Using Art Therapy to Improve Quality of Life in Dementia Residents

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Dedication

To my family and friends that stood by me and encouraged me every step of the way.

I could not have done this alone.

Thank you.
Abstract

With the growing number of people diagnosed with dementia each year, and the known quality-of-life challenges they face daily, it is crucial to find ways to improve their quality of life (QOL). Art therapy can provide a forum for people living with dementia’s to express their feelings in a tangible, visual, and auditory way. This not only allows caregivers an opportunity to better understand the effects of living with dementia, but also inform better individual treatment and support. Few studies in this area have explored the possible connection between art therapy and an improved QOL. Therefore, the purpose of this study is to test the usefulness of art therapy in improving the QOL of people living with dementia. Over the course of six weeks, two individual sessions were implemented weekly. The participants were 2 elderly females living with dementia in a long-term care facility. The dependent variables included the participant’s mood and symptoms of depression and anxiety. Their mood was assessed before and after each session to determine if there were any changes over the course of the session. The measures used to assess the effectiveness of the art therapy were: a Mood Thermometer (MT), the Quality of Life in Alzheimer’s Disease Scale (QOL-AD), and the Clock Drawing Test (CDT). Only one of the two participants completed the study. As well, illness at the facility resulted in a 2-week delay in the completion of the final QOL-AD. The participant that was able to complete the study had a mood improvement during 92 percent of the sessions. While these results do not empirically support the use of art therapy in improving QOL, they do show that art therapy can have a positive influence in the mood of an individual living with dementia. Conducting this study within the confines of a long-term care facility provided many scheduling issues as a placement student. Based on these difficulties, it is recommended that future studies on improving the QOL of people living with dementia are conducted by a researcher whose sole responsibility in the facility is providing art therapy.
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Chapter I: Introduction

In 2010 there were an estimated 35.6 million people in the world living with dementia (Alzheimer’s Disease International, 2014). Presently, there are an estimated 44 million people living with dementia. By 2030, this is expected to double, and by 2050 there will be an estimated 135 million individuals living with dementia. Every year, an additional 7.7 million people are diagnosed with dementia. By definition, dementia is not a disease, but a term used to describe a constellation of symptoms related to progressive degenerative brain syndromes that affect emotion, behaviour, memory or other thinking skills severely enough to reduce an individual’s ability to perform everyday activities. Alzheimer’s disease accounts for 50% to 75% of all dementia cases. Alzheimer’s disease destroys nerves and brain cells, interrupting the communication in the brain, particularly the regions of the brain responsible for storing memories and retrieving new information. Symptoms of this disease begin with lapses of memory, losing the ability to find proper words for everyday objects, and may include mood swings. As Alzheimer’s disease progresses, individuals become more forgetful, confused, have personality changes, and experience more mood swings. Individuals may also lose the ability to differentiate between appropriate and inappropriate behaviour, such as, undressing in public, or sexual advances. Vascular disease accounts for 20% to 30% of all cases of dementia. This occurs when blood vessels are damaged and oxygen supply is at risk, causing mini strokes that can result in temporary confusion. Due to the fact that each stroke kills brain cells, the cumulative effect of these is vascular dementia. Alzheimer’s disease and vascular dementia often occur together, and in combination cause the observed dementia in affected individuals (Alzheimer’s Disease International, 2014).

Depression, psychosis, agitation, and personality changes that occur with the onset of dementia can also hinder an individual’s ability to communicate wants and needs. Alzheimer’s disease not only impairs an individual's cognitive function, but can also affect energy, mood, and daily activities (Hattori, Hattori, Hokao, Mizushima, & Mase, 2011). The ability to communicate, focus, and understand information becomes difficult as the disease progresses (Bober, McLellan, McBe, & Westrich, 2002). Eventually, these individuals are unable to express their feelings and emotions verbally, and without an appropriate outlet, their feelings and opinions will be unheard (Bober, et al., 2002).

Art therapy provides these individuals with an outlet that can assist them in communicating with their family and caregivers (Galbraith, 2014). According to Malchiodi (2013), art therapy is applying visual arts within a therapeutic relationship to improve, support, and continue the physical, cognitive, and psychosocial health of individuals, and can be beneficial for all ages. Art therapy can provide individuals with a dynamic treatment that facilitates communication, enhances overall mood, provides person-centered interactions, increases social support, and stimulates various regions of the brain (Alders & Levine-Madori, 2010).

Art therapy can enhance therapeutic practices and improve the individual’s quality of life (Malchiodi, 2013). Research on this topic is limited, but would be helpful to provide further support of the various rehabilitative benefits for individuals living with dementia. Art therapy is a beneficial treatment for individuals living with dementia, as it can significantly improve their quality of life (QOL), and help caregivers understand what the individuals are feeling to better assist in providing appropriate treatment (Harlan, 1990).
Dementia can impact an individual’s ability to understand and rationalize personal opinions due to cognitive deficits in attention, language, memory and insight (Moyle, Gracia, Murfield, Griffiths, & Venturato, 2011). The objective of the thesis is to demonstrate empirically that art therapy can enhance the overall QOL of individuals living with dementia. It is hypothesized that using art therapy will help improve the QOL in individuals living with dementia by giving them a forum to express their feelings in a tangible, visual, and auditory way.

Improving the quality of life (QOL) for people living with dementia includes both pharmacological and non-pharmacological therapies (Hattori, et al., 2011). In addition to pharmacological treatments, an individual’s emotional needs should also be met. In any form of therapy, it is important to create a safe environment in which individuals can feel comfortable to express and explore their emotions. Art therapy can be a therapeutic way for individuals to express themselves through the creation of art. Specifically, for individuals living with dementia, art therapy can be a therapeutic and healing experience that may trigger memories which can allow them to remember important people and elicits emotions once lost due to the dementia (Bober, et al., 2002). It is hypothesized that art therapy will be helpful for individuals diagnosed with Alzheimer’s disease by improving their overall QOL.

The literature review (Chapter II) will present the history of art therapy, the application of art therapy in other populations, and the use of art therapy in the field of geriatrics, specifically individuals living with dementia. It will also include information pertaining to gaps in the literature and enhancements needed to improve art therapy for individuals living with dementia. The methodology section (Chapter III) will cover the participants used in this study, how the intervention was implemented, and what was used to measure the efficacy of the results. Following methodology will be the results section (Chapter IV), which will cover what the results indicated and if the art therapy was beneficial. The discussion (Chapter V) will review and compare the results of this study and discuss future research on this topic.
Chapter II: Literature Review

Art therapy is useful in many different settings, with many different populations. Based on psychological theory and research, art therapy is used to explore issues of family, life transitions, abuse, relationships, and development (Ontario Art Therapy Association, 2014). During the counselling process, art therapy can be used to help individuals with improving social skills, coping strategies, and problem solving, as well as, increase self-awareness, self-esteem, and resolve emotional conflict. It can also decrease memory loss, neurosis, depression, and isolation. Art therapy takes into consideration the individual’s behaviours, feelings, thoughts, and spirituality. This form of therapy does not rely on verbal skills or language, offering people who otherwise could not express their emotions a way to express themselves.

Art Therapy and Other Populations

**Substance abuse.** Haluzan (2012) reviewed information on group therapy art sessions and the effectiveness of art therapy in alcoholics. Alcoholics tend to have high stress levels, are tense, and have difficulty in expressing their feelings. Treatment through art therapy may reduce stress levels, increase relaxation, and improve expressive communication. Freedom, personal creativity, and telling the truth through images gives individuals a way to express otherwise difficult parts of their past. Art therapy helps boost creative thinking, activates multiple sensory systems, and reduces emotional tension. Group art therapy sessions generally consist of 40-minute drawing periods, and 50-minute discussion periods in which participants discussed each other’s art. By displaying the individual’s art, and discussing it through the illustrations, all sensory systems of each individual may be activated, which can increase their perceptual abilities. Benefits of art therapy during addiction treatment include self-discovery, personal fulfillment, empowerment, relaxation and stress relief, symptom relief, and physical rehabilitation.

**HIV and AIDS.** Roa, Nainis, Williams, Langner, Eisin, and Paice, (2009) conducted a study to explore using art therapy as a means of symptom management for people living with HIV/AIDS. The benefits of pharmacological interventions for the relief of symptoms in HIV/AIDS is well known, but non-pharmacological interventions, such as art therapy, have not been researched as extensively. The aim of this study was to test the effectiveness of art therapy for relief of symptoms experienced by people living with HIV/AIDS. The study was a randomized clinical trial to assess change in physical and psychological symptoms pre-and post-intervention. A total of 79 individuals diagnosed with HIV infection participated in the study (control group, n=39; experimental group, n=40). The participants attended a one-hour session of art therapy while the control group watched a videotape about art therapy. Art materials included items such as markers, coloured pencils, paint, and glitter glue. Symptom mean scores were better for those who participated in the art therapy sessions. There were two separate ANCOCA analyses conducted to determine the effects of the art therapy intervention. The first ANCOCA, reviewing ESAS total scores, displayed statistically significantly ($R^2 = 0.06, F (3, 67) = 33.87, p <0.001$). This analyses demonstrates that the individuals who participated in the art therapy showed greater improvement in their ESAS scores than the individuals that watched the video on
The second ANCOVE analysis analyzed the post-test STAI scores ($R^2 = 0.061, F(3, 67) = 35.44, p < 0.001$). These results evidenced an improvement in the STAI scores of the individuals that participated in the art therapy sessions. Overall, the use of art therapy demonstrated potential benefits in the relief of symptoms related to HIV/AIDS.

Cancer. Svensk et al., (2009) conducted a study on women diagnosed with breast cancer. Individuals living with cancer are exposed to strain due to the nature of the diagnosis and treatment. This study examined if the use of art therapy could improve the QOL in a group of 41 women undergoing radiotherapy for breast cancer. Sessions were one hour a week (control group, $n=20$; experimental group, $n=21$). Significant increases in total health, total QOL, physical health, and psychological health was observed in the art therapy group. There were increases in the art therapy group in the participants’ overall views of the future, systemic therapy side effects, and body image. This study provides some evidence to support the use of art therapy to improve the QOL for women undergoing radiotherapy. More research would be helpful in this area to conclude how effective art therapy can be.

Hospitals and mental health. Stickey, Hui, Morgan, and Bertram (2007) explored the possibility of art activities benefiting people using mental health facilities in some capacity. After attending an art workshop in a mental health facility, eleven people were picked for the study. Peoples’ experience of art is individualized and unique and there are many different types including visual arts, poetry, and writing. All participants saw art as an important part of their lives with freedom, identity and expression being main themes. In the narrative-discourse analysis, art was described as reflecting people’s emotions, giving them motivation and inspiration, and providing them with a sense of achievement, hope, and individuality. The results indicated that art can give individuals a feeling of achievement, a distraction or escape from reality, and a way to express emotions and thoughts. It strengthens an individual’s identity by giving a sense of ownership, improved self-esteem, a feeling of fulfillment, and confidence. The power of the art can help these individuals have hope, change, involvement, and motivation. Art therapy removes isolation and hope to overcome personal problems by giving people a way to express feelings.

Caddy, Crawford, and Page, (2012) used a chart to identify where creative activity was used and how effective it was. The study included records from 2004-2009 with a total of 409 patients who attended a creative activity group in an acute inpatient psychiatric setting. There were both male and female participants in the sample, which had a mean age of 47.9 years, with an average length of stay in the hospital of 19.32 days. Creative activities included crafts, art or expressive art-based activities. Scales for QOL, and mental health were used as measures in this study. Overall, there were reductions in self-reported and clinician-rated symptoms after participation in the art sessions. This indicates that involvement in art therapy positively correlates with improved mental health.

This article reviews a project in a geriatric hospital for patients with anxiety, depression, and or dementia aimed to provide consistent therapeutic activities to support them and encourage them to interact more with staff and each other, and to enhance their self-management and
support (Shorters, 2011). Dance, music, reminiscence therapy and art were used. Clients involved in the arts activities created several art pieces to improve the hospital environment, such as, a welcome sign, and replications of other works to display around the building. Themes of colour were used to express individuals’ journeys through their time at the hospital, and provide discussions for the people that resided at the hospital. Clients enjoyed the art projects and continued to be involved in creating art after the completion of the study. Staff members stated that the art therapy benefited the individuals in assisting in the recovery of the patients during a difficult time. Arts-based activities can help individuals regain a sense of self and sustain them through the illness. Illustrations of their experience of illness, separation, and recovery, gave the individuals a feeling of accomplishment and increased self-esteem.

Art Therapy and Dementia

Alders and Levine-Madori (2010) conducted a pilot study to explore the efficacy of art therapy to improve cognitive performance with 24 Hispanic/Latino members of a community center, aged 62 to 93. They compared members who participated in an art therapy group, to members who chose to participate in other activities during the week. During the art sessions, the participants took part in activities that were intended to stimulate the brain through spatial, visual, kinesthetic, linguistic, interpersonal, intrapersonal, and musical stimulation. Some of the activities used were music, painting, and guided imagery. Members who participated in the art therapy sessions were observed to have a greater sense of well-being compared to the members who chose not to take part in the sessions. An increase in visual stimulation was also identified on the Clock Drawing Test (CDT: Brodaty & Moore, 1997) which was used to evaluate changes in participants’ cognition in terms of visual-spatial abilities, constructional praxis, and auditory comprehension. Participants who attended the majority of the art therapy sessions had a significant increase in their CDT score; 77% of the participants improved, 15% stayed the same, and 8% decreased. The participants’ scores increased an average of 2.2 points. By contrast, there was a decrease in the control group CDT scores of 46%, an increase in 36%, and no change at all in 18%. The control group CDT scores were unchanged. Individuals were also tested on their perception, memory, motor coordination, and deficits in attention using the Cognitive Failures Questionnaire (CFQ: Larson, Alderton, Neideffer, & Underhill, 1997). In the experimental group, 69% showed improvements in their CFQ scores. Of control group members, only 27% showed an increase in their scores. The average increase of scores in the experimental group was 3.5 whereas the members in the control group had an average decrease of 7.5. The participants who attended the art therapy sessions increased visual motor skills, how they perceived themselves, and their cognitive abilities significantly, while non-participants typically showed a decrease on these same measures over the same period of time. Overall, the use of art therapy in this study helped individuals living with dementia improve their sense of self, visual motor skills, and their cognitive abilities. The findings in this study demonstrate that participation in the art therapy sessions not only slow down cognitive deterioration, but may have also reduced deterioration in some of the individuals that participated.

Hattori et al. (2011), conducted a study comparing art therapy and calculation drill groups with Alzheimer’s patients in an outpatient clinic. The participants (n=39) were aged 65 to 85 and were accompanied by a family member for the 12 weeks the study was conducted. Art therapy
To help triggers memories and stimulate their brain cognitions by colouring in patterns that revealed common objects such as, fish, children, or flowers once filled in. The drill group consisted of the control group completing as many simple calculations, such as addition or multiplication, as they could in the allotted time. These activities were completed in the presence of family members to reduce anxiety and help keep the individuals on track. Vitality, mood, QOL, daily activity, behavioural impairment, and caregiver's sense of burden were assessed. Comparing the art therapy and drill groups did not work, as both were very different. The researchers evaluated the differences by comparing each individual's score from baseline to intervention to find a percentage of how much each person increased or decreased after intervention was implemented. All participants who showed an increase of 10% or higher were compared to identify the differences between the two groups. There was no clear evidence that art therapy improved cognitive function, although, there were significant improvements in QOL and vitality among art therapy participants.

Bober et al. (2002) developed the Feelings Art Group to offer older adults with moderate or severe dementia a method of expressing thoughts and feelings. Participants in this study resided in a special care unit at an academic nursing home. Staff in the special care unit were specifically trained to: provide support, minimize stressors that can be associated with dementia, redirect negative behaviours, and promote the strengths of the individuals living in the facility. The Feelings Art Group was created around Yalom’s (1995) theory of the “here and now.” Yalom focused on the present, and making the individuals’ lives meaningful today instead of focusing on what the individual might be capable of in the future. The group was composed of individuals aged 77 and older, with a diagnosis of Alzheimer’s disease, or other type of dementia. Each session had four to nine participants in attendance, with a rotation of the same 17 individuals over the course of the six-month trial (26 sessions). Each session had the same format to ensure the researchers would be able to identify and track small improvements in the participants. Bober et al. (2002) evaluated the participants’ feelings before and after each session using the “Mood Thermometer” (MT: Bober et al, 2002). The MT assessed whether or not participants’ mood changed after each session, and whether they were able to identify their feelings each week. Each individual could colour, trace outlines of pictures, or discuss a picture and what it meant to them. The purpose of the activities was to engage the participants’ in expressing their emotions using sensory stimulation in various modes (i.e., hearing, visual, tactile, and olfactory stimulation). Results of this study provided evidence that art gives those with dementia a way to voice and express their feelings. During the study, participants experienced many of Yalom’s (1995) healing factors, including altruism, universality, catharsis, and the development of socializing techniques. An increase in verbal interactions between the residents and researchers who participated in the study was also observed. Anecdotal results from staff and family members indicated that the study was effective in treating this population. Throughout the study, it was observed that residents were able to recognize their own feelings, and connect with others with improved communication and empathy. In addition, an improvement was noted in the ability of the residents to reminisce about past events, human connections, and life experiences. Most importantly, participants’ ability to articulate their emotions increased with the MT, and even six months after the group was over, certain individuals could still express their feelings. Art therapy is an innovative, thoughtful, resourceful program that can promote QOL in individuals with dementia.
Musha, Kimura, Kaneko, Nishida, and Sekine (2000) reviewed the concept of curative dementia. Research has shown that cerebral problems may not be the only reason for the development of dementia, as previously thought, but that psychological factors may also play a role in the onset of dementia along with social-environmental, and physical factors. In addition, stress, loneliness, and isolation could influence dementia formation as well. According to Musha et al. (2000), there can be an increased chance of recovery in people with dementia in the early stages of the disease using cerebral activation. However, this is limited due to the absence of standard methods for early identification of dementia. In the early stages of Alzheimer’s disease, progression can be blocked using proper medication and cognitive rehabilitation. The researchers used active art therapy to improve patients with dementia over a period of 3 years. Significant improvement in mood and mental state was observed in these individuals by giving them an enjoyable interaction with artists and family members. Participants for this study were 41 patients diagnosed with dementia. Participants’ ages ranged from 50 to 80 with an average of 73.2. Over one year, 34% of the participants increased their MMSE scores by at least three points, while only 20% that declined 3 points on their MMSE. Family evaluation of the participants MMSE was higher with an increase in 44% and decrease in 37%. The Emotion Spectrum Analysis Method (ESAM) was used to evaluate the effectiveness of the art therapy. The ESAM represents emotions as a spectrum separated into four categories: anger/stress, sadness/depression, joy, and relaxation. There was counselling for the families each week, and art sessions for the participants. Participants were encouraged to think, create images on their own, and provided a time each week for them to socialize with other people and the art therapist. Of the 16 participants with mild dementia, MMSE scores increased in 44% (n=7) and decreased in only 25% (n=4). Family members’ evaluation of the participants’ improvement was conducted through a questionnaire, and showed an increase in 44% (n=) and decrease in 38% (n=). The 20 participants diagnosed with severe dementia had an increase of 30% on their MMSE and a decrease in 15%. Overall, participation in art therapy was effective as prevention against the declining of dementia in this study was effective in 85% of participants. There was little improvement on the MMSE when the participants with severe dementia were compared to those with mild dementia, but the family evaluation showed an increase. The participants with terminal dementia had an improvement of 25% and a decrease of 13%. This implies that even in terminal dementia, there still can be some improvement. The family evaluation showed an increase in 50% and a decrease in 38%. The ESAM showed an overall increase in joy in the participants during the art sessions and the comment sessions about their pieces of work. Active art therapy gives individuals a way to communicate by stimulating brain activity, encouraging individuals to express their imagination or unconscious thoughts, and giving them happiness and joy while they do it.

Kamar (1997), facilitated art therapy groups at a daycare center for the elderly. These groups consisted of 7 to 12 participants who could take part in the art activities or just observe them. The purpose for this method was to ensure that all participants’ mood, level of functioning, and attention span were taken into consideration during each session. The goal was to enable individuals to use their innate creativity to express themselves in order to overcome difficulties such as confusion, old age, and disease. A description of a 75-year-old man, illustrates the relationship between Kamar and the individuals in the art program. The individual had never drawn before and began attending the day program due to an increase in memory loss, verbal abuse, depression, and restlessness at home. Initially, the individual did not want to draw and dismissed any initiation to draw, but always stayed at the table and observed the other
individuals drawing. Kamar tried using a cooperative drawing technique, which is described as the art therapist making a few squiggles on the page and encouraging the participant to continue the drawing. Once Kamar initiated the art making, the individual picked up another colour and continued the drawing. The individual became very emotional about the drawing that was created. Kamar started a dialogue with the participant to discuss why he was upset, he talked about how the eyes of the creature made him want to cry. It was quickly realized that the drawings were metaphors about his anxieties and fears. A few weeks later the individual’s wife said that when he was showing signs of aggression, she would encourage him to draw, and it would calm him down. Drawing these creatures gave the individual a sense of control, reduced his tension, isolation and his frustration. These art sessions allowed this individual to communicate his anxieties and fears and also gave him back a sense of control in his life. This article provides a better understanding of a case study using art therapy. It demonstrates that individuals, whether artists in the past or not, can benefit from art therapy and improve their QOL if they are given the proper attention and time to get used to the idea of using art as a form of treatment.

Eekelaar, Camic, and Springham (2012) conducted a study at an art gallery combining creative expression in art making and visual art viewing to explore if verbal fluency increased and episodic memory improved when individuals participated in both activities together. For this study, there were 6 participants diagnosed with dementia, ranging in age from 68 to 91 and with MMSE scores between 18 and 24 indicating that the individuals are in the severe range of dementia. There were three 90-minute sessions over three weeks. Art viewing took place at the art gallery for 30 minutes, in which an art educator would present two or three paintings related to the theme of the week. Participants were then taken to a studio in the gallery where they were led by an art therapist to participate in art therapy. The sessions were recorded so the researchers could later listen to the audio. When reviewing the recordings, the researcher’s assessed whether the participants’ episodic memory and fluency were affected positively or negatively by the art sessions. Episodic memory refers to the conscious retrieval of specific or experienced events. Diminishment of episodic memory is a common early indicator among people diagnosed with Alzheimer’s disease, increasing in severity as the disease progresses. If the participants were able to relate and retrieve specific people, events, or objects from their lifetime, researchers would measure their episodic memory. Language impairment is also an early indication of Alzheimer’s disease. Researchers looked for fluency in spontaneous speech by listening for hesitations in their sentences, and at the participant’s ability to cluster related words to create flowing sentences. Four weeks post-intervention, participants met with the researchers to obtain the final results of the study. Participant’s episodic memory scores increased from 7.03% to 25.9% during the sessions and was improvement was maintained four weeks later with a percentage of 26.4%. Verbal fluency had no score initially, increased at intervention to 5.76% and then decreased to 2.94% after intervention. Overall there were improvements in verbal fluency, although a decline was observed once treatment had been terminated. The thematic analysis from the family’s interviews displayed improvements in social activity, becoming their old selves, and more shared experiences. Increased social activity reduced isolation, and gave structure to the relationships between family members and their loved ones. Participants were able to recall old memories, increase their verbalization, and improve their mood due to the art sessions. Learning together and making art together gave the participants and their loved one a shared experience that was new and exciting for them. Overall, this study showed an increase in memory access, engagement and attention, improved mood, communication, confidence and
reduced isolation. Art making and visual stimulation gave these individuals a way to share their values and experiences with their loved ones in a new way.

**Best Practices in Art Therapy**

The studies included in the present literature review indicate that art therapy is most effective in 1-to 2-hour sessions weekly for at least 10 to 12 weeks. To gather information on participants’ QOL, researchers typically used questionnaires in an interview format. They asked the family members to complete the same scales to gain perspective from other settings the individuals interacted in. Using various materials such as paint, markers, felt, and glitter, individuals with dementia could explore the creation of art however they desired. This encouraged creativity and stimulated cognitive function by allowing the individuals to express their feelings and emotions in their piece of work. Expression gave the individuals a chance to release their inner thoughts, feel peace of mind and improve their overall QOL.

**Relationship between Literature Review and Current Study**

Throughout the literature reviewed, art therapy has shown to facilitate communication, increase social support, enhance mood, and provide person-centered interactions that may be affected by this disease. Some of the research previously discussed has started to explore the relationship between how art therapy can stimulate regions of the brain and assist in slowing down the process of dementia. The literature strongly supports the validity of art therapy as a treatment that can improve the quality of life of individuals not only living with dementia, but who suffer from mental illness, cancer, substance abuse, and illnesses like HIV/AIDS. Meeting the emotional needs of these populations is important, and using art therapy can help to achieve this, as the results of these studies demonstrate. The use of art therapy can improve QOL in individuals with dementia and give this population a way of expressing their feelings. However, more research is needed to provide further support that using a therapeutic art technique can increase QOL in this population. The present case study looks at using art therapy to improve the QOL of two people living with dementia at a long-term care facility centre. Determining whether art therapy can improve the QOL of individuals’ living with dementia in a case study would further support the need for more research in this area.
Chapter III: Format/Methodology

Participants

The participants were required to have a diagnosis of dementia, anxiety, and be over the age of 75 to participate in the study. Two elderly female residents living in a long-term care facility on a locked floor took part in the study. After observing the residents on the floor for a few weeks, the student, Life Enrichment Coordinator, the Registered Practical Nurse, and the individuals’ families agreed on two individuals who would be good candidates for this study. Both of the participants had a background in the arts; E.S was a graphic design artist, and D.K was a published poet and loved to paint.

The participants’ diagnoses were confirmed through a review of their medical files at the facility. E.S, aged 89, had a diagnosis of anxiety disorder (unspecified), and Alzheimer’s disease. D.K, aged 75, had a diagnosis of depressive episodes, anxiety disorder, dementia (in other specified diseases classified elsewhere), and post-traumatic stress disorder.

Prior to the study, caregivers and participants were informed of the consent procedures including, confidentiality, the right to withdraw from the study at any time without losing the services provided for them at the facility, the benefits and risks of participating in the study, and information on the storage and disposition of data collected during the study. A copy of the consent form presented to the participants can be found in Appendix A.

Design

This study was reviewed and approved by the Research Ethics Board at St. Lawrence College. As there were only two participants in the study, the design implemented was a case study. The dependent variables included the participants’ mood, including anxiety and depressive symptoms, and their mood during the art therapy intervention, which were assessed at every session to determine whether there were any changes during the implementation of the art therapy. Participants were asked to complete the assessment measures at the beginning and end of the intervention, as well as at the start and end of each session. Participants attended two, one-hour sessions a week, for a total of six weeks. If a participant declined a session, the student would try again later that day, or again the next day.

The pre-and post-treatment data were compared through visual inspection to determine if the art therapy was effective. This is displayed in a graph (figure 1) displaying the score on the pre- and -post intervention questionnaires. The results of the Mood Thermometer (MT), were graphed to display the participant’s mood prior to and following the art session.

Settings and materials

Each session was conducted in one of the activity rooms available at the facility. The room was equipped with tables and chairs, and a CD player. The student would sit adjacent to the participant and place the art materials in front the individual. The student was in the room with the participant at all times and would encourage the participant to interact and use the art
supplies in front of them. Materials used in this study were paint, pencil crayons, markers, sheets of paper, and relaxing music in the background.

**Description of intervention**

During an art therapy session, the student and the participant sat in a quiet room with soft music playing in the background. The student encouraged the participant to paint, draw or colour a picture. The student asked the resident how she felt at the beginning and end of each session, and evaluated how she during the art therapy session. Any important statements made by the resident during the sessions were recorded.

**Measures**

Three measurement tools were used. A modified version of the “Mood Thermometer” (MT: Bober, et al., 2002) (Appendix B) was used to assess how participants felt at the start and end of each session. “The Quality of Life in Alzheimer’s Disease Scale” (QOL-AD: Merchant & Hope, 2004) (Appendix C), was used at the beginning and end of the study to measure QOL. The Clock Drawing Test (CDT) (Appendix D) was used to test the participants’ cognitive abilities, and evaluate visuospatial dysfunction (Brodaty & Moore, 1997). The CDT was administered at the beginning and end of the study to assess whether there were any changes in participants’ cognitive abilities.

**The Mood Thermometer.** The MT (Appendix B) helps individuals express their feelings. The MT is a sheet of paper with three - sad, neutral, and happy, with the corresponding words written below them (Bober, et al., 2002). The individuals were asked how they were feeling, and given the opportunity to visually or verbally indicate which picture expressed how they were feeling at the start and end of each session. The student created a modified version of this assessment tool, by creating a chart that had the three moods in it with the corresponding words.

**The Clock Drawing Test.** The Clock Drawing Test (CDT: Brodaty & Moore, 1997) (Appendix D) evaluates the individuals change in cognitions with visual-spatial abilities, constructional praxis, and auditory comprehension. The participant is asked to draw the outline of a clock, put in all the numbers, and set the hands of the clock at 10 past 11 (Rouleau, Salmon, et al., 1992). The tester scores a point for each of the following, the clock circle, all the numbers in the correct order, the numbers being in the correct spaces, inserting the hands of the clock, having the correct time, for a total out of five. The student used this at the beginning and end of the study to determine if the participant’s cognitions improved over the course of the six weeks.

**The Quality of Life – Alzheimer’s Disease Scale.** QOL can be difficult to define as there are many different definitions of what constitutes QOL (Merchant & Hope, 2004). Lawton
(1997) defined QOL as having 4 major domains: psychological wellbeing, objective environment, behavioural competence, and perceived QOL. These were assessed using the Quality of Life – Alzheimer’s Disease Scale.

The QOL-AD (Appendix C) is a 13-item tool developed by Logsden, Gibbons, McCurry, and Terri (1999). It is used in an interview format and each item is assessed on a 4-point scale ranging from excellent to poor. Caregivers were also asked to rate their relatives’ condition on the same questionnaire. The scores can be used independently or can be combined, emphasizing the participants’ scores to get one score combined rather than two. The participant’s score would be weighted by multiplying it by two, and adding it to the caregivers’ score. The number is then divided by three to obtain the combined score. The student used the QOL-AD to assess whether participants’ QOL increased over the study period.

**Procedure**

Verbal and written consent documents were completed by the caregivers of the participants prior to the start of the study. Assent was obtained from the participants verbally prior to each session. Each session lasted for approximately an hour.

All sessions followed the same structure. The student obtained verbal consent from the participant prior to each session, then set up the room with quiet music in the background, and displayed the art materials on the table. The student would then bring the individual into the room and ask how she was feeling and show the participant the MT to prompt a response. The individual would then be prompted to pick a medium to use and the student would put the rest of the supplies away to avoid distracting the participant. If the individual was unsure of what materials to use, the student would pick one for them. The options were painting or colouring with markers or pencil crayons. The student would then display an object for the participant to draw, or would just encourage the participant to draw an abstract piece. If the participant was having a difficult time getting started the student would put a line or two on the page to show the participant what to do and encourage the participant to do the same. When the participant finished the piece of art, the student would ask if the individual wanted to do another piece of art. When the individual said they were done, the student would bring out the MT again and ask how they were feeling. Once the resident was done, the student would take them back to their rooms or other activities in the facility and clean up the materials. At the end of the six weeks, participants and family members were asked to fill out the QOL-AD again.
Chapter IV: Results

The purpose of this study was to assess whether the use of art therapy would improve the QOL of people living with dementia. Only one of the two participants attended enough art sessions to complete the study. Therefore, the first participant did not fill out the QOL-AD post intervention. Participant 1’s pre ratings are presented, as well as both the pre- and post-test ratings for participant 2.

Participant 1

QOL-AD. The participant and her husband completed the QOL-AD. The husband’s comment on the QOL-AD was that “her perception of reality is tainted by her negative outlook.” The participant’s comments to the student on QOL-AD were: “I wish it were better. It’s not good because of the problems, mainly because of things that have happened. Wish I could enjoy everything much better, work and the children better. Everything would just be more enjoyable.” Overall, her husband’s rating was 29/52, for an overall QOL rating of 55.76%. A score on this measure of 100%, would indicate that the individual’s QOL is “perfect,” with no complaints about their life. The participant completed the QOL-AD with a score of 32/52, which is an overall rating of 61.53% in her QOL.

Table 1.

QOL-AD Pre-Rating Scale.

<table>
<thead>
<tr>
<th>Quality of Life-Alzheimer’s Disease Scale</th>
<th>Husband’s Ratings</th>
<th>Points</th>
<th>Participant’s Ratings</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Physical Health</td>
<td>Good</td>
<td>3</td>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>2. Energy</td>
<td>Fair</td>
<td>2</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>3. Mood</td>
<td>Fair</td>
<td>2</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>4. Living Situation</td>
<td>Good</td>
<td>3</td>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>5. Memory</td>
<td>Poor</td>
<td>1</td>
<td>Poor</td>
<td>1</td>
</tr>
<tr>
<td>6. Family</td>
<td>Good</td>
<td>3</td>
<td>Excellent</td>
<td>4</td>
</tr>
<tr>
<td>7. Marriage</td>
<td>Good</td>
<td>3</td>
<td>Excellent</td>
<td>4</td>
</tr>
<tr>
<td>8. Friends</td>
<td>Fair</td>
<td>2</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>9. Self as a Whole</td>
<td>Fair</td>
<td>2</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>10. Ability to do chores around the house</td>
<td>Poor</td>
<td>1</td>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>11. Ability to do things for fun</td>
<td>Fair</td>
<td>2</td>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>12. Money</td>
<td>Good</td>
<td>3</td>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>13. Life as a Whole</td>
<td>Fair</td>
<td>2</td>
<td>Poor</td>
<td>1</td>
</tr>
</tbody>
</table>

Clock Drawing Test. The participant was able to draw the circle and put the numbers in the correct order. The test took approximately 15 minutes to complete. The student provided ongoing encouragement and let the participant know she was doing a good job. While creating
the clocks, the participant made comments such as, “You think it would be simple,” and “Isn’t that crazy?” The drawings can be found in Appendix E.

**TABLE 2.**

*Clock Drawing Test Scores for Participant 1.*

<table>
<thead>
<tr>
<th></th>
<th>With Visual</th>
<th>Without Visual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clock Circle</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Numbers in Correct Order</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Numbers in Correct Spatial Order</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Inserting two hands of the Clock</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Correct Time</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>4.5/5</td>
<td>2.5/5</td>
</tr>
</tbody>
</table>

**Mood Thermometer.** The participant only attended three art sessions over the course of the 6 weeks. This participant had been a graphic design artist and felt she was not good enough to create art anymore. The student asked the participant several times a week to attend the art therapy sessions, but she declined to participate.

**Participant 2**

**QOL-AD Pre-Test.** Her husband completed the QOL-AD at home. He stated that it was difficult to fill out as he was not aware of all the details needed to answer the questions fully. The participant completed the questionnaire with the student. Her final comment on her overall QOL was “it sucks, I don’t think its awful good. Um, I guess I didn’t really take it, uh, I want and he… I didn’t really, but I know I would say I would (made a gesture indicating she wanted to sleep).” From eye contact, tone of voice, and gestures the participant made, the student was able to pick appropriate responses to each question. The husband’s summed rating of the participant’s QOL was 23/52, resulting in an overall QOL of 44.23% L. The participant’s overall QOL according to the QOL-AD was 24/52, which is an overall rating of 46.15% in her QOL. For both participants, their spouses QOL ratings were similar to their own.
Table 3.
Pre-Test QOL-AD for Participant 2.

<table>
<thead>
<tr>
<th>Quality of Life-Alzheimer’s Disease Scale</th>
<th>Husband’s Ratings</th>
<th>Points</th>
<th>Participant’s Ratings</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Physical Health</td>
<td>Fair</td>
<td>2</td>
<td>Poor</td>
<td>1</td>
</tr>
<tr>
<td>2. Energy</td>
<td>Fair</td>
<td>2</td>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>3. Mood</td>
<td>Poor</td>
<td>1</td>
<td>Poor</td>
<td>1</td>
</tr>
<tr>
<td>4. Living Situation</td>
<td>Good</td>
<td>3</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>5. Memory</td>
<td>Poor</td>
<td>1</td>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>6. Family</td>
<td>Fair</td>
<td>2</td>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>7. Marriage</td>
<td>Good</td>
<td>3</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>8. Friends</td>
<td>Fair</td>
<td>2</td>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>9. Self as a Whole</td>
<td>Fair</td>
<td>2</td>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>10. Ability to do chores around the house</td>
<td>Poor</td>
<td>1</td>
<td>Poor</td>
<td>1</td>
</tr>
<tr>
<td>11. Ability to do things for fun</td>
<td>Poor</td>
<td>1</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>12. Money</td>
<td>Poor</td>
<td>1</td>
<td>Poor</td>
<td>1</td>
</tr>
<tr>
<td>13. Life as a Whole</td>
<td>Fair</td>
<td>2</td>
<td>Poor</td>
<td>1</td>
</tr>
</tbody>
</table>

23/52                                       24/52

Clock Drawing Test. The student attempted the CDT with the participant. Her husband stated prior to the attempt that she had tried to do it before and was unable to hold a pencil anymore. The participant was able to hold the pencil and make a couple squiggles, but there was no relation to the clock she was asked to draw.

Mood Thermometer. The participant attended two sessions a week for six weeks. Figure 4 displays the participant’s mood before and after each session. The participant’s mood improved during each session, except for session four when she reported being sad both before and after the session. Her mood changed from sad to happy in 5 of 12 sessions (41%), and from sad to neutral in 4 of 12 (33%) of the sessions. Her mood changed from neutral to happy 2 out of 12 of the sessions (16%), and stayed the same once (8%). Overall the participant’s mood improved 92% of the time from pre-session to post session.
**Clock Drawing Post-test.** The participant was able to make a few marks on the paper, but with no noticeable improvement on the initial CDT. The participant made gestures of being tired and became frustrated with trying to draw a clock so the student ended the test.

**QOL-AD Post-test.** The participant completed the final questionnaire on December 8th, 2014. Due to illness amongst residents in the unit, the facility was locked down for two weeks, so her husband did not complete the questionnaire until December 22, 2014. Her husband’s rating for her overall QOL was 22/52 (42.3%). This is a 2% decrease from the initial rating and is not clinically meaningful. The participant’s rating was 26/52 (50%). This is an increase of 3.85% from the initial rating. Her husband’s comment on the questionnaire were that she likes music and singing.
TABLE 4.

Post-test QOL-AD for Participant 2.

<table>
<thead>
<tr>
<th>Quality of Life-Alzheimer’s Disease Scale</th>
<th>Husband’s Ratings</th>
<th>Points</th>
<th>Participant’s Ratings</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Physical Health</td>
<td>Poor</td>
<td>1</td>
<td>Poor</td>
<td>1</td>
</tr>
<tr>
<td>2. Energy</td>
<td>Poor</td>
<td>1</td>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>3. Mood</td>
<td>Fair</td>
<td>2</td>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>4. Living Situation</td>
<td>Good</td>
<td>3</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>5. Memory</td>
<td>Poor</td>
<td>1</td>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>6. Family</td>
<td>Fair</td>
<td>2</td>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>7. Marriage</td>
<td>Good</td>
<td>3</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>8. Friends</td>
<td>Fair</td>
<td>2</td>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>9. Self as a Whole</td>
<td>Fair</td>
<td>2</td>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>10. Ability to do chores around the house</td>
<td>Poor</td>
<td>1</td>
<td>Poor</td>
<td>1</td>
</tr>
<tr>
<td>11. Ability to do things for fun</td>
<td>Poor</td>
<td>1</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>12. Money</td>
<td>Poor</td>
<td>1</td>
<td>Poor</td>
<td>1</td>
</tr>
<tr>
<td>13. Life as a Whole</td>
<td>Fair</td>
<td>2</td>
<td>Fair</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Points</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>22/52</td>
<td></td>
<td>26/52</td>
</tr>
</tbody>
</table>
Chapter V: Discussion

Summary

Due to the rising number of people living with dementia, it is crucial to ensure that each individual’s needs are being met both physically and mentally (Alzheimer’s Disease International, 2014). Destroying nerve and brain cells, Alzheimer’s disease interrupts communication in the brain, predominantly in the areas responsible for storing new information and retrieving memories. Symptoms of this disease begin with lapses of memory, losing the ability to find proper words for everyday objects, and/or mood swings. (Alzheimer’s Disease International, 2014). This leads to inability to have a normal conversation, interpret one’s own feelings, and express emotions (Bober, et al., 2002). Art therapy can be used to improve, support, and maintain the physical, cognitive, and psychosocial health of individuals (Malchiodi, 2013). Art therapy can provide individuals with a dynamic treatment that facilitates communication, enhances overall mood, involves person-centered interactions, increases social support, and stimulates various regions of the brain (Alders & Levine-Madori, 2010). Based on psychological theory and research, art therapy is used to explore issues of family, life transitions, abuse, relationships, and development (Ontario Art Therapy Association, 2014). During the counselling process, art therapy can be used to help individuals’ improve social skills, coping strategies, and problem solving, as well as increase their self-awareness, and self-esteem. It may assist them to resolve emotional conflict. Furthermore, art therapy can decrease memory loss, neurosis, depression, and isolation (Ontario Art Therapy Association, 2014). The purpose of this thesis was to demonstrate that art therapy is an empirically based treatment that can enhance the overall QOL of individuals who are living with dementia. It was hypothesized that using art therapy would help to improve the QOL of individuals living with dementia by giving them a forum to express their feelings in a tangible, visual, and auditory way.

These hypotheses were evaluated with a QOL questionnaire administered at the beginning and end of the study, as well as self-reported mood ratings at the beginning and end of each art session.

Participant 1. Participant 1 did not attend enough sessions to complete the study. She did not have any interest in creating art anymore as she thought she was not good enough to draw at this stage in her life. Her husband commented early on that, “her perception of reality is tainted by her negative outlook.” Evidence of this was found in the participant’s statements: “I cannot draw anymore, I am not good enough to draw.” The student tried many times to encourage her to participate, as, when she did draw, the student noticed an improvement in her mood. The participant’s vision was impaired due to cataracts, and she felt that her eyesight and drawing ability were not good enough anymore.

Participant 2. Participant 2 attended two sessions a week for six weeks, and was able to complete the QOL-AD at the beginning and end of the study. As a result of the facility being on lockdown, the participant’s husband was unable to complete the final questionnaire until 14 days after the participant completed it. This may have impacted the results, as the art sessions had not
been in progress for a few weeks when he completed the questionnaire. The participant’s mood could have been affected due to widespread illness at the facility and a lack of activities available during that time, as well as not being able to see her husband, her main source of support, during that period. It was, perhaps, the music played during the sessions that helped to improve her mood over the course of the sessions, as her mood improved in almost every session. The MT scores showed an overall improvement, but there is no way to distinguish whether this improvement was due to the attention, the music, or the art activity itself. The participant commented several times on missing her husband, and that, although she enjoyed the art, it did not change the fact that she missed him. Giving the participant attention and reminding her that her husband would visit after lunch every day usually calmed her down when she was in a bad mood. For this participant, determining what variable improved her mood the most appeared to have the biggest impact on her future QOL.

In summary, it is difficult to conclude that art therapy improved the QOL of the participant who completed the study. While on placement, the student was expected to interact with all the individuals on the floor, and ensure that activities for the residents were available for them to participate in. This reduced the amount of time the student had weekly to work with the residents participating in the study. A study with a larger sample and with staff dedicated entirely to art therapy sessions would provide more opportunities to consistently assess whether this type of intervention can benefit people living with dementia.

**Strengths**

A strength of this study was the ability to conduct one-on-one sessions with the participants, which enabled the student to focus on the individual for each session. Through working one-on-one, the student was able to tailor each session to the level of functioning of each participant, and could ensure that the participants’ needs were being met. The unstructured nature of the sessions gave the participants the opportunity to have some control over the activity. This was important given the few choices the individuals have about options for meals, leaving the facility, and what they do with their time during the day. This gave them a chance to decide what they would like to do during the period of time they were in each session.

**Limitations**

While the participant was painting, she would typically hum or whistle to the music in the background. This confounding variable may be part of the reason her mood improved. It cannot be determined if her mood improved during most sessions due to the art, the music, the attention the student was giving her, or the quietness of the room the activity was being held in. Generalizability is a limitation of the study given that there was only one individual who completed the study. More studies with larger samples, with treatment and control groups would provide more information about how beneficial art therapy is to improving the QOL of this population.
Multilevel Challenges

**Client Level.** Challenges at the client level were due to the disease itself. Reminding the participants about the study and what it entailed prior to each session was time-consuming. Participant 1 had a low opinion of her own ability that prevented her from participating in an activity she had previously found enjoyable. Finding ways to encourage this individual became difficult and therefore the participant was not able to complete the study due to this opinion of herself.

**Program Level.** Being on placement in a long-term care facility and having other responsibilities made it difficult to ensure there was enough time with the participants each week. There was limited free time when working on a floor with people living with dementia. Ensuring that there were enough activities running, and that all the residents were given the chance to attend all the activities reduced the amount of time the student had to work specifically with the participants in the study. This limited the number of sessions the student was able to facilitate each week with the participants.

**Organization Level.** Most individuals residing in a long-term care facility need assistance in everyday tasks such as, going to the washroom, getting dressed, eating, and bathing. The staff on the floor had several residents they worked with each day to complete these everyday tasks. Ensuring that the participant’s hygienic routine was completed before starting a session and that the sessions would be completed in time for meals, and other activities was difficult at times, as the student did not want to interrupt staff members’ busy schedules. As the student also had a busy schedule creating and implementing activities for all the residents, the schedule for both the staff and the student made it difficult at times to implement the art therapy sessions.

**Societal Level.** Working with this population, and making sure that it is understood is a problem at a societal level. It is important that people understand what Alzheimer’s disease is and how it affects not only the person who has it, but their family members and people around them. Giving these individuals a voice and promoting the wellbeing of people living with dementia is important to make sure these people are heard.

**Contribution to the Behavioural Psychology Field**

The literature review highlighted the benefits of art therapy across several different settings and populations. Although improvement in the QOL of the participant was not demonstrated in the present study, several studies have found an improvement in the QOL for participants. If interventions such as these can work well for people at different stages of dementia, it demonstrates a need for more research in this area.
Recommendations for the Future Research

Conducting this study within the confines of a long-term care facility provided many scheduling issues as a placement student. The participants were involved in other activities in the facility, needed to be washed and dressed on the Personal Support Workers set schedule, and did not always want to attend art therapy sessions. Due to these limitations, the student did not have a set schedule for implementing the art therapy sessions. Based on these difficulties, it is recommended that future studies on improving the QOL of people living with dementia are conducted by a researcher whose sole responsibility in the facility is providing art therapy. Another recommendation would be to implement a matched comparison. This would entail having at least four participants, two of whom have sessions with music playing in the background, and two that do not and compare the mood ratings for each session, to isolate what effect this variable might contribute. The literature review explores how art therapy can increase individuals test scores on the CDT. Although the current study was unable to test this theory, more research using the CDT and other standardized tests that can stimulate regions of the brain should be explored to determine if art therapy can in fact increase individuals’ cognitions as well as improve their overall QOL.
References


Appendix A: Informed Consent Letter

Project title: Using Art Therapy to Improve Quality of Life in Dementia Residents

Principal Investigator: Erin Rodgerson
Name of supervisor: Erin McCormick
Name of Institution: St. Lawrence College
Name of part partnering institution/agency: Rideaucrest

You are being invited to take part in a research study. I am a student in my 4th year of the Behavioural Psychology program at St. Lawrence College. I am currently on placement at the Rideaucrest. As a part of this placement, I am completing a research project (called an applied thesis). I would like to ask you for your help to complete this project. The information in this form will help you understand my project. Please read the information carefully and ask all the questions you might have before you decide if you want to take part.

The purpose of this study is to improve the quality of life in individuals diagnosed with Dementia using art therapy. Art therapy will provide these individuals with a way to express themselves, and entertain them as well.

If you choose to take part in this study you will be asked to attend three, one hour sessions per week, for 10 weeks. Before the start of therapy and again at the end, you will be asked to fill out a questionnaire that will take about 10-15 minutes to complete which will measure your quality of life. You will also be asked before and after each session to rate your feelings using a rating scale.

Benefits of taking part in this research study include enjoyment in doing art, as well as, improving your quality of life by increasing your self-confidence, and hopefully reducing anxiety. The potential benefits of this research study to others include showing new ways to improve the quality of life of people with Dementia. Doing this study could also provide more research, which could make it easier for others with Dementia to receive art therapy as a treatment option more in the future. Potential risks from taking part in this research study are minimal but may include being dismissive or uninvolved, if you do not like the art you are doing, and possible side effects if the materials (e.g., paint, paper, markers) are consumed. Everybody is different and if you do have any strong reactions to the art project you are working on, please talk to me or my supervisor. If you do not want to participate in the activity that day, you do not have to, and you can be taken back to your room.

All information, including consents, will be encrypted on a USB stick that is password protected, or in a locked cabinet in Marilyn’s office. Participants will not be identified by name in reports and publications, and all names will be coded with numbers. The only people that will have access to the original data will be myself and my supervisor (Marilyn). The data will be kept on file both at the residential facility and St. Lawrence College for 10-years, and then will be destroyed.
Taking part is voluntary. It is up to you to decide whether or not to take part in this research project. If you do decide to take part, you will be asked to sign this consent form. If you do decide to take part in this research project, you are still free to withdraw at any time, without giving any reason, and without incurring any penalty, or negative effects.

This project has been approved by the Research Ethics Board at St. Lawrence College. The project will be developed under the supervision of Marilyn McClean, my supervisor at Rideaucrest and Erin McCormick, my supervisor from St. Lawrence College. I really appreciate your cooperation and if you have any additional questions or concerns, feel free to ask me, ERodgerson18@sl.on.ca (613-217-3746). You can also contact my College Supervisor (Erin. McCormick@csc-scc.gc.ca) or you may also contact the Research Ethics Board at reb@sl.on.ca.

Consent
If you agree to take part in this research project, please complete the following form and return it to me as soon as possible. A copy of this signed document will be given to you for your own records. An additional copy of your consent will be retained at the agency [and in a secure location at St. Lawrence College, if applicable].

By signing this form, I agree that:

- The study has been explained to me.
- All my questions were answered.
- Possible harm and discomforts and possible benefits (if any) of this study have been explained to me.
- I understand that I have the right not to participate and the right to stop at any time.
- I am free now, and in the future, to ask any questions I have about the study.
- I have been told that my personal information will be kept confidential.
- I understand that no information that would identify me will be released or printed without asking me first.
- I understand that I will receive a signed copy of this consent form.

I hereby consent to take part.

<table>
<thead>
<tr>
<th>Participant Name</th>
<th>Signature of Participant</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student Printed Name</th>
<th>Signature of Student</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix B: Mood Thermometer

How are you feeling today?

<table>
<thead>
<tr>
<th>HAPPY</th>
<th>NEUTRAL</th>
<th>SAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Happy]</td>
<td>![Neutral]</td>
<td>![Sad]</td>
</tr>
</tbody>
</table>
Appendix C: Quality of Life in Alzheimer’s Disease Scale

Quality of Life in Alzheimer’s Disease (QOL-AD)

Instructions for Interviewers
The QOL-AD is administered in interview format to individuals with dementia, following the instructions below.
The interview is carried out with the subject and/or an informant. The subject should be interviewed alone.

Hand the form to the participant, so that he or she may look at it as you give the following instructions (instructions should closely follow the wording given in bold type):

I want to ask you some questions about your quality of life and have you rate different aspects of your life using one of four words: poor, fair, good, or excellent.

Point to each word (poor, fair, good, and excellent) on the form as you say it.

When you think about your life, there are different aspects, like your physical health, energy, family, money, and others. I’m going to ask you to rate each of these areas. We want to find out how you feel about your current situation in each area.

If you’re not sure about what a question means, you can ask me about it. If you have difficulty rating any item, just give it your best guess.

It is usually apparent whether an individual understands the questions, and most individuals who are able to communicate and respond to simple questions can understand the measure. If the participant answers all questions the same, or says something that indicates a lack of understanding, the interviewer is encouraged to clarify the question. However, under no circumstances should the interviewer suggest a specific response. Each of the four possible responses should be presented, and the participant should pick one of the four.

If a participant is unable to choose a response to a particular item or items, this should be noted in the comments. If the participant is unable to comprehend and/or respond to two or more items, the testing may be discontinued, and this should be noted in the comments.

As you read the items listed below, ask the participant to circle her/his response. If the participant has difficulty circling the word, you may ask her/him to point to the word or say the word, and you may circle it for him or her. You should let the participant hold his or her own copy of the measure, and follow along as you read each item.

1. First of all, how do you feel about your physical health? Would you say it’s poor, fair, good, or excellent? Circle whichever word you think best describes your physical health right now.

2. How do you feel about your energy level? Do you think it is poor, fair, good, or excellent? If the participant says that some days are better than others, ask him or her to rate how she/he has been feeling most of the time lately.
3. How has your mood been lately? Have your spirits been good, or have you been feeling down? Would you rate your mood as poor, fair, good, or excellent?

4. How about your living situation? How do you feel about the place you live now? Would you say it’s poor, fair, good, or excellent?

5. How about your memory? Would you say it is poor, fair, good, or excellent?

6. How about your family and your relationship with family members? Would you describe it as poor, fair, good, or excellent? If the respondent says they have no family, ask about brothers, sisters, children, nieces, nephews.

7. How do you feel about your marriage? How is your relationship with (spouse’s name). Do you feel it’s poor, fair, good, or excellent? Some participants will be single, widowed, or divorced. When this is the case, ask how they feel about the person with whom they have the closest relationship, whether it’s a family member or friend. If there is a family caregiver, ask about their relationship with this person. It there is no one appropriate, or the participant is unsure, score the item as missing.

8. How would you describe your current relationship with your friends? Would you say it’s poor, fair, good, or excellent? If the respondent answers that they have no friends, or all their friends have died, probe further. Do you have anyone you enjoy being with besides your family? Would you call that person a friend? If the respondent still says they have no friends, ask how do you feel about having no friends—poor, fair, good, or excellent?

9. How do you feel about yourself—when you think of your whole self, and all the different things about you, would you say it’s poor, fair, good, or excellent?

10. How do you feel about your ability to do things like chores around the house or other things you need to do? Would you say it’s poor, fair, good, or excellent?

11. How about your ability to do things for fun, that you enjoy? Would you say it’s poor, fair, good, or excellent?

12. How do you feel about your current situation with money, your financial situation? Do you feel it’s poor, fair, good, or excellent? If the respondent hesitates, explain that you don’t want to know what their situation is (as in amount of money), just how they feel about it.

13. How would you describe your life as a whole. When you think about your life as a whole, everything together, how do you feel about your life? Would you say it’s poor, fair, good, or excellent?

**Scoring instructions for QOL-AD:**
Points are assigned to each item as follows: poor=1, fair=2, good=3, excellent=4. The total score is the sum of all 13 items.
**UWM/ADPR/QOL**

*Aging and Dementia: Quality of Life in AD*

**Quality of Life: AD**

(Family Version)

<table>
<thead>
<tr>
<th>ID Number</th>
<th>Assessment Number</th>
<th>Interview Date</th>
<th>Score (for clinician’s use only)</th>
</tr>
</thead>
</table>

Instructions: Please rate your relative’s current situation, as you see it. Circle your responses.

<table>
<thead>
<tr>
<th></th>
<th>Physical health</th>
<th>Poor</th>
<th>Fair</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Energy</td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>2</td>
<td>Mood</td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>3</td>
<td>Living situation</td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>4</td>
<td>Memory</td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>5</td>
<td>Family</td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>6</td>
<td>Marriage</td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>7</td>
<td>Friends</td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>8</td>
<td>Self as a whole</td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>9</td>
<td>Ability to do chores around the house</td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>10</td>
<td>Ability to do things for fun</td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>11</td>
<td>Money</td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>12</td>
<td>Life as a whole</td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

Comments:

____________________________________________________________________________________

____________________________________________________________________________________
# UWMC/ADPR/QOL

Aging and Dementia: Quality of Life in AD

Quality of Life: AD

( Participant Version )

<table>
<thead>
<tr>
<th>ID Number</th>
<th>Assessment Number</th>
<th>Interview Date</th>
<th>Score (for clinician’s use only)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**Instructions:** Interviewer administer according to standard instructions. Circle your responses.

1. Physical health
2. Energy
3. Mood
4. Living situation
5. Memory
6. Family
7. Marriage
8. Friends
9. Self as a whole
10. Ability to do chores around the house
11. Ability to do things for fun
12. Money
13. Life as a whole

Comments:

______________________________________________________________________________

______________________________________________________________________________

Total
Score Summary Sheet

Informant’s score of subject’s QOL (maximum 52)

Subject’s own QOL rating (maximum 52)

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Appendix D: The Clock Drawing Test Instructions

General Information: Provide the patient with an 8.5 x 11-in. blank sheet of paper and a pencil.

Set-up: Equipment required includes a blank sheet of paper, a sheet of paper with a clock on one side, a pen, and a chair/table for ease of drawing.

Patient Instructions (Rouleau, Salmon et al. 1992): The following instructions are given:

“I would like you to draw a clock, put in all the numbers, and set the hands for 10 after 11.”

Following this condition, the patients should be instructed to copy, as accurately as possible, a clock from a model. The model should contain all the numbers on the clock, be 3 inches in diameter, and located on the upper part of an 8.5 x 11-inch sheet of paper. The hands on the model should be set for 10 after 11. The patient is then instructed to copy the model on the lower part of the same sheet of paper.

- Instructions can be repeated if necessary
- Patients may use their non-dominant hand for drawing the clock
The Clock Drawing

Name: ___________________________  Date: ________________

Draw a clock with all the numbers, and set the hands for 10 after 11.
The Clock Drawing Test

Name: ____________________________  Date: ________________

Copy this clock below.

Reference:

Scoring system for Clock Drawing test (CDT)

There are a number of scoring systems for this test. The Alzheimer's disease cooperative scoring system is based on a score of five points:

- 1 point for the clock circle
- 1 point for all the numbers being in the correct order
- 1 point for the numbers being in the correct spatial position
- 1 point for inserting two hands of the clock
- 1 point for the correct time.

Test results

The CDT is a useful screening test for cognitive impairment. It has added merit in that it evaluates executive, visuoperceptual and constructional dysfunction. In community based sampling it has a sensitivity of 83% and a specificity of 72% for cognitive impairment. It is not helpful in differentiating between dementia types.

A normal score is ≥ 4 points.

References


Appendix E: Clock Drawing Test for Participant 1

Name: ___________________________  Date: __________________

Draw a clock with all the numbers, and set the hands for 10 after 11.
Copy this clock below.