position to note and address patterns of dysregulation and problematic behavior as well as early signs of associated psychopathologies (Hammond et al., 2009; Karkou et al., 2010; Kornblum, 2002; Mullane & Dunphy, 2017; Redman, 2007). Implementing programs that promote the development of emotional regulation skills could proactively address the potential negative outcomes, especially for children who may not have access to mental health services otherwise (Hammond et al., 2009; Moula et al., 2022; Westhues et al., 2009). Furthermore, school-based programs that include psychoeducation for the staff can impact the overall culture of the school environment and reduce conflicts that arise due to dysregulation (Karkou et al., 2010; Moula et

al., 2022). Exploring the efficacy of school-based programs could provide essential evidence to support the widespread implementation of these programs.

Dance/movement Therapy as Tool for Emotional Regulation in Schools

Literature has emerged about the potential of dance/movement therapy interventions in school settings to guide children in their development of functionally adaptive coping skills. Mullane & Dunphy (2017) described how incorporating DMT in special education schools in Australia proved to be beneficial for the students' overall well-being and their capacity for learning. In three Estonian residential schools for children with emotional, behavioral, and social impairments, DMT sessions increased the participants' expression capabilities and social cohesion between peers (Goodgame, 2007). The positive impact of DMT in these cases should prompt further exploration into how school-based interventions can benefit young children with emotional, behavioral, and cognitive problems to help them develop coping skills to deal with emotional dysregulation.

Furthermore, DMT can be used to help children and adolescents develop the coping skills they need to regulate their emotions in times of stress (Karkou et al., 2010; Moula et al. 2022). Karkou et al. (2010) implemented a two part program in a secondary school in the United Kingdom, which consisted of informing teachers of common issues experienced by adolescents and DMT sessions with students to improve their well-being. In post-intervention interviews, adolescents highlighted the value of the DMT interventions as a source for growth both as individuals and as a group (Karkou et al., 2010). Moula et al. (2022) found that their DMT school-based program resulted in improvements to the students' well-being, sleep patterns, and life functioning while reducing the occurrence of behavioral and emotional problems. School settings have a notable potential role in teaching children and adolescents therapeutic skills that

they can continue to apply to challenges as they grow and mature. The development of functional coping skills during childhood can prevent future distress that can occur due to long-term emotional dysregulation.

Discussion

Emotional regulation is a process involving the modulation of emotional responses in their intensity and duration through internal and external methods. Long-term exposure to emotional dysregulation can have significant influences on a person's emotional, mental, and physical well-being. A child's environment can be especially influential to their ability to regulate emotions as they rely on modeling the responses of caregivers as they learn to modulate their own emotional experiences. Experiences of emotional dysregulation for children with cognitive, emotional, and behavioral problems are complex and difficult to address therapeutically. The current literature indicates that children who have experienced maltreatment and are diagnosed with disorders such as ADHD, mood disorders, and anxiety disorders are more prone to suffering from severe mood dysregulation and its associated complications. It is important to proactively address the impact of chronic emotional dysregulation on children to prevent physical, social and emotional distress and the development of psychological disorders such as depression, anxiety, and post-traumatic stress disorder.

Current interventions for developing emotional regulation skills include elements of cognitive behavioral therapy, mindfulness, and body awareness. Dance/movement therapy is a promising modality to guide clients in their development of emotional regulation skills. DMT techniques including use of props, exploration of movement qualities, rhythms, partnering, embodiment, and mindfulness are particularly promising in addressing emotional dysregulation. Knowledge about extrinsic emotional regulation can be applied in therapeutic interventions as

another method for developing the ability to modulate emotional responses. Dynamics within group care may boost the impact of emotional regulation interventions beyond the effects from individual therapeutic interventions. Schools are an important setting to explore for the implementation of treatment for emotional dysregulation with children given the opportunity to decrease stigma of mental health and the increased accessibility of mental health services within schools. There are numerous dance/movement therapy interventions that have shown promise in addressing emotional regulation challenges within a school setting.

Recommendations for Future Research

Research that further supports the efficacy of dance/ movement therapy as a modality for treating emotional dysregulation experienced with children with emotional, social, and behavioral impairments would bolster the evidence for implementing DMT interventions with this population. There is potential for future research to develop a cohesive framework that addresses emotional regulation in schools with groups of children that struggle with understanding, expressing, and coping with their emotions. Other factors that influence regulation for children such as peer conflict, transitional periods, and significant life events could also be explored to better understand their impact on the development of emotional regulation skills (Allen & Nelson, 2018; Kornblum, 2002; Nygaard & Ormiston, 2022). Co-regulation is a concept that explores how the dynamics between individuals can impact the process of regulation (Allal, 2020; Gillespie, 2015). Researching the inclusion of co-regulation practices in group care could provide another method for building extrinsic emotional regulation skills.

The author hopes to apply the findings in this literature review to her own work at the therapeutic school for children with cognitive, behavioral , and emotional challenges. She looks

forward to continuing to develop her identity as an emerging DMT through her work with her clients.

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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.

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