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This is the **published version** of the master thesis:

Nazon, Tamara; Puxeddu, Vincenzo , dir. Dance Movement Therapy : Bridging The Gaps Between Mind, Body, and Emotion in The Experience and Management of Chronic Pain. 2022. 29 pag. (1614 Màster en Dansa Moviment Teràpia)

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**Dance Movement Therapy: Bridging The Gaps Between Mind, Body, and Emotion in  
The Experience and Management of Chronic Pain**

A Thesis Presented to The Autonomous University of Barcelona  
Master's Degree in Dance Movement Therapy

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January 2022

## Abstract

Chronic pain is a complex, multi-faceted, global health issue that affects not only biological but also psychological, emotional, and social aspects of the individual. Research suggests there exists a strong need for more holistic approaches to understanding and managing chronic pain for successful recovery. Dance Movement Therapy (DMT) is a promising intervention for addressing the multi-faceted components of chronic pain, but there is a need for more evidence and understanding of the mechanisms behind its therapeutic impacts. The following qualitative study outlines three main mechanisms and their corresponding intervention techniques through which DMT could help understand how mind, body, and emotion interact in individual pain experiences and their impact on pain management and improved well-being. These three mechanisms—identifying pain triggers, developing coping mechanisms for chronic pain, and creating vehicles for expression—were supported with a mixed-methods approach combining a literature review on relevant themes related to chronic pain and DMT as well as through the analysis of case studies of three patients suffering from chronic pain that participated in DMT sessions conducted by the researcher. This study found that the three DMT mechanisms and their corresponding intervention techniques point towards a positive impact of the use of DMT for better pain management and well-being. It suggests that DMT could be an effective intervention tool for chronic pain, especially as a complement to other more biological approaches. Further research should go into quantifying and measuring the longer-term impacts on chronic pain of the DMT mechanisms found in this study.

**Keywords:** Dance Movement Therapy, chronic pain management, Dance Movement Therapy interventions, mixed-methods research, mind-body approach

## Introduction

*“Pain is useful to the extent that it motivates us to modify our behaviors in order to reduce whatever insult is causing the pain because*

*invariably that insult is damaging our tissues. Pain is useless and debilitating, however, when it is telling us that there is something dreadfully wrong that we can do nothing about.” (Eysenck, 1996, p.98).*

Although pain is fundamentally necessary to our survival, when it becomes chronic, it can transform into a highly limiting experience, directly affecting quality of life and well-being (Gasking & Richard, 2012). Chronic pain affects an average of 10% of the population, in some countries climbing up to 20-25% (Jackson et al., 2014). It presents the leading cause of disability and global disease burden (Mills et al., 2019). The overwhelming effects of chronic pain also greatly affect the economy. Annual pain costs in the US rise between \$560 to \$635 billion per year, which is more than the annual costs of cancer, diabetes, and heart disease (Gaskin & Richard, 2012). When pain sufferers seek help, they usually receive assistance on the biological level (medication, surgery, physical therapy, rehabilitation, etc.), but this approach has its limits on the improvement of chronic pain (Andrasik et al., 2005). A large number of patients do not find resolution from their pain after seeking medical assistance alone (Roditi & Robinson, 2011). Indeed, pain, and especially chronic pain, is a complex, multifaceted experience that expresses itself differently according to a variety of factors including, psychological, social, and biological ones (Goldberg & McGee, 2011). Consequently, there is a need for pain management tools that recognize and address the multifaceted aspect of the pain experience (Roditi & Robinson, 2011).

Dance Movement Therapy, which makes the psychotherapeutic use of movement to promote well-being and integration of the physical, emotional, psychological, social, and cognitive levels of the individual (American Dance Therapy Association, n.d.), could be very valuable in addressing chronic pain management on a more holistic level. Indeed, growing research on the effectiveness of DMT on chronic pain management is emerging (Shim et al., 2019), but there is still a lack of information on the subject. This article will aim to position DMT as an effective pain management resource by answering

the following question: How can DMT help bridge the gap between the physical, emotional, and psychological components of pain management, and what impact does this have on the pain experience?

This question will be addressed by first explaining theories of pain (definition and management) that are aligned with the context of this article. It will then elaborate on the three main DMT mechanisms (identifying triggers of pain, developing coping mechanisms for pain, and creating vehicles of expression) that have been identified as helping bridge the mind-body gap of pain management and present the specific DMT interventions associated with them. It will do so by explaining relevant literature on the subject, combined with practical support from case studies. It will conclude by providing an overview of the research findings and suggestions about potential DMT intervention models for chronic pain management.

## **Methodology**

### **Procedure**

A mixed-methods methodology was used for this article including a literature review and case study analysis. The investigation process for the literature review included researching topics and keywords such as theories and definitions of pain, biopsychosocial components of pain, psychology of pain, mind-body approaches to chronic pain, and DMT and chronic pain.

The case studies were performed with three patients suffering from chronic pain. The number of participants was chosen in accordance with the scope and resources of the researcher. Case study participants were to take part in five weekly DMT sessions with the researcher of approximately 1 hour each in a private studio space in Barcelona, Spain. Participants responded to an open callout about the study posted on different public social media platforms and groups. Because this study

focuses largely on the subjective experience and manifestation of chronic pain regardless of demographic, the inclusion criteria used was for the participants to identify as suffering from chronic pain. Participants also had to reside in the city of Barcelona and be able to independently make the trip to the studio. Following the callout, interested participants had a phone call with the researcher to receive more information about the study and procedure. Following this, they were sent consent forms with all the details of the study to be signed prior to beginning the sessions. Included in this form was a guarantee of their anonymity so fictional names are used in this article. The first three participants to complete the pre-session process were chosen.

The case studies were analyzed using the researcher's clinical notes as well as excerpts from the patient questionnaires. These questionnaires were filled out by the patients before and after each session (referred to in the article as pre and post-session questionnaires). In these questionnaires, patients were asked to describe how they feel (or have been feeling), especially in relation to their pain experience, and highlight any differences they perceived between the beginning and end of the session. They were also encouraged to use other integration materials such as drawing and writing throughout the sessions. A thematic analysis of these different qualitative materials was used to offer practical support to the theories exposed.

## Background

The participants of the case study were Lea (age 30), Silvia (age 46), and Clara (age 28), three women currently living in the city of Barcelona. Lea had been suffering from recurring chest pains and from weekly debilitating migraines. She had sought medical assistance in the past, but the cause of her chest pains and migraines remained unclear. Silvia had been suffering from pain in her right lumbar area for almost 10 years. Throughout the years, she sought extensive medical treatment for her pain and received different diagnoses, none of which ended up being significantly conclusive. At the time of the study, she was also receiving physiotherapy treatment including shockwave therapy, which

provided her with temporary relief. Clara had been suffering from chest pain and tension in her shoulders and had recently experienced an episode of acute pain in her back causing her not to be able to move for a period of time. She had received appropriate medical care for this episode and was coming to the sessions, especially for her chest and shoulder pains, of which the causes were more ambiguous. Clara also suffered from anxiety. All three participants had had some exposure to therapy in the past. It was however their first time engaging in a therapy process for their chronic pain.

## **Theories of Pain**

### **Definition**

According to the International Association For the Study of Pain, pain is defined as “an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage” (2021). The biological function of pain is necessary to humans’ survival (Basbaum et al., 2009). When someone breaks their ankle, feeling pain helps them seek out the necessary treatment to heal (2009). Pain signals are sent from sensory receptors located throughout the body (from the skin to the organs) and travel through the spinal cord all the way to the brain. Upon receiving the sensorial input, the brain decides if the situation is dangerous and if so, creates a pain response in order to promote survival (Butler et al., 2019). However, the processing and perception of pain are subjective to a variety of factors. For example, it has been proven that a violinist may feel more pain from a finger injury than a dancer because this body part is connected to their financial survival (2019). On the other hand, a soldier may not feel pain from an injury during a battle because being able to defend themselves may be more necessary to their survival than tending to their injury (2019).

In the case of chronic pain, the function and origin of the pain become more complex. Chronic pain is defined as physical pain that carries out longer than 12 weeks despite medical treatment or beyond the average expected healing time (Treede et. al 2015). Chronic pain has been associated with an altered way of processing and reacting to sensory information (Garland, 2012). Because pain is generated through the brain's interpretation of a variety of inputs, in the case of chronic pain, it is almost as if the parts included in the processing of the inputs have been "hijacked", creating the same pain signal over and over again, (Butler et al., 2019), almost like an "addiction to pain" (p.38). Taking into account that pain exists to protect us, the brain gets used to creating pain signals based on certain inputs because it interprets that we are in danger, even if the danger is not evident (no tissue damage, no broken bones, etc.). Maladaptive thoughts, behaviors, and emotional patterns such as feelings of loss of control and avoidance of activities from fear of re-injury further modulate and perpetuate the pain experience (Makin & Flor, 2006).

## **Pain Management**

For a majority of Western medical history, the analysis and treatment of pain were addressed on a mainly biomedical level (Bendelow, 2013). The biopsychosocial model was created by George Engel in 1981 with the aim of addressing some of the one-dimensional, body-focused limitations of the biomedical model (1981). As its name suggests, the biopsychosocial model examines how biological (cells, hormones, neurotransmitters), psychological (emotions, personality, behavior, mental health), and social (family, community, culture) factors all interact in the expression of pain (Engel, 1978). Most of all, it challenges the dualistic view of previous Western models and offers an alternative to the mind-body division that dominates how healthcare professionals address chronic pain. It attempts to reunite the interactions between mind, body, and environment in the pain experience, especially when it comes to chronic pain (1978).

## Dance Movement Therapy & Chronic Pain

DMT is suggested to be particularly useful in addressing biopsychosocial components of chronic pain management (Shim et al., 2019, Koch et al., 2014), as one of its core foundations is to consider that mind, body, and spirit are all interconnected (Acolin, 2016). In her study on medically unexplained symptoms (MUS), Helen Payne's (2009) BodyMind Approach (a DMT-inspired intervention technique) helped participants understand how their emotions or life situations affected their bodies, how symptoms were triggered, and even how they could avoid some of those symptoms from appearing. Here, the mind-body/ verbal-physical nature of DMT showed to help integrate conscious and unconscious aspects of patients' experiences, providing deeper and more stable grounds for change (2009). Being a mind-body approach, DMT can help patients suffering from chronic pain gain clarity on some of the psycho-behavioral processes linked to their pain while offering them a creative outlet to reinhabit their bodies.

As described earlier, pain can be viewed as a sort of "embodied defense" (Eccleston, 2018, p.S17), where when chronic, it becomes "... a failed state, in which pain becomes stuck. The person with chronic pain lives in this context of repetitive interruption by the threat of harm" (p.S19). Viewing this on a biopsychosocial lens, we could argue that these threats of harm may not come solely from physical sources alone (tissue damage). Dance Movement Therapy could therefore help uncover, explore, and integrate some of the non-physical aspects of the pain experience.

This rationale led to developing the three main mechanisms that could be used in DMT for pain management. The first mechanism, *identifying pain triggers*, comes from exploring the psychological and social aspects that may consciously or unconsciously be acting or interpreted as threats. Questions such as "what may be a potential danger in my life right now/from my past?", "what does my body need to protect me from?", and "what needs attention in my life?" can help

uncover some of these occurrences. The second mechanism, *developing coping mechanisms for pain*, is based on the notion that pain generates a need for action, motivated by the organism's desire to find equilibrium again (Eccleston, 2018). Identifying potential threats outside of the purely physical realm may then guide pain sufferers towards understanding the necessary actions and changes they must make to go back towards a state of well-being. The last mechanism, *creating vehicles for expression*, is based on the notion that pain is a completely individual, subjective, and emotional experience (2018). DMT could help provide a creative and expressive outlet through which the strong interactions between pain and emotion (Gadi et al., 2020) could be explored, expressed, and integrated. These three mechanisms and the respective DMT intervention techniques associated with them will be further explained in the following section and supported by excerpts of the case studies.

### **Identifying Pain Triggers**

Research shows that trauma and stress are key missing pieces of the puzzle in understanding chronic pain (Eysenck, 1996; Maté, 2019). Trauma stored in the body from past experiences or from the traumatic experience of long-term chronic pain in itself can trap the body into perpetuating a pain response (Levine & Phillips 2012). Negative emotions and stress both interact with the pain experience on a hormonal, neuronal, and physical level (Garland, 2012), and growing research is revealing the negative impact of stressful emotions on pain (Flood & Clark 2016; Eysenck 1996; Crofford, 2015). Exploring the emotional and psychological triggers of physical pain is pivotal at helping patients understand what is causing this pain and raise their sense of control over the situation.

Body awareness was the DMT intervention technique identified to best help recognize these potential pain triggers. Body awareness is “the precise, subjective consciousness of body sensations arising from stimuli that originate both outside of and inside the body” (p. 100) (Rothschild 2000). In the case studies conducted for this research paper, during any kind of explorations (verbal or

movement-based), patients were encouraged to describe in detail the affective and sensorial qualities of their pain. The description often became much more specific than “pain”. Sensations such as “throbbing and tightening” and affective qualities such as “unbearable and suffocating” gave complexity to the description of their experience. Patients would then be asked to reflect on whether these sensations or images reminded them of any past or current events that may be linked to these specific sensations. Doing this helped them not only identify specific triggers of their pain but also help them gain a deeper understanding of their situation.

## LEA, SESSION 1

### Pre-session questionnaire excerpt:

*“Every morning and sometimes evening I feel constriction in my chest. It resides at a single point at the center of my sternum and feels scary like I can't breathe. I become anxious and worry it will never end.”*

After having done a movement exploration including a body scan and intuitive movement, we began the check-out by talking more about Lea’s chest pains. As we reflected on the words she used to describe her pain at the beginning of the session, I encouraged her to describe how this “constriction” and fear felt in her body. As she identified in greater detail the bodily sensations associated with these feelings, we began talking about the pain she had the previous night. I then explained to Lea a little more about how pain works and that it is there to protect us from an interpreted danger. I asked her if she had any idea what this “danger” might be. If this pain, constriction, and fear reminded her of something in her past or present where she felt she “couldn’t breathe”. I encouraged her to connect with her body as she reflected on this. She put her hands on her chest, describing the different sensations she was feeling. Suddenly, she paused and exclaimed: *“Oh my god, I just realized something!”*. Lea started explaining how last year

she went back to her hometown in the USA, right in the midst of the pandemic and protests against the murder of George Floyd for Black lives matter. She remembered the city being occupied by the army and had felt a great sense of overwhelm and anxiety, and like “she couldn’t breathe” - the same words Floyd repeated more than 20 times to the officer before dying. She realized that the previous night, when she had her pain, It was right after she watched a documentary with her partner about the same theme, without knowing it would touch on the exact subject.

She mentioned originally guessing her pain had been due to allergies or asthma and had never made the link with the original event, and how it still triggered this pain response today. As she was describing her story I felt a sense of relaxation in Lea’s body. Almost like an exhale.

**Post-session questionnaire excerpt:**

*I was able to make some clear connections between my pain and my triggers.  
This is comforting to understand. I feel more liberated realizing that joy is my medicine  
and that joy can come through connecting with my body is liberating.*

The following week, Lea wrote that she had “*three chest pain episodes since the previous session in the following week*” (as opposed to almost every morning and night).

By using DMT to expand body awareness and associate external stressors (work, relationships, living situations, etc.) or past traumatic experiences that contain the same affective and sensorial qualities as their physical pain, patients are able to identify possible pain-triggering stress patterns currently present in their lives, exposing potential threats that the brain previously decided to “protect” them from through the language of

pain. This helps create a greater sense of clarity and control of the situation, by connecting the dots between distressing physical and psychological states.

### **Developing Coping Skills For Chronic Pain**

Chronic pain affects virtually all areas of a person's life, which makes developing ways to cope with the physical, emotional, and psychological components of pain, necessary for effective recovery (Peres & Lucchetti, 2010). Coping is the ability to identify, manage, and overcome stressful situations (Moseley, 2003). Threats that prevent our ability to cope with situations include both physical and psychological processes (mind & body) (2003). In the case of chronic pain, many people develop maladaptive or passive coping strategies (catastrophizing, avoidance, relinquishing control from pain), which negatively impact their ability to manage their pain (Peres & Lucchetti, 2010).

The use of intuitive movement is the DMT intervention technique identified to help patients build better coping mechanisms for chronic pain. Moving from a space of inner listening is a core part of DMT (Musicant, 1994). Following the “wisdom of the body” and surrendering to one's internal felt experience creates “fuller and more meaningful relationships with the self and others” (1994, p.93). Through different movement-based explorations, patients are able to connect with the impulses and intuitive movements that come from within. By noticing how they feel in response to these movement explorations (ease, constraint, flexibility, etc.), and letting these feelings guide them into deepening their exploration, patients are able to move from embodied experiences of pain towards experiences of comfort and even pleasure, identifying what they need to achieve so. This may later translate into identifying specific actions or changes they are willing to make in their lives to promote their well-being.

### **SILVIA SESSION 1**

**Pre-session questionnaire excerpt:**

**Translated from Spanish:** *“Continuous pain in the right lumbar area, right glute, and right leg at times. Rope that continuously pulls in the lumbar part, stabbing pain in the glutes. Continuous pain that blocks me. I feel limited and I feel like I always have to be paying attention to something that I cannot forget. I feel like something is pulling ... continuously. If this tension [in the lumbar zone] stopped I think it would stop me from feeling pain in the whole area.”*

Following the check-in, I told Silvia to intuitively take a posture in the room to start her guided movement. She went to the center of the room, sitting stiffly with one leg extended and one leg folded. I told her to notice how she felt, and see if she wanted to make any changes. She then started moving abruptly from one stretching position to the other. There was a general sense of stiffness and rigidity from her movements. We briefly paused the movement exploration to further discuss Silvia’s pain and what it represents for her. We then did a second movement exploration. This time I told Silvia to let herself be guided by her body and what it needs. I decided to play meditative Sacred Sanskrit chants, that had a soothing and repetitive quality. As Silvia began her exploration, her movements became much more flexible, gradual, and sinuous, in big contrast with the abrupt movements she was exploring at the beginning. Just like the repetition of the chants in the music, she would repeat the same movements, seeming to feel them more deeply every time. Her transitions were soft and still. She finished her exploration with a softer aspect to her body and a certain calmness to her energy. She took a few deep breaths and commented on her process. She mentioned that she was following the sensations present in her body and decided to go little by little, exploring different positions that made her feel good. She would go inside a movement, transit it, and allow

for the different possibilities of what her body was feeling, always going towards what felt good.

**Post-session questionnaire excerpt:**

**Translated from Spanish:** *“I feel very relaxed. I practically no longer feel the pain I was carrying. I feel as if the tight rope in continuous tension has relaxed. Nothing is pulling it. I feel liberated as if I had released a few stones along the way. I feel more connected with my body and I understand its language better, allowing it to express itself and communicate with me.”*

*“The differences [between the beginning and the end] lie in my approach towards my life circumstances. Becoming more flexible and not going towards extremes allows my body to not go towards extremes either, like the rope in maximum tension. Allowing myself to explore how I feel in the space between those extremes relaxes my body and allows me to listen to it and let it guide me towards a space of comfort.”*

DMT also allows patients to expand their movement vocabulary (Bernstein, 2019). Responding to their bodies’ impulses, and following the guidance of the therapist helps introduce different qualities to their movements. Because chronic pain can be very limiting to one’s movements and body, using and developing different movement vocabularies allows patients to increase their self-agency in how they want to inhabit their body while providing insight into how to cope with different situations and challenges in their lives.

**LEA, SESSION 2**

**Pre-session questionnaire excerpt:**

*“Happy but very sleepy. I did not sleep at all last night. Woke up with a headache from not getting enough rest... I had 3 episodes of chest tightening and one migraine since the last session.”*

During the check-in, we talked about what might have prevented Lea from sleeping the previous night and contributed to her headache. She said she has been feeling stressed lately, especially for financial reasons, and for feeling pressured for taking care of her mother at times. We discussed her relationship with her mother and her childhood family dynamics. We then began with a semi-guided, grounding warm-up, where one of the movements we did was bending our legs, taking energy from the earth with our arms, making it pass through our body, and releasing it to the sky. After doing this repeatedly, Lea started expanding this sequence in different directions in space. She would do back and forth motions with her arms and body, saying she was “taking in” what she needs and “releasing” what she doesn’t, intuitively following the natural motions of her body. I put scarves, yarn, balls, sponges, and wooden sticks around the room, to see if she wanted to explore with some objects. She took the pile of yarn and started throwing it around the room. She said that the yarn represented a ball of stress, which she was deciding not to keep inside of her and throw away. She also experimented with throwing balls, saying how satisfying it was for her to use objects to further expand her movements. As she moved, the theme of water came up. She mentioned it was also okay for her to be gentle in the way she lets go and takes in new things. This made her remember a song about waves and being fluid that she asked if I could play. As the song was playing, she was singing along and moving around the space freely.

**Post-session questionnaire excerpt:**

“Clarity, lightness, grounded, flowing water, I feel at peace and more focused on self-care.”

What started as an aleatory exploration around the ideas of taking and releasing, took form and meaning as Lea followed the guidance of her body into exploring different types of movements that ignited in her new feelings and emotions like letting go and taking care of herself. During the check-out, Lea talked about how she sometimes feels bad about focusing on herself. She tends to take responsibility for other peoples’ needs, which causes stress. We talked about understanding why this mechanism (which began in her childhood) came up and about the importance of self-care and holding space for herself. I told her she could use what she did in the movement section to guide her when she feels stressed (holding space for herself, breathing in, releasing, etc.).

### **LEA, SESSION 3**

The next session, Lea entered the room glowing, with a big smile on her face. She explained that she had many revelations last week. She had a conversation with her mother telling her that she needed a little bit more space to take better care of herself. Lea also described having had a stressful incident with her partner, which created a tightening sensation in her chest and a rise in anxiety. She felt the initial impulse to show up for him and try to soothe him, but instead, she held her chest, taking deep breaths, and releasing. She said she thought about what we had talked about in the last session, and felt happy she was developing new ways to show up for herself and cope. She did not have many chest pain episodes that week.

Guided by her own movements, Lea was able to find new ways of moving her body, which translated into new ways of behaving and moving through life. This embodied process allowed her to tap into her own resources and choose a path that produced higher well-being for her.

## **Creating Vehicles For Expression**

Being such a subjective and complex experience, many sufferers of chronic pain feel limited in the expression of their pain. This restriction is exacerbated by the fact that most pain assessments rely on patients' verbal descriptions (Munday et al., 2020). Movement metaphors emerged as the main DMT mechanism used to address this need. The use of analogies and metaphors is not foreign to the pain industry. It is said to help patients understand the complexity of their experience in an accessible way, allow them to rethink preconceived notions about their situation, and explore challenging themes such as isolation and shame (Munday et al., 2020). However, pain being an embodied experience (Eccleston, 2018), shows the value that the embodied metaphors used in DMT could have in creating a more inclusive, diverse, and rich tool for expressing pain (instead of only relying on verbal expression). Indeed, in DMT, movement metaphors allow patients to create a bridge between their internal and external worlds, enabling them to gain some distance and perspective on personal situations (Schmais, 1985; Samaritter, 2009).

Metaphors also allow us to “entertain new possibilities... change our perception of events and the interpretation we give our experience” (p.182) (Ellis, 2001). This provides a platform for patients to explore past and present conflicts, anticipate the future by exploring new possibilities, and tap into conscious and unconscious feelings (Schmais, 1985; Ellis, 2001). This bridging of internal and external worlds allows pain sufferers to not only express but also to connect on a deeper level to the subtleties of their felt experiences. Moreover, patients living in a state of “terror” or “chaos” (Schmais, 1985, p.33) or with “jumbled” and “confused” (Ellis, 2001, p.182) thoughts can find order and direction by creating meaning through symbolism.

## **SILVIA, SESSION 4**

**Pre-session Questionnaire:**

**Translated from Spanish:** *I still have the pulling sensation in the lumbar area, although it has improved. Actually, for three days, I was surprised at how little I felt the pain. It seems like I feel pain after stretching. Emotionally, I have been feeling more calm and balanced. Right now, I feel the pain on and off, like a specific point that varies in intensity depending on how I move.*

I told Silvia to put her hands on a part of the body that she felt wanted to express itself. Her hands went to her stomach. I suggested listening to this part of her body and saying out loud any words she felt were related to what had to be expressed. She said: strong weight, red color. Based on her words, I put on some music with intense drums and rhythm, she started to breathe more and more heavily. Little by little sounds came out of her mouth. She was gagging as if she were throwing up something out of her belly. After doing this a few times, she said she wished her head was in her stomach so that she could throw up from her mouth directly from there. I gave her some objects to simulate this and she experimented with hurling them out of her abdomen. There was a strong bulging movement from her center as if it were actually throwing something out. I had never seen Silvia move with such intensity and force.

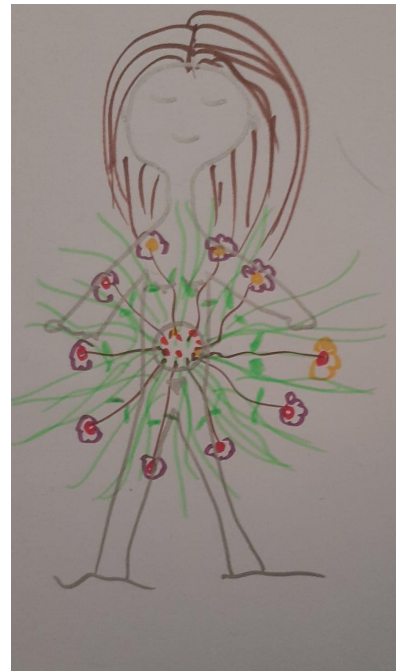
As she ended this exploration, I encouraged Silvia to listen to what was present inside of her at that moment and to name any words to represent what she was feeling. She chose the color white, light weight, fertile, caring, and planting seeds. I encouraged her to let these images guide her into movement. Her movements were very different from the previous ones. They were soft and connected at the same time. There was a sense of being centered, a quality I had not seen so clearly in our sessions.

Finally, she lay down with her eyes closed. After a moment, I placed a mirror beside her and told her to open her eyes to find herself; as she looked at her reflection, she immediately started pouring out tears. After the movement part, Silvia made two drawings, respectively representing her movement explorations (see tables 1 and 2)

**Table 1: Drawing representing the first part of Silvia's movement exploration.**



**Table 2: Drawing representing the second part of Silvia's movement exploration.**



Describing her process, Silvia explained that she was metaphorically throwing up parts of herself that stop her from being connected with herself. She now felt very liberated, as if the space in her stomach were empty, and she was now ready to let something new grow from it, which is what guided her movements in the second part of the exploration.

**Post-session questionnaire excerpt:**

**Translated from Spanish:** *“I feel light and liberated. It has been a very powerful session of connection with myself. I listened to everything my body needed to express, there was an ongoing dialogue during the whole time. I let myself go. I felt empowerment, my personal power, and my ability. I am able. I am very able. During the movement part, I did not feel pain in my hip at any moment. I did not feel one part of my body more present than the other. It was all one. I took part in a beautiful journey inhabited by acceptance, change, and what I want to build. Looking at myself in the mirror and seeing myself with everything that I am and seeing that I am very able. I want to continue on this road, moving forward, because I know that this is where I will find my home.”*

Because chronic pain can be such a terrifying and debilitating experience movement metaphors help patients give meaning to their experience, express how they feel, and foster deeper self-connection while being met with a therapist able to answer and further push their explorations on this same non-verbal level. This is an effective way DMT may help integrate the physical, emotional, and psychological levels of the individual and allow them to express long-repressed aspects of their pain experience.

The use of objects and drawings are also very useful in the creation of metaphorical material in the sessions. Objects allow patients to explore complex feelings with some projective distance (Meekums, 2005) By projecting some of the aspects of their internal states in objects or images, patients got a deeper understanding and more satisfying experience of their explorations.

Although explained independently from each other, the three DMT mechanisms described above coexist and intertwine during sessions. Change is perceived as patients move through these different spaces, towards feelings of greater clarity, control, and liberation. The following case study depicts how even in a single session, all these mechanisms may interact together into guiding patients towards their pain management.

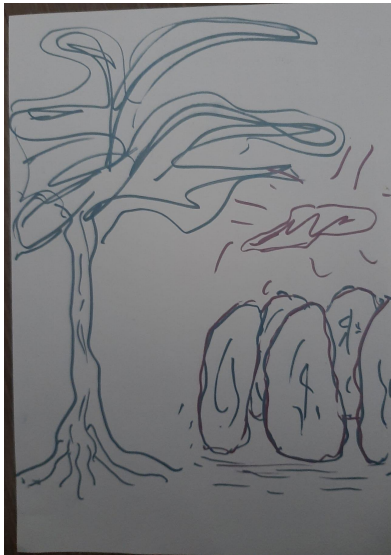
### **Clara, Session 1\***

\*Clara had to stop participating in the study after the first session due to an injury

### **Part 1: Creating Vehicles For Expression Through Movement Metaphors**

During the check-in, Clara expressed how pain in the center of her chest, as well as in her shoulder and back areas has been affecting her lifestyle and quality of life. We did a warm-up followed by a moment to spontaneously draw after having moved (see table 3). I suggested embodying elements of this drawing by placing objects (scarves, balls, sticks, and boxes) around the room. After placing the objects, Clara stood in the middle of the “stone circle” she created, from which she started to move and bring the drawing to life.

**Table 3: Spontaneous drawing made following movement exploration**



## **Part 2: Identifying Pain Triggers Through Body Awareness**

During the exploration, Clara was moving as well as naming different sensations that were arising in her. Suddenly, towards the end, her body became very stiff. I asked her how she was feeling and she said her pain became more intense. I asked her what she felt she needed, and she said: “I need to stand up”. As I encouraged her to explain in greater detail the sensations she was feeling, Clara mentioned that *her pain felt like a heavy weight on her shoulders*. As we went deeper into this depiction, I asked Clara what she thought this “heavy burden” could be and what type of energy it had. She said that it was as if someone was pushing down heavily on her shoulders. “Who is that someone?”, I asked. Her expression became serious. Clara answered that it felt like this person represented the burden she feels from some of the relationships in her life. She tends to drain herself by showing up for others, forgetting to prioritize her well-being. This burden was creating her pain.

## **Part 3: Developing Coping Mechanisms Through Intuitive Movement**

I asked how she felt when she stood up, and she said it felt like a change of perspective. This led us to explore how to release some of this weight through movement, embodying this “change of perspective”. Clara realized she needed to reassess some of the ways she manages her energy in relations, and see if she could find greater balance. She mentioned being surprised about the deep emotions she was able to access during the session and that after having reached its peak while she was moving, her pain was now dissolving.

### **Post-session questionnaire:**

**Translated from Spanish:** “*Today, the day I discovered that moving my body, I also communicate with myself. I talk to myself, I listen to myself, I feel myself. [Clara], let*

*yourself go and free yourself more. Your body moves towards the direction it has to follow, do not stop.*

*Animal → movement → being → being unwell → discovering → perspective”*

As we have seen, identifying triggers of pain through body awareness, developing coping mechanisms for pain through intuitive movement, and creating vehicles for expression through embodied metaphors may be essential ways DMT could address pain management from a more holistic perspective, ultimately leading to better pain management.

## **Conclusion**

The experience of pain is necessary for our survival. However, when it becomes chronic, pain loses its functionality and can transform into a very limiting experience. The biopsychosocial model of pain expresses the importance of the biological, psychological, and social aspects of an individual that interact in the way we experience pain. Considering many pain sufferers continue receiving assistance on strictly biological levels, there exists a strong need for tools that help address the psychological and social aspects of pain, and how they interact with the physical component. DMT is such a tool. By helping patients identify their triggers of pain, develop coping mechanisms, and create vehicles for expression, DMT provides a holistic approach to pain management.

Based on this research, the mechanisms and intervention techniques suggest creating a positive link between the use of DMT for better, more complete pain management. These mechanisms could be added as part of a pain-management intervention plan, especially when biological approaches alone do not seem to be enough at tackling or understanding someone's pain. Although hinting toward promising results, this study is limited in knowing the specific impacts of this approach on long-term

well-being and relief from chronic pain. It is suggested that more effort goes into researching, measuring, and quantifying the impact of these DMT mechanisms on chronic pain.

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