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## Dance/Movement Therapy and Nonverbal Communication Among Older Adults With Dementia: Development of a Method

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**Dance/Movement Therapy and Nonverbal Communication Among Older Adults With**

**Dementia: Development of a Method**

Capstone Thesis

Lesley University

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Dance/Movement Therapy

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## Abstract

Dementia is a neurocognitive disorder that affects many older adults. As it progresses, people slowly lose their verbal communication abilities. There is no known cure for dementia, and current treatments often fail to address the emotional and relational needs of the individual. This study builds on existing research by looking at how dance/movement therapy (DMT) may be an effective method for increasing nonverbal communication among the population living with dementia. DMT is a psychotherapy that prioritizes nonverbal modes of communication. DMT harnesses the power of movement and dance in relationship with clients. Two DMT sessions were conducted at an assisted living facility in the Boston metro area with 13 individuals diagnosed with various forms of dementia. A phenomenological analysis was conducted to analyze results from the researcher's reflection journaling. Three key themes emerged from the data as being the most effective techniques employed by dance/movement therapists with this population: spatial proximity, verbal validation, and physical validation.

*Keywords:* dementia, older adults, nonverbal communication, dance/movement therapy, neurocognitive disorders, DMT

*Author Identity Statement:* The author identifies as a heterosexual, cisgender, White woman from the southwestern United States of mixed European ancestry.

## **Dance/Movement Therapy and Nonverbal Communication Among Older Adults with Dementia**

Dementia is a neurocognitive disorder that affects many individuals within the older adult population. In the later stages of dementia, people are less verbal and less coherent in speech (Groot et al., 2021, p. 14). They often appear unreachable due to their loss of verbal language production (Ellis & Astell, 2017, p. 1), or may have difficulty remembering certain words or speaking. This can make it difficult to communicate their needs and to make interpersonal connections with others. This can be quite devastating because humans have a natural desire to connect with other people. In fact, Hubbard et al. (2002) found that older people with advanced dementia are more likely to be disengaged and isolated than less cognitively impaired individuals (p. 156). As those with dementia start to lose their verbal communication skills, there is a need for nonverbal communication to take place in order for them to find connection. Since there are currently no known cures for dementia (U.S. Department of Health & Human Services, 2021), developing treatments and interventions to help minimize symptoms or slow progression provides a great service to these individuals and their families.

Current treatment for dementia includes evidence-based non-pharmacological interventions, use of cognitive function-enhancing drugs to potentially slow progression, and optimizing overall physical health and wellbeing of the individual. These treatments often fail to address the emotional and relational needs of the individual. The success of the interpersonal relationships that people with dementia have with their caregivers relies heavily on emotional, sensitive, and empathetic interactions rather than on verbal expressiveness (Hubbard et al., 2002, p. 165). These interactions and relationships can be greatly improved when awareness of nonverbal communication increases.

Nonverbal communication is an essential skill to utilize when communicating and working with these individuals. For individuals with dementia, nonverbal communication plays an important role in health communication and in helping to define and manage interpersonal relationships (Soukup, 2019, pp. 12–13). Nonverbal cues such as facial expressions, body posture, and eye contact are important to be aware of when engaging with this community. Caregivers can work toward developing practices that utilize nonverbal forms of communication, which will enhance interpersonal relationships between older people and their caretakers (Hubbard et al., 2002, p. 164). Methods that prioritize nonverbal modes of communication, such as Dance/Movement Therapy (DMT) may be especially effective with this population. Successful intervention strategies when working with these individuals involve both meeting interactional goals and exchanging information (Kindell et al., 2013, p. 499). Incorporating the expressive therapies, specifically DMT, as an intervention among this population can address both of these. This is something that is necessary to continue to improve emotional and relational wellness among all nonverbal populations, including those living with dementia.

A review of the literature reveals that there is a demand to better understand communication needs and techniques to incorporate among individuals with dementia. Much research has been conducted on the decline of verbal communication for older adults with dementia. This thesis builds on these studies by focusing on how therapists and caregivers can connect with this population on a deeper level by becoming aware of their own nonverbal communication. Current communication practices and methods of intervention for the older adult population with dementia were analyzed. The goal of this method was to better understand what nonverbal DMT techniques are most accessible and successful with this population. The results add to the emerging body of research that supports DMT as an effective intervention for

facilitating nonverbal communication among individuals with dementia and their caregivers. A Nonverbal Observational Scale (Appendix A) was created to guide data collection, note taking, and reflective journaling during and following sessions. A phenomenological approach was used to conduct an analysis of findings.

## **Literature Review**

### **Dementia**

Dementia, classified as a neurocognitive disorder in the DSM-V, is a progressive syndrome that leads to deterioration in cognitive function beyond what is typically expected due to biological aging (World Health Organization [WHO], 2021). It affects memory, thinking, orientation, comprehension, calculation, learning capacity, language, and judgment (WHO, 2021). Dementia is estimated to affect around 6%–8% of the population over the age of 65 in contemporary western societies (Nyström & Lauritzen, 2005, p. 297). Most of us will be directly affected by this disease at some point in our lives either by being diagnosed with it ourselves or having a loved one that is diagnosed. Although dementia is becoming more common, it is not necessarily a normal part of the aging process (U.S. Department of Health & Human Services, 2021). Finding effective interventions and procedures for preventing and treating dementia is needed now more than ever.

Symptoms of dementia vary depending on the specific type of dementia and on the individual, but may include the following: experiencing memory loss, poor judgment, and confusion; difficulty speaking, understanding and expressing thoughts, or reading and writing; wandering and getting lost in a familiar neighborhood; trouble handling money responsibly and paying bills; repeating questions; using unusual words to refer to familiar objects; taking longer to complete normal daily tasks; losing interest in normal daily activities or events; hallucinating

or experiencing delusions or paranoia; acting impulsively; not caring about other people's feelings; and losing balance and problems with movement (U.S. Department of Health & Human Services, 2021).

There are several different types of dementia, with the most common being Alzheimer's disease, frontotemporal dementia, Lewy Body dementia, vascular dementia, and mixed dementia (U.S. Department of Health & Human Services, 2021). Several factors and disorders play a role in whether or not an individual will develop dementia, but the exact causes of dementia are still unknown (U.S. Department of Health & Human Services, 2021).

### **Current Treatment of Dementia**

Currently, there are no known cures for dementia (U.S. Department of Health & Human Services, 2021; WHO, 2021). The WHO lists the following as principal goals for dementia care: early diagnosis in order to promote early and optimal management; optimizing physical health, cognition, activity and well-being; identifying and treating accompanying physical illness; understanding and managing behavior changes; and providing information and long-term support to carers (WHO, 2021). Further research suggests that diet, hydration, sleep, and exercise are key factors in treating dementia symptoms (McCurry & Drossel, 2011; Salamon, 2020).

Additionally, there are various treatments that may help slow the progression or symptoms of the disease. In some cases, cognitive function-enhancing drugs can potentially slow the progression of dementia (McCurry & Drossel, 2011). These drugs are not curative and there is no way to know in advance if an individual will benefit or not (McCurry & Drossel, 2011). Anti-dementia medicines and disease-modifying therapies developed to date have limited efficacy and have been primarily labeled only for Alzheimer's disease (WHO, 2021). In June of 2021, the U.S. Food and Drug Administration (FDA) approved Aduhelm (aducanumab) for the

treatment of Alzheimer's disease (FDA, 2021). Patrizia Cavazzoni, M.D., director of the FDA's Center for Drug Evaluation and Research stated that "this treatment option is the first therapy to target and affect the underlying disease process of Alzheimer's" (FDA, 2021, para. 2). While this is promising, Alzheimer's is only one of several types of dementia mentioned previously. Even so, new treatments are being investigated in various stages of clinical trials (WHO, 2021). There is hope that one day a cure for all forms of dementia will be found.

### ***Person-Centered Care***

Person-centered care is a popular approach to dementia care. According to The American Geriatrics Society Expert Panel on Person-Centered Care, "person-centered care means that an individual's values and preferences are elicited and guide all aspects of their health care once they are expressed, supporting their realistic health and life goals" (Person-centered care: A definition and essential elements, 2015). Person-centered care entails collaboration among individuals, those most important to them, and relevant providers/caregivers (Person-centered care: A definition and essential elements, 2015). This approach gives a certain level of choice and ownership to those living with dementia.

Person-centered care embraces the role of nonverbal behavior in older individuals and endorses the communicative skills that older people with dementia still possess (Hubbard et al., 2002, p. 165). A person-centered approach to dementia care can work with methods such as DMT to provide quality and effective care to people. Through recognizing and embracing nonverbal communication, caregivers can help preserve self-identity and improve quality of life for older adults (Hubbard et al., 2002, p. 165).

### **Expressive Therapies and Dementia**

Expressive arts therapies are established psychological treatments that include working

with non-verbal expression to support and develop communication, improve mood, and treat negative symptoms associated with dementia (Lyons et al., 2018, p. 32). “Expressive arts therapy integrates both verbal and nonverbal processes that can facilitate effective right-brain processes through nonverbal, nonlinear, and effective means of communication in the therapeutic process” (Nan et al., 2018, p. 132). Expressive art therapies utilize the modalities of music, dance, drama, and art as part of the therapeutic process. Expressive therapies such as DMT can provide a means to communicate thoughts and feelings nonverbally, which eases the tension that is often created by verbal means of communication (Nan et al., 2018, p. 137).

### **Dance/Movement Therapy and Dementia**

The American Dance Therapy Association (ADTA) defines DMT as “the psychotherapeutic use of movement to promote emotional, social, cognitive, and physical integration of the individual” (ADTA, 2020). DMT sessions are facilitated by a licensed dance/movement therapist in both group and one-on-one settings. Group dance therapy has been used with many populations, including older adults with dementia. For example, many Swedish nursing homes have utilized group DMT sessions among residents with dementia to promote communication among one another and the staff (Nyström & Lauritzen, 2005, p. 298).

DMT works with the body to support nonverbal expression and communication, which often takes place through the use of the body and movement. According to Lyons et al. (2018), qualitative observations suggest that individuals with dementia find DMT interventions to be enjoyable, empowering, and helpful in creating connections between thoughts, feelings, and physical sensations. This is key because individuals are much more likely to engage regularly with an intervention they enjoy participating in. Ellis & Astell (2017) have found that individuals living with dementia, while cognitively impaired and communicatively challenged, have both the

desire and the capability to communicate with others (p. 19). Caregivers can help those living with dementia to realize their desires to communicate with others by changing the way that they approach communication, and through strengthening their awareness of nonverbal communication among themselves and others. People can embrace those living with dementia as fellow human beings in the social world by adapting the ways in which they communicate to allow for more nonverbal connection to take place (Soukup, 2019, p. 15).

### **Nonverbal Communication**

According to Merleau-Ponty, “we understand each other in a more immediate way at a bodily level” (Nyström & Lauritzen, 2005, p. 313). We are constantly communicating nonverbally and picking up on other people’s nonverbal communications whether we are aware of it or not. In fact, nonverbal behavior makes up between 55–97% of the messages communicated among adults (Hubbard et al., 2002, p. 156). Nonverbal behaviors include body movements, facial expressions, touch, physical appearance, personal space, and vocal communication such as pitch and tone (Hubbard et al., 2002, p.156). Additionally, Soukup (2019) found that people make inferences about one another based on factors such as body shape, posture, and movement very swiftly (p. 11). Nonverbal behaviors help us define and manage interpersonal relationships.

Popular culture often uses the term ‘body language’ when referring to nonverbal communication. Body language can include gestures, facial expressions, and postures. These all help individuals make inferences about what others may be thinking or feeling. They also impact how we change and adapt our own body language in social situations. Soukup (2019) found that people mimic the facial expressions of others, with complementary smiles occurring quickly more often than not (p. 7). Body language and nonverbal cues can stand alone or be used to

emphasize what is being said verbally. For example, gestures can further complement verbal and facial expressions (Soukup, 2019, p. 9). Additionally, people often communicate nonverbally through the use of touch and recognition of personal space. This is interesting to consider in light of the Covid-19 pandemic where touch has become taboo, personal space has increased, and facial expressions are often hidden by masks.

### **Nonverbal Communication Among Individuals With Dementia**

Clearly, awareness of nonverbal communication is especially crucial when interacting with those diagnosed with dementia. Hubbard et al. (2002) observed older people with dementia acting in situations suggesting that they were interpreting other people's nonverbal behavior and giving meaning to the specific nonverbal actions of others (p. 159). They observed older people using nonverbal behavior to heighten the meaning of verbal communication (Hubbard et al., 2002, p. 160). This illustrates the importance of those who regularly interact with this population to be aware of their own nonverbal actions and communications. It appears that the use of nonverbal behavior was one way that older people remained part of the communicative world even when they were not actually engaged in verbal conversation (Hubbard et al., 2002, p. 160). For example, an individual may nod their head or offer a laugh to show that they are actively listening to a conversation, while not actually participating in the conversation verbally.

### ***Measuring and Observing Nonverbal Behavior***

A number of tools have been developed that focus on the measure of nonverbal behavior among individuals with dementia. Dementia Care Mapping (DCM) is a system of observation created by Tom Kitwood and Kathleen Bredin to evaluate the relative levels of well-being and ill-being of individuals with dementia in group settings (Perrin, 1997, p. 185). Another instrument known as the Positive Response Schedule (PRS) has been used by observers to code

'micro behaviors' such as smiles, nods, gestures, and eye contact (Hubbard et al., 2002, p. 157). It was hoped that the PRS would be beneficial when used in collaboration with DCM, especially when used among individuals with severe dementia (Perrin, 1997, p. 191). Another instrument, the Affect Rating Scale, measures positive affect (pleasure, interest, contentment) and negative affect (sadness, worry/anxiety, and anger) by direct observation of facial expression, body movement, and other nonverbal cues of older people with and without dementia (Hubbard et al., 2002, p.157).

There are also several methods that incorporate nonverbal communication techniques when working with individuals with dementia. Intensive Interaction (II) is a method that takes the nonverbal fundamentals of communication as the basis of interactions. It was originally developed for working with children with profound learning disabilities but appears to have the potential to improve communication between people with advanced dementia and those who interact with them (Ellis & Astell, 2010, para. 8). Ellis & Astell (2010) found that an approach to communication based on II has something to offer people with advanced dementia that can no longer communicate verbally (para. 14). However, due to the loss of memory among this population it can be difficult to build up a repertoire from session to session (Ellis & Astell, 2010, para. 14). Each interaction with people with advanced dementia is a unique encounter, and behavior must be adapted each time a new interaction takes place (Ellis & Astell, 2010, para. 14). This information led Ellis & Astell (2010) to create an approach they labeled 'Adaptive Interaction' (AI), which is a variation of II (para. 14).

Ellis & Astell (2010) describe AI as “a system of tailored, intensive interaction that focuses on learning the language of people who are nonverbal” (para. 20). They utilized AI with an individual living with dementia and concluded that this individual “had a rich communication

repertoire, comprising sound, movement, directed eye gaze, and facial expressions” (Ellis & Astell, 2010, para. 13). The individual showed willingness to communicate and engage with another person through their nonverbal behavior (Ellis & Astell, 2010, para. 13). These findings emphasize the desire of all humans to communicate and the importance of finding ways to adapt traditional communication methods to include more nonverbal communication. Many communication skills that are learned in infancy, such as the ability to make facial expressions, gestures, sounds, laughter, and purposeful movements are retained even in the advanced stages of dementia (Ellis & Astell, 2010, para. 6). Through responding in ways that are familiar and meaningful to a person with severe communication difficulties, it is possible to build and maintain close relationships even without speaking (Ellis & Astell, 2010, para. 10).

### **Expressive Therapies and Nonverbal Communication**

Nan et al. (2018) integrated expressive arts methods and activities in their work with older adults (p. 138). They concluded that expressive arts methods and activities aid in the recollection, reorganization, and articulation of significant life events, can facilitate expression of emotions, and enhance the communication and relationship between older adults and their families (Nan et al., 2018, p. 138). Expressive therapies incorporate nonverbal exploration through the use of things such as art-making, poetry, music, and movement. Incorporating these nonverbal mediums can allow for a deeper understanding and expression of complex emotions, thoughts, life experiences, and relationships to be communicated (Nan et al., 2018, p. 139).

### **Dance Movement Therapy and Nonverbal Communication**

A dance movement therapist is a specialist in nonverbal communication (Burton & Ancelin-Schutzenberger, 1977, p. 20). Burton & Ancelin-Schutzenberger (1977) observed that “people tend to state and work through their interpersonal conflicts in movement before they are

able to express them verbally” (p. 23). DMT provides individuals the opportunity to explore through movement what they are not able to express verbally. DMT is different from social dance or a dance class in that there are no steps or choreography being taught. In a DMT session, an individual is gaining body awareness and exploring movement with the therapist. In DMT, the therapist is working to promote the overall wellbeing of the individual by increasing the range of their movement repertoire (Nyström & Lauritzen, 2005, p. 299). Emotions and experiences are being explored nonverbally through movement. The nature of DMT makes it an ideal intervention method for working with individuals with limited verbal communication. There are several DMT techniques that utilize nonverbal communication. Among these are empathic reflection, mirroring, attunement, and embodied communication.

#### ***Empathic Reflection and Mirroring as Therapeutic Technique***

“Empathic reflection is the process by which the dance therapist incorporates clients’ spontaneous expressions into the ongoing movement experience and responds to those expressions in an empathic way” (Sandel et al., 1993, p. 100). Empathic reflection occurs throughout each DMT session. Empathy and empathic reflection are key factors in the success of any therapeutic relationship.

Another technique, mirroring, builds on empathic reflection. A dance/movement therapist may practice mirroring by responding with an action pattern, image, or sound which is similar to the other person’s, but with the goal of developing or extending it beyond what the person initially presented (Sandel et al., 1993, p. 105). The objective of mirroring might be to facilitate expansion of an individual’s movement repertoire, add an affective tone to the movement, or organize the group around a common image (Sandel et al., 1993, p. 105). When mirroring, the therapist is participating in another’s experiences in an open manner (Sandel et al.,

1993, p. 100). Sandel et al. (1993) argues that “mirroring is often the first step in establishing empathic connections, particularly with patients who are unresponsive to other modes of interpersonal exchange” (p. 100).

It is important to note that mirroring is different from mimicking. Rather than simply copying a movement, the idea is that the individual’s movement experience is being reflected back to them. Mirroring can create a self-affirming atmosphere in which individuals may feel encouraged to explore (Sandel et al., 1993, p. 103). Sandel et al. (1993) believes that mirroring can allow a person to find themselves, exist, and feel “real” (p. 103). It can also be a way to understand someone on a deeper level by stepping into their world through movement.

### ***Embodied Communication in DMT***

Dance therapists have spent a great deal of their own lives expressing themselves nonverbally (Burton & Ancelin-Schutzenberger, 1977, p. 20). Most DMTs enter the field having spent years prior training and participating in various dance forms. Dance therapists typically have a basic knowledge of the body's neuromuscular organization for movement and have studied methods of observation, recording, and understanding movement. For this reason, DMTs are able to take an embodied approach in their work. As dance/movement therapists, we are in tune with our bodies. We recognize that our bodies hold knowledge and can drop into what we are sensing and feeling in the moment in order to better connect to ourselves and others. Embodiment is a skill that can be learned and practiced.

Dance/movement therapists Donna Newman-Bluestein and Meg H. Chang developed a training manual, titled the *Dance of Interaction*, for other caregivers. The training is intended for people who would like to use an embodied approach when engaging with those living with dementia (Newman-Bluestein & Chang, 2017, p.1). They utilized their knowledge and

experience as dance/movement therapists to help others working with individuals with dementia. The *Dance of Interaction* focuses on “creating awareness of self and other and sensitivity to the whole area of non-verbal communication” (Newman-Bluestein & Chang, 2017, p. iii). Four core concepts within the training manual are: (a) enhancing ability to access kinesthetic sensing, (b) improving ability to consciously mirror behavior, (c) knowledge and conscious use of movement qualities, and (d) application of body shaping to relationships (Russell-Currey, 2018, p. 181). The training encourages creating a person-centered/relationship-centered culture when working with people with dementia (Newman-Bluestein & Chang, 2017, p. ii). Understanding elements of nonverbal communication such as the use of distance and proximity, touch, facial and vocal expression (including pitch, tone, volume), eye contact, gesture, posture, time, space, energy qualities, tension flow, and body shaping are all considered in relationship-centered nonverbal communication (Russell-Currey, 2018, p. 180).

### ***Activation of Mirror Neurons within DMT***

A common concern often brought up when discussing the use of DMT interventions with the dementia population is the fact that many of these individuals have limited physical mobility and may not participate physically during the session. An important concept to understand is that of mirror neurons. “Mirror neurons are a class of neuron that modulate their activity both when an individual executes a specific motor act and when they observe the same or similar act performed by another individual” (Kilner & Lemon, 2013). Although elders with neurocognitive disorders had fewer mirror neuron activations than controls did, Rattanachayoto et al. (2012) found that mirror neurons are still active in these individuals. Mirror neurons exist and activate when an individual is present and observing the session whether they are physically moving themselves or not. Individuals will still be picking up on the nonverbal communication of

caregivers and peers throughout a DMT session, as well as giving their own nonverbal communication cues.

Developing an awareness of nonverbal communication is essential when working with individuals with dementia. Providing an intervention such as dance/movement therapy can allow for increased nonverbal communication awareness to take place between caregivers and those with dementia.

### **Methods**

DMT pioneer Marian Chase was one of the first to use DMT with the older adult population (Nyström & Lauritzen, 2005, p. 299). She identified three phases of group development that are typically present in group DMT sessions (Schmais, 1981). These phases are: warm-up, development, and closure (Schmais, 1981). Her structure and approach were utilized when creating this method.

### **Participants**

Thirteen individuals participated in total over the course of two sessions. Eight individuals participated in both sessions and five individuals participated in only one of the sessions. Of the participants, 12 were female and one was male. Six of the participants had walkers. All participants were residents of the Generations Unit, which is reserved for individuals diagnosed with various forms of dementia.

### **Procedure**

Two 45-minute dance movement therapy sessions were conducted at an assisted living community in the Boston metro area, MA. The sessions took place one week apart. The first session was facilitated by the author and the second was facilitated by the author's clinical supervisor in order to enable the author to act solely as an observer in the session. Both sessions consisted of a warm-up, check-in, theme development, and closure. Sessions were organized

utilizing Marian Chace's method of sitting in a circle. This allowed participants to be able to see one another, an important aspect of nonverbal communication. DMT techniques that supported nonverbal communication were used and built upon throughout the sessions. The techniques incorporated during the session included mirroring, attunement, and the use of eye-contact. The session was structured in the following format:

1. Warm-up: The therapist greeted each participant using eye-contact and touch through offering a hand to hold. The therapist played "If You're Happy" by Super Simple Songs to introduce various actions to express different emotions. For example, stomping your feet if you are angry.
2. Check-in: The therapist invited participants to make a facial expression or a "funny face" that the group would then mirror back to them. Although the focus of the session was on nonverbal communication, participants were welcome to check-in verbally in addition to the facial expression if they so desired.
3. Theme-development: With guidance of the therapist, the group practiced attuning to one another through movement. Communicative gestures such as waving, reaching, thumbs up, nodding, and stomping were movements that appeared throughout the session. Participants were guided through different nonverbal communicative movements including noticing body posture, facial expressions, and eye focus. Participants were also validated in their own nonverbal movement choices that appeared throughout the session. Props were offered to the group during the session in order to expand on nonverbal movement and expression possibilities. The first session used colorful scarves and the second session used inflatable punching bags.
4. Closure: The therapist ended the group by acknowledging each member verbally by name. As each individual was addressed, the therapist shifted her eye-focus and body

posture toward the individual. The therapist then led the group through three breaths to regulate breath and heart rate.

### **Phenomenological Analysis**

Sessions were evaluated through reflective journaling and art making by the therapist. Observational notes on each group participant were taken immediately following the session using the Nonverbal Observation Scale (Appendix A) as a guide. Nonverbal behaviors for each participant were noted as well as what behavior the therapist was doing at the time the behavior took place. Both how the participants were responding to the therapist, as well as how the therapist responded to the participants were taken into consideration. Additionally, it was noted when participants were responding to one another rather than the therapist.

### **Results**

Tables 1 and 2 show some of the actions/behaviors of the therapist throughout the sessions and the emerging theme it connects to.

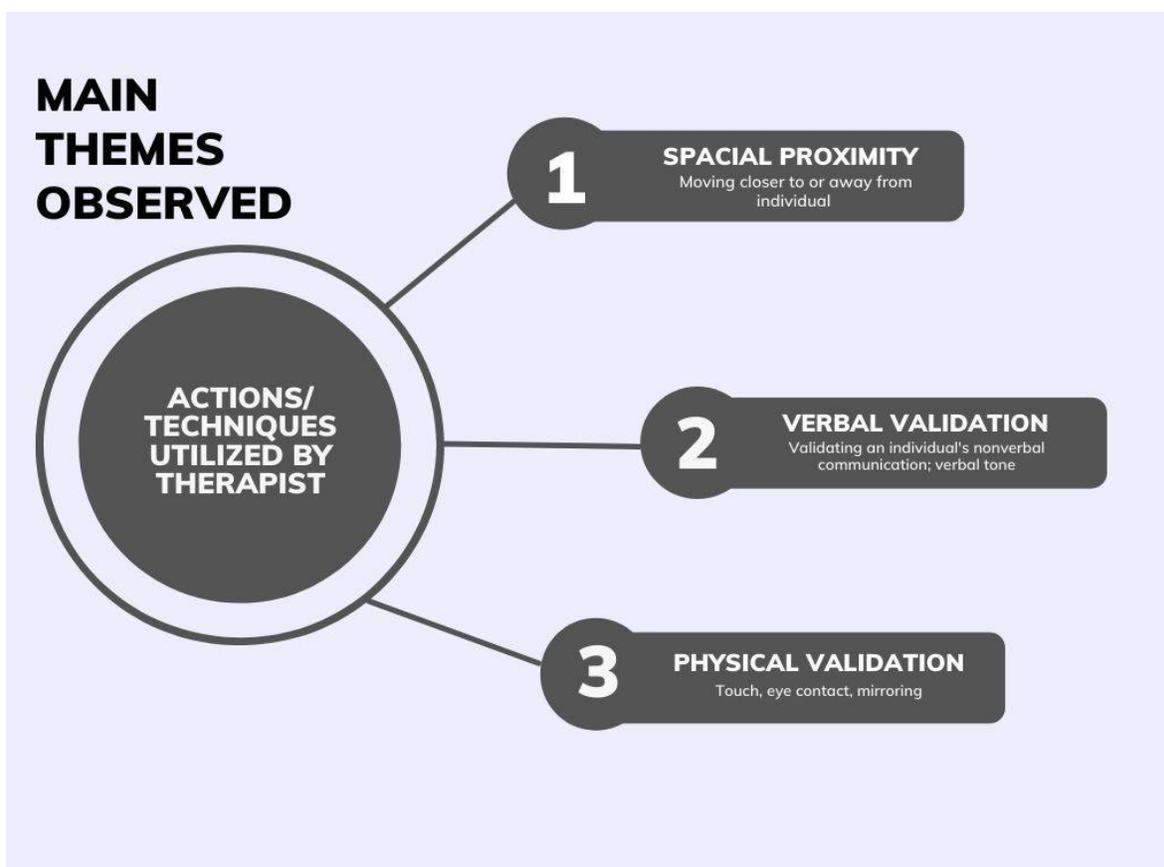
**Table 1**

*Session 1 Observations of Therapist*

Action/Behaviors by Therapist	Emerging Theme
Therapist high-fives a participant	Physical Validation
Therapist lowers mask to smile at a participant	Physical Validation
“[Participant name] is clapping to the rhythm!”	Verbal Validation
Therapist walks to each participant to offer them a scarf	Spatial Proximity
Walking toward the therapist, the therapist stands up and dances next to participants	Physical Validation

**Table 2***Session 2 Observations of Therapist*

Action/Behaviors by Therapist	Emerging Theme
“I see your feet tapping!”	Verbal Validation
Therapist lowers mask to smile at a participant	Physical Validation
Therapist walks in front of a participant	Spatial Proximity
Therapist winks at a participant	Physical Validation
Therapist joins participants in humorous exchanges (e.g. sticking tongue out in play) in laughing	Verbal Validation

**Figure 1**

Main Themes Observed

Results indicated that the nonverbal communication of the therapist played an important role in the responses of the participants. Three themes emerged as the most important factors affecting nonverbal communication responses among participants. These themes (shown in figure 1) are spatial proximity, verbal validation, and physical validation.

### **Spatial Proximity and Nonverbal Communication**

Spatial proximity refers to the location of the therapist and the participant relative to one another. Participants, particularly those who were hard of hearing or site, responded best to the therapist when the therapist was closer to them. All participants showed higher nonverbal communication actions when the therapist was closer in proximity to them. When the therapist was a part of the circle, and further away from individuals on the other side of the circle, some were still engaged by the therapist's physical movement and verbal communications. However, others disengaged when the distance was increased spatially between them and the therapist. At times, increased spatial proximity was a way to honor an individual's wishes. For example, if the therapist approached a participant and they shook their head "no" or put a hand up signaling that they did not want the therapist to come any closer, the therapist could respect the person's request and desire for more personal space at the moment.

### **Dynamics of Voice and Verbal Validation in Nonverbal Communication**

Verbal validation was exhibited when the therapist verbally acknowledged an individual. This often took place by verbally reflecting back to the participant what the therapist was observing. For example, if a participant was tapping their feet to a rhythm, the therapist might say something like "I see you keeping the beat with your feet [participant's name]!". Verbal tone is a part of verbal validation. The therapist would lower their voice and soften their tone when speaking to a participant who appeared fragile and quiet. In contrast, a participant who was

making large movement gestures and speaking loudly would be met with a louder, more enthusiastic tone in order to meet the individual where they are at and verbally validate them. Responding to a participant's verbal comment or question would also be considered verbal validation.

### **Physical Validation within Nonverbal Communication**

The therapist demonstrated physical validation through touch, mirroring, and attunement. If a group member held their hand out to the therapist, the therapist might respond by holding it. From the therapist's reflections, one group member had her eyes cast down to the floor and the therapist gently placed a hand on her knee. Additionally, the therapist would physically validate a participant by mirroring or attuning to their movement. If a participant was clapping, the therapist might physically validate them by also clapping or by stomping to the same rhythm. Facial gestures and eye contact were observed as another form of physical validation. The therapist and a participant might make eye contact, the therapist would lower her mask to smile at the participant and the participant would smile back.

### **Discussion**

This study focused on nonverbal communication and DMT, specifically in regard to its use among people living with dementia. The method was guided by Marian Chace's principles and Newman-Bluestein and Chang's training manual. Chace's principles of empathic reflection and mirroring allowed participants to find connection and feel seen during sessions. Newman-Bluestein and Chang's work provided a platform for understanding elements of nonverbal communication and taking a person-centered approach. Ellis and Astell (2017), Hubbard et al. (2002) and Perrin's (1997) research on observational tools for individuals with dementia showed the presence of nonverbal communication and the awareness of others' among this population.

Additionally, Hubbard et al.'s (2002) research showed support for person-centered care, the importance of nonverbal communication, and human nature of interpreting others' nonverbal communication.

### **Themes that Support Nonverbal Communication**

The results that emerged support DMT as an effective method for increasing nonverbal communication among caregivers and individuals with dementia. The themes of spatial proximity, verbal validation, and physical validation that emerged are supported by Newman-Bluestein and Chang (2017), Hubbard et al. (2002), Sandel et al. (1993), and Soukup (2019). Newman-Bluestein and Chang (2017) include kinesthetic sensing as one of the core concepts within their training manual. Kinesthetic sensing and spatial proximity are directly related, as one must develop the skill of kinesthetic sensing in order to apply spatial proximity effectively. Newman-Bluestein and Chang (2017) and Hubbard et al. (2002) all discussed the importance of vocal expression, including pitch, tone, and volume in regards to nonverbal communication and verbal validation. Sandel et al. (1993) and Soukup (2019) both stated the importance of being aware of body language and adapting our nonverbal communication toward those with whom we wish to connect. This explains why physical validation is an important theme that emerged from the data.

### **Awareness and Relationship in Nonverbal Communication**

As pointed out by Ellis and Astell (2017), individuals with dementia have the desire and ability to communicate even in late stage dementia. Their research found that increased awareness of nonverbal communication leads to better relationships between caregivers and people with dementia, as well as an overall increased quality of life for the person with dementia.

Using DMT with this population can increase nonverbal awareness among caregivers. The dance/movement therapist brings a unique set of skills to the session to accomplish this.

The author's thesis consultant emphasized the importance of how the therapist or caregiver communicates with the person with dementia. The individual with dementia is always communicating and it is the task of the therapist to pay attention to how they are presenting to the individual with dementia. This was taken into consideration in analyzing data. The therapist focused on what was happening in the therapist's communication in order for the participants' nonverbal communication to be realized and validated.

### **Limitations**

There are several limitations to consider with this study. The first is the small number of participants, as well as a lack of diversity among participants. The number of sessions that took place was less than ideal for gaining a substantial amount of observations. Additionally, each session was conducted by a different facilitator, one with significantly more experience than the other. Although the same method was employed, this may have impacted each session. Due to institutional regulations, sessions could not be recorded which means notes and observations were made during or immediately following the session. Key interactions and details may have been missed as a result of not being able to review the session multiple times.

### **Transferring Results into a Clinical Model**

The results of this study highlighted three key themes that dance movement therapists should employ when working with older adults who have been diagnosed with dementia. These include spatial proximity, verbal validation, and physical validation. The DMT should employ each of these themes throughout the session when working with participants living with

dementia. The DMT should be continuously aware of their own nonverbal communication and pay attention to how participants are responding.

### **Future Recommendations**

Time constraints limited this study to two sessions. Future sessions should include more sessions within the method in order to achieve more valid results. Ideally each session would be conducted by the same facilitator with a separate individual acting as the sole observer and note taker. Getting client perspective from older adults with dementia is largely lacking in current research. Future studies should include feedback from participants in their analysis if possible. Additional considerations for future studies would be to focus explicitly on the nonverbal communication that takes place between participants within a DMT session, rather than on the communication happening between the therapist/facilitator and participants. It would also be interesting to measure whether or not nonverbal communication increases between participants and caregivers after the DMT session has ended.

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## Appendix A

### Nonverbal Observation Scale

NONVERBAL BEHAVIOR	PARTICIPANT			
	A	B	C	D
<b>Facial Expression</b>				
Smile				
Frown				
Eyebrow Raise				
Surprised face				
Blowing kiss				
Winking				
Eye Roll				
Yawning				
Eyes closed				
Other:				
<b>Body Movement</b>				
Pointing				
Nodding				
Shaking head				

Playing with hands				
Shrugging Shoulders				
Clasping Hands				
Scratching				
Arm gestures				
Tapping foot/feet				
Clapping				
Swaying				
Kicking leg(s)				
Pacing the hallway				
Leaving group				
Returning to group				
Other:				
<b>Body Posture</b>				
Sleeping				
Slouched				
Sitting up				
Crossed arms				
Other:				

<b>Touch/Tactile</b>				
Eye contact				
High five				
Holding hands with therapist				
Holding hands with another participant				
Hugging				
Engaging with a prop				
Other:				
Additional Notes/Observations:				

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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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