

ART MAKES FOR A BETTER DAY: DOES A SPECIFIC CREATIVE ARTS PROTOCOL
IMPROVE APATHY IN PEOPLE WITH ALZHEIMER'S DISEASE

A Thesis

Submitted in Partial Fulfillment of the Requirements for the Degree of

Masters of Arts in Marriage and Family Therapy

Notre Dame de Namur University

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Abstract

Apathy, which is characterized by indifference or the lack of response to one's surroundings, is a serious concern in the care of Alzheimer's patients because apathy is associated with a more rapid decline in cognition, as well as a decline in functional, and emotional abilities. Alzheimer's disease diagnosis is increasing as the population of older adults' increases. Behaviors like apathy have the potential for making care of this population more difficult and costly. This research attempts to evaluate the efficacy of a creative arts intervention called Mneme Therapy® for reducing apathy. Mneme Therapy® uses a combination of movement, singing, painting, and storytelling to stimulate cognitive function with dementia patients and to provide an enjoyable activity with the goal to improve quality of life. Participants were Mneme therapists recruited from the Art Without Boundaries Association. Fifteen Mneme therapists finished section H, of the Neuropsychiatric Inventory - Clinician survey on apathy in reference to one of their AD clients that presented with apathy. The findings imply that apathy of the therapist's clients stayed the same or slightly improved based on the observations of the therapists. This study contributes to the field of research in art therapy interventions that benefit individuals with all types of dementia and introduces Mneme Therapy® to a wider audience. Implications for further research on Mneme Therapy® could be in the area of anxiety and depression.

Key words: apathy, Alzheimer's disease, art therapy, Mneme Therapy®

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Chapter I

Problem Statement

Aging and dementia, particularly Alzheimer's disease (AD), is a growing concern as life expectancy has lengthened due to advances in overall health. More people are living longer, well into their 80's and 90's, increasing the chance of being inflicted with AD (Thies & Bleiler, 2012). According to the Center for Disease Control (CDC), the number of people with the disease behavior doubles every five years beyond the age of 65 (2015). Worldwide there are 44 million people living with AD (Alzheimer's Disease International, 2014). This disease shows no bias as to who will be afflicted. AD is the only disease that causes death of the top 10 which include heart disease, cancer, and stroke (CDC, 2017), that cannot be prevented, cured or slowed (Alzheimer's Association, 2011)., unlike heart disease, cancer and stroke (CDC, 2015). It is the sixth leading cause of death and one out of three older adults die from AD or other forms of dementia (CDC, 2015). AD is a progressive disease, there is no known cause and as of yet, there is no cure. AD is a global impairment eventually affecting the whole brain. The disease causes nerve cell death and tissue loss, shrinking the brain dramatically, causing impairment in nearly every function (Alzheimer's Association, 2011). AD has become one of the costliest diseases in America with an estimated cost in 2015 at \$226 billion (Alzheimer's Association, 2015)

The American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders 5th ed (DSM-5, 2013), categorizes AD as a mild or major neurological disorder characterized by the development of multiple cognitive deficits, gradual and continuing cognitive decline that is manifested in memory and learning impairment, expressive and receptive language, and/or the inability to plan, organize, sequence, or abstract information.

Psychologically the sufferer can experience anxiety, confusion, depression and apathy (pp. 612-

613). Individuals will often withdraw from society to reduce the confusion. But this isolation can accelerate the decline due to lack of cognitive stimulation (Stewart, 2004).

Erikson's theory of psychosocial development informs us that people at the age of 65 and beyond are addressing the psychosocial challenge of ego integrity versus despair (Erber, 2005). Older adults that succeed at this stage's challenge have a positive outlook and experience purpose for their lives. A person with AD struggles with this because they have difficulty remembering their recent past and begin to lose control of their daily lives. They have to rely on others to do for them what they used to do for themselves. They experience despair unless they have help remembering. (Erber, 2005).

Apathy, which is defined as indifference and a lack of response to one's surroundings (APA, 2007), affect over 70% of AD patients (Boyle and Malloy, 2003) and has been shown to cause individuals with AD to not engage with social activities. Apathy is a behavioral marker for AD and is characterized by a more rapid decline in cognition, functional, and emotional abilities (Starkstein, Jorge, Mizrahi, and Robinson, 2006). Apathy is related to a sense of not having control over one's choices or one's environment (Leotti, Iyengar, and Ochsner, 2010). Helping the individual with AD to have a greater sense of control and make more choices on a daily basis would be a goal in art therapy. Making art with an AD patient has the potential of creating a relationship with the therapist in the present moment, which addressed some existential questions such as caring and isolation (Corey, 2009). The art therapist provides an opportunity for the AD patient to make choices and experience meaning making through the art process (Goldman, 2004). The Existential-Humanistic (E-H) approach is a form of psychotherapy that pays close attention to the entire person, not isolated aspects such as behaviors, cognitions, or underlying motivations. The client's subjective experiences, their ability to find meaning, and their ability to

make choices for themselves is emphasized (APA, 2007). E-H therapy involves building a relationship through practicing presence, meaning making, making choices and telling their stories (Suri, 2010). Presence; as described by Suri (2010) is the being with, aware of, and participating in the client's circumstances much as possible. Suri believes that presence is one of the most valuable tools when working with the elderly (2010). Presence is considered a fundamental principle of E-H and is believed to be the key to bringing about change in the client's life (Krug, 2009). Being present with the client, sitting with them, listening to their stories, sometimes holding their hand gives the client a sense of safety and comfort and facilitates a connection in the client/therapist relationship (Suri, 2010). Suri found the client became more comfortable with her while using presence, and was able to open up and tell their story (2010). Telling their story or story telling is the recounting of life's events (APA, 2007). An E-H approach in art therapy facilitates this relationship and helps the AD patient become more present and aware of their experiences and give them a greater sense of control with the choices made during the sessions, and helps give some meaning to their lives (Schneider and Krug, 2010).

Meaning involves the question, "What is live worth living for?" (Reker, 2000). Reker states that existential meaning is important for seniors in that it can help "promote wellness and successful adaptation to life's changes" (2000). A component of existential meaning is having purpose and the pursuit plus the attainment of goals. This along with a sense of achievement can provide fulfillment (Reker, 2000). The process of art making can provide moments of meaning making and fulfillment (Gabraith, et al, 2008). Even individuals with impaired cognitive functioning can find meaning through art making that promotes engagement and a sense of accomplishment (Hammer-Burns, 2005).

There is a growing body of evidence that creative art activities provide many benefits for a person with AD. Goldman (2004) states that the arts have the ability to stimulate spontaneity, evoke muscle memory, activate the senses, gives individuals a sense of control, alleviates boredom and daytime sleepiness, and promotes connecting to others. Safar and Press (2011) state that art therapy may augment skills the individual already has. In their study of cognitive performances of Hispanic/Latino older adults, Alders and Levine-Madori (2010) found that the participants attending art therapy sessions out performed on cognitive evaluation compared to those that did not attend the art therapy sessions. Stephenson (2013) found that the older adults attending a community art therapy program were able to build and regain over-all wellness.

The focus of this study is to observe if apathy is reduced after giving the individual with AD a creative outlet while interacting with another person, all of which may stimulate neuro-plasticity, stimulate cognitive processes, reduce agitation and aggressive behaviors, help with memory, give back some control and improve quality of life. The creative arts intervention is a process developed by Noell Hammer (2005) called Mneme Therapy ® (MT). This process uses everyday activities such as movement, singing, painting and storytelling in a unique combination to bring about neurological change in the AD client. There have been no empirical studies done with this process but there is testimonial evidence of its effectiveness. This study proposes to investigate the effectiveness of MT as an approach for adults with AD as a way to alleviate apathy and improve quality of life.

Chapter II

Literature Review

Literature about Alzheimer's disease (AD), apathy, older adults with AD and their specific needs with regards to the developmental stages, psychosocial, and physical health will be explored. Erber (2005) covers theory, methods in studying, cognition, facing the end life and looking towards the future in her book. Articles from areas in the different interventions of medications, creative arts, music, movement, play, and art therapy and their effectiveness will be explored. A closer look at how a person with AD responds to art making and if art making improves attitudes in the person with AD in other areas of daily life. Through literature analysis, a correlation will be looked for between the different interventions in order to evaluate whether Mneme Therapy can provide results in improved mood compared to other art interventions. The literature will also focus on art therapy and how Mneme Therapy fits the criteria and provides the stimulation to achieve its stated end. The researcher will also investigate how well the art intervention fits with an existential-humanistic lens and if there is enough freedom of choice within the art process as well as address their feelings of loss, loneliness, grief, and confronting the illness (Suri, 2009).

Alzheimer's Disease

AD has a stagger impact on our society in the form of financial cost as well as human cost. The average cost of care for AD in the United States is \$65 per day for day services. As the disease progresses the quantity and quality of care need to increase which increases the cost of that care (Alzheimer's Association, 2015). Nationally the annual cost of care for the 5.3 million older adults with AD in 2015 is estimated at \$226,000,000,000 (Alz. Asc., 2015).

In human cost, according to the Alzheimer's Association (2012), it is estimated that 700.000 people 65 and older will die from AD. But this is only a part of the human cost of AD. An individual diagnosed with AD slowly loses who they were as they lose the memories and the ability to perform the daily tasks they had done for themselves until this disease took over.

Currently there are no exclusive test to determine AD. Diagnosing is a process of elimination. A thorough medical history explores current and past illnesses and medications taken (Alzheimer's Association, 2012). A mental status test is also given to the individual. This is to evaluate the current mental state and gathers information on the individual's appearance, behavior, orientation, mood, affect, memory, insight and judgment (Wiger and Mooney, 2014). A physical and neurological exam is also given with test such as blood and brain imaging to rule out any other causes for dementia (Alzheimer's Association, 2012). As technology improves the use of functional magnetic resonance imaging (fMRI), which is used to locate brain activity during cognitive activity through blood flow in the brain (APA, 2007), diagnosing as well as finding where in the brain the damage is, will help with interventions (Belsky1999).

The DSM-5 (2013) provides criteria for diagnosing AD through observation of the patient. The practitioner would look for evidence of genetic mutation from family history. Then they would look for clear evidence of not only memory loss, but also the ability to learn something new. There would also be evidence of a steady progressive and gradual decline of cognition.

There are three major stages of AD, (Eber, 2005). During the beginning stage of the disease the individual becomes aware of the memory decline, having difficulty concentrating, and are sometimes easily confused. They experience a higher level of anxiety over misplaced belongings. Some individuals are still able to function in social settings and at this phase it is

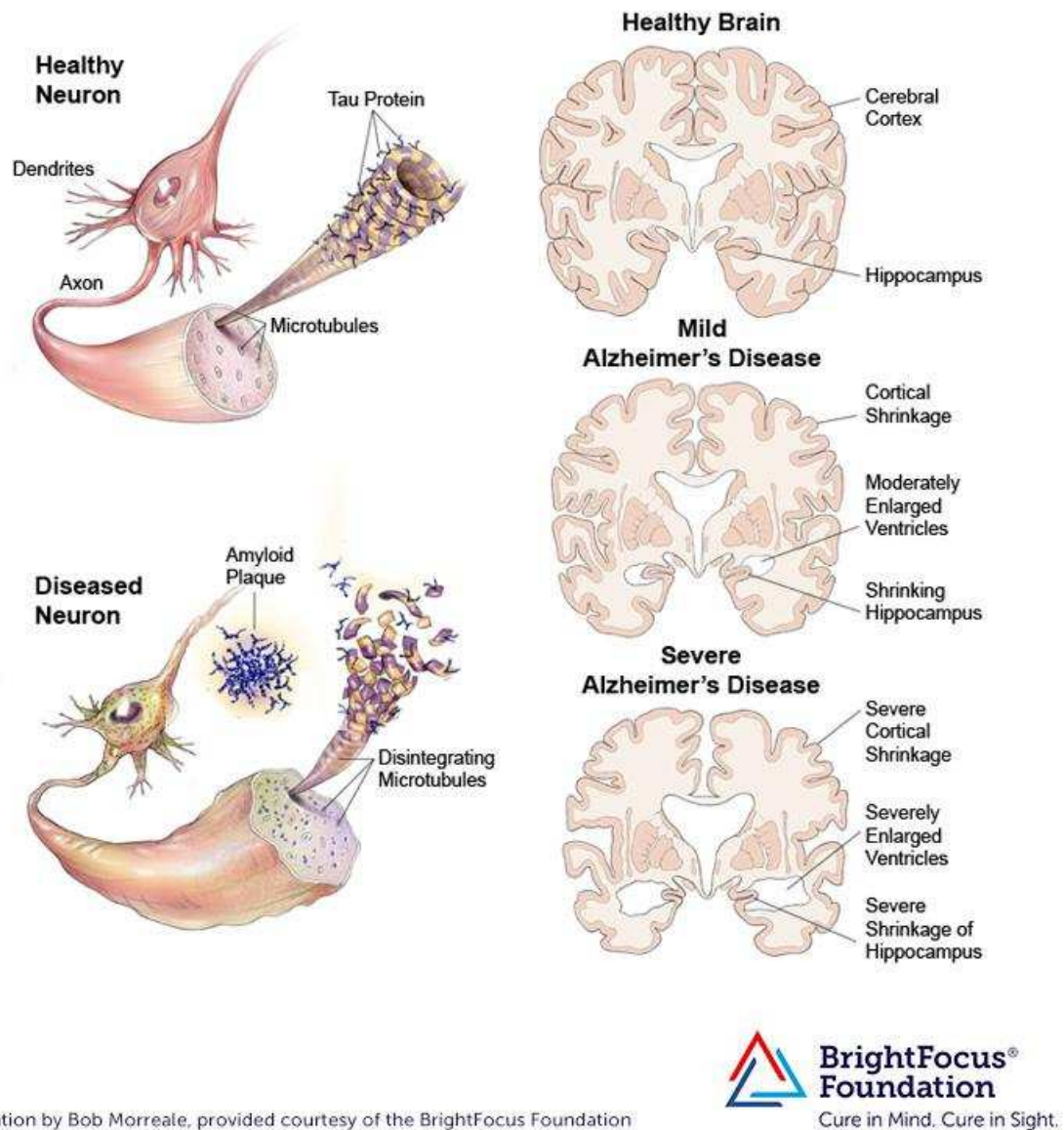
difficult to distinguish between benign forgetfulness and malignant forgetfulness (p. 434). Also, there is a decline in finding the words for what they want to express (UCSF, 2013). A person with AD can start having difficulties with expressing themselves with language. This first stage can last two to five years (Erber, 2005).

During the middle stage of the disease the individual becomes more disoriented and shows poor judgment (Erber, 2005). People with AD show more signs of Anosognosia which is the loss of insight into their cognitive and functional difficulties. This along with apathy pose a greater health risk. The individual becomes more withdrawn to avoid confusing and embarrassing situations. Some people at this stage start to show signs of paranoia and accuse their family or caregivers of stealing from them. Agitation and aggression may increase at this time and more care is needed to keep them safe. This stage can last 3 to 12 years (p. 434).

The final stage is marked by a decline of communication abilities, both expressive and receptive. There is also a greater need of assistance in daily living, eating dressing, bathing and toileting. There is more agitation and aggressive behavior, as well as anxiety, depression and apathy. As this stage progresses there is a rapid decline in physical ability. Individuals are typically wheelchair bound and cannot take care of themselves (Erber, 2005).

Figure 1 shows the difference between a healthy adult brain and an AD brain. This image indicates the areas that are affected by this disease (BFF, 2016).

The Progression of Alzheimer's Disease



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As the disease progresses the brain shrinks due to lack of blood flow caused by the neurofibrillary tangles and amyloid plaque (Belsky, 1999). These tangles and plaques also

interfere with the synaptic activity of dopamine and other neurotransmitters as they destroy the neuron (BFF, 2016; NIA, 2012). Some of this damage is done in the area of the brain responsible for social interaction and motivation and presents as apathy in AD patients (Theleritis et al, 2014).

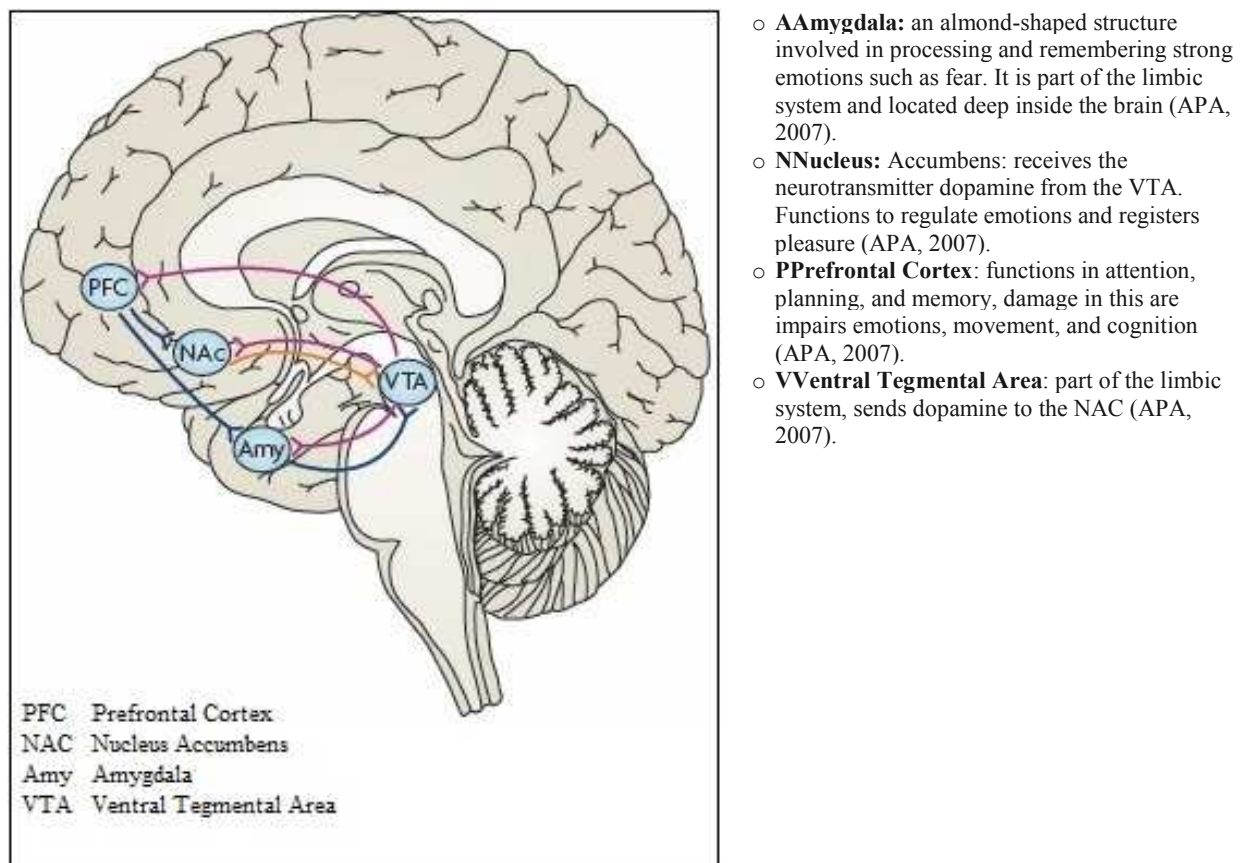
Apathy

Apathy has been found to be a frequent and severe behavior change in AD (Starkstein, et al., 2009). In the study Starkstein et al. found apathy to be significantly associated with more severe impairments in abilities for activities in daily living and cognitive functions. Prevalence of apathy has been found to range from 36% to 80% in populations of outpatient and community based samples using the Neuropsychiatric Inventory (NPI) (Guimaraes et al. 2008).

Apathy is a dysfunction of the motivational circuitry of the brain (Theleritis et al, 2014). Levy and Dubois (2006) describe underlying mechanisms that are responsible for apathy. This circuitry encompasses the amygdala, hippocampus, nucleus accumbens, ventral tegmental area (VTA), among other areas. With the dysfunction in these areas a person presenting with apathy has a diminished ability to: make an emotional connection to what is happening around them, make a plan of action or think ahead, or are able to self-initiate actions. Apathy is correlated to increases in higher tangle counts and an increase of white-matter hyperintensities (Benoit et al., 1999), which are lesions in the brain that have been found to slow down neural activity. Another effect of this dysfunction is reduced motivation. Dopamine is a neurotransmitter associated with motivation and reward. The distribution and receptor density of dopamine is impacted by AD and significantly reduced as revealed in postmortem and in vivo neuroimaging studies (Mitchel et al. 2010). Figure 2 shows the areas in the brain that make up the motivation circuitry also called the brain reward pathways (Nestler, 2016). This circuitry is the main area in

the brain that detects a rewarding stimulus. In a healthy brain, unaffected by AD, this circuit controls the responses to events in the environment such as eating food, creative activities, and social interactions. This area is important in motivation and repeating activities that brought some pleasure. The pleasure is often the reward. This circuitry also informs the memory centers in the brain to pay attention to the rewarding activity so it can be repeated at a future time. The neurons involved are the dopamine neurons (Nestler, 2016). In the brain of an AD patient, these areas are some of the first to experience damage from the disease. The goal of all therapies is to maintain some production and reception of dopamine in this region so that quality of life is not diminished (Boyle & Malloy, 2003, Ratey, 2008, Anderiesen et al, 2015).

Figure 2. Motivational Circuitry



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Medical Treatment

In the meta-study, Rae et al. (2013) found evidence to support the use of the cholinesterase inhibitor, donepezil, to improve memory tasks, attention, and cognition. The authors state in their results that apathy is reduced as well. In another study researching the effectiveness of donepezil with 40 AD patients, it was found that there was a reduction of apathy as well as an improvement of neuropsychiatric functioning (Boyle and Malloy, 2003). However, Boyle and Malloy (2003) state that a combined intervention of pharmacologic-behavioral approaches have been more successful than pharmacologic treatment alone. Some of the other pharmacologic approaches that have been studied are methylphenidate and dexamphetamine (Boyle and Malloy, 2003). These authors believe that more research is needed to be done because some of the findings show that the effects are short lived even though apathy is reduced temporally. Boyle and Malloy conclude that due to the debilitating effects of apathy, more research needs to consider effective drug treatment in conjunction with other therapies (2003).

Movement As Therapy

One of these non-medical therapies is exercise. In his book, “Spark: The Revolutionary New Science of Exercise and the Brain”, Ratey (2008) explains how the lack of movement and exercise can affect the functioning of the brain by limiting nutrients and oxygen supplies. This leads to accelerated cell death. When this cell death takes place in the motivation circuitry of the brain, apathy is likely to be the outcome (Thaler et al, 2014). Also, an aging brain produces less dopamine, which will undermine motivation. Ratey states that an older adult who exercises regularly can maintain better blood flow to the brain, helping to lose less cells, and can spark connections and growth of brain cells. Thus, improving motivation and reducing apathy by increasing dopamine (p. 228). Exercise improves neurogenesis in the same area of the brain that is responsible for motivation. Purposeful movement helps maintain the flow of blood, oxygen,

and nutrients the hippocampus needs by increasing capillary density and increases the number of neurons in the hippocampus (Thomas et al., 2012).

Another study by Cedervall, Torres, and Aberg (2015) found that people with mild AD engaged in physical activities as a means to well-being. Their finding revealed that the physical activity helped maintain a more healthy and able self. One study looking at dance specifically as a form of physical activity found that dancing activates areas in the brain associated with perception and emotions and activates the hippocampal entorhinal networks, areas of profound impairment in dementia (Ho et al., 2015).

Playing games can fall in the area of movement therapy. Anderiesen et al (2015) explored the role of play experiences for people with AD as a means to slow down the progression of the disease and possibly improve memory, self-esteem, and eye-to-hand coordination. Anderiesen et al (2015) defines play as an activity outside ordinary life that can be rule oriented and competitive or free form and improvisational. Games and activities are designed to provide playful experiences that stimulate social interaction and fellowship, captivate and challenge, relax and nurture, and provide opportunities for self-expression and reminiscence.

Each of these experiences target specific areas of the brain (Anderiesen et al., 2015):

- Captivation which could also be called flow. This is a mental state in which the person involved in an activity is fully immersed and experiences energized focus and enjoyment in the process and forgets their surroundings (Madori, 2007; Anderiesen et al., 2015). Captivation involves the orbitofrontal cortex and the stratum which are part of the motivation circuitry and is experienced in the orbitofrontal cortex (Anderiesen et al., 2015).

- Nurture is the experience of being nurtured. This would include touch, eye contact, and positive attention from another individual like the therapist. These are dopamine producing activities and stimulate the motivation circuitry (Anderiesen et al., 2015).
- Fellowship or social engagement is experienced as friendship and intimacy. This is related to nurture and involves the orbitofrontal cortex and stratum (Anderiesen et al., 2015).
- Control is experienced with feelings of power and mastery. This involves the temporoparietal, frontal and cingula cortexes. These areas are part of or interact with the motivation circuitry and help with focus and attention, which in turn produce greater mastery (Anderiesen et al., 2015; Madori, 2007).
- Relaxation is experienced as unwinding or stress relief and involves tactile information and other sensory input affecting the somatosensory cortex (Anderiesen et al., 2015).
- Reminiscence or reflection on past experiences uses a wide distribution of brain function due to long-term storage of memories (Anderiesen et al., 2015; Madori, 2007).

While the neuropathology of AD might influence behaviors and capacity of an individual, play in the form of movement as well as other creative art activities stimulates the brain and has a positive impact on the person with AD (Anderiesen et al., 2015, Madori, 2007).

Music Therapy

Music therapy is also used to engage AD patients, whether it is musicians playing for the patients, playing recordings of favorite songs, or groups singing together. Music has been found

to improve behaviors and stimulate regions of the brain responsible for motivation and reward (Chanda and Levitia, 2013). Music therapy is defined as the use of music and its elements such as sound, melody, harmony, and rhythm by a qualified music therapist, with individuals or groups, in order to meet all the health needs and to promote communication, relationships, learning, organization, expression and other relevant therapeutic objectives (Satoh, et al., 2015).

Koelsch (2009) describes five factors that he believes contributes to the effectiveness of music as a therapeutic intervention:

1. Attention: Music can capture attention and distract from negative experience in the moment.
2. Emotions: using functioning neuroimaging, studies show activity of all the major limbic and paralimbic areas in the brain responsible for emotions while listening to music. Music can have a positive impact on emotions.
3. Cognition: this factor involves brain functions that include memory and analysis of music.
4. Behavior: this factor relates to initiating movement, walking, speaking, and grasping.
5. Communication: Music is a form of communication and is used therapeutically to engage nonverbal individuals in social activities (p. 374).

Using these five factors in a therapeutic setting with AD patients a therapist can hope to have some positive results due to the responsiveness AD patients exhibit when listening and participating in making music (Aldridge, 1996). Aldridge states that the objects of music therapy are: social interaction and co-operation, mood improvement and self-expression, stimulation of speech and organization of thoughts, motor integration and sensory stimulation.

A study by Dassa and Amir (2014) explored the effects of singing to stimulate spontaneous speech and interaction with peers. This study showed AD participants were more likely to engage with peers after singing together. The authors found that group members expressed positive feelings, a sense of belonging and accomplishment. Millard and Smith (1989) found significant improvement in behaviors after the treatment sessions. These feelings and improvement in mood and behaviors may help reduce apathy and keep the individual coming to therapy session as well as engage more with friends and family in a positive way.

Singing for the Brain is a program provided by the Alzheimer's Society. The focus is to bring people together in a friendly and stimulating social environment. Osmen et al (2014) found that this program provided a sense of social inclusiveness and improvement of moods and relationships. The participants also expressed a greater ease of accepting and coping with dementia.

With apathy presenting in AD patients, other expressive arts modalities like music and movement stimulate the brain regions responsible for emotional regulation (Riley, 2006). Starting a therapy session with singing and music creates connection with residual memory (Aldridge, 1996), offers immediate gratification and bypasses apathy, helping the AD patient engage in the art activity (Riley, 2006). The use of music and singing in conjunction with visual arts can have a positive effect in the lives of AD patients. Even if they have trouble with the words, the tune and the rhythm can evoke other forms of memory and spark story telling (Galbraith, Subrin, and Ross, 2008).

Art Therapy

According to the American Art Therapy Association website (2016), art therapy is defined as:

A mental health profession in which clients, facilitated by the art therapist, uses art media, the creative process, and the resulting art work to explore their feelings, reconcile emotional conflicts, foster self-awareness, manage behaviors and addictions, develop social skills, improve reality orientation, reduce anxiety, and increase self-esteem. A goal in art therapy is to improve or restore a client's functioning and his or her sense of personal well-being.

Art therapy for AD patients is provided by artists, art therapist, activity directors, and volunteers in assisted living facilities and memory care units. Most of the research done is qualitative in nature and emphasizes engaging attention, providing pleasure, and improving behaviors in AD patients (Chancellor et al., 2014). Enhancement of self-esteem, improved communication and more social engagement are other benefits that have also been reported (Chancellor et al., 2014; Hammen-Burns, 2001).

When working with individuals with AD using art therapy, it is useful to understand the effect the disease has on the brain and how it effects perception in order to adapt the creative process to fit the client at each stage of the disease. AD presents its own set of issues in therapy at each stage (Stewart, 2004). In stage one there is more confusion, and a decline in the ability to learn something new. At this stage, however, art would be used to maintain abilities as well as provide an avenue of expression through the creative process (Hannemann, 2006). Creativity can reinforce essential connections between brain cells and can help with memory. It also helps to keep a fresh and positive outlook that can help with emotional resilience (Cohen, 2001).

Some art therapists focus on group settings for therapy. They find it helps to engage participants socially as well as engaging in the creative process. This can help to reduce the sense of isolation and stimulate areas of the brain responsible for pleasure, which can help motivate the

participant to continue coming to the group to make art. Group sessions lead to socialization and positive friendships and provide a sense of place for the individual in an assisted living facility (Fenton, 2004). Fenton offers drawing, painting, and collage materials and makes suggestions as to the theme for the day's creative process. She provides projects that are not difficult, but within the participant's abilities to ensure a sense of safety and an enjoyable experience. Fenton receives feedback from the participants such as, "I like to play with the colors", and, "I feel good to come here" (2004).

In later stages of AD, the ratio of group member to therapist works better for the participants if it is 2:1, or 1:1 (Galbraith, Subrin, & Ross, 2008). This focused attention can provide a better sense of presence for the person with AD. One goal for art therapy with this population is to provide opportunities for emotional regulation and stimulating cognition in the hopes of possibly strengthen and or preserving cognitive abilities.

Memories in the Making (MIM) is a program designed for individuals with AD. Sally Jenny (1993), the founder of MIM, believes that artists with AD have more memories than previously thought and that through the creative process those memories can be tapped. The goals of MIM are to encourage communication through painting, nurture the creative process, provide sensory stimulation for the participant, and increase self-esteem through creating something of value.

MIM is used throughout the United States in memory care facilities and is supported through the Alzheimer's Association by training caregivers and facility staff so they can provide the program. Volunteers are required to go to trainings to learn about the mission and role of the Alzheimer's Association in the community. The trainees are provided with fundamental knowledge about AD, what the symptoms are, and how the disease progresses. They receive

some training on how to interact and communicate with an individual with AD. The volunteers also receive some training in how to use the art materials, and acquire necessary understanding and skills to facilitate a MIM art group (Alzheimer's Association, 2015). These trainings take about 4 hours and volunteers are not required to have any other training to facilitate the art sessions.

Time Slips Creative Story Telling is another program used effectively with individuals in the middle to late stages of AD (Basting, 2006). The process uses printed black and white photographs to stimulate stories that are made up by the group participants. Open-ended questions are asked and participants start to engage and come up with stories for the people in the photograph, which the facilitator writes down. Together the group creates the story. In her unpublished manuscript, Basting, et al. found that there was an increase of communication skills for the individuals with dementia and a higher number of interactions between staff and residents in a skilled nursing setting after the Time Slips intervention was used.

Meet Me at MoMA is another art therapy intervention used with AD patients. The Alzheimer's Project was started in 2006 to meet the needs of individuals with AD and their caregivers. The New York MoMA museum offers group tours once a month for AD patients with their caregivers while the museum is closed to the public to provide a safe environment for the participants. Small groups are lead through a tour of four or five paintings by a trained educator. These pieces of art are presented in a predetermined sequence to provide cohesion in the discussion. Questions are asked to engage the participants in observing and interacting with the art. These tours last around one and a half hours (MoMA, 2009). While the study designed to evaluate the efficacy of the Meet Me at the MoMA program does not specifically address apathy, Mittelman and Epstein (2009) did find that through: 1. The social interaction, 2. The care

provided by the museum for the participants, 3. The educator's warm and interactive style that engaged the participants, 4. The intellectual stimulation, 5. Finally, the opportunity for the participants to express their emotional responses about the art, combined together in a unique way the program resulted in a positive impact on the participants.

Therapeutic Thematic Arts Programing (TTAP) for older adults (Madori, 2007), is another multi-modality creative arts program designed with these five objectives in mind:

1. Stimulating the brain function to enhance social, emotional, physical, and cognitive abilities.
2. To provide opportunities for older adults to share their life experience in a group setting through art making.
3. Provide a safe place for the individual that would encourage engagement within the group.
4. Engage everyone in the group in all the creative arts expressions; music, visual arts, movement, and poetry.
5. Provided activities that promote sustained focus and enjoyment.

Weinapple (2010) conducted a study to explore the impact a modified version of TTAP had on the well- being and quality of life for a group of older adults with mild cognitive impairment. One of the results from this study was the group expressed a sense of relative well-being. Participants also reported that the group setting provided a feeling of connection and a sense of value to the group. Weinapple also found that the art therapy program had the ability to provide pleasure and social engagement.

Even though the focus of the study was not apathy but quality of life, the fact that Weinapple's participants engaged in the art making with increased focus that was sustained

longer at each meeting would indicate more motivation to make art. The motivation center of the brain (Theleritis et al, 2014) could possibly be affected by the art making, which is one of Madori's premises of TTAP. Madori (2007) concludes that through the many learning styles possible through TTAP the brain has the potential to make new cells.

This is in line with the recent research on neurogenesis. The brain changes in relationship to experience and the environment through the lifespan (Goldberg, 2005). Areas that are associated with neurogenesis include the hippocampal dentate gyrus (Galbraith, Subrin, and Ross, 2008), which is included in the motivational circuitry (Levy and Dubois, 2006). Through the art making in Weinapple's study group individuals reported more motivation to continue to come to the group and had sustained focus during the activity (2010).

Bilateral movements have been used with all age groups in different settings. In art therapy, bilateral scribble is used to foster bilateral coordination and integration (Chapman, 2014). It strengthens the connection between the right and left hemispheres of the brain through the corpus callosum. Bilateral art as described by McNamee (2006) purposefully engages both left and right hemispheres of the brain using both hands at the same time to make a scribble drawing thus facilitating this integration by crossing over the mid line of the body. This is the imaginary line from the top of the head to the feet, dividing the body into the right and left sides. Other movements such as a cross high five or tapping knees with the opposite hands also crosses this midline and can help facilitate integration (Hammen-Burns, 2016). Hammen-Burns hypothesis that there is a balancing of the neurotransmitters acetylcholine and dopamine through the coordinating of singing and swinging the hands left to right and back again (2016). This movement also creates more body awareness and spatial coordination (Chapman, 2014). Working with both hands at the same time can also facilitate emotional self-regulation and the

ability to self-soothe and calm the bodies reactions to the stress of confusion and the felt losses due to AD (Malchiodi, 2015).

Mneme Therapy®

MnemeTherapy® (MT) is a multimodal therapy that addresses the whole person (Fetterman, 2012). The process uses multi-sensory activities such as bilateral movement, singing, storytelling, and painting in a unique combination to strengthen and stimulate the brain (Fetterman, 2016). MT is a creative arts intervention designed by Noell Hammen-Burns after working with the Alzheimer's Association from 2000 to 2003 as the activity director. Hammen-Burns observed that apathy was a characteristic in all stages of AD. She also observed that the clients she painted with were more engaged and willing to participate not only in one-on-one painting but in group activities as well. The initial purpose of MT was to provide an enjoyable activity for the AD client. However, Hammen-Burns became interested in the effects MT was having on the clients and researched deeper into AD, what the disease does to the brain and how the MT protocol could have a positive effect at a deeper level (Hammen-Burns, 2016).

The online education used to train Mneme therapist covers the history of AWBA, the differences between art therapy and MT, a working definition of dementia and AD specifically. There is information about the neurotransmitters dopamine and acetylcholine and their importance in movement and motivation. Hammen-Burns believes that having a better understanding of the disease and how the brain works helps the therapist understand the way the therapy helps the AD client (2016).

There are ten steps involved in the MT protocol and each step requires the therapist to pay close attention to the AD client's ability to interact and respond to the therapist. Each step also uses a combination of the different modalities.

1. Greeting. Being present and aware is modeled by the therapist in the first step of greeting the client. Throughout the session, the therapist encourages the client to take the initiative with open-ended questions and letting the client make choices and feel they have control over the decision making during the process.
2. The movement and the singing are used to promote dopamine production and word recall using a familiar song such as “Take me out to the ball game” or “This little light of mine”.
3. Games. Movement continues with the client reaching and moving hands cross-laterally and bi-laterally. This helps with blood flow to the brain and an increase of dopamine (Rae et al., 2013).
4. This step is preparing the client to paint, having them put on an apron and other protective measure. This provides a sense of safety and builds trust in the process.
5. Looking at an image focuses on identification of objects and the ability to name with word recall. This also stimulates the senses and provides opportunity to express pleasure in what they are looking at.
6. This step involves picking an image to paint and includes movement turning the pages of images in a binder.
7. This is the painting step. This step focuses on the client’s ability to follow direction and includes the continuation of the bilateral movements. This step also provides opportunity for the AD client to make choices in color, placement and what to leave in a painting and what to take out.

8. Naming the painting and relating it memories helps give meaning to the process for the client. This step also reassesses if verbal skills have improved. It gives the opportunity to make choices and taps into long-term memory.

9. This is the step to see if there have been any improvements. Only those assessments that were difficult before painting need to be done. Information from this step will help therapist fine tune the process for the next session. Going through the bilateral movements and additional time also helps reinforce the improvements that have already taken place.

10. The final step is praise and acknowledgement of the work the client has done. By presenting the client's painting to peers at an activity center or family members in the home setting and receiving praise helps build self-esteem and provides a sense of purpose for the client. This step, through the experience of feeling good about what they have done, releases dopamine and helps increase motivation in the next session (Hammen-Burns, 2016).

The main objective of MT is to provide an enjoyable activity for the AD client that has the potential of improving their quality of life by stimulating change in the brain through the singing, movement, painting, and storytelling. While these modalities have parallels to art therapy, the focus is not on depth psychology or analysis, but rather focuses in the moment and helps the client have a better day through the process of making a painting. Testimonies from family members, activity directors and other professionals provide encouragement to the effectiveness of MT.

Testimonies were gathered from family members of individuals with AD, activity directors from assisted living facilities and speech therapists by MT therapist to document

improvements in AD clients. The program nurse in an adult day center reported to Hammen-Burns that one patient sat alone at one of the tables, was demanding of the staff, had very little interaction with the patients, and would not willingly participate in activities. After his first session of MT he joined the group and participated in activities, smiled more and interacted with peers more regularly (AWBA, 2005). Another program manager reported about a patient who seemed to be disconnected from her environment, made no eye contact, did not respond to verbal or visual stimuli and did not display emotion on her face. After 30 minutes of MT the patient responded correctly to verbal instruction, made eye contact, and responded to visual stimuli. She appeared to enjoy the painting experience, and expressed emotion on her face (AWBA, 2005).

Conclusion

Globally, there is an epidemic of Alzheimer's disease as the population ages. It is estimated that by 2030, 66 million people will receive this diagnosis (Chancellor, Duncan, and Chatterjee, 2014). Families, memory care facilities, and assisted living facilities are looking for solutions that help improve the quality of life and reduce psychiatric symptoms including apathy, depression, and aggression. Research has concluded that medicine does not eliminate apathy for all patients and is short lived at best. There are recommendations that other interventions that can rebuild self-efficacy, self-worth, and connection with others, such as exercise, music, and art be used to help individuals with AD (Boyle and Malloy, 2003).

Art Without Boundaries' multimodal MT protocol uses a combination of movement, singing, visual art stimuli, painting and storytelling in a unique way to facilitate change in the brain to help motivate, improve self-esteem, and foster social connections for the individual with AD. MT, while not claiming to be psychotherapy, does incorporate neurological principals to bring about a change in the lives of people with AD. The protocol targets specific brain regions

to help the person with AD achieve some control and have improvement in self-esteem. By combining these modalities MT might have the desired effects in a shorter amount of time. This study explores the efficacy of MT in regard to the symptom of apathy by surveying Mneme therapists who use the MT protocol with persons with AD.

Chapter III

Methodology

Hypothesis and Research Questions

It is assumed that the creative arts intervention known as Mneme Therapy® (MT) will be beneficial in providing stimulation to alleviate apathy and increase engagement in therapy activities in AD patients. The therapist assessed the effectiveness of the MT and evaluated levels of apathy and engagement. It is hypothesized that the art intervention will increase engagement in therapy and daily activities for the AD patient as measured by the Neuropsychiatric Inventory –Clinician Rating Scale (NPI-C) and an open-ended question.

Exploratory Questions

1. Does using Mneme Therapy® benefit AD patients in the reduction of apathy?
2. How can this research contribute to the field of Art Therapy research?
3. In what way does therapist help their client stay engaged during the intervention?

Participants

The participants required for this study included 15 certified Mneme therapists who have completed all the training and have been working with AD patients for at least two years. All participants were over the age of 18. There are currently forty certified therapists nationwide who fulfilled the two-year requirement of training. Social media such as Facebook and direct emailing was used to recruit participants (Appendix A). The goal of this research was to obtain observations from as many Mneme therapists as possible in order to get a large sample of observation to determine the effectiveness of the intervention.

All participants gave informed consent after being informed of the nature of the survey and the study, as well as the limits of confidentiality. The survey was anonymous because the data collection is online and names were not collected. Only the name of the therapy approach will be named in the thesis. The participants were informed about the details of the study. The consent reminded participants that the name of the therapy would be listed, but that the results are pooled to maintain anonymity. They were asked to sign online the informed consent documents allowing the researcher to use assessments and the participant's answers on the survey for research purposes (Appendix B). The participants are considered volunteers that are free to withdraw from the study at any time for any reason. Participants were also permitted to withdraw information collected from the survey.

Inclusion/Exclusion of participants is based on their willingness to participate and the fulfilling of the requirement of being a certified Mneme therapist with two years' experience working with AD clients. The participants were also required to have the ability to access the survey via a computer.

Measures

Demographic Questionnaire. Participants were given a demographics questionnaire (Appendix C), which includes age and level of education as well as a question about their experience with their client in the therapy session. Wordle, a graphic program, is used to show word frequency.

The Neuropsychiatric Inventory –Clinician Rating Scale (NPI-C). The NPI-C was used to gather data relating to the focus of this study (Appendix D). Due to the limits of time and place, only clinician impressions of the focus points on apathy were used for this study.

The NPI-C was developed as a universal tool to assess occurrence, severity, and meaningful change in the NPI across several settings and treatment types. The NPI-C was validated in an international study. The NPI-C is copy written, and permission to use the NPI-C was granted through an online application (Appendix E). It is free of charge for use in graduate level research. This researcher used only the segment of the survey on apathy and indifference which will consist of 11 questions, and which was scored using a likert scale. The survey took no more than twenty minutes to complete.

Location

The participants could fill out the survey anywhere they had access to a computer and the Internet. The survey was posted on Survey Monkey and was available for a one-month period to get as many responses as possible. Participants were given a link to the survey via the AWBA privet Facebook page.

Research Design

This research was a quasi-experimental and uses a convenience sampling. The sample was drawn from the members of Art Without Boundaries Association (AWBA). Permission was granted to this student researcher to advertise on the Facebook site for AWBA (Appendix F). The data collection part of the study involved participants submitting finished surveys online. This study was both qualitative and quantitative, in that this is the first study done on Mneme therapy that is not a testimonial and is only looking at one aspect of AD. It raised more questions and areas of investigation. This study also looked at level of possible improvement using a Likert scale.

The participants were asked to complete the survey online. Participants were asked to never provide their name, thus, preserving anonymity, and confidentiality. The names of the AD

client were not used under any circumstance – it is never asked for in the survey. The data was stored on a password protected computer during analysis and then removed when the analysis was complete. The documents compiled from the research will be kept for three years or seven years if published and subsequently destroyed, until then they will remain in a locked cabinet and stored on a data storage unit intended solely for research.

Procedures

1. Obtained IRB approval
2. Recruitment via fliers on Facebook and personal emails which provided a secure link to the consent form, the demographics form, and research survey.
3. The student researcher obtained consent forms from the participants to participate in the research (Appendix B).
4. Participants filled out the demographic form (Appendix C) and the survey (Appendix D) and then submitted both through the secure survey web site.
5. Analyzed data.

Materials

- Demographic form
- Section H of the NPI-C survey

Data Collecting Methods

Each phase of the data collection process and compilation of data was conducted by the student researcher. The demographic questionnaire and the NPI-C as well as the consent form were gathered electronically via the secure survey. All data is kept confidential and anonymous.

Data Analysis (Methods)

There were two methods for data analysis that were used for this research study, and the results are descriptive and correlational in nature. The first method is quantitative analysis from the Neuropsychiatric Inventory (NPI-C) analyzing possible improvement of behaviors using the Likert scale. This is to measure observed behaviors of the AD clients by the therapist. The observed values measured improvement from the time the therapist started working with the client and determine level of apathy of the client by the participants.

Qualitative data was gathered from the demographic questionnaire and was based on the open-ended questions about the participant's experience of being present with their clients.

Risks and Benefits

There were no foreseen risks to the participants outside of possible uncomfortable feelings that may arise when thinking about their clients.

There are many potential benefits that would help the therapist in their work with their clients. This research could help them to look at other aspects of their client that until now they were not addressing in the sessions. It could help them become more aware of subtle changes in their client's behaviors, thus improving the intervention. This research also has the potential to support the work they do by having positive results in decreasing apathy in the AD client.

Protection of Human Participants

The student researcher made every effort to protect participants during each phase of the research process. This was accomplished by the diligent following of informed consent and confidentiality procedures. The participants never gave their name, the name of the agency where they work, or any identifying information about their patients. The consent reminded participants that the name of the therapy approach would be listed. They were reminded also that the results would be pooled to maintain anonymity. Each participant had the choice to withdraw from the

study at any time, and if they choose, withdraw their data from the study if desired. Refusing or withdrawing had in no way impact their participation in activities or relationships with the principal researcher and student researcher or NDNU. The student researcher followed guidelines of the California Marriage and Family Therapy Association and the American Art Therapy Association ethical guidelines. This student researcher also followed NDNU research guidelines.

Implications

This study could potentially provide important research to the field of art therapy, using creative art interventions like Mneme Therapy® to improve care and quality of life for those suffering from AD. This study can also be used by the AWBA to promote this intervention and reach more people with Mneme Therapy® and its benefits.

Limitations

Even though there is extensive training to become a Mneme therapist, not all therapists have a background in psychology or are trained art therapists. All Mneme therapists are artists, which is a requirement to become a Mneme therapist.

Another limitation would be not having a pre/posttest protocol for this study. No baseline was established. Another limitation is the use of only one section of the NPI-C and focusing only on apathy as there are other neuropsychiatric markers that could be just as important. These could be explored in future research projects.

CHAPTER IV:

RESULTS

The purpose of this quantitative and qualitative study, using a single group survey research design, was to explore the effectiveness of the creative arts intervention, Mneme Therapy®, when used with AD patients to reduce apathy and keep AD patients engaged during therapy. So far only testimonials as to the efficacy of this intervention have been obtained. This is the first study of its kind to explore MT. This study also attempts to assess how this research contributes to the field of art therapy research.

Data Collection Summery

Quantitative data was collected using the one section of the NPI-C, which addresses apathetic behaviors in AD patients. This is a survey design using the Likert scale: 1. being the degree to which behaviors have worsened, 2. behaviors have worsened somewhat, 3. behaviors have stayed the same, 4. behaviors have improved somewhat, and 5. behaviors have significantly improved. Certified Mneme Therapy® therapists accessed the survey online through AWBA privet member Facebook page, or by responding to the email sent to AWBA members through Survey Monkey. The qualitative data was also collected though questions on the demographic questionnaire proceeding the NPI-C on the survey. Participants were asked to discuss how they were able to keep the AD client in the moment during therapy sessions. Data was collected via the Internet using Survey Monkey.

Participants

The participants were recruited through AWBA. Participants are all certified Mneme Therapy® therapist who have been trained and certified through AWBA in order to use this

protocol. There are 50 individuals that were eligible to participate. Of those, 21 participants started the survey but only 15 completed the section from the NPI-C. Only the data from the complete surveys will be used in this study. Thus, only 30% of the population of Mneme Therapists are included in this study.

Demographics

Participants live in various areas of the United States; fifteen states were represented. There is a range in age with 6.67% between the ages of 18-29, 6.67% in the 30-44 age range, 53.33% between the ages of 45 and 59 and 33.33% 60 years of age and older.

Table 1. Ages of Participants

| Range of Age | Percentage of Participants |
|--------------|----------------------------|
| 18 - 29 | 6.67% |
| 30 - 44 | 6.67% |
| 45 – 59 | 53.33% |
| 60 + | 33.33% |

Education levels vary, while all have finished high school, only 20% have graduated from a four-year college, and of those 20% have finished a graduate program. All therapists are artists, which is a prerequisite to the program and the therapist must demonstrate competence in art making. The average length of time working as a Mneme therapist is 3.7 years with the longest time at 10 years and the shortest at 9 months as a certified therapist.

The number of clients seen each week varied from 3 to 40 with an average of 10 clients seen each week. Of those clients, 73% are diagnosed with AD. Percentage of clients living in assisted living communities for the group is 90.73%.

Data Analysis

Qualitative

Qualitative data was gathered to explore the therapist's perception of their clients in regard to apathy and what the therapist did to keep the client present in the moment and engaged during the therapy session. Data was gathered through open-ended questions. Question 9 was, "Do you find apathy to be a problem for your client?" Participants reported that not all AD clients presented with apathy. Five answered with a yes. Four participants replied that sometimes their clients presented with apathy. And four participants answered with a no. One participant skipped the question. This results in a 71.5% rate (n=14) of apathy presenting for this group.

Question 10 asked; "How do you help your client stay in the moment and be present through the painting process?" All fifteen responses included some form of verbal communication technique. Talking with, engaging them by asking questions about their families or about the picture that was chosen to paint. Three participants said that touch was one of the ways to help keep the client in the moment. Three answered with eye contact. One participant said that they help their client stay in the moment through conversation, touch, praise, and eye contact if needed. Only one participant added singing to the answer. One said they continue to work cheerfully and another said that working at a pace the client could handle helped them to stay in the moment. It is through these practices that all 15 participants indicated they kept their clients engaged throughout the session. Figure 3 is produced by the online program Wordle®.

Figure 3.

Words used most often in answer 10.



Quantitative

Questions 11 through 21 are from the NPI-C and are a Likert scale of 1 through 5. It was used to determine whether the participant saw any change in the behavior of the client in the area of apathy. The null hypothesis is that Mneme Therapy® does not reduce apathy. Answers 1 and 2 indicate a worsening of behaviors. Answers of 3 indicated no change. And answers 4 and 5 would indicate that there is an improvement of behaviors. . Improvement in behaviors would present as more spontaneous and a likelihood of initiating conversation. There would be more positive affect like smiling and laughing. The client would express an interest in trying something new such as a new or more difficult image to follow or using different colors to get a unique result in the painting. The MT therapist looks for a willingness on the client's part to participate in the creative experience. Because of the design of the study, no baseline was taken before participants were surveyed, only the current observations are measured. Participants were asked to reflect over the course of the time working with their client, whether it was two years or two months, was there a change in behaviors associated with apathy. Table 2 summarizes the results of the survey. Raw data can be seen in Appendix G.

Table 2. The results of the NPI-V Section H

| Behaviors | Decline | Static | Improvement |
|--|----------------|---------------|--------------------|
| Spontaneous and active | 6.67% | 33.33% | 60% |
| Initiates a conversation | 20% | 26.67% | 53.33% |
| Shows affection and or Emotions | 6.67% | 46.68% | 46.65% |
| Contributes to the art process | 13.33% | 13.33% | 73.33% |
| Interest in the activities and plans of others | 13.33% | 33.33% | 53.33% |
| Interest in family and friends | 20% | 53.33% | 26.67% |
| Enthusiastic about their usual Activities. | 13.33% | 46.67% | 40% |
| Not paying attention what is going on around them. | 40% | 6.67% | 53.33% |
| Participation in social activities. | 6.67% | 26.67% | 66.66% |
| Interested or curious about routine or new events (n=14) | 14.29% | 35.71% | 50% |
| Express emotion in response to events. | 13.33% | 40% | 46.67% |

This student researcher then explored the relationship between answers 9, 10, and the result of the NPI-C of each participant. The participants are identified by numbers 1 through 15.

For reference, Question 9 was “Do you find apathy to be a problem for your client?”
 Question 10 was “How do you help your client stay in the moment and be present through the painting process?”

Participant 1; In response to Question 9, “It varies from person to person. Some could care less and others are eager to discover something new.”, Question 10, “through conversation, touch, praise, eye contact, if needed.” Participant 1’s average score on the NPI-C is 3.36.

Participant 2; Question 9, “For some but a small percentage.”, Question 10, “Sometimes I chat, sometimes I sing, sometimes I rub their backs, it just depends on the client.” Participant 2’s average score on NPI-C, 3.36.

Participant 3; Question 9, “No.”, Question 10, “Continually talk with them.” Participant 3’s average score on NPI-C 3.36.

Participant 4; Question 9, “Sometimes.”, Question 10, “eye contact, using their name, asking for input, engaging in conversation.” Participant 4’s average score on the NPI-C, 3.27.

Participant 5; Question 9, “No.”, Question 10, “Keep the conversation going, ask about their past, relating it to the painting. Explain what part of the picture they are painting. Find IP (inspirational picture) examples for the weekly clients that relate to their interests, etc.” Participant 5’s average score on the NPI-C, 3.0.

Participant 6; Question 9, “No.”, Question 10, “Continue to work cheerfully.” Participant 6’s average score on the NPI-C, 2.72.

Participant 7; Question 9, “No.”, Question 10, “We joke, ugh, asking questions, saying how handsome or beautiful they are, etc.” Participant 7’s average score on the NPI-C, 4.18.

Participant 8; Question 9, “Yes.”, Question 10, “Talking to them.” Participant 8’s average score on the NPI-C, 1.81.

Participant 9; Question 9, “Yes.”, Question 10, “By connecting eye to eye, one on one, heart to heart, sharing the process.” Participant 9’s average score on the NPI-C, 4.36.

Participant 10; Question 9, “Yes.”, Question 10, “I try to keep things moving at a pace they can handle. If they begin to show lack of interest in part of the therapy, I move on to the next part so as not to lose them entirely.” Participant 10’s average score on the NPI-C, 2.90.

Participant 11, Question 9, “Yes”, Question 10, “Redirect to the painting.” Participant 11’s average score on the NPI-C, 3.63.

Participant 12; Question 9, “Yes.”, Question 10, “Get them talking about something they enjoy, family, spouse, etc. Once they loosen up and see that I am fun and caring, they become more interested in the painting process.” Participant 12’s average score on the NPI-C, 3.54.

Participant 13; skipped Question 9. Question 10, “Keep it moving, keep them talking by asking question. Lots of touching.” Participant 13’s average score on the NPI-C, 4.18.

Participant 14; Question 9, “Some.”, Question 10, “Engage them about the painting, how we are building and creating art.” Participant 14’s average score on the NPI-C, 3.82

Participant 15; Question 9, “Sometimes.”, Question 10, “Keep talking!” Participant 15’s average score on the NPI-C, 3.80.

Table 3 shows the percentage of yes and no answers and the percentage of improvement or decline.

| Question 9 answers | Percentage of n14 | Improvement | Static | Decline |
|--------------------|-------------------|-------------|--------|---------|
| Yes | 71.5% | 80% | | 20% |
| No | 28.5% | 50% | 25% | 25% |

Summary

The findings of this study have helped this researcher conclude that by engaging in a one-on-one creative arts intervention, an individual with AD can maintain and possibly improve behaviors associated with apathy. The hypothesis was that MnemeTherapy® will be beneficial by providing stimulus to alleviate apathy and improve quality of life for the AD client. Fifteen certified Mneme therapists completed the questionnaire and survey. The questionnaire was used to ask an open-ended question to ascertain if the practice of being present was being used in the creative process. The participants were asked how they helped their client to stay in the moment and be present throughout the painting process. The results as shown in figure 3 indicate that painting was what the participants found that helped their clients stay in the moment. But they also incorporated conversation, singing, eye contact, and touch. Sixty percent of the participants that reported improvement practice presence by engaging the client in conversation, asking questions, eye contact and a gentle touch. These practices are recommended to provide a sense of safety as a tool for the client as well as facilitate change in the client (Krug, 2009).

As seen in Table 3, 71.5 percent of the participants (14n) stated that their client had some behaviors associated with apathy and 28.5 percent of participants reported no behaviors of apathy. Of the first group, 80 percent reported improvement. This would suggest that the creative activity and therapeutic relationship had a positive impact for the client. The group that reported no behaviors of apathy also showed an increase of positive affect and involvement in social engagement. This group also had a larger percentage with declining behaviors or more apathy by 5 percent as shown in Table 3.

The finding of this study demonstrates how this one on one muliti-modality creative arts intervention, Mneme Therapy®, can have a positive impact on the behaviors associated with apathy in AD patients. Through analysis of the participant's statements, engaging the client in

conversation and the painting process helps the client stay in the moment and work through the painting. The NPI-C survey shows significant improvement in the areas of;

1. Spontaneity, 60% improvement,
2. Contributing to the art process, 73.33% improvement,
3. Interest in the activities and plans of others, 53.33% improvement,
4. Paying attention to what is going on around them, 53.33% improvement,
5. Participation in social activities, 66.66% improvement,
6. Interested or curious about routine or new events, 50% improvement.

Chapter V:

Discussion

Overview

Apathy in AD patients has become a concern for caregivers because it signals not only less compliance in daily activity, but a more rapid decline of cognitive, functional, and emotional abilities (Starkstein, Jorge, Mizrachi, and Robinson, 2006). This study examines different interventions such as medical treatment, movement and play therapies, music therapy, and art therapy, and their effectiveness in helping reduce apathy. The researcher also examines the multi-modal creative arts intervention Mneme Therapy®, showing how it fits into the creative continuum, and how it incorporates movement, music, play, storytelling, painting, and presence to achieve a therapeutic goal of reducing behaviors associated to apathy.

Medical treatment was found to have limited effect and with a short duration. Boyle and Miller (2005) recommend non-medical intervention, such as movement and play therapy, music and art therapy. Movement and play therapies showed an increase in dopamine production and improvement in motivation to engage in activities (Ratey, 2008). Play therapy has been used with success in keeping attention and providing a sense of control for the AD patient (Anderson et al., 2015, Madori, 2007). Music therapy provides positive feelings and improvement of behaviors after treatment (Dassa and Amir, 2014; Millard and Smith 1989). Singing with others in a therapeutic setting can improve mood and provide a sense of social inclusiveness (Osmen et al, 2014). Art therapy provides benefits in the areas of pleasure, improving behaviors, and communication. Self-esteem is enhanced and there is more social engagement (Hammen-Burns, 2005; Chancellor et al, 2014).

This researcher hypothesized that the multi-model creative arts intervention MnemeTherapy® which combines movement, singing, painting and storytelling could provide stimulation to alleviate apathy, improve quality of life, and increase engagement in therapeutic activities in AD patients.

Findings

The findings of this study have helped this researcher conclude that, by engaging in a one-on-one creative arts activity, an individual with AD can maintain and possibly improve behaviors associated with apathy. The hypothesis was MnemeTherapy® (MT) will be beneficial by providing stimulation to alleviate apathy and improve quality of life for AD patients. Fifteen Certified Mneme therapist completed the questionnaire and survey. The questionnaire was used to ascertain if the practice of being present was used in the creative process. The participants were asked how they helped keep the AD client engaged in the moment and be present throughout the entire protocol. Figure 3 shows the words that were used most often in the responses. While most participants reported that the painting process was a central factor, 60% of the participants practice presence by engaging the client by asking questions, keeping a conversation going, making eye contact, and a gentle touch. Findings also show that positive behaviors increase for those clients that don't present with apathy. These practices are recommended as a tool to provide a sense of safety for the client as well as to facilitate change in the client (Krug, 2009. Suri, 2010).

Implications for Theory, Practice, Education, and Research

The finding of this study has helped the researcher conclude that by engaging an individual with AD in MT contributes to fewer negative behaviors and enhances quality of life. The combination of movement and play increases blood flow, providing nutrients and oxygen to

the brain (Ratey, 2008). Adding singing and touch by holding hands and swinging them back and forth to the rhythm of the music enhances a sense of fellowship (Anderiesen et al., 2015) and keeps the client attention to help them stay in the moment (Anderiesen et al., 2015; Koelsch, 2009; Siri, 2010). Engaging in painting gives the client a sense of control and achievement through choices made as to what to paint and what colors to use and creating a finished art piece the client is proud of and others admire. Mneme therapy had the ability to provide an enjoyable activity that can enhance self-esteem and bring some meaning to a client's life through interaction with the therapist and sharing the painting with family or facility staff.

Art is being used with older adults to fill time in most assisted living facilities, museums, and memory care facilities and there are: art therapist, activity directors, and volunteers providing art activities. Perhaps a focus on using all the art forms involving more movement and play and a practice of presences needs more consideration. What really can help a person stay motivated daily to pursue activities that are enjoyable and help them to find meaning in their later years will be an ongoing study in many helping professions.

Research Limitations

This was the first research into the efficacy of MT outside of testimonials. MT is a fairly new intervention, and has less than fifty practitioners nationwide. The sample size was only fifteen from this population. This research design did not include a pretest so there was not a baseline for participants to compare the client to. Nor were there other art therapy studies exploring apathy to compare outcome. The concern here is: does the MT protocol do the work it claims? Or is it the relationship formed between client/therapist that is effective? This was a value that could not be tested at this time.

The age of the client the participants reported on was not addressed. This could have had an impact on outcome. As an AD patient ages, the plaque and tangles destroy more and more brain cells and what might appear to be apathy could be the lack of capacity to function.

Another concern is reports bias. Did the enthusiasm of the therapist working with the AD individual influence the report? Would having an third party observer giving more accurate information?

Recommendations for Future Research

With people living longer, well into their 90s there is a greater chance for them to suffer from AD. However, there has been advances in technology. Neuroimaging and procedures to measure substances in blood and other fluids are used to measure the progression of this disease for its onset (Weiner, M. W., 2009). Combined efforts across disciplines to find solutions and alleviate suffering that include all therapy modalities is starting to be the focus of study. Research into how the arts can stimulate the brain to maintain function would help fine tune treatment.

Conclusion

MnemeTherapy® helped the participants in this study improve the lives of their clients by providing creative activities that engaged the client and kept their attention. This is the intention of MT, to provide a creative activity that can enhance the quality of life for the individual with AD. Through the interactions with the therapist and activities of singing, moving, and painting, changes in the brain are happening (Goldberg, 2005). Clients were motivated to reengage with the therapist at each meeting as well as be more involved with daily activities in their homes. This is the goal for all creative arts therapies.

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Appendices

Appendix A



ART FOR A BETTER DAY

You are invited to partake in research into the creative arts intervention Mneme Therapy®.

This is the first of its kind and its goal is to support the testimonials that have been gathered thus far.

All you need to participate is to be a Certified Mneme Therapist and have been working with Alzheimer's clients for two years.

And have access to the internet.

You will be asked to fill out a survey that asks question about your observations of one of your clients.

This study is looking at fully engaging Alzheimer's patients in this process and if that engagement carries over to daily activities.

This survey will take about 20 minutes

Thank you

This is a research study conducted by a graduate student at Notre Dame de Namur University which aims to look at the potential benefits of using Mneme therapy with Alzheimer's suffers in apathy reduction. This research has been approved by the Institutional Review Board at Notre Dame de Namur University.

For more information please contact Paulette Gill at

paulettesart@yahoo.com

<https://www.surveymonkey.com/r/272PSX3>

Appendix: B



Agreement to Participate in Research

RESPONSIBLE INVESTIGATOR: Paulette Gill

TITLE OF RESEARCH PROJECT: Art makes for a better day: does a specific creative arts protocol improve mood in Alzheimer's sufferers?

I have been asked to participate in a survey-based research study that is investigating the effectiveness of Mneme Therapy in alleviate apathy in my Mneme Therapy clients.

I understand that:

1. I will fill out a demographics questionnaire about myself. And a questionnaire on apathy as it regards my client. Both together should take approximately twenty (20) minutes to complete.
2. The possible psychological risks of participating in this study are considered minimal and may include some discomfort based on sharing information on my client.
3. There may be minor benefits to me personally in the area understanding the effects of Mneme Therapy and how it addresses apathy in my Alzheimer's clients, and the results of this study will help expand our knowledge of apathy reduction through the use of creative arts interventions.
4. Although alternative procedures may be used, the present procedure is the most advantageous and economical.

5. The results of this study may be published, but any information from this study that can be identified with me will remain confidential and the data will be pooled to maintain anonymity.

6. Any questions about my participation in this study will be answered by Paulette Gill through email or by telephone (paulettesart@yahoo.com, 805-286-2941). Any questions or concerns about this study should be addressed to Amy Backos at (Abackos@ndnu.edu) Complaints or concerns about this study may be addressed to Kim Tolley at (Ktolley@ndnu.edu) .

7. My consent is given voluntarily without being coerced. I may refuse to participate in this study or in any part of this study, and I may withdraw at any time, without prejudice or with any future contact with NDNU.

8. I have received a copy of this consent form for my record.

I HAVE MADE A DECISION WHETHER OR NOT TO PARTICIPATE.

Please check one:

_____ YES, I agree to participate in this research study and I agree to have my answers on the questionnaire as part of the study data.

_____ NO, I do NOT agree to participate in this research study and I agree to have my answers on the questionnaire as part of the study data.

Print Participant's Name

Participant's Signature

Date

Investigator's Signature

Appendix: C

Demographics Form

Age:

Highest level of education:

State of residency:

How long have you been a Mneme therapist?

How many clients do you see each week?

How many Alzheimer's clients do you work with?

Of your Alzheimer's clients how many live in an assisted living community?

How many live in their own home?

Do you find apathy to be a problem for your clients?

How do you help your client stay in the moment and be present through the painting process?

Appendix: D

NPI-CC©

Apathy/Indifference

Has client lost or gained interest in the world around him/her? Have they lost or gained interest in doing things or lack motivation for starting new activities? Are they easier to engage in conversation or in doing activities?

On a scale from 1 to 5, 1 being worsening and 5 much improved and 3 no differences in apathy please rate the following. Please report on a client that you have been working with for at least six months and have had the opportunity to observe in their environment and interaction with others.

1. Does your client seem less/more spontaneous and active than usual? _____
2. Does your client likely to initiate a conversation? _____
3. Is your client less/more affectionate or lacking in emotion when compared to their usual self? _____
4. Does your client contribute less/more to the art process? _____
5. Does your client seem less/more interested in the activities and plans of others? _____
6. Has your client lost/gained interest in friends and family members? _____
7. Is your client less/more enthusiastic about their usual interests? _____
8. Does your client sit quietly without paying attention to things going on around them? _____
9. Has your client reduced/increased participation in social activities when stimulated? _____
10. Is your client less/more interested in or curious about routine or new events in their environment? _____
11. Does your client express less/more emotion in response to positive or negative or events? _____

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Appendix E

How to Obtain the Academic NPI

The NPI is [copyrighted](#) to Dr. Jeffrey Cummings.
No licensing fee is necessary to include the NPI in investigatorinitiated

trials.

A licensing fee is required for use of the NPI as an outcome measure in industry-sponsored research. Please use [this form](#) if you require a license.

The NPI may be obtained by entering your information below and then downloading the NPI from this site.

If questions arise in the course of your study regarding the NPI, please [contact Dr. Cummings](#).

Thank you for choosing to use the NPI in your study.

ACADEMIC APPLICATION FORM

(*)=Required Field

I am requesting (choose all that apply): (*) NPI NPINH

NPIQ

NPIC

Full Name: (*) Paulette Gill

Email:

(*) paulettesart@yahoo.com

Organization Name: (*) Notre Dame de Namur

Position: (*) student

Phone: (*) 8052862941

Ext:

Please leave any comments here:

Use in master thesis

I would like to receive update notifications: Yes No

I have read and agree to the [terms and conditions](#): (*) Yes

Enter the security code:

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All NPI case report forms must carry the copyright notification (© JL Cummings, 1994; permission for commercial use required; npitest.net.) The NPI or portions thereof may not be republished without the permission of the originator: any republication must carry the copyright notification (© JL Cummings, 1994; permission for commercial use required; npitest.net.)

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How to Obtain the Academic NPI

Translations

Bibliography

Neuropsychiatric Inventory (NPI)

Setting the Standard for Alzheimer Research

©

Appendix: F

Debriefing Statement

Thank you for your participation in this research on apathy reduction through the use of Mneme Therapy®. Scale questionnaires and reflection questions were used with Certified Mneme Therapist participants in this study. The goal of the questionnaires was two-fold: to gather information on the therapist's experience with the client and the therapist's observations of the client's fluctuation with apathy. The prediction is that though the use of Mneme Therapy® apathy is reduced and quality of life is improved through increased engagement with daily activities. The reflection questions are meant as a way to allow the participant to reflect upon their relationship with the client and how this might influence the activity and allow the client to engage in the moment. The questions will be evaluated for usefulness regarding the use of Mneme Therapy®.

Current research has found that apathy is an early behavior marker in AD and if allowed to persist accelerates decline. Research has also found that using creative arts interventions such as Mneme Therapy® has proven beneficial in a variety of situations. Your participation was important in helping researchers understand the range of using Mneme Therapy® as therapy, as well as a potential solution to health risks caused by apathy.

Final results will be available from the investigator, Paulette Gill, by December 20, 2016. You may contact me at paulettesart@yahoo.com to receive an email copy of the final report. All results will be grouped together; therefore, individual results are not available. Your participation, including your name and answers, will remain absolutely confidential, even if the report is published.

If you have any additional questions regarding this research, please contact Paulette Gill at paulettesart@yahoo.com.

Appendix G

Raw Data

Question 11: does your client seem less/more spontaneous and active than usual?

| 1 | 2 | 3 | 4 | 5 | total | average |
|----|-------|--------|-----|-----|-------|---------|
| 0 | 1 | 5 | 6 | 3 | 15 | 3.75 |
| 0% | 6.67% | 33.33% | 40% | 20% | | |

Questions 12: is your client likely to initiate a conversation?

| 1 | 2 | 3 | 4 | 5 | Total | Average |
|-------|-------|--------|--------|-------|-------|---------|
| 2 | 1 | 4 | 7 | 1 | 15 | 3.27 |
| 13.3% | 6.67% | 26.67% | 46.67% | 6.67% | | |

Question 13: Is your client less/more affectionate or lacking in emotion when compared to their usual self?

| 1 | 2 | 3 | 4 | 5 | Total | average |
|----|-------|--------|-----|-------|-------|---------|
| 0 | 1 | 7 | 6 | 1 | 15 | 3.47 |
| 0% | 6.67% | 46.68% | 40% | 6.67% | | |

Question 14: Does your client contribute less/more to the art process?

| 1 | 2 | 3 | 4 | 5 | Total | Average |
|-------|-------|--------|--------|--------|-------|---------|
| 1 | 1 | 2 | 7 | 4 | 15 | 3.8 |
| 6.67% | 6.67% | 13.33% | 46.67% | 26.67% | | |

Question 15: Does your client seem less/more interested in the activities and plans of others?

| 1 | 2 | 3 | 4 | 5 | Total | Average |
|-------|-------|--------|--------|-------|-------|---------|
| 1 | 1 | 5 | 7 | 1 | 15 | 3.4 |
| 6.67% | 6.67% | 33.33% | 46.67% | 6.67% | | |

Question 16: Has your client lost/gained interest in friends and family members?

| 1 | 2 | 3 | 4 | 5 | Total | average |
|--------|-------|--------|-------|-------|-------|---------|
| 2 | 1 | 8 | 3 | 1 | 15 | 3.0 |
| 13.33% | 6.67% | 53.33% | 20.0% | 6.67% | | |

Question 17: Is your client less/more enthusiastic about their usual interests?

| 1 | 2 | 3 | 4 | 5 | Total | average |
|-------|-------|--------|--------|-------|-------|---------|
| 1 | 1 | 7 | 5 | 1 | 15 | 3.27 |
| 6.67% | 6.67% | 46.67% | 33.33% | 6.67% | | |

Question 18: Does your client sit quietly without paying attention to things going on around them?

| 1 | 2 | 3 | 4 | 5 | Total | Average |
|-------|--------|-------|-------|--------|-------|---------|
| 1 | 5 | 1 | 6 | 2 | 15 | 3.2 |
| 6.67% | 33.33% | 6.67% | 40.0% | 13.33% | | |

Question 19: Has your client reduced/increased participation in social activities when stimulated?

| 1 | 2 | 3 | 4 | 5 | Total | average |
|----|-------|--------|--------|--------|-------|---------|
| 0 | 1 | 4 | 8 | 2 | 15 | 3.73 |
| 0% | 6.67% | 26.67% | 53.33% | 13.33% | | |

Question 20: Is your client less/more interested in or curious about routine or new events in their environment?

| 1 | 2 | 3 | 4 | 5 | Total | average |
|----|--------|--------|--------|-------|-------|---------|
| 0 | 2 | 5 | 6 | 1 | 14 | 3.43 |
| 0% | 14.29% | 35.71% | 42.87% | 7.14% | | |

Question 21: Does your client express less/more emotion in response to positive or negative events?

| 1 | 2 | 3 | 4 | 5 | Total | average |
|----|--------|-------|--------|--------|-------|---------|
| 0 | 2 | 6 | 5 | 2 | 15 | 3.47 |
| 0% | 13.33% | 40.0% | 33.33% | 13.33% | | |

