

A Cross-Cultural Analysis of Dance Movement Therapy

Bridget Ryan

Department of Psychology, Drew University

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Abstract

Dance Movement Therapy (DMT) is a therapeutic technique that combines both dance body movements with psychological healing. Dance movement therapists proceed toward individuals, families, and group meetings to observe and assess their clients movements, using both verbal and nonverbal communication to generate and instrument interventions. The purpose of this literature review will be to analyze the current available research on the efficacy of DMT in other cultures with the intention of making the case for conducting more research on the efficacy in Western cultures and make recommendations for DMT to be an evidenced-based treatment. Different cultures throughout the world use dance movement therapy in their own ways. Some methods and interventions are embedded right into traditions. All of the studies show positive effects either quantitatively or qualitatively when using dance movement therapy as a form of healing and supplemental intervention. Whether it is cancer patients, caretakers, sexual assault survivors, old age, depression, chronic pain, Williams Syndrome, eating disorders or forms of autism, dance movement therapy can provide better quality of life, connection between other patients and decrease depressive symptoms. In regards to the various cultures, each one is going to be different for clear reasons as no one culture is the same. The similarities between cultures is that they all use dance as healing, growth, community and liberation. Using dance movement therapy creates automatic meaningful relationships to share traditions of dance, music, love, celebrations and family. Dance movement therapy/psychotherapy showed the positive effects through studies and culture.

Introduction

Dance Movement Therapy (DMT) is a therapeutic technique that combines both dance body movements with psychological healing. It has the capability to provide beneficial effects on both patients and caretakers to strengthen their mental health, environment and community (American Therapy Association, 2020). Dance Movement Therapy is not a common practice in Western cultures with minimal empirical research to support its efficacy and effectiveness, however it has deep roots within many traditions throughout the world. As a field, it was established in the forties as a healing ritual but cultures around the world have been using it for generations. The focus is that the mind, body, and spirit are all connected and can work together to support the individual. Dance movement therapy is explained by the American Dance Therapy Association as the psychotherapeutic use of movement to encourage emotional, social, cognitive, and physical combination of the individual, for the object of improving mental health (American Dance Therapy Association, 2020).

According to the American Dance Therapy Association, nonverbal language is just as important as verbal language in therapy (American Dance Therapy Association, 2020). Dance movement therapists proceed toward individuals, families, and group meetings to observe and assess their clients movements, using both verbal and nonverbal communication to generate and instrument interventions. This type of therapy will direct the social, emotional, cognitive and physical integration of the individual (American Dance Therapy Association, 2020). Research has shown DMT efficacy in various cultures, but has not consistently and thoroughly been researched within Western society. Therefore, the purpose of this literature review will be to analyze the current available research on the efficacy of DMT in other cultures with the intention

of making the case for conducting more research on the efficacy in Western cultures and make recommendations for DMT to be an evidenced-based treatment.

Review of Application of Dance Therapies Across Cultures

Different cultures throughout the world use dance movement therapy in their own ways. Some methods and interventions are embedded right into traditions. In Amman, Jordan, Syrian refugees use dance movement therapy. The use of dance movement therapy, specifically for widows and children refugees, is to create community through dance and ritual as healing for trauma. In Jordan, refugees are now ten percent of the population, with that said, therefore there is an emphasis on the importance of working through the buildup of trauma. In 2018, a group therapy comprising 30 families and 40 children explored the application of DMT in large groups. The first step with the group therapy sessions is to establish a safe space. Indicating a safe space allows for the participants to be willing to get involved and feel included. The session began with simple questions to ease the participants in because some topics may be rather challenging to discuss. This process alone caused some of the women to have visceral reactions. In looking for healing movement narratives, a beginning exercise is throwing a light rubber ball onto the ground to have anger relief. This is an efficient way to express their emotions safely. During the second meeting, Jordanian music and scarves for the women to dance with are provided. The specific movement the women participate in is belly dancing; having these women dance and laugh together creates a community; a community full of power and collaboration (Serlin, 2018). This is a way to heal and feel supported. Showing support through community and dance movement therapy has immense effectiveness on those through a traumatic event.

Following the Jiji Earthquake of 1999 in Taiwan, in order to assess healing trauma in children, a program called Happy Growth implemented DMT over a two day period and researchers assessed the effectiveness. The program was conducted at an elementary school, specifically grades one through five, for 12 hours. The children were at an increased risk of post-traumatic stress disorder due to the suffering they all faced post-earthquake. The group sessions began in a circle with movement interaction. This includes getting the children's bodies moving by playing games, participating in full body movement activities and freely expressing their emotions (Lee, 2013). The researchers found that in the beginning, the children's behaviors were chaotic. Phase one of this process began with playing with stretch fabric. The children play by pulling the fabric out to lay on it and also pulling four corners to then hide underneath it. This allows the children to have creativity to make shapes and have fun. The children use this form of play to interact with one another as well. Phase two is embodiment with imagination and props, the children find their own freedom and let out much of the energy that has built up inside them. Phase three is making coffins. As they release the energy from the past phase, they find themselves to be sleepy. This results in the children sitting on the ground. With the mats on the floors, the children start folding and building coffins to represent where they go when they die. The final phase is to prepare for termination. It starts with listening to the children's favorite music and then the children reflect how the workshop left them feeling. Finally, the two day workshop ends with cheers. Seeing how culture is embedded straight into dance movement therapy creates a full sense of healing.

In Sri Lanka, there is a Bali Healing ritual that combines ethnomusicology mixed with culture. Ethnomusicology takes music and sound to different domains of the human body both biological and psychological. It combines traditional culture with more modern practices (Dona,

2016). In Buddhist philosophy, humans should be treated gracefully and not in parts like a robot. Healing is beyond one person, it shows the true potential of life. These rituals meet in the middle of music and drama, which holds a balance. These musical rituals refigure psychological balance using ancestors, deities and spirits. When a problem occurs, the community finds the group leader to find the inner root of the problem. The ritual begins and ends with clear significance on a holistic healing with music tied into it. The essential parts of these ritual events are the arts: dance, painting, drama and sculpting. The ritual starts at the end of the day. The patient is positioned on a mat, in front of the bali image and two virgins are seated on either side of them. Music is played during the entire ritual, every moment, and all night long. The goal of Bali healing is to encourage health both individually and communally through music, color, dance, aromas and psychotherapy. It is captivating to observe how dance can heal in many ways more than just the soul.

Afro-Caribbeans have a healing culture with dance involvement. Africans in the Caribbean form organized beliefs, religions, rituals and recovery/rehabilitation practices that preserve their ways of existence and understanding. There are many Western psychological models that fail to comprehend African descendants' history and culture in the creation of psychological judgements and mental health remedies (Heard-Marshall & Rivera, 2019). Dance movement therapists both in the United States and Caribbean work together for awareness about what the body needs. This includes bringing in African cultures into therapeutic approaches. There are four different levels of dance movement therapy found in Afro-Caribbean's development of movement. These four elements include, self-body power, collective power, socio political power, and spiritual power. Using African Caribbean dance allows for self-knowledge, awareness and reflection. It gives power combining dance and music to

enlighten struggles in personal, cultural and environmental aspects of life. Collective power uses community to create safe environments. A lot of the exercises occur in a circle to give a communal feeling. These structures are generational, knowing to have respect for others around, the elders and to oneself. This type of power is about the increase of a community voice, a sense of being with one another in a safe space; somewhere to belong. It uses rhythms, dance and music to guide people in groups to learn how to form an important, beneficial relationship (Heard-Marshall & Rivera, 2019). Socio political power takes Caribbean heritage advocates for equality. Authentically and historically, dance in the Caribbean has been the energy and strength behind the psychological and spiritual maintenance for slaves to fight for their freedom. Now, these traditions will continue to work to engage in fighting oppression and building community (Heard-Marshall & Rivera, 2019). Lastly, spiritual power taps into the energy inside of the body. The alignment of spirit and health guides to life changing blessings. It gives the opportunity to cope with pain and find connection within the self. Integrating all these dance movement therapy aspects will only transform the individual to have more strength with their health.

Afro-Caribbean is one of the many cultures within African dance to use dance movement therapy.

In the traditional African outlook on life, the human spirit root is known to be and should be responsible for various demonstrations of well being and sickness, Monteiro and Wall (2011) discuss traditional African dance as healing practices with the mind, body and community. General health is connected to balancing an individual's spirit inside them (Monterio & Wall, 2011). There is a focus on cultural regulations with behavior in relation with community and spirit. Using dance during rituals enhances communication to fix the imbalances in the body. Without dance, there is no opportunity for unifying the individual and society. In this culture,

dance does represent a symbol or emblem of feelings, thoughts and emotions that can be an effective way to speak about what someone wants the most. Verbal language does not always have to be the way to reveal deep thoughts. Knowing that the body is greatly important to showing symptoms of when it needs help, African healing methods listen to the way the body speaks to read the conscious but unconscious as well. That is where the deep down desires are shown and healing begins (Monterio & Wall, 2011). Specific variations include Ndeup, Zar, Guinea Dance, Krump Dance, and other contemporary applications.

Ndeup is a Senegalese therapeutic ritual that lasts four to eight days in ethnic groups in Senegal. It is open for the community but a priest organizes it. The first two days are for setting up the treatment site and the patient collects different offerings for the ancestors: milk, cow, sheep, and sacrificing animals. The treatment includes pouring blood on the individual while reciting ritual words. Music, specifically drums, play and that tells the individual that it is time to begin to dance. The drums play throughout the day, from morning to sunset. Sometimes women join in by singing to combine with the drums to give to their ancestors and the spirits, there is always giving back (Monterio & Wall, 2011). The dances are improvisations being non-choreographed. The patient moves around in any way as if they are in a trance in this ritual. Once this occurs, others in the community join in the dance. Dancing allows for release in all the realms of the body. Every moment of this ritual has meaning and significance. It holds great importance to the people of Senegal and it is passed down from generation to generation. Another important aspect to this ritual is the atmosphere completely changes into a place full of color. It is a multi-layer color celebration. The people dress in bright, vibrant hues while having intense perfume smells and incense. There is food everywhere displaying for the ritual which just adds another layer to the beauty of it all, creating this safe, community based atmosphere.

Having all these elements allows people to freely participate and dance around the drums. The drummers have certain skills and elements when playing. They use different rhythms and techniques, switching between their hands and sticks which informs the dancers when to change their movements. It is like a call and response between the drummers and the dancers. They both influence each other's actions (Monterio & Wall, 2011).

Moving into the Middle East, Zar is a spirit possession deity system. Zar is the spirit that will possess an individual for and during the healing ceremony. It will completely surround and encompass the individual and this happens through a Zar priest. The Zar priest is able to perform this because he has been in presence with Zar. This form of healing combines both Christian and Islamic religions depending on the individual and setting the healing is in (Monterio & Wall, 2011). The Zar ceremony contains singing, dancing, and drumming with gift offerings, eating, and drinking. This occurs for several hours or days while the community watches. Women are the domain of this ceremony. The physical body is what the ceremony focuses on. There are certain elements that are mandatory for this ritual. The location has to be set up appropriately with significant attention to detail. There has to be food, different smells of incense, an animal sacrifice, and the use of props and costumes. Women who participate in the ritual have to dress up as a bride with beautiful fabric and details of henna and jewelry. The music is rhythmic that friends and family sing along to. All of these elements of participation are of major importance (Monterio & Wall, 2011). This ceremony happens about once a year but patients have to attend multiple of them. The dancing and movement allows for extreme emotional release. There is real focus support from the community so the patient is not alone during this process.

In Guinea, dance is used both traditionally for healing but also as entertainment. The term is called Guinea dance which combines traditional village dance to theater dance. The term

Guinea dance itself does not mean one dance. It is much more broad and widely known in the country than that. It does in fact represent the entire country using dance and traditions to spread culture. It is an important tool to have knowledge of, especially for healing. There are many different cultures and ethnicities within Guinea. Each one has unique customs and rituals that include dance in one way or another. Each one has dance as a key element (Monterio & Wall, 2011). Guinea as a country has always used dance as healing, to educate and heal the soul. Dance combines with powerful music for story-telling. There is a tradition, dundunbas, which is a dance and music celebration within the community villages. This celebration occurs for major life events like birth, baby naming, marriage and more. Drummers and singers with talent from the community lead the songs and dance. A dance circle is made to respect the hosts and one person at a time steps in to perform. There are either professional or local dancers and companies that come to show off their skills and hard work. Having this opportunity to show off their work allows for celebration and community to share experiences and their own ways of moving. This opens up community participation to have freedom of expression to release tensions or worries they carry. There is still structure and rules to keep everything organized but there is still room for individuality between dancers, companies, and musicians (Monterio & Wall, 2011). These gatherings help with healing but also respect the elders. Dancing in general in Guinea is a part of common healing rituals. Guinea dance has quick footwork and full body movement with dynamic rhythms. Many other African styles of dance have movements with pli   to get them closer to the ground. With that bending of the knees, the dancer's posture is lower. Having that groundedness, connects the dancers with the music to allow for more movements. As the drummers play, the dancers just move their bodies, no need for counts because the drummers

will play with how the individual dances (Monterio & Wall, 2011). The dance and music will always influence one another.

Krump (Krumping) Dance is a form of hip hop dance that came to life in African American communities. Krumping was formerly known as clowning. This form of dance emphasizes using it for healing, combining with valuable aspects of spirit, community and rituals. Using Krumping can often build self-esteem, specifically dancing it to get to know themselves and figure out who they are. Developing an identity can also allow individuals to establish where they belong as well as finding a community, a safe space to feel free to grow and develop. Finding a dance community can be so essential for growing not only as a dancer but as a person as well (Monterio & Wall, 2011). Dancing within a community allows for a space for encouraging one another to grow in a personal sense. In the original form of the style, krumping involved Christian teachings. It gave dancers something to believe in and made a space full of faith. Krumping, as like many other dance forms, has rules and specificities to not only help create a better dancer, but create a better human as well. Many of these dancers have family problems so finding other dancers provides a community of support. For some Krump dancers, the dance community is like family and the only people they can actually depend on. These dance families show support for each individual to make sure they feel a sense of belonging and safety. In many instances, these chosen family members have much more of an impact on their lives than their actual family (Monterio & Wall, 2011). Krumping is not just about the dance movements itself but it is the details as well that add to the benefits. During some of these dance performances, colorful costumes and masks are used to express their individuality and identity. Healing is a main aspect of this dance style. The physicality of this style allows the dancers to be vulnerable in order to release any build up or tension the dancer might have. It gives the

individual a place to work through issues without the use of words which can sometimes be difficult. It gives the dancer a sense of control and allows for a feeling of personal choice and responsibility (Monterio & Wall, 2011). As this style continues to grow, more cultures and people use it. It is a beautiful way to express the pain and heal.

Dance does a phenomenal job of combining culture and tradition with the contemporary world. The African Diaspora embraces healing with movement. Many young individuals have found interest in the Diaspora movement traditions. These traditions have different hip hop styles such as break dancing, krumping and locking. All of these forms are generational with cultures and traditions which have been like a vessel into healing techniques whether individually or a community as a whole. When being taught in Western Africa, these styles of dance are taught as therapeutic functions and it has application in community building. Self-therapy as well, through African dance has many positive effects (Monterio & Wall, 2011). These dance forms take both psychology and external understanding to give a well-rounded therapeutic space. In a lot of these spaces, trauma is everywhere and unlike in other countries, therapists are not easily accessible or readily available. This form of healing is embedded into the culture and holds great importance.

Dance has been a part of Indian culture for centuries. Pathloth (2021) discusses Indian culture with the performing arts. There are sacred texts that explain the connection of dance with humans and God. Some examples of these texts are the Vedas, Puranas and other spiritual books (Pathloth, 2021). Dance is an important part of the human experience in life. Communication is not only through words but body language especially before language was made. When a baby is born, there is body movement long before language. Communication is implemented with arms and legs waving around to get the mothers' attention. The use of expression can be shown even when crying. Infants develop different ways of moving to show what they want or need.

Language or verbally speaking does not occur until months later (Pathloth, 2021). The nature of dance lives within us from the very beginning of life. Dance does not necessarily need to occur in the human body, it is innate in nature. Dance is quite literally all around and movement is within us. It can be seen as trees sway with the wind, the ocean waves crashing, clouds swiftly moving and animals leaping and running. Dance is also a part of human emotions, tears running down the face can be seen as movement (Pathloth, 2021). Movement is everywhere. For humans, it involves both mental and physical essences that has many benefits. Dance alone is a great exercise for the body and mind. Continuous regular practice keeps a person active and in good form. Maintaining this helps with keeping the mind in motion. Since dance allows for so much expression, it is a great medium for therapy. Dance movement therapy is a technique that guides and helps people cope with their problems whether physical or emotional. It takes a different journey than normative therapeutic practices to find self discovery and appreciation of the body (Pathloth, 2021). Bhaarat, India has many different healing methods. One of the main concepts is yoga. Yoga is a tradition that goes far back in Indian culture and discipline. It combines poses with traditional dance movements to fix ailments in the body and find strength. Using yoga can strengthen both the body and the mind. One specific step is pushing the foot right into the ground to find stability and groundedness both physically in space but also in life (Pathloth, 2021). There are also very specific parts of the body that help with healing for spasms and cerebral palsy. This form of dance therapy is not a new concept for India. Only recently has scientific research supported the efficacy of this practice, however Indian culture has benefited from yoga practices for generations. Within Hindu mythology, to protect the individual from evil spirits, Lord Brahma made dance. Dance helps the individual escape from evil temptations or awful activities. This is why using dance as therapy in India is so well known because it has been a

protector of humans for generations, it was right there in the beginning. Therapy specifically will help with treatment of illness and mental health (Pathloth, 2021). In India, the concept of dance movement therapy is very broad compared to the deep roots it holds.

Dementia interferes with everyday life, Coaten (2014) discusses a year long dance and dementia study for those living in the United Kingdom. Dancemind is a dance-health organization in Northamptonshire, England that encourages well-being with dance. In 2011, Dancemind started a year long dance and dementia program called Moving Memories. This program provides a weekly dance class to the patients diagnosed with dementia. The intention of the company is to raise awareness of the benefits of dance for health as well as considering dance as an inexpensive approach. Different foundations in the UK aim to support practices like these to have this field grow. This program wants to show the benefits of the non-verbal with only having the body be the voice. The body alone can uncover issues both physically and mentally. Having more dance movement therapy gives more options especially during a time where therapy sessions and other types of treatment are becoming more expensive. Pharmaceutical medicines can be very pricey especially for those without insurance and dance movement therapy can be a more durable and accessible option (Coaten, 2014).

Moving Memories took place over a 36-week period. The patients with dementia are in mild to moderate stages. Each session took place in the same location, lasted an hour, and was made up of about ten to fourteen patients with two or three health care workers. There are two main project aims for this study. The first is to have dance that allows support, connecting patients' experiences and joy. The second is to understand how dance can have an impact on someone's health and well being. The sessions began in a circle, with the majority of participants sitting down in chairs. Welcoming moments include singing as a group and small little body

movements to warm up the body. Warming up the body is important to signal that the body will be exploring new activities soon. Using songs during each section is a main focus. Music connects the individuals to one another and creates a safe environment. Social interaction and self-expression are two aspects the therapists want to encourage. The use of different props adds new layers for experimental games such as the use of balloons and scarves during improvisation.. The use of mirroring and partner work occurs after the improvisation (Coaten, 2014). Mirroring allows the participants to feel a relationship with one another without using any words. There was also improvisation with partners in a ballroom style dance. This happens right in the middle of the circle where the therapist would invite a participant to join. Once tension and anxiety began to fade, another participant is asked to take the place of therapist. It was observed that while some of the participants were nervous to join initially, once anxiety starts to slip away, participants are more willing to join. Instead of thinking of dancing in front of other people, they need to focus on the task of being creative and improvising with a partner. Multiple participants had different reactions to the activity. Some enjoyed certain aspects, like leading while others felt the complete opposite.

The overall observations indicated that Moving Memories met the aim of having the patients connect with each other. The participants and staff gave direct feedback about the project itself. The feedback came back as positive, showing that patients were able to show self-expression and build relationships with those around them (both staff and other participants). All of the therapists, participants and others involved within the sessions left with smiles on their face with good spirits (Coaten, 2014).

Interviewing a dance movement therapist directly is something that holds great importance to knowledge of the therapy itself. Hearing directly from one only adds to why this form of therapy needs to be more known. Mara Rivera was born in Puerto Rico and moved to the United States when she was seventeen years old. She lived in Massachusetts but moved to New York to pursue a degree in organizational psychology. Mara went through personal difficulties at the time and looked for a shift. In this, she turned to dance specifically afro-caribbean which led to study dance movement therapy! She received her degree at Pratt while being a dance teacher and doing research on her own. Mara had worked in a variety of places including hospitals, outpatient and schools either with groups or individuals. During Covid, she decided to switch virtually and work as an individual. She found that her work became more internal and somatic. She used energy balance and medicine mixed with psychology. Energy balancing is the release, shift of aura and radiance. There are root energies and it is her job to find out how that affects her clients behaviors. Mara works with adults only (twenty one and up) mostly Black Indigenous People Of Color women clients with African descent either first or second generation. With her clients her themes surround culture, ancestors and deities. Mara found that clients usually come in with a specific goal in mind, integrating pain and mindset shifts. Some have stayed for years to sustain the practice like a ritual or simply yoga class. Others have needed to leave for higher levels of care or medication that she does not provide. She believed that self care outside of sessions holds great importance to her work; journaling, meditation and rituals.

Review of the Empirical Literature

Traditionally, cancer has been treated with pharmaceutical interventions such as chemotherapy and radiation treatments and occasional adjuncting interventions such as nutrition. Rainbow (2016) studied dance movement therapy with breast cancer patients as a supplement to more conventional interventions. The study consisted of 139 Chinese breast cancer patients waiting for radiotherapy. The interventions were six, one hour and thirty minute dance movement therapy sessions occurring twice per week. Through a randomized controlled trial, two groups were established. The dance movement therapy group of 69 people and the control group of 70 people. The sessions took place in the hospital where the patients were being treated, in groups of six to ten women at a time. The dance movement therapy sessions exercises included games, improvisation, stretching, relaxation and rhythmic movements. The patients perform simple dances to express their feelings about having breast cancer. The three scales used were the Perceived Stress Scale is a ten item scale that measures stress, the Hospital Anxiety and Depression Scale is a 14 item scale to measure depression symptoms and The Brief Fatigue Inventory is a 9 item scale that measures interference with daily functioning.

At the conclusion of the study, participants in the dance movement therapy group showed small improvements in all of the factors except for anxiety and depression, meaning they have better quality of life and less sleep disturbance. Those in the control group showed the opposite, worse sleep disturbance and quality of life but improved depression and anxiety (Rainbow et al, 2016). Dance movement therapy had positive effects on three out of eight factors measured during the study. While radiotherapy treatment had greater effects, there were study limitations to include age, mobilization, fatigue and length of study. The dance movement therapy group qualitatively, wrote that there were no negative thoughts about the session. The most prominent

limitation was the brief duration. Most believe that if the study/ sessions were longer, better results would have been possible. A future direction would be to use a longitudinal study to assess the benefits of a longer duration of dance therapy interventions and subsequent results (Rainbow et al, 2016). This short term study overall was not beneficial to the breast cancer patients but provides insights into how to improve study structures moving forward.

Dance movement therapy is not a typical way to treat cancer patients. Rainbow (2005) conducted a study using dance movement therapy with Chinese cancer patients. The participants were from Cancerlink Support and Resource Centre. The sample consisted of 22 patients ranging ages from 39 to 69 with the average age of 50. The patients have different types of cancer like breast, colon, lymphoma, nasopharyngeal carcinoma and leukemia. All of the participants signed a waiver for consent before the study began. Dance movement therapy has a unique way of healing because it can get into a deeper bodily level. This pilot study is the first one that has ever occurred in Hong Kong, addressing the possible effects with Chinese cancer patients. The main focus of this study is to allow the patients to feel comfort and express themselves in ways they never have before (Rainbow, 2005). The dance movement therapy sessions are once a week for six weeks. Each session had different themes and exercises. The sessions always began with a full body warm up to get ready for the dancing. There are a variety of dances that this study used to include Chinese folk, social, waltz, western, middle eastern and country line. At the end of the sessions, movement games, community, guided imagery and yoga are used. Following the sessions, the patient wrote notes to show their level of satisfaction. Two scales the study used are the Perceived Stress Scale (PSS) and Rosenberg Self-Esteem Scale (SES). The Perceived Stress Scale measures how stressful someone's life is and the Rosenberg Self-Esteem Scale measures how they feel about themselves (either positive or negative).

At the end of the study, scores on the stress scale were lower after the dance movement interventions, but only slightly it was determined that there was a medium effect size. There were changes in positivity for self-esteem but it was not found to be statistically significant (Rainbow, 2005). All of the participants have claimed that this study helped them obtain more confidence and feel more like a community with others. It is possible that the low improvement in self-esteem is due to the study needing to span a timeframe longer than six weeks. Prior to the study, the cancer patients felt like they had lost control of their bodies due to the illness. Through this process of dance movement therapy, the participants felt like they had found parts of themselves that they thought went missing. They were able to just enjoy their time instead of constantly worrying, become happier and experience less stress. Doing this in a community setting allowed them to not feel alone and provided the opportunity to connect (Rainbow, 2005). Since this was the first study in Hong Kong, researchers would like to continue studying Dance Movement Therapy with cancer patients.

Patients in hospitals or schools are not the only individuals who could benefit from the effects of dance movement therapy. Hong (2024), explored how compassion and dance movement therapy can benefit nursing students. The study participants were students at a medical college in Taiwan. The 59 students were freshman or sophomores. In this study, the experimental group had 31 participants and there were 29 participants in the control group. The experimental group was led by a dance movement therapist who integrated dance and visual arts in the afternoon classes which lasted for two hours. The main elements the dance movement therapists used were simple body movements, games, improvisation and community interaction/communication. The experimental group was split into six groups, practicing different games such as water filled balloons and paintings. The control group had yoga training

taught by a professional yoga instructor. The main focus is to adjust posture, meditate and continue to take part outside of the class hours.

The participants completed questionnaires, the Compassionate Engagement and Action Scales (CEAS) and the Fear of Compassion Scales (FCS). The Compassionate Engagement and Action Scales has three sections to it: compassion for oneself, for others and from others. Each one consisted of thirteen items. This scale uses a ten point Likert scale with one indicating never and ten indicating always. The higher the score, the higher compassion the data will show. The Fear of Compassion Scales also has three scales within it: fear of compassion for oneself, from others and for others. The Fear of Compassion Scale has a five point Likert scale with zero being completely disagree and four is completely agree. Out of the 59 participants, there was an 82% response rate. The Compassionate Engagement and Action Scales showed that the participants in the experimental group have significantly higher mean scores for different measures of compassion (self, others and from others) after the study. There was an increase for the control group but not enough to show a statistical significance. Dance movement therapy has a medium impact on the Compassionate Engagement and Action Scales score (Hong, 2024). In the Fear of Compassion Scales, results showed that the experimental group had a much lower mean score than the control group. The results of this study suggested that participants in the experimental group with dance movement therapy have improvements in mental health, compassion and better quality of life as a whole. This study shows that dance movement therapy can offer benefits and advantages if implemented..

Dance movement therapy for patients with palliative care and breast cancer is not the usual intervention method. Abu-Odah (2024) examines the effectiveness of dance movement therapy/ dance movement interventions with cancer patients and patients in palliative care. In

total there were 893 participants within sixteen studies that were analyzed in a meta-analysis. Nine of the studies were random controlled trials while the other seven were non-randomized trials. The main focus was on females with breast cancer while those with palliative care had less attention which could be a risk of bias within the results which is a limitation to this study.

The results of two meta-analysis trials reveal that dance movement therapy had no specific effect on quality of life in cancer patients. The non-randomized trials showed that dance movement therapy does not have an effect on cancer patients for anxiety, sleep disturbance and self-esteem. On the other hand, dance movement therapy showed to have positive effects on the patient's fatigue and depression (Abu-Odah, 2024). The dance movement intervention trials show only positive effects on quality of life, physical strength, body image and self-esteem. Both dance movement therapy and dance movement intervention have some effects but some of the results were unclear or inconsistent.

Cognitive behavioral therapy, trauma-focused cognitive behavioral therapy or prolonged exposure therapy are some examples of interventions to treat sexual abuse survivors. Rainbow (2015) describes a study assessing the effect of dance movement therapy on Chinese sexual abuse survivors. The study paid specific attention to having a space to feel safe and ableness to form healthy relationships. Dance movement therapy in this way can promote emotional expression and release mental distress. The study was an uncontrolled clinical trial with the participants of this study including 25 women whose ages range from 25 to 52 years old with the meanage being 36 years old. The women filled out a questionnaire about their demographics and the General Health Questionnaire which measures psychological distress. The study also used three different scales to include the Courtauld Emotional Control Scale, Rosenberg Self-Esteem Scale and Stagnation Scale. Courtauld Emotional Control Scale (CECS) is a 21 item scale that

calculates emotions of anger and depression. The higher the number, the more negative the emotion is. Rosenberg Self-Esteem Scale (RSES) is a 10 item scale that measures the participants positive or negative feeling about themselves. In this case, a higher score indicates positive self-esteem. The Stagnation Scale (SS) is a 16 item scale that measures attachment, body to mind connection and affect to posture apprehension (Rainbow, 2015). Each session took place for two hours once a week for five weeks. The dance movement therapy program emphasized creating boundaries, finding personal space, feeling safe and connecting with others. The program applied dancing, improvisation, and games. The specific themes the dance movement therapy focused on was place and space. Rhythmic movement is one of the first exercises to show. Use of tempo with music and dance can ground the participants or keep them on their toes. The stability in the music and movement creates security. The use of body parts and eyes plays a role in introducing personal space. The participants had to imagine being surrounded by an invisible bubble and to think about who would enter or leave it. This emphasized that they have control over their own personal space and who belongs in it. Towards the end of the study, there was focus on physical activity and discussing what their bodily sensations were. New insights developed to give the women a new perspective on how they view themselves and their future possibilities (Rainbow, 2015).

Results of the data showed no statistically significant change but there was a definite increase in certain categories. These small effects on mental distress were expected due to the trauma. The form of dance movement therapy in this study specifically focused more on playfulness. Some of the trauma has been a part of the participants' lives for a long time and consistent with the progression of trauma treatment, will take a significant amount of time to resolve. Similarly, certain behaviors are habits and cannot change so easily. Looking at the

written analysis of the qualitative findings after the study, the women said that they are more aware of themselves and have more stability. The therapy created a sense of self-awareness even if it starts out small. The women are now able to pay more attention to how they walk through life. In regards to space, the women had a better understanding that they can have their own personal space. With sense and awareness of inner space, the participants realized that there was space inside of them, something to truly get in touch with (Rainbow, 2015). Lastly, with developing new perspectives and positivity, the women reflected on the process of the dance movement therapy program, knowing more about themselves and how they feel. They expressed now having hope for a better life. These qualitative findings reveal more awareness through dance movement therapy. Starting to understand is the first step in facing the pain for these survivors.

Young children have a playfulness inside them that matches well with dance movement therapy techniques and ideas. Shuper-Engelhard and Vulcan (2022) presented a dance movement therapy study with young children to examine remote emotional expression. The COVID-19 pandemic that led to widespread lockdowns in 2020 made people shift and adjust their lives which made teaching children a difficult task. The attention spans of children were negatively impacted due to the lack of face-to-face contact. The participants of this study included eight girls and six boys aging from six to seven. The children were recruited from social media networking of parents with preschoolers. All of the participants had high-medium socioeconomic level with no notes of mental health issues (Shuper-Engelhard and Vulcan, 2022). The dance movement therapy workshop's intention was to teach children ways to understand and express emotion when a problem arose. The parents of the children knew the sessions would be remote and the aim was to show support, share emotions, and interpersonal expression. The observations

were made by two dance movement therapy students in their second year of school. They took notes with many details and tried to observe as much as possible to have a complete overview. The therapy students received supervision from dance movement therapists with over twenty years of experience. The children were split into two groups with six remote dance movement therapy sessions on Zoom. Breaking the participants into two groups enabled personal connection between them and the facilitators. If the children knew one another, they were placed in the same group to feel a sense of belonging and safety, otherwise they were randomly assigned to groups. The six sessions occurred twice a week in the afternoon for three weeks, lasting from thirty to forty minutes with the time difference depending on the children's attention span. Throughout the sessions, different items were in use such as a ball, pillow, blanket, paper and paints (Shuper-Engelhard and Vulcan, 2022). There were pre-set structures for each session. The first meeting had introductions and rules to explain and having the children meet each other and understand the setting. Each meeting began with a song that involved movements to act as a warm up and release of nervous energy. The meetings discussed topics that related to the children's life through the use of movements, games and imagination.

There were four specific stages when examining and interpreting each session. Session notes were recorded after each Zoom session to keep the data consistent and organized. During the first stage, all of the notes and diaries were thoroughly read twice and received notes based on observations from dance movement therapy experts. The second stage analyzed the transcripts and notes to find recurring topics, behaviors and themes. During the third stage, all the materials were read twice to ensure the details were clear and relevant. The last and fourth stage used interpretive phenomenological analysis and dance movement therapy students to uncover themes and feelings about the study (Shuper-Engelhard and Vulcan, 2022). There were

three main themes on creating a safe space. The first was playing as a platform using technology to express inner emotions. Using technology/remote sessions can be difficult especially with children. There were a number of times the children left the camera due to using the bathroom, finding distractions, calling for a parent or just simply because they walked away. Viewing this as a pattern, leaving the camera/ frame became one of the games that occurred in multiple sessions. This allowed for the children to follow directions but be able to laugh while connecting with the other students. Turning the camera off and on was another pattern that came up as a common theme. Turning the camera off seems to be where children felt most safe by attaining privacy. Using the different items listed earlier (blanket, scarf and paper), was another way to ensure privacy yet still being visible on camera; some children used the scarf to wrap around their faces to be hidden while others used an umbrella or paper to hide. The therapist joined these choices and provided help for the children to explore new ways to use this technique. There was also discovery of using sounds and voices while being on Zoom, as the children were able to turn the speaker on and off, being able to make their voices disappear. This allowed the children to decide when they needed to be heard or have something important to say.

Within the results, the study provided information that dance movement therapy can have positive effects even while being conducted in a remote setting. It still allows for the imagination and emotions to have expression. This study specifies that assigning meaning to the children's actions in meetings and changing their behaviors into emotional desires which can be expressed playfully can lead to children showing their emotions in a new way. Furthermore, the toys and items the children used at home allows for relaxation and play while following directions. On the other hand, these exercises did not have the same effect while the facilitator was not there or in a time of stress outside of the meeting. In addressing limitations, it may be difficult to have such

an effect on children in a short period of time and studies should look to be conducted in a more longitudinal manner for better validity in the future

Chronic headaches typically are treated with physical therapy, radio frequency ablation, or spinal cord stimulation to relieve the suffering. Majore-Dusele (2021) discusses the concerns of chronic pain in a pilot study using mindful-based dance movement therapy (MBDMT). Chronic pain affects about 20% of the world's population leading to physical and or emotional pain negatively affecting their lives. Some interventions can have limits due to the specific patient such as health concerns, mental health stigmas or just refusing treatment. There is a danger to letting chronic pain persist therefore trying dance movement therapy in a study is something worth exploring (Majore-Dusele, 2021). In this study there were 29 participants who suffered from chronic headaches. The process of choosing participants becomes very specific in searching for people who fit into the criteria; headaches lasting over three months, ages 20 years old through 55 years old and have signs of depression. The participants are split either into a mindful-based dance movement therapy group or a control group with their normal treatments. A random number generator chose which patient was assigned to each group. The study offers the mindful-based dance movement therapy group 10 sessions for five weeks. Data collection occurred pre and post intervention and 16 weeks after the conclusion of the study. The study used two scales and two questionnaires to collect data. The Numeric Rating Scale (NRS) is an eleven point scale that measures pain index: zero means no pain and ten is the worst pain. This scale is one that is frequently used during many clinical trials of chronic pain. The Hospital Anxiety and Depression Scale assesses anxiety and depression symptoms: the higher the score, the more severe the symptoms are. The Patient Health Questionnaire-9 is a self-report questionnaire the patients complete on their own to determine their depressive symptoms. The

categories are none, mild, moderate, moderately severe, and severe. Lastly, the Five Facet Mindfulness Questionnaire is a five point Likert scale (one being never and five being always) describing thoughts and feelings (Majore-Dusele, 2021). There are nine mindful-based dance movement therapy mechanisms, each supporting one another to give a well-rounded foundation of treatment. The first mechanism is creating a safe environment. With the feeling of safety, it empowers building healthy relationships and connections. The second is mindfulness skills which are individuals focusing on their own thoughts and emotions to be kind to themselves and others in the room. Body awareness is the third step which is paying attention to what the individual's body is telling them. There can be many connections between the body and mind during this process. The fourth mechanism is relaxing and releasing. There are many activities and exercises being done that will require the release of tension in order to allow for new experiences and healing. The fifth is staying with discomfort to address that trying something new can cause fear and anxiety, which may pull someone away but focusing on the pain instead of running away from it will build tolerance. Meaning making is the sixth mechanism which is finding insights into personal life and how these exercises make them feel. The seventh is self-regulation. Self-regulation is finding balance in oneself and being able to deal with problems that may arise during this process. The eighth step is acceptance, finding a deeper understanding of themselves and accepting that this is who they are. Lastly, is the creative process which combines all of the steps above using all aspects of dance movement therapy (Majore-Dusele, 2021). There is a specific protocol during mindful-based dance movement therapy that has to occur. Each session lasts for approximately ninety minutes and therefore it has to follow a certain structure. It began with a check-in/ and physical warm up, leading into a body scan, working

with themes (varying on the class topic of the day) and ending with a closing ritual and homework.

In the conclusion, the study indicated there were no statistically significant differences between groups on pain measurement scores. There was a slight difference in perceived pain which indicates that the mindful-based dance movement therapy group had less pain. There were also reduced scores in the anxiety and depression measures of the mindful-based dance movement therapy group compared to the control group. Looking specifically at the individuals in the MBDMT group, about half showed pain decrease while the other half stayed the same. Almost 75% had improved in anxiety levels while the rest did not change. It is important to note that there was one patient that had an increase in anxiety. Using this study and mindful-based dance movement therapy indicates that there are positive effects in some aspects and can be a useful form of therapy. It would be interesting to test this on a larger number of individuals to get more information and data.

Most elderly people start to develop more depression and insecurity as they begin losing some physical capabilities, independence and start relying on others to help. This can increase negative emotions meaning their quality of life decreases. Jha (2020) discusses people over the age of 60 and their quality of life with use of dance movement therapy. Using dance movement therapy can provide assistance by providing positive effects in emotions. The study occurred from October 2017- November 2018 in Haryana, India. There were a total of 60 participants, all of whom resided in a residential home for elderly individuals. The participants were neurotypical and are able to walk on their own without aid. There was a pre-test and post-test using both dance movement therapy and progressive muscle relaxation. On day one there was a screening questionnaire to assess quality of life before the study starts. From days two to eight, dance

movement therapy and progressive muscle relaxation are the focus. Dance movement therapy consisted of three sessions. It starts off with a 5 minute long warm-up, exercises with dance and community and ends with a cool down for another 5 minutes. The sessions lasted for 30 minutes. For the progressive muscle relaxation, there were also three sessions, 20 minutes long each. Muscle relaxation sessions began with muscle tensing and releasing exercises and ended with a cool down. After the completion of all the sessions, another screening questionnaire was completed by participants.

In terms of quality of life, there were significant differences before and after the dance movement therapy and progressive muscle relaxation. Before, 100% of the participants were experiencing poor quality of life. After the sessions, 90% expressed having a fair quality of life and 85% endorsed a good quality of life. This suggests that both dance movement therapy and progressive muscle relaxation can be beneficial to positively impact the elderly's quality of life.

There are various treatment options for depression, however results typically depend on the individual and other factors. Punkanen (2014) studied patients with depression using dance movement therapy as an intervention. Dance movement therapy has potential positive effects for those suffering with depression as it can allow room for motivation in developing emotion regulation to have more energy. The study questioned if a short-term dance movement therapy group has any kind of effect on depression symptoms. A total of 21 participants took part in this study ranging in ages from 18 years old to 60 years old, averaging the age of 40. Of the participants, 18 were women and the remaining three were men. The participants' depression was assessed by the Beck Depression Inventory, with a score of 10 or higher indicating the presence of some level of depression (Punkanen, 2014). Close to 75% of the participants also expressed having anxiety along with depression. All 13 of the patients reporting both anxiety and

depression were being treated with medication. It was not a requirement to have knowledge of dance prior to this study but close to half had some sort of experience with it. The study used four scales and one questionnaire to measure outcomes. The Beck Depression Inventory has 21 items with the score varying from zero to 63. It is assessed for depressive symptoms consistent with depressive disorders. The Hospital Anxiety and Depression Scale and the Ten Item Personality Inventory were also used for the study. The last scale was the Toronto Alexithymia scale. Considering alexithymia is important because it has been shown to have correlation with depression in other studies. The questionnaire is the Relationship Questionnaire which is a four item questionnaire to measure adult attachment styles. All of these scales and questionnaires occur before and after the dance movement therapy intervention. The dance movement therapy sessions happened twice a week for 10 weeks. In total, there were 20 sessions, each one lasting for an hour. The participants were split into four groups, each group averaging five people per group. Two female professional dance movement therapists taught the sessions. The main dance movement therapy exercises are dance improvisations, awareness of the body, writing, drawing, and talking. Each session differs in theme but has the same structure with a warm-up, exercises, and closing rituals. Picking the Topics were established before each session, figuring out what should come next after the last session. The exercises allowed for connection with others with pair and group interactions.

At the end of the study, the results showed that dance movement therapy may be an appropriate option to help with depression/depressive episodes. The Beck Depression Inventory scores decreased from the pre-dance movement therapy to the post-dance movement therapy. This means that the change was in fact statistically significant. Each Beck Depression Inventory score was lower for every single participant. The results also show the increase in satisfaction of

life and participants being able to understand/identify their emotions. Specifically, the exercises with body awareness had a marked effect on emotional skills, just like identifying and being able to express their feelings. This may be one of the most important factors when working with dance movement therapy. The body awareness exercises guided the individuals to be more aware of what their body was telling them. It is also of note that, movement improv is a safe way to release any emotions buried deep within (Punkanen, 2014). Furthermore, The Relationship Questionnaire scores showed improvements in improved, secure attachment style. Dance movement therapy being an integral way to release depression symptoms is very important. Movement allows for emotion regulation, full body movements and interactions with others which has positive effects. This can assist with corrective emotional experiences in a safe space like a group session. Some limitations of this study were the small number of participants and having no control group which should be taken in consideration when considering the results. There was no follow-up assessment to see if the positive effects have been maintained following the interventions. Recognizing all of these limitations are extremely important, especially in the context of exploring future directions for research.

Individuals with Williams Syndrome struggle with motor skills, average intelligence quotients, and cardiovascular problems. Takahaski (2020) writes about examining the effectiveness of dance movement therapy for children suffering with Williams Syndrome. Living with the symptoms of the disease can significantly impact a child's life. Their emotions tend to fluctuate often which can be distressing to the individual and those around them. Studies have shown that individuals with Williams Syndrome have an emotional response to music therefore dance movement therapy can be used with music as a healing tool. This study compares measures before and after ten dance movement therapy sessions. The study assessed individuals

with functioning tests, muscle tests and behavior tests. The criteria for the study was to be between ages three to 30 and properly diagnosed with Williams Syndrome. Those who were not part of the sample had additional symptoms and disabilities which could contaminate results. Four individuals were selected to participate, two males and two females with ages from five to 10 years old. Compared to other dance movement therapy studies, 10 sessions lasting 30 to 60 minutes increased social skills, positive emotions and there were improvements of physical movements (Takahaski, 2020). With that in mind, the study consisted of 10 sessions for 60 minutes each which was much longer in duration compared to other studies. The sessions were limited to once per week due to children having school and other plans and making it hard to schedule more sessions. Each session began with a 10 minute warm-up in a circle. This allowed for all the children to feel comfortable knowing that it is a safe space for them. Movements are modified based on the participants including sitting in a chair, stillness, or sitting on a balance cushion. Another exercise used in this process is called mirroring. That involved having a partner and “mirroring” the other person’s movements. Each participant had the opportunity to lead movements to mirror for 10 minutes along with music. For the next 20 to 25 minutes, the individuals used balance balls with handles to work on their hip and knee joints. The final part of the session is a cool down back in the circle for five to 10 minutes. This was where the individuals were able to discuss their feelings and experiences throughout the session.

At the closing of the study, the results show that using balance techniques with dance movement therapy provided significant improvements. Their difficulties moving decreased after the 10 sessions. The muscle strength tests specifically showed that most of the children had increased in both knee lengthening and muscle power (Takahaski, 2020). The measure of hip joint extension was the only part of the study that did not have any kind of positive effect.

Overall, there were positive outcomes physically that helped with dealing with emotions. There was also less aggressiveness and antisocial behavior. The main issue with this study is that Williams Syndrome is a rare disease so the number of participants is very small and significantly limits generalizability. However, moving forward researchers should look to implement DMT with more Williams Syndrome patients and those with similar conditions.

Having an eating disorder can cause issues with both emotions and behaviors. Savidaki (2020) studied body image issues and alexithymia with eating disorders. Alexithymia can lead to difficulty between emotions and bodily sensations. Dance movement therapy can show significant benefits in the treatment of several mental health disorders, including anxiety, depression, schizophrenia, and dementia (Saviaki, 2020). The study consisted of 14 young women who attended a clinic to treat eating disorders. Participants were from Spain with ranging ages of 14 to 32 years old, averaging 20 years old. Their body mass index ranged from 14 to 24, averaging 19. The women undergo specific treatment at the clinic which includes three group therapy sessions, six psychoeducation sessions and one individual session each week. In the study, there was both an intervention group and control group. The control group continued their normal treatment as usual. The intervention group participated in 12 dance movement therapy sessions over 14 weeks with sessions that lasted 90 minutes.. Each of these sessions are split into six different parts. Session began with checking in, understanding everyone's emotional state at the very beginning. This lasts for 10 minutes. Next, was the warm-up to get the body moving and to prepare the body and mind for the exercises, also 10 minutes long. For approximately 20 minutes, there was use of imagery which is helpful in reducing stressful thoughts. The imagery allows for comfort and a safe environment to heal. The movement portion lets the participants be creative to transform their experiences and is 30 minutes in duration.

Following the imagery is writing, giving participants a place to release their thoughts and reflections. The sessions ended with checking-out, time to verbalize their experience, and go back to their lives. The 12 sessions are split into three phases. The first four sessions have the focus of creating trust and safety. Being able to create connections with the other participants holds significant importance to promote healthy healing. Sessions five through 10 focused on group cohesion as this enables participants to motivate one another to have self-awareness of themselves and of others going through similar situations. The last two sessions prepared participants for the closing of the dance movement therapy intervention. It can be conceptualized as a cool down from all the exercises from each session.

There were both qualitative and quantitative measures for this study. Qualitatively, after each dance movement therapy session, the participants had the chance to write in a diary about their experiences. There were no specific instructions, just to write. Nvivo 12 software was used to analyze all the notes with the help of a trainee therapist (Savidaki, 2020). As for the quantitative, the participants filled out two questionnaires. The first was the Toronto Alexithymia Scale which is a five point Likert scale. The three sections of the questionnaire are externally oriented thinking, difficulty identifying feelings and difficulty describing feelings to others. The second scale is the Multidimensional Body-Self Relations Questionnaire which is a forty-five item scale that measures body image. There are four subcategories within it: overweight preoccupation, appearance evaluation, body areas satisfaction and appearance orientation (Savidaki, 2020).

At the conclusion of the study, the quantitative results showed that with the Toronto Alexithymia Scale, that there was a slight decrease in the alexithymia score in the dance movement therapy group. The control group had increased in their total score, neither being

statistically significant. The Multidimensional Body-Self Relations Questionnaire responses had a similar response before and after the sessions; there were no significant changes. The only statistical significant difference was in the appearance orientation measure which showed positive results. There were five main focuses in the qualitative measure. The first is emotion, mood and alexithymia. Some participants stated that their moods had changed in reducing anxiety even if it was just temporary as it gives more room for motivation. The second focus is body and movement. The participants noted that the movements gave them joy and made them able to be playful, a side of themselves they have not been in touch with in a long time. The third domain is interpersonal aspects. Interactions (verbal or nonverbal) allowed for the participants to raise their energy level. They received enjoyment through physical connection and receiving care from one another. It had symbolic meaning to connect with other people on a personal level. The fourth focus is metaphors, a specific example is thinking about a safe space. This could either be a real place or fantasy as long as it gives them a sense of security (Savidaki, 2020). Participants had different ways of describing the safe space, mostly metaphors because it can be hard to describe exact places. The last domain is reflections, reflecting on their experiences throughout these sessions. They all revealed that this process meant something to them. It is interesting to note how the quantitative and qualitative analysis are not consistent with one another. The data not being statistically significant can be due to the small sample size. However, overall the study does suggest positive effects although not long lasting effects.

Autism spectrum disorder is a neurodevelopmental disorder that affects behavior, ways of learning and social interactions. Koch (2014) questioned the use of dance movement therapy techniques with participants with autism spectrum disorder. Dance movement therapy improves psychological well-being with the assumption it can also help improve body awareness as well.

The researchers hypothesized that dance movement therapy can improve empathy with those with autism spectrum disorder. A total of 31 individuals participated in this study, with 23 men and eight women. Their mean age of participants was 22 with a range from 16 to 47 years old. All participants fell on the autism spectrum disorder, some specified as Asperger, atypical, or did not specify. There were two groups, normal treatment (16 participants) and the control group (15 participants) based on their age, gender and how severe their autism was. The dance movement therapy sessions were led by a professional therapist over the course of seven weeks at a frequency of one, one hour session per week. Similar to many other dance movement therapies, sessions started with a ten minute warm-up. The warm-up is conducted in a circle to create a safe atmosphere and to feel a sense of community, the kind of atmosphere where participants can share their feelings. Following the warm-up, 15 to 20 minutes is allocated for one-one (therapist to participant) interactions. If there were not enough therapists in the room, two participants paired together. This interaction is perceived as a partner dance, where one person has to lead the other to the first song. When the second song turns on, the roles switch. During the third song, the participant and therapist moved any way that they would like but at the same time, keeping in contact with their partner (Koch, 2014). The most important aspect is to try to match the partner's quality of movement to hold a connection. The following session comes back into a circle for about 20 minutes. At this stage, participants can really show themselves and personalities by bringing their own music, create movements based on their own feelings and present themselves. Everyone else in the group follows the same kind of movements the participant is displaying. Holding this in a circle, having participants mirror one another conveys togetherness. The last section of the session is discussing how their experience is about body awareness and the awareness of others.

Before the sessions began, the participants completed five questionnaires, which is repeated after the sessions as well. The first is the Heidelberg State Inventory questionnaire which is a 12 item scale ranging from one to six measuring anxiety, depression, tension and coping. Endorsing One indicates does not apply and six indicates applies perfectly. The second questionnaire is the 15 item Questionnaire of Movement Therapy about trusting one's ability to understand their own body. Next, is a self-awareness scale made individually to assess how the participants feel about themselves, how they are around others and boundaries. The fourth questionnaire is a broken down German questionnaire, using only specific parts to measure empathy. The last is to assess social skills and interactions with other participants (Koch, 2014).

At the end of the study, the Heidelberg State Inventory showed that there is a significant difference between the two groups. The dance movement therapy group presented a much higher score in psychological well-being than the control group and was found to be statistically significant. As for body awareness, there was also a positive impact for the treatment group over the control group. Similar results for self/ other awareness that the dance movement therapy group have much higher increased scores compared to those in the control group. Empathy, on the other hand, did not show any significant difference between the two groups. There was no increase on either side, therefore that hypothesis was not supported. Lastly, for social skills and interactions, there is an increase as well for the DMT group. Four out of the five measurements were effective for the dance movement therapy intervention group (Koch, 2014). Almost all of the outcomes have a large effect with patients with Autism spectrum disorder, with the exception of empathy. Qualitative data also showed that participants feel more confident in themselves and become more open to trying new things at each new session. Overall, this study suggests that dance movement therapy is an effective option for supplementing treatment plans

for autism. There are always limitations to studies as the researchers prefer to have a larger sample size but the data clearly show the treatment group has a higher increase than the control groups.

There are many techniques to treat stress and many stress management skills but Bräuninger (2012), sought to explore DMT as a coping skill and compare dance movement therapy to a control group on stress management. Different cultures use dance to reduce stress and create a better well-being as dance movement therapy promotes emotional regulation and enhanced coping mechanisms. The hypothesis of this study stated that the dance movement therapy intervention group will have positive results over the group with no intervention. There were 11 dance movement therapists who participated in this study, all working in private practices in Germany. The sample consisted of 162 participants who indicated experiencing stress. Using random assignment to groups via a lottery system, the treatment group, 97 total participants, was split into 12 different DMT groups while 65 participants were placed in the control group. The dance movement therapy intervention was deployed over a three month period. There were a total of 10 sessions that were 90 minutes long, occurring once per week (Bräuninger, 2012). The therapists chose which techniques to use based on the participants' needs. Exercises included finding rhythm, space, using metaphors and improvisation. This study used two different questionnaires to obtain data. The first was the Brief Symptom Inventory which is a self-evaluation questionnaire. It is a five point Likert scale with 53 items, three parameters and nine scales (Bräuninger, 2012). This measures mental pain, stress, physical pain and emotional symptoms. The second questionnaire was The Coping and Stress Questionnaire one hundred twenty. It is a five point Likert scale with 120 items and 20 subtests within the questionnaire (Bräuninger, 2012). This assesses different coping strategies and stress

management. The questionnaires were completed on multiple occasions, before the treatment, immediately after ending the intervention, and six months post treatment conclusion.

The results of the study showed that there is statistical significance in the dance movement therapy group with a reduction in the short term mental distress and improvements in stress management compared to the non-intervention control group. Calculating stress and relaxation before and after the 10 sessions showed that stress significantly decreased and relaxation had significantly increased. The six month follow-up of the dance movement therapy sessions (the long term effects) showed positive long term improvement compared to those in the control group. Stress management improvements maintain similar results right after the sessions end. All of these results indicate that dance movement therapy can improve stress management and emotional distress in both the short term and long term. It is evident dance movement therapy promotes healthy emotional strategies and coping mechanisms. A limitation in this study is the use of a self-evaluation questionnaire because it could possibly lead to bias. Regardless, the dance movement therapy intervention had positive effects on stress and future research should look to expand these findings to help solidify DMT as a normal coping mechanism for stress

Dance movement psychotherapy is an art therapy that uses creativity to empathetically help patients strengthen their body and mind. Aithal et al. (2021) tested dance movement psychotherapy with children with autism spectrum disorder. The study uses mix- methods to measure quantitative and qualitative data. The participants were aged 16 years old and younger with a diagnosis of autism spectrum disorder. The study sent out 108 invitations to eighteen schools to participate in this study. A total of 26 children accepted to participate. The 26 children were assigned into five random cluster groups. Two of the groups were in the dance movement

psychology treatment group and the other three were in the control group/ waiting list. There were a total of 10 sessions, taking place twice per week and were 40 minutes in length. Each session started with an opening ritual to allow the children to get ready for the upcoming exercises. Following the opening ritual was a playful warm-up into different themes the therapist provides. The therapist changed the themes based on how the children move, react or how their energy levels presented. For example, session three had the children create movements like their favorite animals move. Some of the techniques were mirroring, playing with rhythms, use of props and group/solo work. The sessions ended with a cool down and a closing ritual. Before and after the sessions, the children completed the Social Communication Questionnaire and Strengths and Difficulties Questionnaire. The Social Communication Questionnaire is a 40-item scale that assesses pervasive developmental disorders. The Strengths and Difficulties is a screening questionnaire with 25 attributes.

The results of this study showed that for both the Social Communication Questionnaire and Strengths and Difficulties Questionnaire, there were significant changes from the pre to post treatment scores. The post dance movement psychotherapy sessions showed an increase in the Social Communication Questionnaire scores than the Strengths and Difficulties Questionnaire. Even with those measurements, the dance movement psychotherapy group was significantly higher on both measures as compared to those in the control group. Overall, the quantitative measurements showed that dance movement psychotherapy had strong positive effects on children with autism spectrum disorder. On the Qualitative side, parents filled out the Social Communication Questionnaire discussing the short term effects they observed with their children. The parents observed improvements in showing emotion and social abilities. Dance movement psychotherapy has the ability to enhance non-verbal expressions which helps with

verbal communication, so the parent's observations are likely due to this (Aithal, 2021). With the results of both the qualitative and the quantitative assessments in mind, there are promising improvements and results to suggest implementing dance movement psychotherapy as a useful tool in the future of therapy for those with autism spectrum disorder.

Dementia disrupts everyday life with memory impairment, the ability to speak and physical movement which can lead to poor self-care. Rainbow (2020) discusses dementia interfering with older adult's lives and how dance movement therapy and physical exercise can have an effect on quality of life. This study was a single-blind, three-arm randomized control trial with a waitlist control group (Rainbow, 2020). The participants were divided into three groups being the dance movement therapy session group, exercise group or waitlist control. A computer number generator chose the participants for each group. All of the participants have a diagnosis of dementia or a neurocognitive disorder, have some mobility, and were aged 65 and older. Initially, 204 people began the study however 38 participants withdrew for various reasons so by the end of the study there was data collected on and analyzed for a total 166 participants. Assessing the participants was an important step for this study especially given the longitudinal nature. A total of four assessment rounds were conducted over the course of 12 months. The first assessment occurred one week before starting the study, second at the conclusion of the study, the third assessment six months after the conclusion and finally the fourth one a year later after the final session. The dance movement therapy and exercise sessions, both lasted for a total of 12 weeks with one hour sessions twice per week. Each group had approximately 10 to 12 participants. The dance movement therapy sessions were led by a dance movement therapist who focused on easier steps and rhythms so the movements could be done sitting or standing to accommodate the participants' mobility limitations. Different props and

materials like scarves, bands, ribbons and musical instruments were introduced by the therapists to use with the participants for creativity, a sense of working with new things and creating strength. Each exercise or dance movement therapy step had a specific meaning to enhance community, social exchange and personal expression. The sessions ended with the participants speaking or gesturing about how their experience transpired. In regards to the exercise group, there were mild to moderate exercises led by a fitness instructor. It began with a warm-up for about 15 minutes, then stretching for 15 minutes, followed by exercising with towels for 15 minutes and finally cool down for the last 15 minutes. Heart rates were monitored for the duration of the exercise session (Rainbow, 2020). This study used four scales to assess psychosocial and daily functioning. These included The de Jong Fierveld Loneliness Scale (feelings of being alone), the Geriatric Depression Scale (assess positive and negative moods), the instrumental activities of daily living scale (functioning skills) and the Neuropsychiatric Inventory Scale (symptoms of dementia). For cognitive functioning, the researcher used two scales. These are The Fuld Object Memory Evaluation (episodic retrieval) and the Digit Span Test of the Wechsler Adult Intelligence Scale (working memory both short term and long term) (Rainbow, 2020).

Upon completion of the study, dance movement therapy has greater short-term effects than long-term. There were decreases in depression, loneliness and negative mood. There seems to have been a delay of improvements after three months compared to the control group. There could be neurological factors that delayed the effect. The effects on the dance movement therapy group continued to decline as the year progressed. It seems that if dance movement therapy is not occurring on a frequent basis, the effects are not sustained. One to six months showed more effect than up to a year (Rainbow, 2020). Looking into the effects of the exercise intervention,

there were no beneficial effects as the measurements were inconsistent. The exercises may have been too intense and stretching did not show any effect on cognitive function. With both of these results, it clearly shows that dance movement therapy has a much larger effect than exercising did. However, not all of the results show statistical significance. This study demonstrates that dance movement therapy is a beneficial short-term option for dementia but the researchers need to continue with more studies to assess the validity of the results.

Discussion of the literature

All of the studies show positive effects either quantitatively or qualitatively when using dance movement therapy as a form of healing and supplemental intervention. Whether it is cancer patients, caretakers, sexual assault survivors, old age, depression, chronic pain, Williams Syndrome, eating disorders or forms of autism, dance movement therapy can provide better quality of life, connection between other patients and decrease depressive symptoms. Most studies provided information that dance movement therapy techniques decrease anxiety symptoms even if it is temporary. All the studies showed efficacy across a wide variety of populations. Each study contained different ages, abilities, diseases and disorders. Not one study had the same data from the same kind of population which while replicability is desirable, it does display the versatility of dance movement therapy. With this information, dance movement therapy has a broad range of accessibility and applicability for so many different people. That only allows for new opportunities of healing and therapy. In addition to being wide-ranging and inclusive, dance movement therapy is cost-effective compared to conventional treatments. Dance movement therapy does not incur extra expenses such as medication. This opens the door for people to receive therapy who may not be able to afford the costs of other treatments. This makes dance movement therapy more accessible for a broader range of people.

There were similar techniques between all the studies such as beginning the sessions in a circle to form a sense of community to find relationships between the other patients in the study. This lends to consistency across research. It is important to create a safe environment at the start of the sessions to ensure that the participants can be comfortable to express their feelings and participate in all the exercises and know their opinions hold value. As there could be some nerves or anxieties with trying something new, forming a circle automatically creates a community to feel safe. The circle is also a place where the body can warm-up and prepare the mind for the exercises coming ahead. This part of dance movement therapy is one that researchers / therapists cannot skip as its consistency across studies suggests there is an effect from this segment of the therapy. Each specific exercise varies depending on the study or therapist who conducted the sessions but themes that came up the most are individual dance improvisation and exercises that release built up emotions and reduce stressful thoughts and feelings such as anxiety. Choosing the exercises are done meticulously to ensure the right movements coincide with and complement the problem whether physical or emotional to create space to heal and grow. Doing the “wrong” exercise might not help the issue when other exercises could. Specific exercises that most of the studies utilized are mirroring, improvisation, and using props. Mirroring is the action of following another person's/ partner's movements and doing the same thing back to them as if they are looking into a mirror. This enhances the ability to connect with others in the group. One-on-one mirroring creates an immediate connection with the partner. Improvisation is creating movement without thinking and is the way the body naturally wants to move. This allows for creativity and self-expression without any rules or regulations. Improvisation does not involve thinking, it is just a process to have your body be free flowing. The use of props intensifies the exercises the therapist chooses. Any prop can be a

hiding device, something to throw on the ground or use during improvisation, the possibilities are endless. The last part of the sessions always ended with a cool down, checking-out or a writing element of what the participants' experiences were. This is a crucial step that serves as a closing ritual and to help to close the loop and ensure nothing remains unresolved. A cool down is always necessary whether in a dance movement therapy session or a regular dance class. The body has completed many actions throughout the sessions and there is a need for the body to have a moment to release and relax. Overall, all of the dance movement therapy sessions followed the same patterns and rules to make certain the interventions can help in the best way possible and will help to standardize the use of dance movement therapy.

In regards to the various cultures, each one is going to be different for clear reasons as no one culture is the same. The similarities between cultures is that they all use dance as healing, growth, community and liberation. Using dance movement therapy creates automatic meaningful relationships to share traditions of dance, music, love, celebrations and family. Whether it is through religion, ethnicities or customs, dance is what makes people feel alive to heal physically and mentally. Physically, dance movement therapy can heal certain body parts as certain exercises help different ailments. Mentally, whether for celebrations or hard times, dance is a supportive tradition. Patterns and exercises all have the same outcomes even if they look different. Simply put, for all these cultures, dance is one of the most important aspects in life. These cultures show that communication is not only accomplished through words or language. Having dance movement therapy can have positive effects if it is a part of everyday life. Knowing that dance movement therapy lives and thrives through all of these cultures, it should be celebrated in Western culture. It is always beneficial to learn new ideas and ways of life. There is evidence that it works for these ethnically diverse communities therefore it has far

reaching benefits with more conventional interventions may fall short. Embedding dance movement therapy into the daily lives of other cultures could be very beneficial.

When researching dance movement therapy studies, what became evident was a lack of research overall. There is much writing on the use of dance through culture but only a small amount of literature, many discussing conducting studies on how effective dance movement therapy is with different disorders, health problems, mental issues or quality of life in general. It is understandable that this form of therapy is not as well known or familiar to most, but seeing as results are mostly positive, it would be important to expand the knowledge of dance movement therapy efficacy. It would be beneficial for therapists, hospitals and patients to know of dance movement therapy as another possible option for treatment. Even within the studies, the sample sizes are quite small. Results would be even more significant if sample sizes were much larger. It is clear that some studies may have smaller sample sizes due to limits of time and funding but if there were a possibility, larger sample sizes would be useful. Even though small samples can be seen as precise and specific, larger samples may show different data results. Having a larger number could also possibly show negative outcomes for certain populations but knowledge of all types of outcomes is useful information. Another direction for future research would be to have more dance movement therapy sessions. The majority of the studies have approximately ten to twelve sessions. It would be interesting to see if results would change if the sessions lasted for several months as opposed to weeks which could then impact the sustainability of effects. In conventional therapies, sometimes results do not show until some time has passed. With that concept in mind, when comparing the studies to the culture, dance movement therapy is in everyday life, within traditions and celebrations. If a study is completed within one of the

cultures above, would there be more statistical significance in the results due to dance being all around?

Conclusion

Dance movement therapy/psychotherapy showed the positive effects through studies and culture. Out of the fifteen studies within this paper, all have results that display slight to significant changes in behavior, mental health, social interactions and or physical health. The main focus is that dance movement therapy does in fact work whether it is short-term effects or long-term. When the studies showed that dance movement therapy had short-term effects, it raises the question that if carried out for a longer period of time (like normative therapies), would the effects be maintained for a longer time? When people go to therapists, it is usually a weekly or monthly appointment for months or years. If the same is done with dance movement therapy, it is possible the effects will be more significant as well. Dance movement therapy uses creativity and personal expression to heal, it is a unique way to enhance well-being. All of the cultures highlight dance as a healing technique one way or another, put directly into their culture, a part of everyday life. Rituals, dance, music and food empowers individuals and builds a community so everyone can grow, flourish and heal in different ways.

Dance movement therapy is a technique that combines dance, movement and creativity with psychological practices. Dance movement therapy carefully considers exercises to be used based on the patients or culture it involves. This type of therapy will direct the social, emotional, cognitive and physical integration of an individual, group or community. From dance movement therapy, individuals become more aware of themselves and their emotions while finding moments to connect with others. Using verbal and nonverbal communication provides a full

circle of healing. The research is trending in a direction to strongly suggest that dance movement therapy is a beneficial form of therapy and supplemental treatment from both culturally and psychologically perspectives. The promotion of enhanced well-being establishes the reason for increased application of DMT in many settings.

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