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# Dance/Movement Therapy and the Quality of Life for Individuals with Late Stage Dementia: A Clinical Method

Capstone Thesis

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Dance/Movement Therapy

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**Abstract**

Dementia is a global healthcare concern, and while there is currently no cure for the disease, there are several major approaches used to slow its progression and improve the quality of life of people and families who live with dementia. Dementia impacts mostly older adults, and currently there is little evidence is known about how Dance Movement Therapy (DMT) may impact the pace or quality of life in such individuals. This study explored the impact of a DMT method developed for this study was based on principles established by one of the founders of DMT, Marian Chace and implemented in a group setting within a residential home. Participants were four individuals over the age of 80 who were diagnosed with advanced dementia. Over the course of three weeks, three one-hour sessions were conducted, and an inductive analysis was applied to data compiled from each session. An inductive analysis was conducted to analyze the effectiveness of Dance/Movement Therapy (DMT) on improving the quality of life for individuals with advanced dementia. Themes that emerged from the inductive analysis were cross referenced with the Quality of Life Movement Assessment for Persons with Advanced Dementia created by Donna Newman-Bluestein (2013). The results of this analysis revealed that participants benefited most from being given opportunities to engage in meaningful experiences. Substantive impacts were observed when props such as maracas and an Octaband were utilized to engage participants while moving.

*Keywords:* dementia, dance/movement therapy, quality of life, inductive analysis, Marian Chace, use of props

# Dance/Movement Therapy and the Quality of Life for Individuals with Late Stage Dementia: A Clinical Method

## Introduction

Dementia is defined as "an overall term for diseases and conditions characterized by a decline in memory, language, problem-solving and other thinking skills that affect a person's ability to perform everyday activities" (Alzheimer's Association, 2019). People with dementia experience a decline in motivation and are less likely to participate in social activities (Cevasco, 2006, p. 227). They may also exhibit "reduced awareness of their own behavior, personality, mood and cognitive deficits" (Bond, 2016, p. 2). Approximately 50 million people have dementia worldwide with nearly 10 million new cases being reported every year (World Health Organization, 2019). Due to both the prevalence of this disease, and the diversity in how symptoms are expressed in patients, it is vital to have several treatment options to address it. While there is currently no cure for this disease, treatments such as dance movement therapy can help optimize physical health, cognition, and emotional well-being.

Dance/Movement Therapy (DMT) is defined by the American Dance Therapy Association as "the psychotherapeutic use of movement to promote emotional, social, cognitive, and physical integration of the individual for the purpose of improving health and well-being" (Welling, 2019). DMT can be used in various settings and in conjuncture with other forms of treatment to improve quality of life for participants. While DMT has not extensively been used on populations with dementia, there is substantial evidence that doing so would improve quality of life for these individuals. DMT integrates tactile, visual, auditory, and kinesthetic experiences with the goal of improving the quality of life of dementia patients by stimulating sensory systems

as well as providing relief from feelings of grief, frustration, depression, and loss of autonomy (Goldstien-Levitas, 2016).

## Literature Review

This review will highlight the current literature as it pertains to current treatments for dementia and the effectiveness of dance movement therapy for individuals with advanced stage dementia. In particular, DMT principles developed by one of the field's founders, Marian Chace, will be addressed.

### Current Treatment for Dementia

There is no cure for dementia. Currently, treatments for this disease are aimed at slowing the progression of symptoms. Drug treatments may temporarily improve symptoms. "Non-drug therapies can also alleviate some symptoms of dementia." (Alzheimer's Association, 2019). For example, occupational therapy can help create a plan to make in-home care safer and implement coping behaviors. Occupational therapy goals may include accident and fall prevention, behavior management, and preparation for the progression of symptoms. These goals may be met by modifying the person's environment; reducing clutter, lessening noise exposure to improve focus, and removing objects that could pose a threat to safety. Simplifying tasks by breaking them into steps and creating routines can help reduce confusion and promote feelings of success (Alzheimer's Association, 2019).

Alternative therapies have also begun to be examined for dementia treatment as "non-pharmacological interventions for dementia are likely to have an important role in delaying disease progression and functional decline" (Yamaguchi, 2010, p .206). Such therapies include music therapy, dance/movement therapy, massage therapy, art therapy, aromatherapy, and pet

therapy. (Dementia, 2019). A new kind of rehabilitation, brain activating rehabilitation, aims to alleviate symptoms and promote improvement in activities of daily living. Brain activating rehabilitation acts on five principles: “enjoyable and comfortable activities in an accepting atmosphere”, “activities associated with empathetic two-way communication between the therapist and patient, as well as between patients”, “therapists should praise patients to enhance motivation”, “therapists should try to offer each patient some social role that takes advantage of his/her remaining abilities”, “the activities should be based on errorless learning to ensure a pleasant atmosphere and to maintain a patient’s dignity” (Yamaguchi, 2010, p. 206). Alternative therapies help renew positive attitude towards life, and better quality of life for both patients and caregivers. (Yamaguchi, 2010). Dance movement therapy effectively addresses all five of these principles.

## Caregiver Involvement

A caregiver is defined by Guillaume Lamotte (2017) as, “an individual who provides support and care to a person living with AD [Alzheimer’s Disease]” (p. 365).” Unpaid caregivers are usually immediate family members and the number is estimated to be more than 15 million in the US (Alzheimer’s Association, 2016).

Lamotte (2017) conducted a review of the “current clinical evidence for dyadic exercise interventions, which are exercise regimens applied to both the person with dementia and the caregiver” (p. 365). What he found was that exercise resulted in decreased levels of stress and depression in participants. Exercise also helped improve motor and nonmotor functioning for participants which, in turn reduced the burden on the caregivers. Most importantly, he found that exercise help to create a bonding experience for the participant and the caregiver. Both parties reported a sense of mutual purpose and caregivers reported a reduce in caregiver burden. It was

also postulated that the exercise aided caregivers in "increasing their capacity to care for individuals with dementia (Lamotte, 2017, p. 372). He concludes that, "exercise training may improve psychological outcomes in caregivers of patients with dementia" (Lamotte, 2017, p. 372).

A study conducted by Ruth Melhuish (2016), examined the effect of having on-staff caregivers observe and participate in DMT sessions alongside clients in client/caregiver relationships. The subjects of this study included seven members of a care home staff that participated in music and dance/movement therapy groups with residents who have dementia. Following interviews with all seven workers, three main themes were identified. The first theme was discovering residents' skills and feelings. The staff members spoke of how they saw residents communicate and express themselves more freely during the therapy sessions. The second theme was learning from the therapists to change approaches to care practice. The staff discussed increased knowledge and understanding for the therapeutic approach which shifted how they worked with the patients. The third theme was connection between staff and residents. Because the staff had better insight into the therapeutic relationship with clients, they adopted a more reflective, empathetic approach to care. The article concluded that the study showed the impact of both music and dance/movement therapy in a nursing home setting (Melhuish, 2016).

## Dance Movement Therapy and Dementia

As the world's population age continues to increase, it is important to be familiar with the diseases that impact the elderly. A content analysis by Natasha Goldstein-Levitas, drawn from several peer reviewed articles, constructed the argument that dance/movement therapy is a viable form of treatment for patients with dementia. Goldstein-Levitas (2016) describes dance/movement therapy to be, "an effective, psychotherapeutic, economical, and readily

understood discipline that compensates for deficits, offers emotional support, and complements conventional treatments" (p. 430). She goes on to say that dance/movement therapy improves quality of life for dementia patients by stimulating sensory systems and encouraging physical, emotional, and cognitive functioning.

This content analysis also states that dance/movement therapy can provide relief from the feelings of loss and grief that elders with dementia encounter, as well as those of frustration, depression, and loss of autonomy. The main theme of this analysis is that dance/movement therapy integrates tactile, visual, auditory, and kinesthetic experiences with the goal of improving the quality of life of dementia patients. Goldstein-Levitas (2016) stated that increasing a person's quality of life also "improves immune system functioning, reduces cortisol levels, promotes meaningful interaction, and enhances coping skills" (p. 432). She concluded that increasing quality of life in people with dementia is important as part of their end of life care.

Due to the declining nature of this disease, goals for individuals with dementia are focused on maintaining what abilities they have left. Social goals may include improving positive affect and increasing individuals' awareness of those around them (Bond, 2016). This can be achieved through DMT by expanding participants' kinosphere (the space individuals utilize for movement) and creating opportunities for meaningful interactions. Emotional goals may include providing positive relationships and meaningful life experiences as well as fostering reminiscing. This can be done by utilizing music and movements to elicit pleasant memories and help foster positive affect (Karkou, 2017).

Physical goals may involve working on a sense of embodiment as well as maintaining balance and dexterity to decrease fall risk (Coaten, 2013). DMT can be utilized to increase core strength, ankle range of motion and healthy gait patterns. "Dyadic exercise training intervention

can improve functional outcome and balance in individuals with AD (Lamotte, 2017, p. 371). "Balance and mobility impairments in older people have been shown to be a strong independent risk factor for falling" (Lamotte, 2017, p. 371). Falling can increase fear and decrease confidence "which may result in a decline in activity and ultimately a decrease in strength, balance, and mobility leading to decreased functional ability and a loss of independence" (Lamott, 2017, p. 371). Mitigating fall risk and improving physical health are two steps that can be taken towards improving the client's quality of life.

**Embodiment**

An editorial by Richard Coaten and Donna Newman-Bluestein (2013) states that "embodiment is a concept pertaining to lived-body and phenomenal experience that is crucial to better understanding what it subjectively means to be human" (p. 677). For patients with dementia, embodied movement can provide an understanding of how their bodies and senses are used to create a meaningful world. The authors proceed to argue that embodiment is "a continuum, requiring at least part of human awareness to be grounded in the internal subjective sensations of lived-body experience, from little awareness at one end to considerable awareness at the other" (Coaten, 2013, p. 677). By grounding patients in in-body experiences, dance/movement therapy can influence a patient's perceptions, understandings, and sense of relatedness to the world. These views are echoed by Steven Lyons (2019) who stated that the qualitative evidence from his systematic review "highlighted the importance of embodied communication to wellbeing and there was also high-quality quantitative evidence supporting the short-term reduction in symptoms of depression" (p. 130). By giving participants a way to ground themselves, DMT helps individuals with dementia be present in their bodies.

**Therapeutic Use of Touch in DMT**

Touch deprivation occurs when a person goes without physical contact with other living things for extended periods of time. It is particularly pervasive among older adults, as older patients receive minimal amounts of touch, especially expressive touch from professional caregivers and health care providers (Bush, 2001). "Touch can be useful with cognitively impaired, institutionalized, or hospitalized older adults. Likewise, touch can be useful for improving comfort and communication among terminally ill older adults and their loved ones (Bush, 2001, p. 256). Expressive touch can help improve the emotional and physical well-being of older adults by "decreasing agitated behaviors, improving sensory stimulation levels, inducing relaxation, and increasing interrelatedness with the environment among cognitively impaired older adults" (Bush, 2001, p. 267).

A study conducted by Bush (2001) identifies three distinct types of touch: caring touch, protective touch, and task touch. According to Bush (2001), caring touch refers to, "an emotional and physically robust nurse's capacity to care about others, with or without reciprocal response from the client receiving touch (p. 258). He states protective touch, "is employed as a means of emotionally and physically protecting both the client and the nurse task touch is non-optional in that it is essential to the performance of necessary nursing duties" (Bush, 2001, p. 259). He then differentiates task touch from caring and protective touch stating "task touch is non-optional in that it is essential to the performance of necessary nursing duties. Task touch can include elements of caring and protective touch or it can remain neutral" (Bush, 2001, p. 259). The results of this study concluded that the use of touch led to improved appropriate verbal behaviors and increased eye contact. The use of touch also helped orientate older adults experiencing confusion due to dementia to their surroundings. (Bush, 2001).

A survey conducted by Matherly examined the use of touch when facilitating a dance/movement therapy session. This review found dance/movement therapists ‘‘use touch and physical contact as a part of the therapeutic process in a much greater percentage of cases than do the more traditional ‘‘talking cure’’ type therapies” (Matherly, 2014, p. 79). This survey identified four categories of motivations for the use of touch in dance/movement therapy. They are social, physiological, instructional and motivational for emotional/psychological processing. Words and phrases the therapists surveyed associated with social touch included: ‘‘making contact’’ or ‘‘establishing connection’’ and ‘‘engagement’’ with the client (Matherly, 2014, p. 82). Words and phrases they associated with physiological touch were: ‘‘facilitating movement sequencing,’’ or ‘‘moving something along’’ (Matherly, 2014, p. 83). Words and phrases associated with instructional touch included: intent to ‘‘teach’’ the client something through touch, to provide ‘‘education,’’ to “demonstrate”, and to ‘‘build skills.’’ (Matherly, 2014, p. 84). Finally, words and phrases the therapists associated with emotional/psychological processing touch were: ‘‘pressure or direction’’ from the therapist in a specific muscle or the offering of a sense of ‘‘feedback,’’ ‘‘reference,’’ or even ‘‘challenge,’’ ‘‘resistance’’ or ‘‘something to push against,’’ where therapeutically indicated” (Matherly, 2014, p. 84). All dance/movement therapists who responded to the survey stated they felt ‘‘touch was an integral part of DMT practice’’ (Matherly, 2014, p. 79).

**Chacian Technique**

A pioneer of DMT, Marian Chace, created techniques that serve as a foundation for the method I am proposing. Her principles of Empathetic Reflection and Group Rhythmic Movement Relationships translate well to working with individuals with dementia. These principles are utilized in a session structure she referred to as a Chacian Circle. “Two basic

elements identified with Chace's session were the Circle, a basic formation to organize the group to engender a sense of relatedness and community; and music to stimulate rhythmic group activity" (Berrol, 2006, p. 309). Chacian Circles involve group members being seated or moving in a circular formation enabling all members to be seen. Working in a Chacian Circle allows the dance/movement therapist to meet all group members at their ability levels as participants can sit or stand depending on what is safe and comfortable for them. This technique is effective when working with individuals with dementia because it provides visual and auditory cues to all members while providing the leader of the group a clear view to pick out significant movements within the group.

Empathetic Reflection is a term coined by Marian Chace. Chace "understood that establishing an empathetic relationship was a primary vehicle for communication" (Berrol, 2006, p. 309). By reflecting clients' moods, movement, and sounds, Chace was able to create connections with them. She reflected not just what her clients did but the "qualitative dynamic of their movement" (Berrol, 2006, p. 309). Chace used the process of empathetic reflection to "gather information about the clients during a group session, engage them in contact first with the therapist and then with one another, develop a sense of mutuality which facilitates the communication and sharing feelings" (Berrol, 2006, p. 309).

According to Marian Chace, "there is a tendency on the part of certain patients…to remain motionless and mute for long periods of time, or to move about restlessly and avoiding contact with other people. Rarely, when left to themselves, do they gather for group activities" (Sandel, 1993, p. 193). One method Chace employed during her time at St. Elizabeth's Hospital to encourage such individuals was holding group activities with rhythmic movement. Chace

believed DMT makes use of the most basic movements in order to express emotion. She utilized rhythm in her sessions to help make actions more accessible to all group members. Such actions often began as unconscious movements but were, “brought into awareness in shared symbolic rhythmic action” (Sandel, 1993, p. 263). This awareness she then, “used as a therapeutic tool for communication and body awareness in institutions, clinics and special schools” (Sandel, 1993, p. 263). Uniting group members through movement proved effective because it required no previous training. Instead, group members were able to focus on rhythmic action in unison. Chace noted that such action resulted in feelings of well-being, relaxation, and good fellowship. She states, “even primitive man understood that a group of people moving together gained a feeling of more strength and security than any one individual could feel alone” (Sandel, 1993, p. 196).

A study conducted by Cervasco found that “sensory stimulation and interaction with the environment” is needed to “combat psychomotor, cognitive, communication, social, and emotional decline” (Cevasco, 2006, p. 227). Cervasco (2006) proposed that groups containing movement as well as instrumental and vocal music can provide this stimulation. In turn they will help to maintain these skills and improve individual’s quality of life. The results of this study show that movement activities elicited the most purposeful participation from group members. The study also found that too much sensory stimulation resulted in a decrease in participation. Finally, it was found that the “greatest amount of participation occurred during the rhythm playing section” (Cevasco, 2006, p. 243).

Another important principle Chace used in her work was mirroring: the use of one’s body motion to “understand and thereby communicate the acceptance and validity of the expression” (Sandel, 1993, p.86). “Mirroring involves imitation by the therapist of movements, emotions, or

intentions implied by a client's movement" (McGarry, 2011, p. 178). This technique enhances empathy as well as somatic and emotional understanding between the therapist and the client. "Mirroring occurs when two people make similar body movement that are coordinated or slightly echoed in time" (McGarry, 2011, p. 178). Mirroring can be done in dyads or small groups and activates the mirror neurons of both participants thereby fostering a sense of kinesthetic empathy (Levy, 2005). By copying her client's movements and meeting them where they were on an emotional level, she was able to communicate with nonverbal patients (Sandel, 1993). Since the speech and communication skills of individuals with dementia are heavily impacted by the disease, Chace's mirroring technique is especially effective at fostering empathy and providing necessary nonverbal communication.

**Mirror Neurons, DMT, and Dementia**

A neuron is, "the basic working unit of the brain, a specialized cell designed to transmit information to other nerve cells, muscle, or gland cells" (The Neuron, 2012). Studies have revealed that identical sets of neurons are activated in an individual when performing a movement and when simply witnessing another person perform an action or behavior. These sets of neurons are referred to as mirror neurons (Berrol, 2006). The response to mirrored movements is "mediated by an emotional movement feedback system that involves mirror neuron circuitry" (McGarry, 2011, p. 182). Mirror neurons can be intentionally activated by dance/movement therapists through Chace's technique of mirroring to produce therapeutic benefits and strengthen the therapist/client relationship.

### Use of Music

A study conducted by Gibbons in 1977 found that "elderly persons prefer popular music from their early adult years rather than popular music beyond young adulthood" (p.181). A similar study conducted by Cevasco (2006) found that "elderly individuals tended to prefer stimulative over sedative music from their early years and later years of life" (p. 228). It was also found that elderly participants responded to the music "with hand clapping, finger tapping, toe tapping and singing" (Cevasco, 2006, p. 229). When provided with instruments, participants were more engaged when using instruments with vibrotactile responses or when receiving one-on-one attention from the therapist (Cevasco, 2006). This study also found that participants were most engaged when the music therapist provided "continuous verbal cues paired with visual cues during movement activities" (Cevasco, 2006, p. 230). It was also found that "instrumental music produced greater responses than vocal music" as participants didn't have to work to "discriminate the therapist's verbal cues from the vocal music" (Cevasco, 2006, p. 230).

## Methods

I chose to utilize a qualitative research approach to examine how dance/movement therapy influences the quality of life for individuals with dementia. Following three, one-hour dance/movement therapy sessions, observations and field notes were used to reflect on the method. An adapted tool to gauge for quality of life components was used to guide the reflections. Inductive analysis was conducted on the resulting session notes. I speculated that the inductive analysis would show an increase in the number of quality of life markers both throughout individual sessions and over the course of the three sessions. I also postulated that the quality of life markers could indicate what tools were most effective in increasing quality of life for group members.

## Participants

Participants for this study were residents of an assisted living facility for people with dementia. I had held an intern position at this facility the year prior to this study. I sought permission to conduct this study from my previous site supervisor. With her help, I selected four individuals with advanced dementia that had shown to be receptive to music and movement activities in the past. My movement group consisted of four residents ranging in age from 82 to 92 years old. Participants' diagnoses included Alzheimer's, dementia, and vascular dementia. Due to my time at this facility, I was familiar with the residents in my group. However, due to their diagnosis, they did not remember me when I facilitated this study. I do not feel that my previous experience working with them negatively affected the results of this study as they responded to me each week as though it was the first time they have worked with me.

## Procedure

I conducted three, one-hour sessions with the same four participants once a week for three weeks. Each session took place in the same room of the residential facility and my sessions were held on the same day of the week at the same time. My sessions followed the same structure of movement activities. I also utilized the same play list for each session. This consistent structure was utilized to minimize variability between sessions. For each session, I had an additional faculty member present to observe and participate in my groups as it is protocol for this facility. The first and third sessions included the current DMT intern at the facility and the second session included a personal care assistant. It is also important to note that while all the participants in my group are able to ambulate either on their own or with the assistance of a walker, the sessions were conducted while seated to minimize fall risk.

My groups began with a warmup. For this section I utilized two songs, "Somewhere Over the Rainbow-What a Wonderful World" by Israel Kamakwiwo'ole and "Here Comes the Sun" by the Beatles. I chose these songs because of their slow pace, cheerful lyrics, and time of publication. During my warmup, I led my group members through a series of gross motor stretches. The goals of my warmup were to increase range of motion and flexibility as well as to begin to stimulate awareness of myself and of other group members. Following my warmup, I began to encourage initiation of individual movements utilizing Chacian technique. For my Chacian Circle section, I utilized the songs "Little Bitty Pretty One" by Thurston Harris and "Why Do Fools Fall in Love" by Frankie Lyman. I chose these songs because of their consistent, strong beat, energy, and familiarity to the residents. My goals for this section of my session was to encourage individuation, recognition, and a sense of autonomy for the residents.

Following the conclusion of our Chacian Circle, I introduced our first prop, the Octaband. An Octaband is an "interactive exercise tool which promotes individuality and group cohesion through movement" (Octaband®.mov, 2011). Created by Donna Newman-Bluestein, this tool is made of sixteen lycra arms with loops on the end for the residents to hold. This tool allows residents to interact with one another without direct touch which can create a feeling of safety and group recognition. The first exercise with the Octaband, I continued to utilize Chacian techniques, suggesting movements to the group, allowing group members to select movements, and picking out movements initiated by group members. My goal was to use resistance exercise motions to strengthen arm muscles and to use the Octaband to increase group awareness. For this section I played the song "Hideaway" by the Jeff Healey Band. This song is not one that would be known to the group, but I chose it because it has a steady rhythm and is purely instrumental.

When leading exercises that require more verbal queuing, I select songs without words so there is no competing verbal stimulus when I am talking.

Once the group was comfortable moving with the Octaband, I introduced a tactile stimulus in the form of a large bean bag that I placed in the center of the Octaband. The purpose, I explained to the group was to work together to bounce the bean bag up and down as many times as possible without letting it fall off the Octaband. The goal of this activity was to foster communication between the residents and introduce and element of fun and spontaneity to the group. For this section, I played two songs, “I’ve got My Love to Keep Me Warm” by Les Brown and His Band of Renown and “Sugar Sugar” by The Archies. I selected these songs for their steady rhythm and their familiarity to the residents. I chose to start this section with two songs in order to gauge how long the group could participate before tiring.

Following the Octaband, I introduced another prop to the group in the form of maracas. I facilitated two different activities with this prop. The first activity was individual mirroring. Moving around the Circle on my knees so that I was positioned at eye level with participants, I spent time with each resident facilitating one-on-one movements in which I was able to copy their movements and reflect their affect back to them. The goal of this was to foster connection and increase participant’s awareness of self and others. For this activity I used the songs “Shake, Rattle, & Roll” by Bill Haley and his Comets and “La Bamba” by Ritchie Valen. I chose these songs because of their upbeat tempo, fitting lyrics, and knowledge that the residents are inclined to sing along to these particular songs. After getting a chance to mirror with each of the participants, I resumed my seat and returned to a Chacian structure of suggesting movements to the group, allowing group members to select movements, and picking out movements initiated by group members. My goals for this activity were to increase the participant’s use of the space

around them and to intentionally utilize auditory feedback to help participants establish a pattern in their movements. For this activity, my song choice was “Bombo y Maracas” by Pancho Galen y Su Orquesta. I chose this song because it does not have lyrics, so I was better able to communicate to the group. Also, it has a good rhythm to follow, and it fits the nature of this activity.

After maracas came the apex of my movement group, the Twist. When I designed this group, it was my intention to build participants’ energy and engagement levels before slowing down and allowing time for a cool down. I chose to dance to “The Twist” by Chubby Checker, at the midpoint of my group because it is high in energy, it fosters reflection and reminiscing, and it allows me to utilize therapeutic touch by dancing with my participants. For this activity I again moved around the Circle approaching each participant on bended knee so as to be at eye level. I held out my hands and asked if they would like to dance with me. This way they got to choose if they felt comfortable enough to take my hands. I always thanked the resident I was moving with before moving on to the next participant. At the conclusion of the song, I acknowledged the amount of energy we had just expended and suggested we all take a deep breath together before moving on.

I introduced the next activity to start to slow down and relax. For this I brought out a third prop, scarves. When handing out the scarves, I gave each participant the choice between two different colors to increase their sense of autonomy. To begin, I returned to the familiar structure of the Chacian Circle, suggesting movements to the group, allowing group members to select movements, and picking out movements initiated by group members. I intentionally chose music with a slower tempo to help bring a sense of relaxation to the group and to play into the light, whimsical nature of the scarves. For the Chacian Circle, I chose the song “Duke of Earl”

by Gene Chandler. Following the Chacian Circle, I spent time one-on-one mirroring with each resident. My goal for the mirroring was to continue fostering an emotional connection with the residents. For this activity, I chose the song “Singin’ in the Rain” by Gene Kelly. This song is well loved by the residents and many of them sang along to it.

After the scarves activity I transitioned the group to a cool down. This comprised of slow stretches and deep breathing. I structured the cool down the same way as the warmup in order to bookend the activity. I concluded the group by acknowledging each of the residents, thanking them for their hard work, and encouraging them to acknowledge those around them. To close I put on the song, “When Irish Eyes are Smiling” by Irish and Celtic Folk Wanderers.

**Inductive Analysis**

Following each session, I took notes detailing my observations and reactions. I then reviewed those notes to identify repeating themes. I assigned a color to each theme and then reviewed my notes, color coding them as I went. From there, I reviewed my notes again and tallied each theme; first as it was demonstrated by each resident, then as it was demonstrated per session, and finally as it was demonstrated throughout the intervention. After compiling a list of the emerging themes, I cross referenced my list with the quality of life indicators included on the “Quality of Life Movement Assessment for Persons with Advanced Dementia” created by Donna Newman-Bluestein (2013). From this comparison, I revised my original list of fourteen themes into four sections of Newman-Bluestein’s assessment. This categorization allowed me to gain insight into how the method had an impact on each resident’s level of engagement throughout the individual sessions, what types of engagement brought the most signs of quality of life throughout the sessions, and the level of frequency on certain quality of life indicators.

# Results

## Quality of Life Indicators

Demonstrated in the table below is the classification of the emerging themes from my data into the four categories from Newman-Bluestein's assessment, Quality of Life Movement Assessment for Persons with Advanced Dementia.

Table 1

*Indicators of Quality of Life*

| **Social Engagement** | **Engagement in Meaningful Experiences** | **Self-Expression** | **Affect** |
|---|---|---|---|
| Participant Initiates Touch | Participant Acknowledges Group | Participant Speaks to Me | Participant Smiles or Laughs |
| Participant is Receptive to Touch | Participant Demonstrates Musicality | Participant Speaks Aloud | |
| Participant Mirrors My Movement | Participant Uses a Prop | Participant Initiates Original Movement | |
| Participant Mirrors Others | Participant Sings or Hums | | |
| Participant Acknowledges me Nonverbally | | | |
| Participant Makes Eye Contact | | | |

My inductive analysis yielded three sets of results. The first data set analyzed how many Quality of Life Indicators were recorded during each activity across all three sessions. The sessions consisted of ten activities, which are detailed in Table 2 and the Appendix. These results are important because they aligned with the energy level that I observed and reflected upon, which was associated with each activity throughout the session.

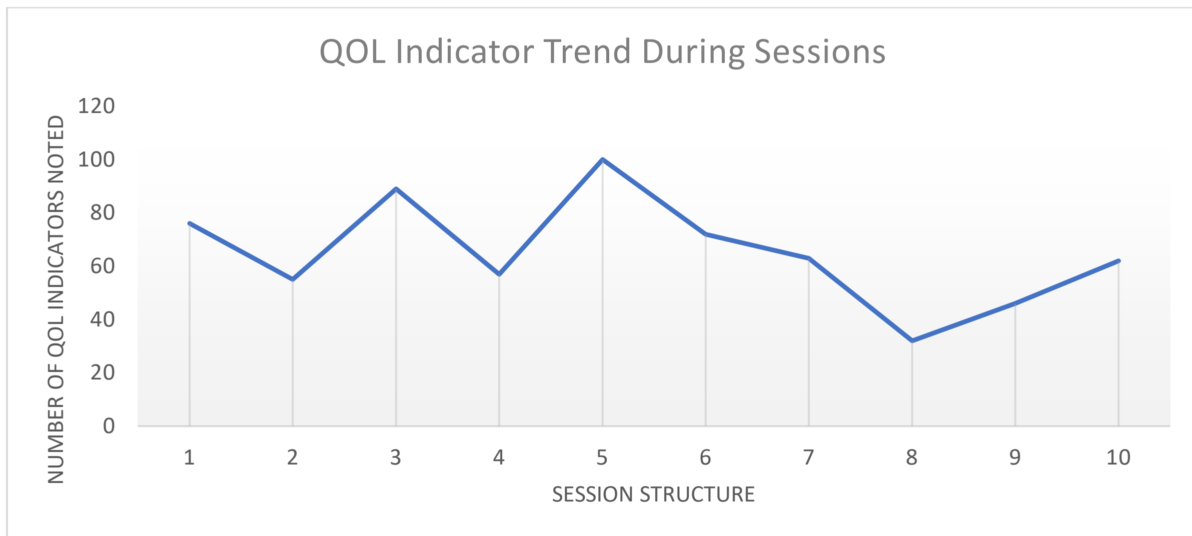



*Figure 1.* Quality of Life Indicator Trend

Results from the synthesized observation notes revealed that high energy music and props particularly ones that offered vibratory feedback, exhibited the most frequent occurrences of quality of life indicators. Activities that utilized the DMT technique of mirroring also elicited high counts of QOL Indicators. It appeared that indicators of quality of life increased when the activities where set to high energy music, utilized a prop, particularly if the prop offered vibratory feedback, and had moments of one-on-one connection. The order of activities throughout the session was intentional and reordering the activities would have produce a different graph.

The second set of data analyzed the top two observed occurring QOL categories that emerged during each session activity across all three sessions. These categories were taken from

Donna Newman Bluestein's assessment, Quality of Life Movement Assessment for Persons with Advanced Dementia.

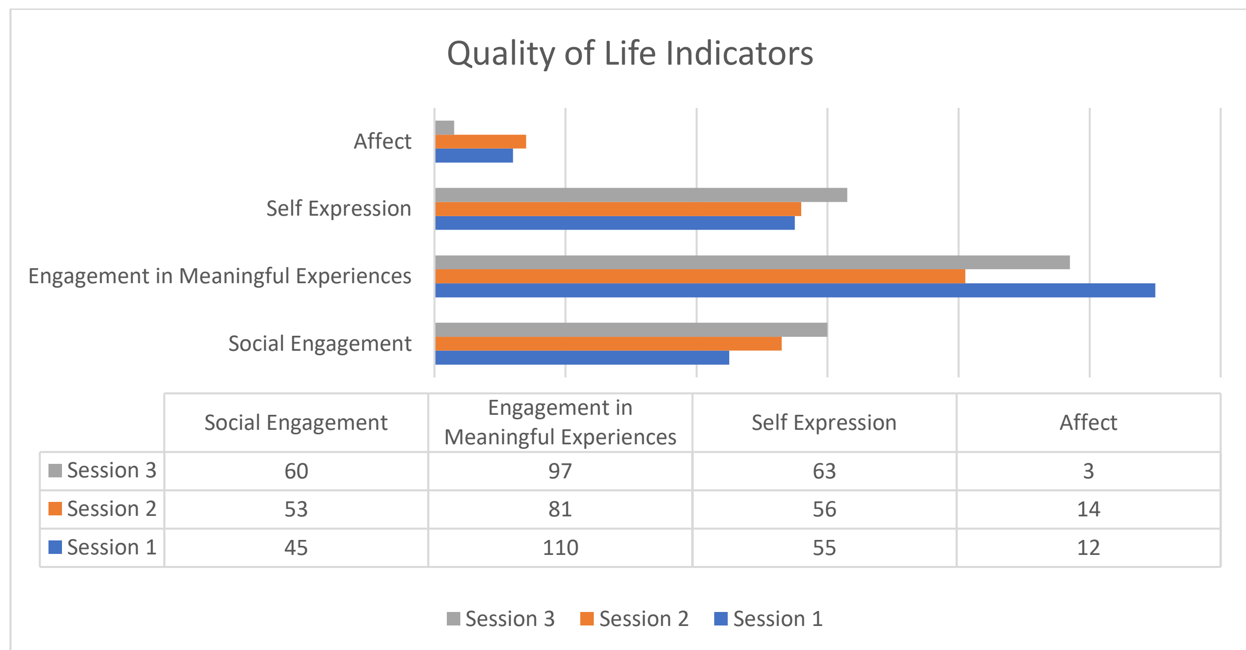
Table 2

*Quality of Life and Engagement in DMT*

| Session Activity | Types of Engagement Observed | QOL Category |
|---|---|---|
| Warm Up | Acknowledges group members | Engagement in meaningful experiences |
| | Acknowledges me | Social engagement |
| Chacian Circle | Initiates movement | Self-expression |
| | Musicality demonstrated | Engagement in meaningful experiences |
| Octaband | Use of prop | Engagement in meaningful experiences |
| | Initiates movement | Self-expression |
| Octaband/Beanbag | Use of prop | Engagement in meaningful experiences |
| | Direct verbal communication with Me | Self-expression |
| Mirrored Maracas | Use of prop | Engagement in meaningful experiences |
| | Initiates movement | Self-expression |
| Led Maracas | Use of prop | Engagement in meaningful experiences |
| | Acknowledges group | Engagement in meaningful experiences |
| The Twist | Direct verbal communication with Me | Self-expression |
| | Smile/laughter | Affect |
| Led Scarves | Use of prop | Engagement in meaningful experiences |
| | Direct verbal communication with Me | Self-expression |
| Mirrored Scarves | Use of prop | Engagement in meaningful experiences |
| | Initiates movement | Self-expression |
| Cool Down | Acknowledges group | Self-expression |
| | Initiates movement | Self-expression |

Analysis showed that the most exhibited Quality of Life category was Engagement in Meaningful Experiences followed by Self-Expression, Social Engagement, and Affect in that order.

The third set of results compared the number of QOL Indicators I observed during each individual sessions. This compilation confirmed the finding of most prevalent QOL categories and took this data a step further by identifying what QOL theme was the most noted within each of the four categories. The most observed indicators of quality of life throughout my session was “Engagement in Meaningful Experiences”. The most significant theme within this category was utilization of a prop. The second most observed indicator of quality of life was “Self-Expression”, followed closely by “Social Engagement”. The most observed theme in the “Self-Expression” category was self-initiated movement and in “Social Engagement” it was nonverbal acknowledgement of the group leader. The only theme under the category “Affect” was smiling/laughing. This comparison is illustrated in the graph below.




| | Social Engagement | Engagement in Meaningful Experiences | Self Expression | Affect |
|---|---|---|---|---|
| Session 3 | 60 | 97 | 63 | 3 |
| Session 2 | 53 | 81 | 56 | 14 |
| Session 1 | 45 | 110 | 55 | 12 |

*Figure 2.* Quality of Life Indicators Over Three Sessions

## Discussion

The study I conducted highlighted how this DMT method impacted quality of life in a group setting by stimulating sensory systems and encouraging participants to engage with me and others physically, emotionally, and cognitively. My research was guided by Marian Chace's principles and Cevasco's study on music preferences of elderly persons. Chace's principles of "Empathetic Reflection" and "Group Rhythmic Movement Relationships" allowed me to integrate tactile, visual, auditory, and kinesthetic experiences to make sessions accessible to all participants. Intentional music selection also increased participants' involvement in sessions. Cevasco (2006) stated that participants were most engaged when listening to music that had been popular in their early adult years and were most active when listening to high energy music with a steady rhythm. I too found that high energy music with a steady rhythm was impactful as a method for high levels of engagement.

The results of my study were supported by the work of Bush, Berrol, Cevasco, and Sandel. The most significant finding of my study centered around the use of props in DMT sessions. As noted in Figure 1, participant engagement was dramatically higher during activities that involved props. Energy level, quality of life indicators, and overall group dynamics all increased, which mirrors the findings of Cevasco (2006) when he stated that when provided with instruments, participants were more engaged, especially when using instruments with vibrotactile responses such as maracas or when receiving one-on-one attention from the therapist. These results are significant because they remain consistent across the three sessions. They also show the importance of engaging participants on multiple levels. These results show that residents had increased quality of life, expanding deeper than laughter or smiles when they were given a sense of purpose.

The effectiveness of Chace's technique of mirroring and expressive touch were also significantly reflected in my results. As Berrol (2006) stated, intentional activation of mirror neurons by a dance/movement therapist can produce therapeutic benefits and strengthen the therapist/client relationship. Mirroring produced either the highest or second highest number of quality of life indicators in all participants across all three sessions. The use of expressive touch is especially important when working with this population because they are particularly touch-starved, and their interactions with care staff are typically limited to functional, or task touch, if any touch at all. Expressive touch is a safe way of engaging the residents and can help improve the emotional and physical well-being of older adults by "decreasing agitated behaviors, improving sensory stimulation levels, inducing relaxation, and increasing interrelatedness with the environment among cognitively impaired older adults" (Bush, 2001, p. 267). When I offered my hand to residents while doing the twist and they chose to accept it, this act helped establish a connection with the residents.

## Translating Results into Clinical Findings

Taken together, the results from the study showed how several major areas of clinical practice could be considered as a way of approaching clinical work with this specific population. The table below brings those areas together into five clinical principles for clinicians to consider.

Table 3

*Guiding Clinical Principles for a DMT Group Method for older individuals with Dementia*

| | |
|---|---|
| **Set Up** | Seated movement greatly reduces risk of falling for participants<br>Positioning chairs in a circle allows all participants to see and hear the facilitator while utilizing Chacian Circle techniques |

| | |
|---|---|
| **Music** | Songs produced when participants were between age 20-30 elicit the most recognition |
| | Choose songs without words when conducting activities with verbal queuing |
| | Stimulative music produces greater responses that sedative music |
| **Props** | Props such as an Octaband or scarves can offer tactile stimulation and be used to create connections with participants without making physical contact |
| | Props such as maracas offer vibratory tactile stimulation as well as auditory feedback |
| **Session Shape** | This session was designed to build in energy leading up to The Twist |
| | The Twist served as the apex of the session |
| | Following The Twist, activities were designed to slow down and lower energy |
| **Touch** | Effective with this population for form a therapeutic bond |
| | Helps create a sense of embodiment |

## Recommendations for Future Studies

As a continuation of this study I would propose five, 1-hour dance/movement sessions based in Chacian technique. Participants would be recruited from a residential home for individuals with advanced stage dementia, and the sample size would be no more than seven participants. Sessions would use music that was popular in the 50's and 60's as well as tactile and vibratory props such as an Octaband, maracas, and scarves. They would be conducted in a Circle with all participants seated. I would video tape these groups, with residents' permission, so I could evaluate the participants' movement in detail following the sessions. Once the groups were completed, I would first record my initial thoughts and assessments. I would then review

the footage from the session to analyze movement utilizing Laban technique and complete the "Quality of Live Movement Assessment for Persons with Advanced Dementia."

With this assessment, I would be evaluating what parts of the body participants do and do not use, as well as any repetitive movement patterns or gestures they favor. I would also examine the quality of the participants' movement using Laban categories such as states, drives, and phrasing. This assessment would allow me to document the shape of the participants' movement, as well as how much space they utilize and the complexity of their movements. This assessment would conclude by comparing complexity of movement with quality of life indicators. The goal of this study would be to expand the use of the "Quality of Life Movement Assessment for Persons with Advanced Dementia" to include the movement analysis section of the assessment and to correlate those findings with quality of life indicators to continue to demonstrate how DMT can be utilized to improve the quality of life for individuals with advanced dementia.

References

Alzheimer's Association. (2019). *What Is Dementia?* Retrieved December 1, 2019, from https://www.alz.org/alzheimers-dementia/what-is-dementia.

Berrol, C. F. (2006). Neuroscience meets dance/movement therapy: Mirror neurons, the therapeutic process and empathy. *The Arts in Psychotherapy*, *33*(4*),* 302–315. https://doi.org/10.1016/j.aip.2006.04.001

Bond, R. L., Downey, L. E., Weston, P. S. J., Slattery, C. F., Clark, C. N., Macpherson, K., Warren, J. D. (2016). Processing of self versus non-self in Alzheimer's disease. *Frontiers in Human Neuroscience,* doi:http://dx.doi.org.ezproxyles.flo.org/10.3389/fnhum.2016.00097

Brain Facts. (2012, April 1). *The Neuron.* Retrieved March 19, 2020, from https://www.brainfacts.org/brain-anatomy-and-function/anatomy/2012/the-neuron

Bush, E. (2001). The use of human touch to improve the well-being of older adults. A holistic nursing intervention. *Journal Of Holistic Nursing: Official Journal Of The American Holistic Nurses' Association*, *19*(3), 256–270. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=cmedm&AN=11847871&site=eds-live&scope=site

Cevasco, A. M., & Grant, R. E. (2006). Value of musical instruments used by the therapist to elicit responses from individuals in various stages of Alzheimer's disease. *Journal of Music Therapy, 43*(3), 226-46. Retrieved from https://ezproxyles.flo.org/login?url=https://search-proquest-com.ezproxyles.flo.org/docview/223558632?accountid=12060

Coaten, R., & Newman-Bluestein, D. (2013). Embodiment and dementia – Dance movement psychotherapists respond. *Dementia, 12*(6), 677-681. doi:10.1177/1471301213507033

Fessel, J. (2018). Alzheimer's disease combination treatment. *Neurobiology of Aging*, *63*, 165. https://doi.org/10.1016/j.neurobiolaging.2017.10.022

Gibbons, A. C. (1977). Popular music preferences of elderly people. *The Journal of Music Therapy, 14*, 180-189.

Goldstein-Levitas, N. (2016). Dance/Movement Therapy and Sensory Stimulation: A Holistic Approach to Dementia Care. *American Journal of Dance Therapy, 38*(2), 429-436. doi:10.1007/s10465-016-9221-5

Karkou, V., & Meekums, B. (2017). Dance movement therapy for dementia. *The Cochrane Database of Systematic Reviews*, *2*, CD011022. https://doi-org.ezproxyles.flo.org/10.1002/14651858.CD011022.pub2

Lamotte, G., Shah, R. C., Lazarov, O., & Corcos, D. M. (2017). Exercise Training for Persons with Alzheimer's Disease and Caregivers: A Review of Dyadic Exercise Interventions. *Journal of Motor Behavior*, *49*(4), 365–377. https://doi-org.ezproxyles.flo.org/10.1080/00222895.2016.1241739

Levy, F.J. (2005). *Dance movement therapy: A healing art* (2nd Ed.). Reston, VA: National Dance Association.

Lyons, S. (2019). Arts therapies for dementia: a systematic review and community-based case study on the value of music therapy and dance movement therapy. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsble&AN=edsble.777797&site=eds-live&scope=site

Matherly, N. (2014). Navigating the dance of touch: An exploration into the use of touch in Dance/Movement therapy. *American Journal of Dance Therapy, 36*(1), 77-91. doi:http://dx.doi.org/10.1007/s10465-013-9161-2

Mayo Clinic. (2019, April 19). *Dementia*. Retrieved March 12, 2020, from https://www.mayoclinic.org/diseases-conditions/dementia/diagnosis-treatment/drc-20352019

McGarry, L. M., & Russo, F. A. (2011). Mirroring in Dance/Movement Therapy: Potential mechanisms behind empathy enhancement. *The Arts in Psychotherapy*, *38*(3), 178–184. https://doi.org/10.1016/j.aip.2011.04.005

Melhuish, R., Beuzeboc, C., & Guzmán, A. (2016). Developing relationships between care staff and people with dementia through Music Therapy and Dance Movement Therapy: A preliminary phenomenological study. *Dementia, 16*(3), 282-296. doi:10.1177/1471301215588030

Newmand-Bluestein, D. (2013). *The Quality of Life Movement Assessment for Persons with Advanced Dementia*. Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License. Retrieved from https://static1.squarespace.com/static/5b3fc38145776e887e9666c4/t/5b70d962032be42d140dc929/1534122338958/QoL+Movement+Assessment.pdf

Sandel, S., Chaiklin, S., & Lohn, A. (1993). *Foundations of dance/movement therapy*. Columbia, MD: Marian Chace Memorial Fund of the American Dance Therapy Association.

[sldk146]. (2011, April 11) *Octaband®.mov* [Video file]. Retrieved from https://youtu.be/bbjV_baZONI

Welling, A. (2019, March 18). *What is Dance/Movement Therapy?* Retrieved December 1, 2019, from https://adta.org/2014/11/08/what-is-dancemovement-therapy/.

World Health Organization (2019, September 19). *Dementia.* Retrieved December 1, 2019, from https://www.who.int/news-room/fact-sheets/detail/dementia.

Yamaguchi, H., Maki, Y., & Yamagami, T. (2010). Overview of non-pharmacological intervention for dementia and principles of brain-activating rehabilitation. *Psychogeriatrics*, *10*(4), 206–213. https://doi-org.ezproxyles.flo.org/10.1111/j.1479-8301.2010.00323.x

# Appendix

Details of Specific Techniques, Music Used, and Clinical Goals

| Session Activity | Music Used | Goals |
|---|---|---|
| Warm Up | “Somewhere Over the Rainbow-What a Wonderful World” by Israel Kamakwiwo’ole<br>“Here Comes the Sun” by the Beatles | -gross motor stretches<br>-increase range of motion<br>-flexibility<br>-begin to stimulate awareness of leader and of other group members |
| Chacian Circle | “Little Bitty Pretty One” by Thurston Harris<br>“Why Do Fools Fall in Love” by Frankie Lyman | - encourage individuation and recognition<br>-create a sense of autonomy for the residents |
| Octaband | “Hideaway” by the Jeff Healey Band | - use resistance exercise motions to strengthen arm muscles<br>- use the Octaband to increase group awareness |
| Octaband w/Bean bag | “I’ve got My Love to Keep Me Warm” by Les Brown and His Band of Renown<br>“Sugar Sugar” by The Archies | - foster communication between the residents<br>-introduce and element of fun and spontaneity to the group |
| Mirrored Maracas | “Shake, Rattle, & Roll” by Billy Haley and his Comets<br>“La Bamba” by Ritchie Valen | - foster connection<br>-increase participant’s awareness of self and others |
| Led Maracas | “Bombo y Maracas” by Pancho Galen y Su Orquesta | -increase the participant’s use of the space around them<br>-intentionally utilize auditory feedback to help participants establish a pattern in their movements |
| The Twist | “The Twist” by Chubby Checker | -foster reflection and reminiscing<br>- utilize therapeutic touch |

| | | |
|---|---|---|
| Led Scarves | "Duke of Earl" by Gene Chandler | -continue fostering an emotional connection with the residents |
| Mirrored Scarves | "Singin' in the Rain" by Gene Kelly | - bring a sense of relaxation to the group |
| Cool Down | "When Irish Eyes are Smiling" by Irish and Celtic Folk Wanderers | - acknowledge participants<br>-encourage them to acknowledge the group |

***THESIS APPROVAL FORM***

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**Graduate School of Arts & Social Sciences**
**Expressive Therapies Division**
**Master of Arts in Clinical Mental Health Counseling: Dance Movement Therapy, MA**

**Student's Name:** Brianna Berg

**Type of Project:** Thesis

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In the judgment of the following signatory this thesis meets the academic standards that have been established for the above degree.

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