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**Parental Support, Dance/Movement Therapy, and Early Childhood Self-Regulation – A**

**Literature Review**

Capstone Thesis

Lesley University

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## Abstract

Self-regulation is one of the main factors to contribute to successful social-emotional development during early childhood. Healthy attachment patterns between the parent/caregiver and child relationship, as well as safe and supportive environments in school contribute to children's abilities to develop and learn to use self-regulating skills. This literature review explores the relationship dance/movement therapy has with the enhancement of parent-child relationships during early childhood, which is potentially contributing to the development of early childhood self-regulation. Using a citation chasing method, and research in online databases, inclusion criteria for resources consisted of peer reviewed quantitative, qualitative, arts-based, and mixed methods research studies. Effects of self-regulation skills and the predictability for later life successes were examined to determine how these skills prepare children for current and future challenges. Differences in culture and environment were researched to compare how the development of self-regulation is understood across different lenses, as well as evaluating different dance/movement therapy techniques to analyze the benefits they pose on children's ability to self-regulate. Findings suggested that dance/movement therapy and parent-child dance/movement therapy support the development of self-regulating techniques during early childhood. This literature review will contribute to the field of dance/movement therapy by allowing other professionals in the field to further explore how through dance/movement therapy, children and their caregivers can benefit by developing self-regulating skills that will allow the child to succeed in individual and group settings.

*Keywords:* self-regulation; early childhood regulation; dance movement therapy; parent-child relationship

*The author identifies as a woman of color, from Puerto Rico.*

Parental Support, Dance/Movement Therapy, and Early Childhood Self-Regulation – A  
Literature Review

**Introduction**

*“What becomes familiar, becomes safe; even if it’s dangerous”* - Rachel Assaf, Assistant Director Boston Children’s Foundation, 2022.

Self-regulation describes children’s capacities to regulate emotions, and behaviors. It is the motor that helps children engage in learning activities, and prepares them to encounter new and challenging situations. When children learn how to cope with strong emotions, they have a better outcome when dealing with overwhelming feelings. As they learn how to regulate their emotions, they are also able to focus and control behaviors which helps them succeed during social interactions. Since the outcome for children’s abilities to self-regulate develops during early childhood, what are factors that can support children when learning how to identify and manage overpowering emotions?

Children mimic what is presented to them. Their emotional regulation behaviors and capacities emerge from positive attachment within the parent-child relationship. As children are being nurtured, they discover different ways in which their parental figure cares for their needs: being carried when they fall, a gentle touch on the back when encouraging new experiences, or a soft voice when reading a story. This dyadic relationship enhances children’s likelihood to develop and use self-regulating skills through the preschool years.

When children feel safe and are in a contained environment, their self-esteem and ability to regulate their emotions and behavior increases. However, cultural and environmental factors influence their values, beliefs, and practices. Children’s abilities to develop and use self-regulating skills should be examined within different frames to understand how cultural

backgrounds impact parent-child processes. How are parent-child relationships among different cultures able to form moment-to-moment coordination of goal-oriented behaviors that lead to self-regulation?

As an intern at Boston Children's Foundation with the *Rainbowdance*® Program, I observed how different approaches of dance/movement therapy appear to benefit children's ability to self-regulate, and how the influence of parental support aids the children's ability to learn and apply self-soothing techniques. Similarly, I also witnessed how the absence of the caregiver figure affects children's abilities to create and use self-regulating techniques throughout treatment and in school settings. Is it possible for children to build self-regulating skills without a caregiver to model the coordination of goal-oriented behaviors? Are parent-child interventions necessary for children to efficiently develop and use self-regulating skills?

The goal of this literature review is to obtain a better understanding of the benefits dance/movement therapy interventions offer to support attunement and attachment patterns in the parent-child relationships. This paper will also further explore different factors that contribute to the development of self-regulating techniques during early childhood. Similarly, another goal is to consider how different cultural and environmental backgrounds impact the development of self-regulating skills during early childhood mediated by the parent-child relationship. Since cultural traditions and structures differ, there is the notion that there may be cultural variations in self-regulation. This literature review also serves as a starting point for future research regarding the development of community-based family dance/movement therapy intervention programs that can offer support for young children and families with different socioeconomic status and environmental backgrounds.

## Method

The methodology combined two approaches: 1) *citation chasing*, and 2) a meta-search with predetermined target phrases on PubMed and the Lesley University library resource.

The first approach, citation chasing, as defined by the Illinois University Library (2021), is a means of starting with a known work of relevance and systematically expanding the frontier of relevant academic literature by pursuing other sources connected to that known work through citations. Citation chasing can be conducted in a backward or forward fashion (Booth, 2008). In the context of a literature review, with backward citation chasing, the process began with a known work from the academic literature of high quality and strong relevance to the topic, relevant sources cited by that known study were then systematically searched in its citation section. Said sources were then added to the literature review after assessing each of them for quality and relevance. Forward citation chasing can be accomplished by leveraging indexed academic databases with forward citation functionality, such as PubMed. With the forward citation chasing method, the process started with the known work of literature, and systematically searched all future research that has cited that known work. Similarly, these future academic works were assessed for quality and relevance for possible inclusion in the literature review. Both backward and forward citation chasing were used for the literature review, using Montroy et al. (2016) as a starting point. This approach allowed for obtaining relevant research, and facilitated the analysis of the literature beyond the bounds of keywords or topical searching.

For the second approach, a meta-search on PubMed and the Lesley University library database was conducted. Meta-search keyword phrases/terms included: “self-regulation,” “early childhood,” “dance therapy,” and “parent-child.” From meta-search results, inclusion criteria were restricted to peer-reviewed articles. Articles included a combination of quantitative,

qualitative, arts-based, and mixed methods research studies that pertained to the literature review topic.

The process then consisted of cataloguing and organizing resources found by logging them in an Excel spread sheet, categorizing chronologically by dance/movement therapy specific research, research conducted outside of the United States, and studies where a parental figure is involved in the methods. EndNote software was used to organize and keep track of the resources, and to help with proper citation.

### **Literature Review**

The following literature review is organized in three sections. The first section will review self-regulation, its outcomes on later life successes, and how it affects children with different socio-economic status, environmental, and cultural backgrounds. The second section will focus on the development of self-regulating skills through different attachment and parenting styles during early childhood development. The last section will explore the benefits of different dance/movement therapy and parent-child dance/movement therapy interventions during early childhood. This final section will be centered on dance/movement therapy techniques that can potentially lead to the healthy development of self-regulating skills in children.

#### **Self-Regulation**

Self-regulation is recognized as a critical social-emotional skill, which bases children's abilities to act pro-socially with peers and adults, participate productively in learning activities, and adapt to new or challenging situations (Vallotton & Ayoub, 2011). It is an elaborated construct that operates across the motor, physiological, social-emotional, cognitive, behavioral, and motivational levels of function (Montroy et al., 2016). The process of self-regulation

depends on the coordination of these levels of function to modulate a person's behavior, allow engagement in learning activities, provide the foundation for adjustment to school, and predict later success in socially and cognitively challenging situations (Blair & Raver, 2015; Vallotton & Ayoub, 2011). Research indicates that children younger than three years have difficulty coordinating and utilizing multiple executive function skills to create a behavioral response that requires a motor or verbal action, despite differences across individual facets and skills related to self-regulation (Montroy et al., 2016). Although fluctuations in regulation are inevitable on a moment-to-moment basis, the ability to re-stabilize in a healthy manner is central to a person's sense of responsive embodiment or integration (Seoane, 2016).

For a child to be able to self-regulate, they must possess the ability to manage their emotions and behavior in accordance with the demands of the situation. In preschool-age children, self-regulation often translates into not having a tantrum when things do not go their way or when unexpected things happen (Dettmer et al., 2020). Dettmer et al. (2020) stated that:

It is necessary to remember that self-regulation is not all-or-nothing: it exists on a continuum of abilities and expression. It is equally important to acknowledge that children are not born with self-regulation skills, and these skills are not age dependent; children are born with the potential to develop them. (p. 132)

Self-regulation develops gradually, and these skills can be either taught or enhanced. As children grow, self-regulation abilities make it possible for them to engage in goal-oriented behaviors including planning, focusing attention, remembering instructions, and managing multiple tasks while also controlling impulses. "Children's brains do not act as the brakes on behavior, but as the air traffic control tower" (Center on the Developing Child at Harvard University, 2011). Alternatively stated, children's brains do not stop certain behaviors (e.g., tantrums) from



occurring, but coordinate multiple actions and reactions to filter distractions, prioritize tasks, set and achieve goals, and control impulses (Dettmer et al., 2020; Center on the Developing Child at Harvard University, 2011).

The ability to act in accord with social standards and to regulate one's behavior is among the hallmarks of development and socialization during the early years of life (Kochanska et al., 2001). Caregivers guide children's emotional socialization by identifying and recognizing emotions, discussing their importance with them, modeling emotional behavior, and setting the family emotional atmosphere in the home (Ahmetoglu, 2018). Emotional and behavioral regulation is divided in two forms: coregulation i.e., when a person is supporting regulation, and self-regulation, the regulation mechanisms which are done by the self. The way in which young children begin to adopt parental rules, and how regulation of conduct shifts from external to internal, are among the fundamental questions of socialization. Kochanska et al. (2001) studied the nature of the differences between the two types of regulatory demands: 'Do' and 'Don't.' Children's behavior in 'Do' contexts involves sustaining an unpleasant, tedious activity, whereas their behavior in 'Don't' contexts involves suppressing a prohibited but pleasant activity. The authors proposed that self-regulatory abilities involved in sustaining behavior, and those involved in suppressing behavior, may be differently related to two inhibitory temperament systems in children, one based on fear, and one based on effortful control.

### ***Later Life Success***

A child who is living in an environment with supportive relationships and consistent routines is more likely to develop well-functioning biological systems, including brain circuits that promote positive development and lifelong health. Children who feel threatened or unsafe may develop physiological responses and coping behaviors that are attuned to the harsh

conditions they are experiencing at the time, at the long-term expense of physical and mental well-being, self-regulation, and effective learning (National Scientific Council on the Developing Child, 2020). Research suggests that poverty affects many aspects of a child's development. Self-regulation may be an adaptable and teachable mechanism for improving school success for children with disadvantaged backgrounds, yet there is little information regarding systematic approaches to improve these skills prior to the beginning of kindergarten (Schmitt et al., 2015).

### ***School Readiness***

Development of early childhood self-regulation is associated with later life positive outcomes, making the classroom environment a high-demanding place for children's self-regulation abilities. Evidence suggests that self-regulation is the foundation for school success since it helps children navigate structured learning environments, avoid distractions, maintaining focus on tasks, and persist through difficult situations (Schmitt et al., 2015). Definitions of school readiness are challenging at many levels. They challenge the understanding of children's development, the understanding of the best ways in which to create learning environments for children, and the understanding of the general goals of education in our society (Blair & Raver, 2015). Blair and Raver (2015) mentioned that these challenging definitions of school readiness can prevent the understanding and commitment to equality of opportunity and to the assurance of the ability of every child to succeed through free and universal public education despite initial disadvantage. As the framing of school readiness as self-regulation makes all too clear, the effects of poverty on children's chances of success in school begin early and can persist for years.

Blair and Raver (2015) explained that the developmental systems approach to school readiness highlights risks that are more likely to be experienced by children from high-poverty

homes and that are associated with adverse early rearing conditions and poor-quality childcare. The negative effects of poverty, and its associated risks on child development are far-reaching, impacting both self-regulation and vocabulary (Vallotton & Ayoub, 2011). Children living in poverty are less likely to experience family, home, and neighborhood environments that foster prototypically optimal self-regulation, which decreases the impact of learning opportunities (Blair & Raver, 2015). In addition to the decrease of learning opportunities, the physical and physiological effects that living in poverty have on children, including the relationship with caregivers, shapes the development of self-regulation. According to Blair and Raver (2015), this leads to early adversity shaping the self-regulation system in ways that are adaptive for aversive circumstances, but not conducive to a high level of adaptation to the demands of the context of school.

Understanding the process through which self-regulation is associated with academic achievement is critical if support is to be offered to young children in their acquisition of these skills (Montroy et al., 2014). Montroy et al. (2014) explained that children with strong self-regulation skills are likely to become mentally and financially stable throughout their life. If children feel regulated, confident, and empathic towards others, they will be successful in a formal school environment. However, children with low self-regulation skills pose a higher risk of developing emotional and behavioral problems, which leads to difficulty establishing relationships with peers and teachers (Savina, 2020). Since classroom behavior affects students' relationship with teachers, students with unstable self-regulation face the risk of having poor academic success if paired with a non-supportive teacher. When not paired with supportive teachers, the dynamic between serious self-regulation problems in young children, and job-related stress experienced by early childhood teachers leads to a greater probability of expulsion

from preschool programs which takes away from the need for innovative interventions that promote more adaptive behavior (Center on the Developing Child at Harvard University, 2011).

### **Parental Support**

Minimal differences exist between how mothers and fathers aid in building self-regulating skills with their children. Kiel and Kalomiris (2015) explained:

Consistent with the developmental psychopathology perspective that children are active contributors to their own caregiving environment, contemporary studies have yielded increasing evidence that children's emotion displays and emotion regulation strategies feed back into the emotion regulation relevant parenting they receive. (p. 13)

The authors described how both mothers and fathers independently and conjointly contribute to the development of children's emotion regulation, and how these differences between the mother and father's emotion regulation strategies become apparent as children age.

### ***Attachment***

Developmentally, attachment refers to the special bond formed in the infant-primary caregiver relationship; globally, it is the capacity to form relationships (Johnson, 2007). Emotion regulation behaviors and capacities emerge from experiences within the early parent-child relationship, with previous theory and research supporting the attachment relationship and specific parenting behaviors as foundations of emotion regulation development from infancy onward (Kiel & Kalomiris, 2015). Lobo and Lunkenheimer (2020) established that at the beginning of infancy, parents establish behavioral and affective patterns with their children that provide external regulation for children who cannot fully regulate themselves; secure and better-coordinated exchanges are thought to directly support young children's emotional, behavioral, and physiological regulation. Parent-child relationships are integral for the development of

healthy and effective self-regulation. As children gain and develop emotional regulatory skills in the context of parent-child attachment relationships, they learn these strategies with the help of repeated interactions with caregivers, who guide their emotional development through the use of positive parenting practices that incorporate sensitivity, warmth, and responsiveness (Planalp et al., 2021).

Parent-child coregulation is thought to support children's regulatory capacities.

Coregulation is the process by which parents and their children regulate one another through their goal-oriented behavior and expressed affect (Lobo & Lunkenheimer, 2020). Lobo and Lunkenheimer (2020) presented a study in which two types of affective and behavioral coregulation—dyadic contingency and dyadic flexibility—were explored. This allowed for understanding of the process by which young children's regulation skills are socialized in the parent-child relationship. The authors stated that predictability in the parent-child relationship can lead to self-organized behavioral, emotional, and physiological patterns. This predictability is often operationalized as contingency (Lobo & Lunkenheimer, 2020). Whereas dyadic flexibility reflects the degree of variability in affective or behavioral states during parent-child interactions. The ability of the dyad to flexibly transition across a range of states is indicative of how well they adjust to changing interpersonal demands, as well as the range of behaviors (Lobo and Lunkenheimer, 2020). The authors concluded that affective coregulation was important for the development of socioemotional self-regulation in early childhood, specifically, when paired with higher positive and neutral affective content. Stronger dyadic affective contingencies predicted lower emotional lability/negativity, and greater dyadic affective flexibility predicted higher social persistence (Lobo & Lunkenheimer, 2020).

Planalp et al. (2021) examined the impacts of mothers' positive parenting and parenting stress on their child's development of self-regulating skills, and how these patterns may differ depending on maternal demographic risk. Positive parenting reflects a mother's warmth, dependable responsiveness toward her child's affective and physical cues, affective expression, vocal praise, and physical affection towards the child. Parenting stress incorporates the task demands of parenting, parents' behavior and well-being, the parent-child relationship, and the child's adjustment. Most parents show normative level of stress associated with daily experiences of parenting, others experience high levels of stress that can impact parenting and family functioning. Demographic risk has been operationalized in numerous ways, including but not limited to measuring aspects of income, education, marital status, or minority status. Mothers that are categorized at higher demographic risk, such as lower education level, income, or social support, are often less prepared for parenting, and less likely to develop the skills needed for positive parenting (Planalp et al., 2021). The authors found that mothers who experience stress may have less capacity for positivity toward a child in distress. Planalp et al. (2021) stated that it is possible that mothers who are more positive or report lower stress may have more effective regulatory strategies themselves, meaning children learn regulation through direct observational processes, and not indirectly through their mothers' parenting.

Studies have mainly focused on mother-child relationships aimed to promote early childhood self-regulation, while less information regarding the role of father-child relationships is available in relation to how these relationships can contribute to their children's self-regulating skills. In a study by Fernandes et al. (2021), the independent and joint contributions of early relational experiences with both mothers and fathers at the beginning of the pre-school years (age three) to children's emotional regulation at the end of this period (age five) were analyzed. The

authors established that mother-child interactions are more likely to foster children's emotional understanding, whereas father-child interactions are more likely to support stronger emotion regulatory skills. Results suggested that the combined influences of attachments to each parent provide a stronger prediction of children's emotion regulation during preschool. For children with low security scores to one parent, it is beneficial to have a secure relationship with the other parent, in the sense that the two relationships interact to predict better emotion regulation in the peer group. These findings are consistent with previous findings suggesting that attachment security fosters emotion regulation, with securely attached children being more likely to display more effective emotion regulation abilities (Fernandes et al., 2021).

Conformity with caregivers' demands is a natural form of early self-regulation because it requires the child's capacity to initiate, cease, or modulate behavior favoring with the standards established by their caregiver (Kochanska et al., 2001). Responsive relationships and language-rich experiences for young children help build strong foundations for later success (National Scientific Council on the Developing Child, 2020). The phrase "use your words" is a common phrase addressed to young children who are exhibiting behavior out of frustration. It reveals the common belief that when children have the words to express their desires, needs, or feelings, they can better regulate their behavior to match the social expectations of the situation (Vallotton & Ayoub, 2011). Vygotsky (1986) proposed that self-regulation of thought and behavior is learned through a process in which children learn their culture's symbols and thought patterns by internalizing their caregivers' regulatory speech. Words become mental tools to be used as an advantage in manipulating one's own mind and behavior. Caregivers play a fundamental role in regulating children's behavior and emotion by talking to them, and providing verbal prohibitions or comforts. The transition from reactive to proactive regulation is facilitated by children's

growing representational abilities, including the internalization of their caregivers' self-regulatory speech facilitated by language development (Vallotton & Ayoub, 2011).

### ***Culture and Environment***

Kiel and Kalomiris (2015) stated that culture influences individuals' values, beliefs, and practices, however, the same parental behavior may reflect different values depending on the culture and thus relate to unique emotion regulation outcomes in diverse groups. Socioeconomic disadvantage has been linked to mental health difficulties in children and adolescents (Kirby et al., 2020). Since parental emotion socialization relates to children's self-regulation across different socioeconomic levels and cultures, coregulation should be examined within different frames to understand how cultural backgrounds impact parent-child processes. Children's emotion regulation alters across an array of social and cultural groups, and is related to parental emotion socialization across different socioeconomic levels. Consistent with the developmental psychopathology perspective that children are active contributors to their own caregiving environment, contemporary studies have yielded increasing evidence that children's emotion displays and emotion regulation strategies feed back into the emotion regulation-relevant parenting they receive (Kiel & Kalomiris, 2015).

Boldt et al. (2020) stated that the growing research on links between the child's attachment, and future emotion regulation, generally has supported positive associations between security and children's emotion regulatory capacities, and elucidated multiple mechanisms that may account for those links. The researchers established that parents who foster security typically use adaptive emotion-related socialization behaviors, which respond to children's emotions, including distress, acceptance, comfort, sensitive support, and warmth. Secure children typically develop expectations of anticipated comfort and support during moments of distress,



which promotes confidence in their own coping skills, reduces tension, and confident exploration and self-regulation becomes available (Boldt et al., 2020). The authors explained that having secure relationships promotes regulation at the physiological level, and as a result, effective emotion regulation strategies become important skills that children establish in different contexts such as in the home, school, with parents, teachers, and peers (Boldt, et al., 2020).

### **Dance/Movement Therapy**

Since the beginning of human history, people have used dance as a healing art (Dunphy et al., 2021). Movement and dance are observed as similar, but are different aspects of nonverbal expression (Tortora, 2006). *Movement* refers to the everyday actions a person uses consciously and unconsciously to mobilize or perform a task. The term *dance* is used to emphasize the emotionally expressive phenomenon that occurs when movements are put together in a lyrical way. The American Dance Therapy Association defines dance/movement therapy as the psychotherapeutic use of movement to promote emotional, social, cognitive, and physical integration of the individual, for the purpose of improving health and well-being (ADTA, 2014). It is a holistic approach, based on the empirically supported assertion that mind, body, and spirit are interconnected. The basic premise of dance/movement therapy is that the movements of the body reflect inner emotional states and that changes in movement behavior can lead to changes in the psyche, promoting health and growth (Levy, 2005). Dance/movement therapy as an embodied approach is often difficult to describe, and it requires active engagement to appreciate what it is.

Tortora (2006) described how the word dance is used metaphorically to illustrate the give and take of social interactions and emotional expressions. Such metaphors include: “we dance around issues” in an effort to avoid exposure or conflict with others; “we are dancing as fast as

we can” to keep going under pressure; and “we use the dance of intimacy” to describe the complexities of intimate personal engagement (p. 7). Tortora (2006) explained that dance transforms movement by fusing the movement with self-expression; viewing movement and interaction as a dance can change a person’s vision into seeing how movements associate. Fusing movements together expands focus by helping individuals relate for longer periods of time. Using these actions offers individuals the experience of extending relationships which helps them make sense of and interact more fully in the social world (p. 287).

Dunphy et al. (2021) explained that dance fosters healthy development in a wide range of domains such as self-image, self-body awareness, and self-esteem. It helps people cope with emotional and cognitive challenges, concentration, respect for others, emotional understanding of others, tension and emotional release, and making adjustments and adaptations to different situations. Dance may play a role in the development of children’s social competence and prosocial behavior by serving as a cultural tool that can be internalized by the child and used for self-regulation (Lobo & Winsler, 2006). Lobo and Winsler (2006) established that children’s behavior is first regulated by the speech of caregivers. After speech is internalized by children, they use language in the form of self-talk as a tool for guiding their own behavior; cultural symbols, such as dance may be used as a mechanism for gaining self-regulatory skills (p. 504).

### ***Parent-Child Interventions***

Malchiodi and Crenshaw (2013) explained how attuned interactions in the parent-child relationship are nonverbal communications that sustain individuals in building empathy, and developing healthy attachment relationships. This attunement depends on the presence of sound, tone of voice, and nonverbal rhythms of communication. Attachment can be viewed as a

metaphorical dance, enhanced through nonverbal attunement and body-based interventions.

Tortora (2006) stated:

When all goes right, an infant's initial experience of the world comes from within the protective confines of the primary meeting between infant and parent. This pairing is the infant's earliest experience of the dance—the non-verbal dance of relationship between self and other. Like two dancers, the infant-parent duet communicates through sensing, feeling, and touching. Each member uses his or her body to relate and express. (p. 30)

When there is inconsistent engagement or disruptions in this dance of interaction, insecure attachment in the parent-child relationship is visible. By having a sensitive, responsive, and nurturing relationship with their caregiver, children can develop a sense of self-efficacy and the ability to self-regulate which aids in their competence to interact with the world.

The involvement of the caregiver figure in early childhood interventions can be crucial for a child's healthy development of secure attachment to what is safe, and helps develop self-soothing techniques that the child can apply even when the parent is not present. Parent-child dance/movement therapy makes it possible to examine the non-verbal qualities of communication in a relationship (Kedem et al., 2021). The Kestenberg Movement Profile (KMP) is a developmentally and psychologically coherent profile in relation to children's movement patterns (Levy, 2005). The KMP was originally designed as a preventative diagnostic tool to assess parent-child movement patterns to identify risk factors and imbalanced relationships (Kedem et al., 2021). This tool can create a movement profile of the observed individual, which can provide information on the individual's developmental and clinical characteristics, as well as providing insight on the developmental functioning of both mother and infant, their movement

preferences, areas of psychological harmony and conflict between them, and their attitudes towards others (Regev et al., 2012).

In the field of dance/movement therapy, studies have found that the more positive and approving the mother's reaction to the child, the greater the likelihood that the child will develop a positive sense of self-worth (Regev et al., 2012). Other studies have found an interrelationship between cases of unbalanced parental reactions such as over protectiveness or negative reactions, and children with emotional difficulties and anxiety problems (Regev et al., 2012). Parent-child dance/movement therapy makes it possible to heighten positive attachment patterns between the caregiver and the child through verbal and non-verbal communication (Kedem et al., 2021). For parent-child dance/movement therapy and other parent-child interventions to be effective, active participation from the parent in the therapeutic process improves the relationship between parent and child, and the quality of child's attachment to the parent. This active participation can be enhanced by the therapist by creating a welcoming therapeutic environment tailored to help the parent feel supported and accepted.

### **Rainbowdance®**

The increased awareness that comes from dancing in group settings is thought to help children learn about personal and social space, which are necessary dimensions of effective social interaction (Lobo & Winsler, 2006). The basic Rainbowdance® model is a group-based intervention used for young children ages one to five years, yet it can be adapted for older children based on their needs and their social environment (Rainbowdance, 2020). This basic model works to build social empathy, self-confidence, and self-regulation through the use of music, movement, and storytelling. The positive experience of moving as a group contributes to the developing resource base from which children seek responses to social or emotional conflict.

The sessions typically develop with the presence of the child's caregiver(s); however, sessions can be adapted, for example, in a classroom environment without the one-on-one relationship of the parent and child.

Attachment theory highlights the self-regulatory capacities fostered by the child's use of the parent as a secure base for exploring the environment, and on the safety-regulatory capacities when the child can activate the parent as a haven to return (Fernandes et al., 2021).

Rainbowdance® offers a parent-child dance/movement therapy model that enhances attachment and self-regulation patterns between the parent-child relationships. This allows for growth in the parent-child relationship and encourages the experience of the collective harmony that occurs through movement (Johnson, 2007). By parents observing the quality of the child's movement, it allows them to enrich their parenting skills. A harmony between the movements of parent and child contributes to a sense of security and trust; the parent allows their body to adjust to the child, and provides empathic support that their child requires (Regev et al., 2012, p. 480). This creates the opportunity for the child to gain confidence in their body movements, and experience interdependent physical adjustment.

### **Mirroring**

Mirroring occurs when two people make similar body movements that are coordinated or slightly echoed in time (McGarry & Russo, 2011). In dance/movement therapy, the therapist may imitate the movements, or quality of movements of a client. Mirroring enhances the somatic and emotional understanding in the therapist towards the client; this emotional understanding can also be transmitted from parents to their children (McGarry & Russo, 2011). Kedem et al. (2021) examined the effectiveness of a group mother-child dance/movement therapy intervention. The participant mothers attempted to give their children a sense of visibility during the intervention

by mirroring their children's movements. This experience of movement with the mother connects to the initial attachment and the encircling parental experience in which a sense of self develops. This creates a type of metaphorical encouragement and protective environment for the child, serving as a calming and comforting function (p. 7).

During Rainbowdance® sessions, the use of mirroring is established as a system to create a sense of connection within the group, and to decrease the sense of loneliness during interventions. As the children work in circles, their movements are mirrored by their parents and peers, unifying the sense of community, and decreasing the sense of isolation which often accompanies early trauma or disordered attachment (Johnson, 2007). In this dyadic relationship, the parent is the mirroring-self object; they directly regulate the child's overt behavior by mirroring the behavior, and modeling a self-soothing sequence. By using mirroring during parent-child interventions, the child can sense the parent's visibility and can feel contained, held, and protected.

### **Use of Touch**

The use of touch is often referred as the "mother of the senses." It is the first of the senses to develop in humans, beginning inside the womb, and being the last one to leave as people age (Matherly, 2014). While the use of touch in the therapeutic environment can offer clients multiple benefits such as helping with grounding and self-regulation, it can also lead to potential injury. Dance/movement therapist touch raises ethical concerns regarding potential harm towards the client. According to the ADTA code of ethics (2015), touch may provide safety, and can help the client establish body boundaries. However, the therapist must make intentional, informed decisions and consider how contextual and client variables inform the risks and benefits of touch.

Touch is an important component of a caregiver's role as an external regulator in establishing an infant's future capacity for self-regulation (Seoane, 2016). Attuned touch fosters secure attachment, and it is one of the most influential regulatory movements on a child's capacity for integration. Touch has also been applied in the therapeutic environment for the purpose of containment, mimicking early childhood experiences, and assisting the client to maintain a calm, regulated state (Matherly, 2014). In parent-child therapy, the base of the physical connection between mother and child is created through movement and touch. This allows children to learn to recognize the limits of their own bodies, as well as those of their mothers and others (Regev et al., 2012).

### **Discussion**

Children's emotional and behavioral self-regulation skills determine the abilities for children to relate to others in their current and new environment. This literature review served as a medium to highlight the importance of developing self-regulation skills during early childhood. It was found that self-regulating skills are not pre-existing, and these skills are based on a continuum of abilities and expressions, helping children develop the potential to build and use self-soothing skills (Dettmer et al., 2020). These skills help children face new challenges without producing overpowering feelings, support their abilities to build empathy towards others, and anticipate the preparedness for later life successes. Self-regulation skills are formed based on the environment the child is experiencing life. A child living in an environment with supportive and consistent relationships is more likely to develop healthy biological systems that promote healthy development throughout their life (National Scientific Council on the Developing Child, 2020). Making threatening environments a space for children to develop negative physiological responses and coping mechanisms aligned with the threatening conditions they experience.

Parental involvement plays a primary role in children's abilities to develop, adapt, and use self-regulating skills across different situations. Research demonstrated that establishing behavioral and affective patterns within the parent-child relationship at the beginning of infancy establishes a sense of safety, which is a necessary factor for children to be able to effectively self-soothe even when the caregiver figure is not present (Lobo & Lunkenheimer, 2020). The repeated interactions with the caregiver figure help children guide their emotional and social development as these interactions incorporate sensitivity, warmth, and responsiveness; making it accessible for children to use when socially interacting outside of their home environment (Planalp et al., 2021). Apart from reviewing the importance of parental involvement during early childhood, this literature review also explored how culture can variably determine a child's ability to self-regulate. Kiel and Kalomiris (2015) established that children's capacities to regulate vary across different social and cultural influences, therefore, children's abilities should be examined through different lenses to understand how cultural backgrounds influence the parent-child relationship in the process of coregulation.

Dance/movement therapy supports the development of self-regulating techniques during early childhood mediated by parent-child interventions. Research indicated that attunement in the parent-child relationship is based on nonverbal communication that leads to the formation of empathy, and the creation of healthy attachment patterns (Malchiodi and Crenshaw, 2013). With the presence of sound, tone of voice, and nonverbal rhythms of communication, the process of attuned relationships becomes a metaphorical dance. The use of dance/movement therapy techniques such as mirroring, the use of touch, and parent-child dance/movement therapy programs such as Rainbowedance® have shown the positive impacts they have on the parent-child relationship. Through mirroring, the caregiver becomes the self-object to be mirrored:



mimicking the child's agitated behavior and modeling a self-soothing sequence that offers containment and protection (Johnson, 2007). Touch functions as an external regulator for self-regulation; it fosters secure attachment, and serves the purpose of recognizing the limits a child has with their own bodies, their caregiver's, and others in their surroundings (Seoane, 2016; Regev et al., 2012).

My experience as an intern at Boston Children's Foundation allowed me to implement the Rainbowdance® program across various sites in the Boston area. Throughout the time I facilitated Rainbowdance® sessions, I witnessed how the repetitive content of the interventions established safety, dependability, and trust, which are necessary to achieve the anticipated goals of the program: promotion of self-esteem and self-regulation. Yet, the majority of groups facilitated were not within the dyadic (parent-child) model, rather were in a classroom environment where there were twenty clients, and two clinicians. Since the development of attuned parent-child interactions was not present in most scenarios, challenges in providing the one-on-one interaction that can potentially lead to the development of self-regulating skills were visible. In sessions where the dyadic relationship was present, the attunement through the presence of sound, tone of voice, and non-verbal communication was existent. The importance of safe, attuned relationships, and the therapist's use of and instruction in body-based skills are emergent themes in the dance/movement therapy literature when working in self-regulation (Betty, 2013).

This literature review contained several limitations. Further research addressing attachment patterns that include the type of attachment for children who experience having multiple caregivers i.e., children in the foster care system, should be explored to review the outcomes of the interventions mentioned above. For example, using the mirroring technique with

children who have an inconsistent primary caregiver relationship might produce negative outcomes for a child to have different modeling figures aiding in coregulation, resulting in dysfunctional self-regulation. (Seoane, 2016). Future research exploring how trauma (natural disasters, family separation, immigration, death of a family member, physical trauma) in the first years of life, and how generational trauma are limiting factors for children could help with further assessment of self-regulation difficulties during early childhood (The National Child Traumatic Stress Network, n.d.).

Collectively, the structure of this literature review highlights how through the support of the parent/caregiver figure, children are able to develop and use self-regulating techniques during the first years of life. Dance/movement therapy and parent-child dance/movement therapy interventions make it possible for children and their caregivers to process, adjust, and create calming techniques that can improve the parent-child relationship, making that connection a collective harmony that they experience verbally and non-verbally through movement.

## References

- Ahmetoglu, E., Ildiz, G. I., Acar, I. H., & Encinger, A. (2018). Children's emotion regulation and attachment to parents: Parental emotion socialization as a moderator. *Social Behavior & Personality: An International Journal*, 46(6), 969–983. <https://doi-org.ezproxyles.flo.org/10.2224/sbp.6795>
- American Dance Therapy Association (2014). *What is dance/movement therapy?* <https://www.adta.org/>
- American Dance Therapy Association & Dance/Movement Therapy Certification Board. (2015). *ADTA and DMTCB code of ethics*. <https://www.adta.org/assets/docs/Code-of-the-ADTA-DMTCB-Final.pdf>
- Betty, A. (2013). Taming tidal waves: A dance/movement therapy approach to supporting emotion regulation in maltreated children. *American Journal of Dance Therapy*, 35(1), 39. <https://doi-org.ezproxyles.flo.org/10.1007/s10465-013-9152-3>
- Blair, C., & Raver, C. C. (2015). School readiness and self-regulation: A developmental psychobiological approach. *Annual review of psychology*, 66, 711–731. <https://doi.org/10.1146/annurev-psych-010814-015221>
- Boldt, L. J., Goffin, K. C., & Kochanska, G. (2020). The significance of early parent-child attachment for emerging regulation: A longitudinal investigation of processes and mechanisms from toddler age to preadolescence. *Developmental Psychology*, 56(3), 431–443. <https://doi-org.ezproxyles.flo.org/10.1037/dev0000862>
- Booth A. (2008). Unpacking your literature search toolbox: On search styles and tactics. *Health information and libraries journal*, 25(4), 313–317. <https://doi.org/10.1111/j.1471-1842.2008.00825.x>

- Center on the Developing Child at Harvard University (2011). Building the brain’s “air traffic control” system: How early experiences shape the development of executive function: Working paper no. 11. Retrieved from [www.developingchild.harvard.edu](http://www.developingchild.harvard.edu).
- Dettmer, A. M., Clinton, A. B., & Mildon, H. A. (2020). Self-regulation in young children: A skill set for lifetime success. In *Healthy development in young children: Evidence-based interventions for early education*. (pp. 131–150). American Psychological Association. <https://doi-org.ezproxyles.flo.org/10.1037/0000197-007>
- Dunphy, K., Federman, D., Fischman, D., Gray, Am., Puxeddu, V., Yu Zhou, T., & Dumaresq, E. (2021). Dance therapy today: An overview of the profession and its practice around the world. *Creative Arts in Education and Therapy*, 7(2), 158–186. <https://doi-org.ezproxyles.flo.org/10.15212/CAET/2021/7/13>
- Fernandes, C., Fernandes, M., Santos, A. J., Antunes, M., Monteiro, L., Vaughn, B. E., & Verissimo, M. (2021). Early attachment to mothers and fathers: Contributions to preschoolers’ emotional regulation. *Frontiers in Psychology*, 12. <https://doi-org.ezproxyles.flo.org/10.3389/fpsyg.2021.660866>
- Johnson, D. (2007). Remembering the collective body: A dynamic understanding of attunement and healing. *Journal of Pedagogy, Pluralism, and Practice*: 3(4), Article 6. Available at: <https://digitalcommons.lesley.edu/jppp/vol3/iss4/1>
- Kedem, D., Regev, D., & Guttman, J. (2021). Moving together: Assessing the effectiveness of group mother-child dance and movement therapy. *The Arts in Psychotherapy*, 74. <https://doi-org.ezproxyles.flo.org/10.1016/j.aip.2021.101803>

- Kiel, E. J., & Kalomiris, A. E. (2015). Current themes in understanding children's emotion regulation as developing from within the parent-child relationship. *Current Opinion in Psychology*, 3, 11. <https://doi-org.ezproxyles.flo.org/10.1016/j.copsyc.2015.01.006>
- Kirby, N., Wright, B., & Allgar, V. (2020). Child mental health and resilience in the context of socioeconomic disadvantage: Results from the Born in Bradford cohort study. *European Child & Adolescent Psychiatry*, 29(4), 467–477. <https://doi-org.ezproxyles.flo.org/10.1007/s00787-019-01348-y>
- Kochanska, G., Coy, K. C., & Murray, K. T. (2001). The development of self-regulation in the first four years of life. *Child Development*, 72(4), 1091–1111.
- Levy, F.J. (2005). *Dance movement therapy: A healing art* (2nd Ed.). Reston, VA: National Dance Association.
- Lobo, F. M., & Lunkenheimer, E. (2020). Understanding the parent-child coregulation patterns shaping child self-regulation. *Developmental Psychology*, 56(6), 1121–1134. <https://doi-org.ezproxyles.flo.org/10.1037/dev0000926>
- Lobo, Y. B., & Winsler, A. (2006). The effects of a creative dance and movement program on the social competence of head start preschoolers. *Social Development*, 15(3), 501–519. <https://doi-org.ezproxyles.flo.org/10.1111/j.1467-9507.2006.00353.x>
- Malchiodi, C.A., & Crenshaw, D.A. (2013). *Creative Arts and Play Therapy for Attachment Problems*. The Guilford Press
- Matherly, N. (2014). Navigating the dance of touch: An exploration into the use of touch in dance/movement therapy. *American Journal of Dance Therapy*, 36(1), 77. <https://doi-org.ezproxyles.flo.org/10.1007/s10465-013-9161-2>

- Montroy, J. J., Bowles, R. P., Skibbe, L. E., & Foster, T. D. (2014). Social skills and problem behaviors as mediators of the relationship between behavioral self-regulation and academic achievement. *Early Childhood Research Quarterly, 29*(3), 298–309. <https://doi-org.ezproxyles.flo.org/10.1016/j.ecresq.2014.03.002>
- Montroy, J. J., Bowles, R. P., Skibbe, L. E., McClelland, M. M., & Morrison, F. J. (2016). The development of self-regulation across early childhood. *Developmental Psychology, 52*(11), 1744–1762. <https://doi-org.ezproxyles.flo.org/10.1037/dev0000159.supp> (Supplemental)
- National Scientific Council on the Developing Child (2020). Connecting the brain to the rest of the body: Early childhood development and lifelong health are deeply intertwined: Working paper no. 15. Retrieved from [www.developingchild.harvard.edu](http://www.developingchild.harvard.edu).
- Planalp, E. M., Nowak, A. L., Tran, D., Lefever, J. B., & Braungart-Rieker, J. M. (2021). Positive parenting, parenting stress, and child self-regulation patterns differ across maternal demographic risk. *Journal of Family Psychology, 35*(1), 1–10. <https://doi-org.ezproxyles.flo.org/10.1037/fam0000934>
- Rainbowdance. (2020). *Enrichment Program for Toddlers and Preschoolers* [Pamphlet]. Boston Children's Foundation.
- Regev, D., Kedem, D., & Guttman, J. (2012). The effects of mothers' participation in movement therapy on the emotional functioning of their school-age children in Israel. *The Arts in Psychotherapy, 39*(5), 479. <https://doi-org.ezproxyles.flo.org/10.1016/j.aip.2012.08.003>

- Savina, E. (2021). Self-regulation in preschool and early elementary classrooms: Why it is important and how to promote it. *Early Childhood Education Journal*, 49(3), 493–501. <https://doi-org.ezproxyles.flo.org/10.1007/s10643-020-01094-w>
- Schmitt, S. A., McClelland, M. M., Tominey, S. L., & Acock, A. C. (2015). Strengthening school readiness for Head Start children: Evaluation of a self-regulation intervention. *Early Childhood Research Quarterly*, 30(Part A), 20–31. <https://doi-org.ezproxyles.flo.org/10.1016/j.ecresq.2014.08.001>
- Seoane, K. J. (2016). Parenting the self with self-applied touch: A dance/movement therapy approach to self-regulation. *American Journal of Dance Therapy*, 38(1), 21. <https://doi-org.ezproxyles.flo.org/10.1007/s10465-016-9207-3>
- The National Child Traumatic Stress Network (NCTSN). (n.d.). Early childhood trauma. <https://www.nctsn.org/what-is-child-trauma/trauma-types/early-childhood-trauma#:~:text=Early%20childhood%20trauma%20generally%20refers%20to%20the%20traumatic,protects%20children%20from%20the%20impact%20of%20traumatic%20experiences>
- Tortora, S. (2006). *The dancing dialogue: Using the communicative power of movement with young children*. Paul H. Brookes Pub.
- Vallotton, C., & Ayoub, C. (2011). Use your words: The role of language in the development of toddlers' self-regulation. *Early Childhood Research Quarterly*, 26(2), 169–181. <https://doi-org.ezproxyles.flo.org/10.1016/j.ecresq.2010.09.002>
- Vygotsky, L. S., & Kozulin, A. (n.d.). *Thought and language* (Translation newly revised and edited / by Alex Kozulin.). MIT Press.

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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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