**Analyzing therapy logs: Mapping physical and mental manifestations of anxiety among children undergoing dance/movement therapy**

**Abstract**

Recent studies refer to physical expressions in different attachment patterns and teach that identifying physical expressions can contribute to clinical understanding and help in building treatment plan.

At the same time there is a lack of research identifying and mapping physical manifestations of anxiety symptoms as they appear. Addressing this lacuna in the context of treatment can assist in devising effective treatment plans.

Using a participatory observation study process, this study examined the mental and physical characteristics of children coping with anxiety symptoms during dance/movement therapy (DMT) sessions, as recorded in therapy logs of eight patients, aged 8–11, who underwent treatment during one to two years. The therapy logs were analyzed based on the Milner Method for subjective autobiographical writing and psychoanalytical self-exploration. The findings revealed four themes: (1) disconnection to connection; (2) avoidance to presence; (3) merging to independence; and (4) control to release. In each theme, patterns were identified regarding movement in relation to others, body positions, movement in space, and transference and countertransference patterns.

The findings illustrate that movement occurs in mind and body, and that physical and mental patterns coincide. Our insights can lead to a holistic understanding of how anxiety manifests in the body and mind, providing a foundation for a diagnostic model to help create more effective treatment plans for children with anxiety symptoms.

Keywords:

Anxiety physical clinical manifestations

Childhood anxiety disorders

Dance/movement therapy for children

Therapy logs

**Physical and mental manifestations of attachment style in children with anxiety symptoms**

According to the American Psychiatric Association (2013), anxiety display physical and mental symptoms, including difficulties controlling distress, restlessness, stress, extreme fatigue, difficulties concentrating, irritability, muscle tension, and trouble sleeping. Attachment theory (Bowlby, 1988) describes that humans are equipped with a behavioral system which developmentally ensures proximity to a caregiver who provides protection and assistance in times of distress (Shaver et al., 2000). Meaning, attachment offers “a secure base from which to explore the world” (Ainsworth, 1964, p. 54). More so, it is claimed that parent-child relationship is considered a main factor in the development of anxiety symptoms in children. In cases where parental care is not continuous, sensitive, and available, the attachment system cannot achieve its primary goal of finding closeness.

Anxiety may develop when there is inconsistent parental presence and reactivity, as well as low parental mentalization or reflective ability, which refers to the parents’ ability to explain behaviors to the child in mental terms (Specht et al., 2016). Caregivers model physical and emotional patterns, which are internalized by the child and embodied in his/her body and psyche. A recent study of 128 children demonstrated that parents who express greater levels of warmth and empathy toward their child and reduce criticism and rejection during conflicts, help reduce their children’s anxiety (Van der Giessen et al., 2019). Consequently, when physical symptoms are addressed but the child’s emotional feelings are ignored, or when the child’s physical experiences are misinterpreted, the child may exhibit increased anxiety symptoms.

Based on Attachment Theory, one can assume that the disrupted movement and physical rigidity characterizing insecure and anxious children are the opposite expressions of actively confronting difficulties (Fonagy, 2001). Such motion counters the motivation to freely and creatively explore oneself and the environment. Moreover, the Theory suggests that body rigidity is one of the child's defenses against feeling anxiety, which is experienced as overwhelming and uncontrollable (Bowlby, 1988). Observing the moments can assist in understanding the anxiety-inducing mechanism that lies at the heart of the relationship.

Given these observations, a child’s attachment style is associated with non-verbal expression (Schore, 2011; Porges, 2011; Damasio and Carvalho, 2013; Ogden and Fisher, 2015). Cassidy & Kobak (2008) and Main (2008), have found that in the lack of successful parental care, two secondary defensive attachment strategies will develop. One of them, which is hyperactivation of the attachment system, is prompted by feelings of anxiety and expressed physically- the child develops increased closeness-seeking behaviors, such as dependence (for example clinging to the parent leg) and separation protest(refusing to part with the parent).

Additional studies refer to physical expressions in different attachment classifications - A study that examined attachment patterns in adults (n=48) during somatic mirroring, revealed that participants with a secure attachment style made expansive use of body parts and movement, characterized by playfulness and exploration with the other compared to participants with an insecure attachment style, thus verifying that observing physical gestures in communication can help both assessment and therapeutic processes (Feniger-Schaal et al., 2018). Another study observed movement patterns to assess a mother-child bond (Shuper-Engelhard et al., 2021). It was found that a child’s somatic complaints may actually represent a way of seeking closeness to the parent. A study of 392 children found that when parents of children with somatic complaints focus on, validate, and give meaning to the child's emotional experience, the somatic complaints’ scope declines (Kehoe et al., 2014)

The child will often convey stress and anxiety patterns via verbal and non-verbal communication (Sossin&Birklein, 2006). Within the therapy dynamic, physical patterns of the patient were characterized by disruptions in the flow of movement and difficulty making eye contact with the therapist (Hepach et al., 2017). Studies show that low parental reflectivity is linked to difficulties in the child’s emotional regulation (Goodman et al., 2016). Essentially, these children experience and decipher information received from people's facial expressions, body movement, and gaze in a biased way that generates physical and emotional discomfort, which may affect the quality of their relationships with others. This points to the importance of considering physical manifestations in the therapeutic relationship upon commencement.

**Dance/movement therapy for anxiety symptoms**

The therapeutic methods that have been found most effective for reducing anxiety disorder symptoms are those who address both emotional and physical patterns (Alkozei et al., 2015, Hoffman, 2019). Dance/movement therapy (DMT) follows this model. DMT integrates movement experiences with listening to the body’s feelings to achieve dynamic thinking (Chaiklin & Wengrower, 2015).

In DMT, dance and expressive movements serve to improve emotional and social functioning by integrating body movement, emotional reactions, and self-expression (Pylvanainen, 2010). The therapist uses relaxation, imagination, games, and either guided or spontaneous dance, while using his/her own body to reflect the patient's movement. A therapist working with children may intervene by addressing facial expressions, muscle tension, body positions, breathing and vocal sounds (Weitz &Opre, 2019).

Several studies suggest that DMT has a positive impact on anxiety disorder treatment. In a study of 57 adults it was found that repressed feelings surfaced during the therapeutic process, particularly those perceived as negative, such as anger, and anxiety levels dropped (García-Díaz, 2018). Another study examining the impact of DMT on female adolescents (n=162) showed a greater awareness of the relationship between physical and emotional senses following DMT therapy, as well as a decreased level of anxiety (Bräuninger, 2012). Focusing on children with aggression and anxiety disorders, a study of 30 children aged 6–7 found that symptoms of anxiety and aggression decreased after ten DMT sessions compared to a control group that did not undergo therapy (KhodabakhshiKoolaee et al., 2014).

This study takes use of somatic transference and countertransference processes, which is the basis of DMT and serves as a tool for understanding the therapeutic relationship and the patient’s inner world. In transference relations, the emotional needs surface directed towards the therapist (Kohut, 2018), and in countertransference – the feelings that emerge in the therapist toward the patient (Heimann, 1950). Working with somatic countertransference can help the therapist create an environment in which the child has an opportunity to change physical and emotional patterns, as well as create new internalizations. Thus, the therapist’s body becomes a transformative space in the therapeutic processes (Vulcan, 2009). Since anxious children's symptoms have physical expressions, DMT has a unique position to identify anxiety symptoms manifestations, thus promoting the ability to formulate an effective and accurate treatment plan.

**Research questions and aims**

This research seeks to identify the physical mental manifestations of children coping with anxiety symptoms within the Dance/Movement therapeutic relations and observe it through the time line in order to improve clinical understanding of such children and assisting in devising an effective treatment model.

**Methods**

DMT combines various therapeutic disciplines and makes use of multiple therapeutic techniques and interventions throughout the therapeutic process. This calls for qualitative research based on a methodology that facilitates a broad and holistic perspective of the nature of these interventions and their effects (Koch et al., 2014). The current study is a hypothesis-generating, participant observation (Aronson, 1995)‏ in which the therapist who treat the children and document the logs is the first researcher, part of the researcher team. This study examined actions taken by the therapist and her patients as well as reciprocal actions that took place within the shared space, as documented in eight therapy logs during 2013–2018. This was accomplished through inductive analysis of movement and verbal content, defining domain content and identifying core ideas under the phenomenological hermeneutics qualitative paradigm, which relates to written text, dance, and art as expressing the wealth of human experience (Tzabar-Ben Yehoshua, 2016).

***Participants***

This study thoroughly examined the therapy logs of eight children, aged 8-11, with symptoms characterizing states of anxiety: nightmares and daymares, avoidance of social encounters and various experiences, biased perceptions of reality, irritability, tantrums, stubbornness, and over-criticism. The children attend the same school and were diagnosed and referred to therapy by the school psychologist. The children participated in at least 25 therapy sessions, which took place at the school between 2013–2018 with an experienced DMT therapist who is also the first researcher. and was being guided by a senior therapist with 30 years of experience who is a DMT therapist, and a psychotherapist. The documented therapeutic process included at least a year of individual 45-minute-long sessions with the children, and one monthly parent counseling session. The therapy sessions were held in a setting suitable for movement therapy, with mats, balls of various sizes and textures, fabrics, handkerchiefs, rubber bands, hoops, sticks, and balancing beams.

***Data collection***

In order to conduct this research, the detailed therapy logs of eight children who had received DMT for between one and two years were selected. The therapy logs contain a documentation of events unfolding from the moment the patient enters the room until the session ends, with reference to the patient’s behavior, including how they treat the therapist, the setting, and the main interventions the therapist performs. The therapy logs contain thoughts, questions, and insights that arise and form as they are being written regarding the processes that took place in the treatment room. These represent the therapist’s subjective thoughts, attempting to reflect the therapists experience of the relationship that existed in the room as closely as possible. The therapy logs document verbal and physical dialogues, the patient’s physical expressions and how they moved, as well as the therapist’s subjective primal sensations, emotions, and physical sensations emerging during the sessions as part of transference and countertransference processes. The materials appearing in the therapy logs were written immediately after the sessions and were expanded upon throughout the week, as part of the reflective processes of observing the sessions.

This data collection method is commonly used in studies dealing with consulting psychology and psychotherapy (Hill & Hess, 2012) and is based on phenomenological elements from multiple case studies (Yin, 2013). Data analysis in the current study is based on two methods: the Milner method (Halton-Hernandez, 2020), and the consensual qualitative research (CQR) method (Hill et al., 1997).

***Data analysis***

The therapy logs were analyzed based on the Milner Method (Halton-Hernandez, 2020) for subjective autobiographical writing and psychoanalytical self-exploration. In her log, among other things, Milner documented four decades of children’s case studies and her training sessions with Melanie Klein (Haughton, 2014). With the help of Winnicott, Milner established the study of personal logs as a reflective tool that assists in methodical construction (Halton-Hernandez, 2020). A large-scale study (n=120) found that writing a log enhanced the self-reflection process (Yu & Chiu, 2019). In addition, it has been found that self-reflection processes and treatment log analysis, together with peer dialogues help the therapeutic community develop critical thinking and expand their professional knowledge (Chiu et al., 2013; Yu & Chiu, 2019). This reflective process examines the significance of the action taken and its implications for the various people involved (Shlesky, 2006) in order to produce methodological knowledge that supports and improves the clinical work (Yin, 2013).

To analyze the data, a set of consecutive sessions were used: sessions 1–6 from the start of treatment, sessions 10–15 from the middle of treatment, and sessions 18–25 from the end of treatment .In total, one hundred treatment sessions were analyzed. In accordance with the CQR method (Hill et al., 1997), the analysis process was conducted by three researchers who are also experienced therapists (two DMT therapists and one art therapist). In the first stage of content analysis, the therapist who treated the children passed the logs to the research team. Then the content chosen for analysis was identify domains under which the data could be clustered. The researchers then discussed their results and reached agreement on the appropriate domains (Hill et al., 2005). In the second stage, the physical clinical manifestations were discussed, identified, and formulated using systematic comparison and generalization (see the titles in Table 1) (Befani, 2013; Hill et al., 2005). In the third stage, the final themes, referred to as cross-analysis, were produced. Four themes were identified, in each theme, patterns were identified regarding movement in relation to others, body positions, movement in space. The research team met several times throughout the study. In addition to writing together and agreeing on the codes and categories, the research team also discussed disagreements regarding the analysis process through peer discourse (Hill et al., 2005).

***Professional ethics and confidentiality***

The parents of the children whose therapy logs were selected for analysis gave their consent to use information from the therapy sessions. To ensure complete confidentiality and safeguard the children’s identities, they were given aliases and the dates of each session, and all other identifying details were erased. It was made clear to the parents that they were under no obligation to agree to the use of information for this research and that there would be no implications of any kind should they refuse. The research was approved by the Faculty Ethics committee at Haifa University Israel– number 20/324.

**Findings**

Analyzing the DMT therapy logs of the subject children, four themes were identified that describe the physical and emotional manifestations of their anxiety as they moved between the following axis through the therapy process: Details of each are described in Table 1.

**Table 1**

*Physical and mental patterns of disconnection, avoidance, merging and control in the therapy dynamic and process*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | From Disconnection to Connection | From Avoidance to Presence | From Merging to independence | From Control to Release |
| Body positions & patient movement in space | Stiff movement; chest contracted; feet hovering above the ground; mostly peripheral movement; limbs as if detached from the center of the body strewn in different directions; difficulty making eye contact | Circular and soft movement; regressive movement such as crawling, rolling, lying on the back like an infant, with the limbs facing up | Difficulty expressing vitality | Body posture; imbalance in vestibular system |
| Movement patterns in relationships | Sharp transitions in movements; difficulty with intimacy expressed by looking away, discomfort with physical closeness; patterns of attention that zoom in and out | Avoiding eye contact | Longing for touch; marked ability for simultaneous movements and for listening to the other;dependency on the therapist; difficulty parting; the need to be meaningful and central. | Sharp shifts in the flow of movement; difficulty transitioning from a position of leading to following and vice versa |
| Mental expression in transference processes | Difficulty expressing emotions, sharp transitions and disconnection in the face of contact with emotional content | Marked self-awareness and independent conduct; taking responsibility, expressed in difficulty in asking for help alongside motivation to get help, make close contact; and fear of losing contact | Dependence on and glorification of the caregiver; fear of abandonment; difficulty separating; desire for closeness and need to be meaningful and central | Low self-esteem, over-criticism; leadership; and holding needs |
| Counter-transference | Confusion; lack of interest; disengagement and over-motivation | Feelings of sadness and convergence alongside a high sense of mobilization and a desire to help | A feeling of falling in love; significant investment in treatment along with feelings of confusion and fear of being swallowed | Feelings of anger towards the patient in the face of an experience of shunning or silencing an invitation to interact, play and explore movement options |

**Physical and emotional** **manifestations: Case Vignettes**

Most logs (n=7) include many manifestations of the child’s need for control (n=42) and descriptions of the disconnection pattern (n=39). Case vignettes of body positions, movement in relation to others, movement in space, and transference, and countertransference relationsemphasizes moved along the axis from disconnection to connection and from control to release, trough the therapy process.

**Body positions & patient movement in space of the disconnection patterns**

In most of the logs (n=6) the movement was described as follows: The child’s rib cage is contracted, the feet hover above ground, mostly peripheral movement, stiff movement, as though the limbs are disconnected from the center of the body, strewn in different directions. For example, eight-year-old Ella, at the beginning of the therapy process, is described as follows: “The rib cage is stiff and locked. She moves mechanically. The sense is that the body is moving itself and the head is operating separately. Her movement is limited and repetitive, high muscular tension, her movement is very rigid” (log 2 session 1). Other physical characteristics appeared in nine-year-old Aviv’s log. There is the difficulty in making eye contact and a gap between the lack of movement in the center of the body and the uncontrollably scattered movement of the limbs, their excessive flexibility and weak muscle tone. "Aviv feet float above the ground, the limbs are detached from the center of the body and move in straight lines as if there were only bones and joints." (log 5, session 11) With Yair, the movement pattern is characterized by breaks and sharp transitions: "When Yair reaches a movement harmony, he cuts off." (log 6 session 5)

As therapy progressed, there was an apparent change in the description of how the patients held their bodies. For example, Ella’s log: “slowly her movement opens up, there is an organic movement flow, she becomes more attentive and spontaneous.” (log 2 session 34). There was more eye contact: "Aviv raises his eyes at me, we need to finish I say and he stands with a smile, upright and present, looking at me." (log 5 session 27).

**The interpersonal physical manifestation of the disconnection mechanism**

Most of the logs (n=6) describe sharp transitions in movement and difficulty with intimacy. For example, nine-year-old Aviv's non-verbal communication was involved turning away and hiding: “Aviv enters and sits on the ball, his back to me, jumping, looking withdrawn, and staring into space. He has entered a tunnel without seeing or being seen” (log 5 session 19). Gali, ten years old girl, disconnects and moves to a new movement when a sense of intimacy is created in the movement dialogue "I notice that her movement is straight, the minute something soft or a sense of closeness starts, she disengages and moves on to the next thing." (log 7 session 21)

**Disconnection patterns in transference relations**

Each physical pattern of the child’s disconnection appearing in a log (n=7) is accompanied by a description of difficulty in expressing feelings, sharp transitions, and disconnection when encountering emotional topics, or a disparity between self-perception and physical expression. The therapy log entry of eight-year-old Naamah demonstrates a disconnection between an activity and the emotional experience: “[She is] …absorbed in drawing, drawing in detail. When she completes the drawing, she takes a sponge and erases the carriage and horse [that she’d drawn]. I was stunned. Everything that was, the abundance, the goodness, the investment, was eliminated in an instant. Erased with the flick of a hand. And Naamah was indifferent to it” (log 1 session 17). In later sessions, changes occurred, including more a correspondence between body movement, senses, and feelings. For nine-year-old Yair, the disconnection is also seen in the gap between Yair's self-concept and the physical expression in the room "His speech is very slow and heavy, his limbs are scattered in all directions, which makes his actions appear clumsy, despite this, he declares that he is the fastest in the class!" (log 6 session 3) In advanced sessions there is a change- Yair more connected to his body. For example, in Yair's description of his feelings after a movement experience: "...it was a pleasant feeling what happened to me now, when I am inside something for a long time. and then if someone disturbs me, I get scared and stop." (log 6 session 32).

**The disconnection pattern in countertransference relations**

Most of the therapy logs (n=5) include descriptions of the therapist's feelings of confusion, disinterest, impatience, discomfort, disconnection, and over-motivation. The therapist describes her feelings toward Ella's disconnection: “She speaks to me with a smile that feels disconnected, her tongue is sticking up, seemingly unconsciously. Her tongue’s movement makes me uncomfortable. I don’t understand her” (log 2 session 1). As the therapy process progressed, the therapist appears to develop an internal dialogue with her feelings. Agreeing to listen to the feelings that arise during the transference and countertransference processes creates understanding, allowing patients to return to regressive places and experience themselves as more present and connected to their feelings. As found in Ella’s therapy log: “In counseling, I understand that the tongue's movement is an expression of aggression and tension” (log 2 session 15).

**Physical and mental patterns of control**

**Physical intrapersonal manifestations of the need for control and release**

Half the logs depict the need for control, with descriptions of the patients ’rigid body positions. For example, in Yair’s therapy log:“ Yair’s shoulders are raised and held, his ribcage is rigid, and his breathing seems shallow” (log 6 session 1). One of the main characteristics found in most logs throughout the stages of therapy is an imbalanced and intentionally vestibular system (n=5). For example, Yair: “He is busy with balance again and finding the center” (log 6 session 33). Some logs indicate that the patients intentionally try to lose control or balance (n=3). At an advanced stage of therapy, the vestibular imbalance receives an emotional verbal expression, as with Gali: “… It's like a boat rocking at sea. There’s a rope. She points to the center of her body, straightens her back and the sea moves the boat, the surroundings are stormy” (log 7 session 33, attaché 5).

**Interpersonal physical manifestations of the need for control**

Most logs (n=6) show disruptions in the flow of movement and the patient's difficulty moving spontaneously, joining a powerful movement carried out by the therapist, or transferring from the role of leader to that of follower, and vice versa. For example, when treating Gali: “We move simultaneously, taking turns leading. If I hand over the lead to her without telling her, she immediately stops the movement” (log 7 session 1).

**The need for control in countertransference relations**

In a small number of logs the therapist reports feeling objection, silencing and anger (n=3). For example, when treating Naamah: “I have difficult feelings of management, control, silencing.” Confronted with these difficult emotions, the therapist chooses to postpone her response, or reflect on them through movement: “I allow her to repeat the course several times until I find the right way for me to join in. Similarly, in side-by-side drawing, she draws on my page, and I mirror her drawings on her page “(log 1 session 34).

**Discussion**

This is a hypothesis-generating study. This study used a participatory-observation process to identify and better understand the physical, mental manifestations of anxiety within the therapy dynamic of eight children, aged 8–11, with anxiety symptoms who were treated with DMT. Analysis of the findings revealed four themes that demonstrate motion across a sequence over the course of the children’s one-to-two years of DMT:(1) from disconnection to connection; (2) from avoidance to presence; (3) from merging to individuation; and (4) from control to release. Mental patterns, movement patterns, and physical transference and countertransference relations were identified in each of the themes.

The four themes demonstrated movements in physical-mental patterns over the course of therapy, reflecting a shift from over-reliance on control, avoidance, and dependent merging, towards higher levels of connection to senses and emotions, and an ability to relinquish control, give oneself over to experiences of relaxation and to enhanced presence and expressions of autonomous initiative.

These movements markedly to the early stages of therapy, when rigidity, the movement of limbs detached from the center of the body, and a contracted rib cage were physically conspicuous.

**Expressions of vitality in anxiety**

In DMT, movement is the central medium of expression and therapeutic intervention (Chaiklin & Wengrower, 2015). Movement is also an early form of vitality (Stern, 2020), which is inherent in the act of moving, the first expression of being animated. Movement takes place in the mind and in the body. As a dynamic vitality forms, it helps people adjust to new situations. Anxiety can be considered an expression of an inability to regulate frightening experiences; DMT offers therapist and patient an opportunity to encounter these experiences through movement.

These manifestations of anxiety in therapy’s early stages – such as physical rigidity and movement of limbs detached from the center of the body – can point to low levels of vitality, that is, high and unyielding defense mechanisms. Mentally, there were difficulties in expressing feelings, as well as disconnection when confronted with emotional matters, along with dependency needs and fear of abandonment. These findings expand the understanding of the nature of symptoms that characterize anxiety disorder beyond restlessness, stress, fatigue, difficulties concentrating or disconnecting, irritability, muscle tension, and trouble sleeping (American Psychiatric Association, 2013). The finding also shows the children had low self-esteem, were over-critical and felt the need to manage others. For example, Naama "she directs me move exactly like her and tells me how to organize the room." (log 1 session 16) These can also be expressed in high vigilance to the movement of the therapist, for example Gali "She is sharp and alert to my every movement, if we take turns leading the movement without having decided on it, she stops immediately." (log 7 meeting 1) and rigid thinking patterns, for example Yair "Every suggestion of mine is interpreted as an instruction that he must not deviate from, he must not make any mistakes." These finding support and expand previous findings that children with social anxiety disorders are more self-critical than children without anxiety (Halldorsson et al., 2019a). Metaphorically, criticism is experienced as paralyzing, silencing, and immobilizing (Kra-Oz & Shorer, 2017).

In this study, the merging mechanisms were characterized by patterns of sharp shifts in motion, along with a marked ability to perform simultaneous movements. While these findings seemingly contradict one another, they actually correspond with the assumption that anxiety’s core lies a is the parents’ anxiety when faced with the child's independence (Weitkamp et al., 2018). Such a fracture could lead to a pattern of ambivalent relationships characterized by neediness and a fear of closeness with others. These difficulties may be manifested by soft and regressive movements, a longing for touch, a high ability to move simultaneously, dependency on the therapist, difficulty parting, and the need to be meaningful and central for another. According to the findings, the patterns recurred physically and emotionally – a congruence that can assist in holistically understanding the manifestations of anxiety in the body and psyche.

The findings in this research reveal additional manifestations of avoidance, such as difficulty demonstrating strength and vitality, and difficulty asking others for help. The children did not display vitality – which demonstrates power that motivates action, generate feelings, sharpen attention, spark thought, and initiate movement (Stern, 2010) – in therapy’s early stages. Such manifestations of avoidance confirm the findings of an earlier study showing that anxiety disorder is characterized by an intense and irrational fear that leads to emotional suppression and avoidance (Pennant et al., 2015), and that a lack of separateness between child and parent can increase the child's sense of tension toward the environment and arouse a fear of being close to others, while being needy and dependent on the parent (Bato et al., 2018).

**Changes in psycho-soma dynamics**

This research demonstrates that parallel to patterns common in family relations among children with anxiety (Jongerden & Bögels, 2015) these patterns, including feelings of dependency, glorifying the therapist, fear of abandonment, and trouble parting, were present at the beginning of the therapeutic relationship. Much like common coping mechanisms outside therapy (Bato et al., 2018), disconnection, avoidance, or control mechanisms used within the therapy setting to avoid threatening feelings, allowing the child to defend himself/herself from feeling the difficult emotions elicited by closeness. Concurrently, this may also be where there is potential for healing, as well as the possibility of having new experiences within a relationship.

As the therapy process progressed, changes occurred in the movement dynamic, namely changes in the flow and continuity of movement, and in the expression of emotions during movement, which became soft, attentive, and spontaneous. The children were able to make a connection between physical senses and feelings. Moreover, changes in physical and emotional patterns became evident. The children stood more erect. Power, daring, and strength began emerging in the movement, along with emotional expressions of sadness and loneliness. It is possible that strengthening the body led to an increased sense of security, enabling the child to express previously avoided emotions and feelings.

Furthermore, autonomous movement began within and beyond the therapy room, expanding on earlier research showing that creating a protective and empathic environment (Hoffman, 2019), and encouraging the patient to use his/her body's strength and the energy of the movement, provide a sense of security and self-awareness (Khodabakhshi Koolaee et al., 2014).

In conclusion, the findings of this research broaden the foundation for understanding the physical and emotional patterns of children with anxiety disorders and how they manifest themselves in dance/movement therapy dynamics. Changes in these patterns throughout the therapy process reveal the potential for healing through optimal object relations, while encouraging expressions of strength, vitality, and creativity, which can ease anxiety symptoms among children. Most importantly, they support the understanding that identifying emotional and physical patterns can assist in addressing the child's needs through therapy.

**Clinical applications**

The results of this research increase the understanding of the range of emotional and physical patterns that characterize anxiety disorders in children. The research found that physical patterns, such as disrupting the flow of movement in self and with other, characterize disconnection and control mechanisms, and that difficulties making eye contact characterizes disconnection and avoidance mechanisms. Along with these, distinct characteristics were found for disconnection, avoidance, merging, and control mechanisms (see Figure 1). In fact, this research identified physical mental manifestations that relate to object relations and attachment relations, in which the self protects itself through disconnection and avoidance – parallel to the avoidant attachment pattern, and/or through opposite expressions of a need to merge with the other – and parallel to the anxious attachment pattern. These findings can help improve the development of more effective treatment plans informed by greater insights into children’s experience with anxiety from the therapy setting. Since children do not keep sensory or phenomenological journals, therapists must work via parallel play and countertransference to construct an inner landscape that can then be mentalized with less distortion than anxious parents may generate.

**Figure 1**



**Research limitations**

Three features of this study limit its scope. First, the research plan was built retrospectively based on therapy sessions that had already ended. This created some inconsistencies in the research materials from the therapy sessions that were studied. In order to overcome this limitation, all of the therapy sessions that were selected for in-depth study were those that had been held over the course of at least a year and had been documented in great detail. Second, the children had been referred to treatment based on anxiety symptoms identified by the school’s psychologist but had not been formally diagnosed through diagnostic tools. To address this limitation, the therapeutic process included extensive standardized intake for the children's dynamic diagnosis.

Finally, documenting the therapeutic process via a therapy log provides the therapist's subjective perspective; however, writing logs over time may be inconsistent. The limitations of written logs are perhaps further attenuated by the fact that verbal documentation may not fully describe the essential non-verbal nature of DMT, including its focus on movements and physical expressions of feelings, including those of the therapist-patient dyad (Specht et al., 2016).

**Recommendations for future research**

Further research can build on the findings of this study by addressing one of its key limitations. Since DMT explicitly uses non-verbal expressions, further studies would benefit from non-verbal documentation of the process using, for example, photographs and videos of the therapy sessions. Furthermore, research of this kind would benefit from the incorporation of quantitative measures of symptoms and strengths before, during, and after the therapy process. Finally, an examination of the relationship between symptoms and the attachment patterns between children and their parents may be a fruitful area for further study.

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