

NURSING HOME MUSIC THERAPIST AND CERTIFIED NURSING ASSISTANTS'  
PERSPECTIVE ABOUT THE EFFECTS OF MUSIC THERAPY ON  
OLDER ADULTS WITH DEMENTIA

by

Ava Kulkarni

An Abstract

of a thesis submitted in partial fulfillment  
Of the requirements for the degree of  
Master of Science  
in the Department of Social Gerontology  
University of Central Missouri

August, 2016

## ABSTRACT

by

Ava Kulkarni

This research looked at a music therapist's and certified nursing assistants' perceptions of the effects of music on the lives of nursing home residents suffering from dementia. Data were collected using semi-structured interviews of 6 certified nursing assistants (CNAs) and 1 music therapist working at a nursing home. Qualitative analysis indicated that dementia residents were often anxious, depressed, aggressive, socially isolated and combative towards their caregivers. Interviewees observed that implementing music in the everyday lives of these residents generally helped them relax, calm down, and be in a better mood to interact and cooperate with their nursing staff and fellow residents. In the perspectives of the CNAs and the therapist, music shows promise as a means to improve the quality of life for residents with dementia and also helps caregivers assist residents with their activities of daily living with much more ease by getting the residents to cooperate with them.

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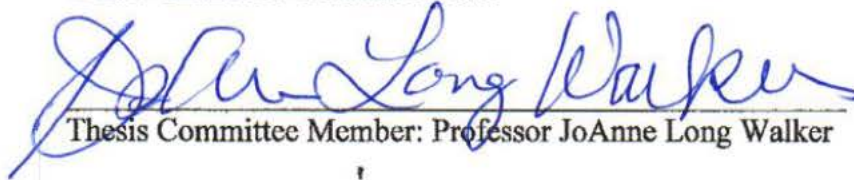
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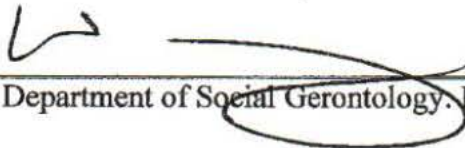


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## TABLE OF CONTENTS

	Page
CHAPTER 1: INTRODUCTION .....	1
Purpose of Study .....	4
CHAPTER 2: LITERATURE REVIEW .....	6
Role of Music in Human Health and Well-Being.....	6
Role of Music in the Health and Well-Being of Older Adults .....	10
Music and Older Adults: A Phenomenological Approach .....	11
Impacts of Music Knowledge on Older Adults' Experiences .....	14
Role of Music in Quality of life of Older Adults with Dementia.....	20
Role of Music in Treating Anxiety and Depression in Older Adults with Dementia...	25
CHAPTER 3: METHODOLOGY .....	31
Research Questions .....	31
Informant Selection.....	32
Data Collection .....	32
Interview Schedule.....	33
Data Analysis .....	34
CHAPTER 4: FINDINGS.....	35
Characteristics of the Sample.....	35
Music Therapy and Use of Music at the Facility .....	36
Residents' Behavioral Responses Before and After Music .....	37
Themes in the Perceived Effects of Music .....	43
Interest.....	44

Response .....	44
Initiation .....	45
Involvement .....	46
Enjoyment .....	46
Conclusion .....	47
CHAPTER 5: DISCUSSION.....	49
CHAPTER 6: CONCLUSION .....	55
Limitations of the Study .....	57
Recommendations for Future Research .....	57
REFERENCES .....	58
APPENDICES	
A. Letter of Permission.....	69
B. Recruitment Flyer.....	70
C. Consent Form .....	71
D. Music Therapist Semi-Structured Interview Guide .....	72
E. Certified Nursing Assistant Semi-Structured Interview Guide .....	74
F. Human Subjects Approval .....	76

LIST OF TABLES

Table	Page
1. Informants' Reports of Dementia Residents' Behavior Before the Music Therapy Sessions .....	38
2. Informants' Reports of Dementia Residents' Behavior During and After Music Therapy Sessions or other Musical Activities.....	39
3. Interviewees Perceptions of Music's Benefits by Themes of Musical Effects.....	43



## CHAPTER 1

## INTRODUCTION

What is music? Music is any form of vocal and instrumental sounds which produces harmony and expression of emotions. For generations music has become a big part of our everyday lives. We define ourselves in terms of the music to which we enjoy listening. In American culture we find different kinds of music from classical to pop, rock and hardcore punk. Today's young cohorts, like those of the past, find themselves creating their own tunes and beats of songs and music. And, music tends to be part of our lives across the life course. Additionally, music helps us recall our past lives' memories that we would have forgotten with time. Most people have a tendency to associate their personal situation or their relationship with somebody in terms of song (Dijck, 2006). So after many years whenever they hear the song it takes them back to remembering that person or the situation they were going through at the time. Although music has long been a prominent feature of American culture, we have largely underestimated the value of listening to music in curing our physical health and addressing mental health needs.

Have you ever wondered what is it that happens to us when we listen to music which changes our mood and gets us energized? Music, unlike any other stimulus, has the ability to activate all parts (lobes) of the brain which are involved in reasoning, emotions, memory, movement (coordination), thought processing, visual processing, speech, orientation, and recognition. Music is highly efficient in easing one's physical pain post surgery, reducing anxiety, depression and stress symptoms, enhancing one's mood, motivating one to work out, improving sleep quality, improving cognitive performance, helping individuals to perform better in high-pressure situations and many more (Bernatzky, Presch, Anderson, & Panksepp,

2011). It is like we tend to unconsciously use music to get us through all kinds of physical and mental pain, but we are rarely aware that we are using music to get us cured.

It is common for young people in our culture to use music on daily basis. That music automatically records itself in our motions and emotions which are luckily stored in the parts of the brain that are last to be affected by mind-debilitating illnesses (Rossato-Bennett, 2012). Hence, music of our youth can be used to arouse our minds and access memories much later in our lives, even among those who develop dementias, like Alzheimer's disease. Further, music can be used as a non-pharmacological treatment, instead of consuming prescribed multiple narcotic drugs to deal with emotional and mental illnesses.

It has been proposed that music could be used to reduce anxiety and depression among the nursing home residents suffering from Alzheimer's disease and other forms of dementia, and generally improve their well-being (Davies & Smith, 2007). "Dementia" is defined as a progressive disorder of the brain that affects the memory and other important mental processes. The type of dementia known as "Alzheimer's disease" occurs in three stages, as described by Matteson (1984). Stage 1 lasts two to four years where the symptoms observed are memory loss, disorientation to time, and lack of spontaneity. Stage 2 lasts the next five to ten years characterized by aphasia (language or speech impairment), repetitive movements, unnecessary wandering, agitation, confusion, and changes in appetite. Stage 3 lasts only one to two years and ends in death. During this final stage the individual may become emaciated, incontinent, unable to communicate, and may have grand mal seizures.

As a large number of the baby boomer cohort is turning sixty-five and over, we will have millions of people suffering from incurable diseases like the dementia. As gerontologists it is our

responsibility to make sure that all of our elderly residents—with or without having dementia—are well taken care of. Everyday there are new scientific inventions are discovered in the field of medicine to treat different kinds of diseases but unfortunately there is not any cure for disease like dementia. Usually physicians prescribe different narcotic drugs to calm the demented residents and to help them relax and be less anxious and depressed. Medications may be used to calm residents who start acting out or giving nursing staff a hard time during everyday activities of bathing, toileting, dressing, and eating. Residents of most nursing homes take 10 to 12 medications simultaneously, which often have chemical interactions with various kinds of negative side effects, like headache, nausea, and cognitive impairments. Due to the limitations of a pharmacological approach, alternative therapies have been introduced. This research looks at nursing home staff perceptions of the use of music therapy for their residents with dementia.

For example, music may be introduced to ease the anxiety and depression levels in dementia residents by helping them improve on their repetitive vocalizations often observed in stage two of dementia. Repetitive vocalizations can cause frustration in a demented resident because they cannot express themselves clearly and this could cause them to be isolated and depresses because they know something in them is not right and there is no way getting the help they need. Since music is a non-pharmacological approach there are less chances that listening to music will have negative side effects on an individual as compared to taking dozens of different medications. Listening to music can have a long lasting positive effect on an individual's overall health needs if this non pharmacological therapeutic session is practiced on a regular basis with less or no cost. Many older Americans, due to retirement and low income, cannot afford their medications and are at times forced to choose between food and medications. It is often seen that

the root cause of most diseases is the depression and anxiety which leads to causing severe chronic conditions. So if the root cause of all the chronic diseases is fairly managed and brought under control it could help to eliminate the major medical conditions.

### **Purpose of the Study**

The purpose of conducting this study is to discover what a music therapist and certified nursing assistants (CNAs) identify as important in using music to reduce the anxiety and depression levels in nursing home residents suffering from dementia. The music therapist is in a position to observe the residents during the therapy sessions. The CNAs work closely with the residents and usually come to know them very well, so they are in a position to see first-hand how music affects those with dementia. The people who are with dementia residents on a daily basis and are most involved with them can provide a great deal of information about the residents' behaviors and apparent well-being. At the same time, the CNAs can report on how their work and their interactions with the residents can be easier when music becomes part of the residents' therapy or even the routine at the facility.

As the disease progresses people with dementia can feel isolated due to the loss of language skills. Music can reduce anxiety and stress, and enhance emotional well-being through verbal and non-verbal expression, increased social interaction and cognitive stimulation. It can encourage the use of knowledge and abilities stored in the long-term memory such as lyrics from familiar songs, and encourage listening, singing, movement and music making (British Association for Music Therapy, 2012). Patients with Alzheimer's have to have the music that has a meaning for them and that correlates with the memory and feelings. Music therapy is based on the premise that awakening the pathways in the brain through music can open a gateway to reach

an individual who is otherwise, due to the disease, unreachable. In other words, an individual may be, effectively, “trapped” in their own world, and music can help re-establish their awareness of others around them and increase their understanding of events in their surroundings. Additionally, the use of music is a cost-effective treatment. This music can be obtained on a less or no cost budget. In America the amount of money that older adults spend on purchasing prescribed narcotic drugs for lessening the effects of the ongoing disease may be lessened by adding music therapy to the treatment of diseases, like dementia. The results of my research should increase our understanding of whether music does seem to help those suffering from the disengagement, anxiety and depression of dementia, to bring them back to life.

## CHAPTER 2 LITERATURE REVIEW

*Next to the word of God, the noble art of music is the greatest treasure in the world.*

Martin Luther, 1538 (1965)

Various research studies have been conducted to predict the impact of using music in our everyday lives. Through music we achieve various everyday tasks subconsciously. Music has the power to influence our feelings and emotions. When we are going through a hard time, listening to music could make us better (Gardner, 1990). As the following review of the literature indicates, music has therapeutic benefits to individuals of all ages. The main purpose of this research is to look at health professionals' views about how music could bring positive implications to older adults with dementia. Studies have shown that using music on patients suffering from dementia can help them remember their past events and give them pure joy. Also, with the progress of dementia patients often get agitated, anxious, depressed and socially isolated. It has been suggested that music could help alleviate all these negative symptoms of dementia by calming them down and making them feel better about themselves. Those involved with music therapy and who work with dementia residents in a care facility where music has been introduced into daily life can provide insight into whether this seems to be the case.

### **Role of Music in Human Health and Well-Being**

Music is an exceptionally pervasive marvel we make and listen to in our ordinary lives (Hargreaves & North, 1999). Music has the ability to impact our brain, considerations, feelings and conduct intuitively (Laslocky, 2013). It gets us in the right inclination, it helps us to bond with other individuals, and it additionally makes shared encounters. Music permits people to

express sentiments and thoughts regarding themselves and their place on the planet (McCaffrey & Locsin, 2002). Music listening is a passive activity that permits members in the audience to take in musical sound through the ear, handle that sound in the brain, and permit the sound to summon a passionate and/or physical reaction (Khalifa, Isabelle, Jean-Pierre, & Manon, 2002). Music treatment has antiquated roots and it was first known to be used prescriptively for individuals' passionate and physical diseases (Aldridge, 2000).

Music treatment has been conjoined with neuroscience to propel music-based intercessions for sicknesses and impairments of a wide assortment (Hanna-Pladdy & MacKay, 2011; Horden, 2000). We start reacting to music while in the womb. Human responsiveness to music starts in the womb in the last trimester of fetal life (Lecanuet & Schaal, 1996). Infants can hear the environmental sounds, the sounds they hear through the dialect and music, and they can distinguish the musical components of both to such an extent they will react to music and stories they have heard before in ways that are distinctly different from the ones that are new to them (Hodges, 2002). This suggests that our memory structures include specialized components for dialect and music. In the early years of life, those musical components will permit infants and toddlers to learn their families' verbal dialects and vocabularies (Zatorre, Chen, & Penhune, 2007).

Kathleen M. Howland is a certified music therapist and licensed speech language pathologist has explained how music could heal our brain and heart, including the importance of music in health industry. In her Tedtalk, Howland (2015) related how music could be used as a therapeutic intervention to help individuals going through different life events such as stroke or neuro degenerative diseases that impairs the physical functioning of the body. Music could calm

down the stress and anxiety that probably we go through in our everyday's exhausting lifestyle whether it is our jobs, care giving burden or maybe going through painful medical treatments such as chemotherapy. Music has the ability to incite unwinding reaction that truly benefits people going through different trials of life. She further explains that besides being of a therapeutic use music could be helpful in getting difficult tasks done together that otherwise would not have been completed. She concludes her talk by stating that people underestimate the power of using music as a medicinal/therapeutic intervention and emphasizes the need to consider using music more often as part of medicinal/recovery unit.

Allen (2007) studied the effects of music on adults by concentrating on the impact of music on the physiological reaction to stress and anxiety of 60 patients preparing for surgery. In the study, plasma levels of cortisol and common executioner lymphocytes amid surgery diminished in the patients that listened to music, yet expanded in those in the control group. Positive mental impacts of music includes diminishment of uneasiness and anxiety. Similarly, Hays, Buffum, Lanier, Rodahl, and Sasso (2003) found that listening to music appeared to positively affect tension in patients going through a gastrointestinal surgeries, for example, colonoscopy. Twiss, Seaver, and McCaffrey (2006) evaluated 60 patients experiencing coronary conduit sidestep surgery to determine the impact of music on uneasiness and length of intubation time after surgery. These researchers found that those patients who listened to music during and after surgery had lower scores on nervousness measures than did the individuals who did not listen to music. The patients in the study who had listened to music during the surgery could be weaned off their ventilators within an average of six hours, while the patients who did not listen to music required an additional three hours of ventilator support. These studies have shown that



listening to music during health care procedures can diminish stress, which may aid in the healing and well-being process of the patients who have undergone surgery (Twiss, Seaver, & McCaffrey, 2006).

Hauke Egermann (2014) is a British musicologist who studied gatherings of people while he gave a TED talk on the effects of music on human emotions and feelings. In the investigation, he played three music selections, after which he asked the audiences to raise their hands if they felt the music that was being played was either happy or a sad music. The experiment revealed that, with a few exceptions, the audience members had similar opinions about whether the selections made them happy or sad. So, how does overall music affect human feelings and emotions? Egermann (2014) addressed this inquiry by offering four distinct views of the impacts of music on listeners:

First, “based on learned associations” emphasizes learning to associate the musical patterns with emotional contacts that make music emotional. For example, the happy or upbeat music makes you feel happy and gets you in the right mood; likewise, a sad tune makes you sad or unhappy.

Second, “based on a listener’s musical expectations” talks about how we are able to sing along with previously unheard songs that come up on a radio because of our knowledge of the musical patterns, styles and musical sentence structure that creates expectations in us, and these expectations get transformed into emotions.

Third, music induces emotions in us because of the expressive emotional movement. For example, based on a listener’s mood state before listening to music, certain musical selections

have the power to produce cheerful, satisfied, and upbeat feelings, which other selections may lead to feelings of misery or bitterness.

Fourth, music is also activating sound that has diverse influences on our sympathetic nervous system that creates attention, orientation and subjective arousal in us. In our everyday world we see people using a background music while studying or doing some work to help them focus and pace their work.

In summary, music inspires positive and negative feelings based on learned associations, and musical desires depend on the listener's ability to learn and associate new music with specific emotions or feelings. Further, expressive emotional movement and activating sounds are based on universal response patterns. This helps explain why at times our responses are so similar, by bonding us together and creating shared experiences. Although music can arouse a wide range of feeling, it can likewise shape passionate propensities such that when one hears certain sorts of music, one's feelings rise to the top without any external stimulus. Aristotle alluded to this phenomenon when he opined that "by music a man becomes accustomed to feeling the right emotions" (quoted in Marshall, 1953, p. 229).

We have looked at how music influences emotional feelings in us and how it could help us while going through difficult life events. For the purpose of this research study I chose to look at how music is perceived by music therapists and certified nurse assistance as potentially benefiting the older adult population.

### **Role of Music in the Health and Well-Being of Older Adults**

Older adults face numerous difficulties as they move toward the last phases of life (McCaffrey, 2008). As individuals age, they may experience more illnesses, depression, social

disengagement, and intellectual and physical deterioration (Linden, 2001). Due to these deteriorating factors older adults may lose their ability to live and function independently, which can cause tension and social disengagement in some older adults (McCaffrey, 2008). These issues could be addressed by finding ways to create an atmosphere that diminishes their anxiety, nervousness, and disorientation. A positive or supportive atmosphere also might help older adults remain autonomous longer, while reducing the incidence of depression, social disengagement, and ailment (McCaffrey, 2008). Research findings to date suggest that an atmosphere that would enable them to live independently could be created by introducing music into their lives.

### **Music and Older Adults: A Phenomenological Approach**

The study undertaken by McCaffrey and Good (2000) exhibited how music was utilized by older adults to diminish pain, enhance physical capacity, and lessen post-operative disorientation. Utilizing van Manen's (2014) method to deal with phenomenology, older adults were met to discuss the lived experience of listening to music while recouping from surgery. Older adults who agreed to participate in the study were given music to listen to at whatever point they wished during their recuperation. Each participant was interviewed by the researchers on each postoperative day and the interviews were audio taped. The researchers reviewed and analyzed the meetings, and discovered three main phenomena. The first phenomenon identified was "Feeling Comfort in a Discomforting and Frightening Situation." The participants expressed that the healing facility environment was startling on the grounds that there were numerous uncomfortable tests and procedures, the climate was loud and frantic, and they had no control of what transpired or when it happened. The members revealed listening to music during these

stressful periods stimulated feelings of solace, rest, and diminished uneasiness. The music had the power to relax the tension by being, quieting, recognizable, and consoling.

The second phenomenon found by McCaffrey and Good (2000) was "Distraction from Pain." When the participants encountered discomfort, they concentrated on the musical sounds instead of on the pain. Concentrating on the music help to reduce their pain, and help them to exert some control over their discomfort. This was particularly true when the participants were asked to tolerate the administration of pain-inducing medications.

The third phenomenon from this study was "A Feeling of Being at Home" (McCaffrey & Good, 2000). This occurred when participants closed their eyes and listened to recognizable music; by engaging in these behaviors, the participants felt like they were transported to their own homes. One participant explained that, as she listened to the music and shut her eyes, she imagined being back in a comfortable love seat in her living room. For some participants music proved to be comforting and made them feel safe. This study advises the nursing staff to utilize music to help patients who are recouping from surgery since music is a very cost-effective, safe, and proven intercession to enhance the recuperation environment after surgery.

Music can have positive effects on a variety of physical ailments. For example, McCaffrey and Freeman (2003) explored the impact of listening to music on osteoarthritis pain among 66 community-dwelling older adults. Osteoarthritis is the most widely recognized ailment in individuals and presents a noteworthy obstruction in keeping up with the physical capacity and freedom because of torment and deformation (Brown, Johnston, Saltzman, Marsh, & Buckwalter, 2006). Thirty-three study participants listened to 20 minutes of light classical music for 14 days. A control group of 33 participants sat quietly for 20 minutes without listening to music for 14 days.

The researchers used the short version of the McGill Pain Questionnaire (Melzack, 1975) to analyze the participants' feelings of pain and discomfort before and after listening to music on days 1, 7, and 14 of the study. Study results demonstrated that those participants who listened to music, compared to the control group, suffered less pain and discomfort after listening to music on days 1, 7, and 14 of the study (McCaffrey & Freeman, 2003). Thus, this study revealed that music can be utilized to create such an atmosphere that diminished osteoarthritis pain in older adults living in the community.

McCaffrey and Locsin (2004) conducted another study about the effects of music on the pain and disorientation experienced by older adults after elective hip or knee surgery. A survey of the writing affirmed that the psychological state of intense perplexity or disorientation is normal in older adults and is a comorbid marker of hindered recuperation from surgery in older adults. It is evaluated that up to half of older adults experience a scene of intense disarray after hip or knee surgery and that that rate incrementally increases with age (McCaffrey & Locsin, 2004, 2006). The researchers found that the participants who listened to music post-operatively experienced less pain and used less pain medication than did a control group. The participants who listened to music also experienced fewer episodes of disorientation than did the control group (McCaffrey & Locsin, 2004). Postoperative patients who experience significant post-operative pain and disorientation are less ready to ambulate after surgery, are more inclined to experience postoperative inconveniences, and are at high hazard for falls due to disorientation. Decreasing postoperative disorientation is vital to advance recuperating after surgery, and in this study, music helped diminish the participants' feelings of uneasiness, quieted the environment,

and provided a soothing and less stressful atmosphere in which participants could begin their recovering process (McCaffrey, 2008).

Kenny (1999) contended that individuals use music to provide definitions to the reality of their life, and Bright (1995) demonstrated ways in which music evokes psychological, physical, and emotional reactions. In *The Secret Power of Music*, Tame (1984, p. 14) expressed that,

at whatever point we are capable of hearing the scope of music, its influence is playing upon us always, for example, speeding or abating, regularizing or irregularising pulse, unwinding or jolting the nerves, affecting the circulatory strain, the absorption and the rate of breath. Its effect upon the feelings and longings of [people] is accepted to be immense, and the degree of its influence over even the absolutely savvy, mental procedures is just starting to be suspected by scientists. Music has likewise been appeared to assist individuals with ways for finding and deciphering their personality.

DeNora (1999), for instance, contended that individuals can find a feeling of self in music, since musical materials give terms and images to the elaboration of self-personality. Music can be a medium, others contend, through which individuals convey their needs and bring out mind-set improvement, arouse feelings of enrichment and religious activities. (Sloboda 1991, 1999; Sloboda & O'Neill 2001). In order to enjoy music it is not necessary to be a professional artist or to have a profession in music. Music is a universal language that could be enjoyed by everyone.

### **Impacts of Music Knowledge on Older Adults' Experiences**

Hays and Minichiello (2005a) conducted a music study of participants between ages 60 and 99. The level of musical knowledge of the participants ranged from those with no musical

abilities or skills who connected, for the most part, by tuning in, through those who were entry level performers with musical preparation, to the individuals who had been proficient artists—and in a couple of cases were still giving music lessons. The fact that all expressed some type of musical knowledge demonstrated that music played a significant role in participants' lives. There were no major differences in between the reactions of individuals who were proficient artists and individuals who had no years of experience in music. The identified topics included: prosperity, association, religious satisfaction, and the benefits of music. While music for a few individuals was just a part of fun and pleasure, for others it worked as a method for sharing and interfacing in their lives, of connecting to life occasions, of advancing individual prosperity, and overseeing time. For some it was remedial, and for some it had a solid profound significance. Hays and Minichiello (2005a) examined the means by which music became important in the lives of the participants and suggested the following ways.

*Sharing and associating.* For many participants, music had provided chances to mingle and kept on being a method for meeting and collaborating with others. One participant considered these social events to have been great times and lamented that their recurrence had declined (Hays & Minichiello, 2005a, p. 266):

I think [our] age group represents [remembers] a time in which we enjoyed music brought about by people associating with one another, visiting and enjoying singing at the piano and bringing it all together and at various times performing to individuals on their behalf and contributing to a large extent towards our way of life, and we notice very much how a situation like that has changed, and it's rather a shame in many ways.

Another participant recalled “singing around the piano at night time, you know, at parties and so forth, where somebody would play the piano and there’d be about 20 people...that doesn’t happen now” (Hays & Minichiello, 2005a, p. 266). Many participants thought that their experience with music led to them connecting with other individuals. Through offering music to others, a large number of the interviewees uncovered who they were without using dialect and discussion. Through music the participants had possessed the capacity to create kinships. For some participants, music was a method for being acquainted with and finding shared conviction with new individuals.

*Connecting life occasions.* Through music it could be possible to meet other individuals who may be going through the same life events as you. This would lead to making new friends and sharing of feelings. In the study conducted by Hays and Minichiello (2005a) the participants’ remarks suggested that the experience of music held solid affiliations and recollections, numerous associations with specific life occasions. One participant said that music “identified with the warm spots of individuals’ lives, for example, youth, family, school-days, sentimental connections, companionships, courting- days, child rearing, and extraordinary occasions, for example, births, marriage and death” (Hays & Minichiello, 2005a, p. 267). For a majority of the participants, the music of their childhood and courting had the greatest percentage of grounded recollections. The memory affiliations activated by music were not universally enjoyable. A few participants purposely avoided specific music that made them melancholic and feel down. Others said that they selected music to augment their moods at the time. For example, one respondent said that at a point when he was feeling down he picked music that permitted him to “flounder in his reflections.” Several interviewees said that music had brought more extreme encounters as



they became old. For some, music had changed from being a cause of social connection and excitement to something that met more individual and helpful needs; in a variety of instances after being widowed or finding that they wished to live a calmer life. Other informants revealed that both their own tastes and requirement for different sorts of music had changed throughout the years. Numerous participants said that they progressively favored quiet, calming music as opposed to noisy and invasive music.

*Music and prosperity.* Hays and Minichiello (2005a) found that their informants talked about music as giving a feeling of “inward bliss,” “internal happiness,” “inward fulfillment” and “internal peace.” One said that music is “something from outside that you ingest and it gives you, through your faculties (senses), aural and enthusiastic...it accomplishes something to the science of the body which gives you a sentiment peace and joy” (Hays & Minichiello, 2005a, p. 269). Interestingly, for participants to have a feeling of prosperity and joy, they didn't need to hear the music from an external source, rather they could depend on inward hearing. “Inward hearing” is when one is mindful to music that one hears in the psyche; it is the memory of the music that is experienced very much as if it was an external sound. An example was given of delighting in strolling down the road and listening inside to music. Another illustration given of the significance of inside hearing was, “Music has always been important in my life and I must have it. I listen to it every day and every night. If I can't listen to it, I can still hear it in my head. For instance, I can hear and sing all of Tosca in my mind without having to hear it” (Hays & Minichiello, 2005a, p. 269).

*The remedial benefits of music.* Hays and Minichiello (2005a) found that one of the most grounded subjects to develop was that music has a restorative effect and eases stress. One

comment was that “music has a calming effect...releases your tension. It’s like a massage, a mental massage, if you like” (Hays & Minichiello, 2005a, p. 270). For a few, music compared with a mental need, and for others it was straightforwardly connected with the physical parts of playing music, such as, singing and breath control, playing the organ to keep the fingers, feet and psyche spry, and playing the piano to keep up with the strategy. Said one about playing the piano, it “is wonderful because (a) I’m not very good and (b) I’ve got arthritis in the hands. So that’s another thing that music gives back to me is keeping my fingers reasonably free of arthritis...and of course it’s such an all-absorbing thing. It takes up so much of my time” (Hays & Minichiello, 2005a, p. 270). A few informants portrayed music as reducing sorrow, depression and general tiredness. Others talked about the extreme physical satisfaction and joy experienced when listening to or making music. Some observed that music “raised their spirits;” as one said, “If I felt a little down or lonely, the piano will fix me” (Hays & Minichiello, 2005a, p. 271). Counting on music to ease her pain was mentioned by one informant; that when she was at the dentist or the podiatrist and ached physically, she thought about music and could persevere.

*Time, reality and departure.* Hays and Minichiello (2005a) found that many informants used music to set a schedule for their day-by-day lives. For example, listening to music on the radio every the morning and on compact discs toward the evening; playing the piano frequently; planning and producing group radio shows; getting together and making music with companions. Many said that playing recordings and listening to music as a backup to every day exercises made them more lively. Another motivation for being pulled into and delighted in music was that it provided “innovative play,” dream and escape from regular living. In other words, directly or through its idea affiliations, music permitted them to daydream and to escape reality and time.

*Spirituality.* According to Hays and Minichiello (2005a), depictions of spirituality were varied, but connected to definitions of most profound sense of being. A few who did not actually consider themselves to be religious or spiritual admitted that music lead them to comprehending and experiencing spirituality. According to one, “Music is about connecting with people, yes, but [also] moving into a different world and a bigger world and a world of the spirit to some extent and [into] your emotions” (Hays & Minichiello, 2005a, p. 273). Another source said: “I don’t have a religion as such...But I think the music is a lifting experience; it’s a spiritual experience, which does take you out onto another level, let’s put it that way, which nothing else will: it’s transcendental” (Hays & Minichiello, 2005a, p. 273).

In summary, Hays and Minichiello (2005a) discovered that the significance of music was firmly identified with the members’ feeling of self and personality, and with how they encountered feelings, conveyed sentiments and feelings to others, and that people utilized music as a medium to enhance their well-being. It has been demonstrated that understanding these subjective implications of the role of music in people’s lives can shed vital bits of knowledge into how individuals live and connect in the world. Principally, by examining the subjective experience of the significance of music, we pick up bits of knowledge into the individual’s self. Music can connect an older adult to other people—both those alive and those who might never again be living, and might likewise invoke recollections, offer meaning to life, and bring a more prominent feeling of spirituality.

Clair (1996) noticed that memory can offer assistance with adapting to change and accepting one’s life. It can support self-regard, contribute to personal satisfaction and empower one to draw upon individual qualities. Music is more than a restorative device, and can be a

typical and important medium for advancing health. Older adults could to utilize music as a vehicle to give stability and importance in their life. Health care professionals could also utilize music to accomplish *verstehen*, a better sense of older adults' participation in the subject matter. Music can likewise be utilized to associate older adults to others and social life. Music furnishes individuals with methods for knowing themselves, others and the world in which they live. Music is a capable image for how individuals carry on with their lives, to make a sense of what they feel like while listening to music, and how they choose to act and respond to their reality. These perspectives raise interesting questions about the role of music in the lives of older adults with cognitive impairments, namely Alzheimer's disease and other forms of dementia

### **Role of Music in Quality of life of Older Adults with Dementia**

Hays and Minichiello (2005a, 2005b) delineated the significance of the experience and satisfaction in music amongst older adults, and gave support to the view that music contributes towards positive self-regard, upgrades sentiments of ability and autonomy, and reduces the experience of social detachment. A significant number of those with Alzheimer's illness, regardless of aphasia and memory misfortune, keep on recollecting and singing old melodies, and will rhythmically move in response to old musical selections (Braben, 1992; Brotons, 2000). Further, the individuals who played musical instruments before the onset of dementia have shown that musical knowledge could be retained in them even as the disease progresses (Crystal, Grober, & Masur, 1989; Cuddy & Duffin, 2005). Such research has likewise demonstrated that musical capacities and recollections actually may not be hampered by disintegration of the brain in the areas identified with speech and language, raising the likelihood of music as a non-verbal

form of correspondence for individuals with dementia (Aldridge, 2000; Brotons, 2000; Hubbard, Cook, Tester, & Downs, 2002).

Music remedial treatments have appeared to have numerous beneficial results, including creating a strong foundation to have a purposeful life, countering problematic actions like turbulence, keeping people involved in various activities, enhancing social communication, stimulating enthusiastic and intellectual aptitudes, and enhancing eating at mealtimes (Biley, 2000; Denney, 1997; Götell, Brown, & Ekman, 2000; Pulsford, 1997; Ragneskog, Brane, Karlsson, & Kihlgren, 1996; Ragneskog & Kihlgren, 1997). The exploration of remedial treatments has been guided by an environmental model of well-being (Torrington, 2006) that draws on the work of T. Powell Lawton (1991) and Tom Kitwood (1997), and which concentrates on the regular daily practices of the individual. In this conceptualization, an individual's everyday activities are seen to be influenced by the arrangements of two components: characteristics of the individual (physical capacities, subjective capacity, intellectual variables) and characteristics of the setting (formal support system, informal organization, physical environment and social connection). These daily activities are either encouraged or restrained by one or both of these components. How an individual comes to conclude the importance from their regular exercises is vital to their well-being.

Positive well-being (*i. e.*, joy and life fulfillment) ensues from being included in exercises that are actually important and purposeful, while negativity stems from not being able to complete these effectively. For persons with dementia, the environment needs features that can overcome the individual limitations imposed by their illness so that they can become involved in meaningful activities and connections with others in ways that can lead to positive well-being.

The researchers using the environmental model felt that adding music to the environment might be a way to connect with patients with dementia and draw them into important and purposeful exercises.

For many, music has been a dynamic and integral portion of their ordinary lives and it has been known to improve their feeling of well-being. Singing songs in chapel, hitting the dance floor with a friend or relative, or discussing musical tastes and recollections are all examples of most people's past musical experiences. For others, music may have had less significance, and some might have lost interest, especially those who have experienced the social withdrawal often connected with dementia (Brotons, Koger, & Pickett-Cooper, 1997; Thomas et al., 2002). Nevertheless, for those with extreme dementia, research has shown that music occasionally had an open and fortifying effect. By analyzing the data it was found that the involvement in music was rationally empowering, and it advanced engagement and association in regular everyday activities, where beforehand the individual had been unmindful and withdrawn.

Music likewise gave the open door for the subjects to be included in exercises that backed and fortified positive feelings towards relatives, carers or others, for example, singing together and moving. Music brought happiness and joy, could invigorate recollections of past occasions and exercises, and gave individuals the chance to experience positive feelings from their past lives. Music additionally gave chances to other individuals and to partake in important exercises with others, regularly having them participate by utilizing non-verbal types of correspondence and communication, for example, touch.

Based on their research, Sixsmith and Gibson (2007) recommended that the beneficial effects of musical exercises for the general population with dementia fell into four classes:

enhancing feelings of well-being, supporting valued activities, empowering social cooperation, and strengthening and control.

*Enhancing feelings of well-being.* Being included in music-related exercises made individuals feel prepared to express their bliss physically and inwardly. At the point when music was talked about in the interviews, individuals frequently lit up, grinned or giggled, and in a few cases started to sing. Also, numerous informants observed the mitigating nature of music, and said that music, and listening to music, helped them feel good about themselves, candidly elevated, more settled and less disturbed. When all is said and done, music was delighted in at enthusiastic and tactile levels, instead of the scholarly level. Although artists or melody titles might have been hard to remember, the verses were more regularly recalled, and most individuals could chime in. This supports past studies that have demonstrated the role of music in memory maintenance, and of music as a guide to correspondence (Cuddy & Duffin, 2005; Norberg, Melin, & Asplund, 2003). Besides making an individual feel good and enthusiastic about themselves, music could also prod the individual come out of their comfortable chair and help in carrying out household chores while the background music is playing.

*Supporting valued activities.* For huge number of participants, music was a fundamental part of a few significant and agreeable exercises during their day. For individuals living in their own homes, music gave a feeling of life and action in the home, frequently through its being “exchanged on” by casual and expert carers. For instance, an expert home carer consistently urged one adult with dementia to help with cleaning and other family unit undertakings, and the ongoing music made the movement more pleasant while stimulating the adult to join in. In facilities music was played out of sight for routine exercises and during mealtimes, and appeared

to decrease disturbance and advance connection at congregate meals (Denney, 1997; Ragneskog & Kihlgren, 1997). Music opened doors for and invited individuals to take part in “exceptional occasions,” for example, visits to neighborhood bars, social clubs and music shows. Such exercises kept up individuals’ past hobbies and diversions and perpetuated a dynamic social life.

*Empowering social cooperation.* Activities including music often included significant social communication and engaging in public activities. Much of the time, the individual with dementia was joined by casual or formal carers, family and companions, or by other individuals with dementia. The individual could be a dynamic member, by playing an instrument, singing or moving, or a beneficiary of others’ music-production, either being sung to or listening to music that another person had put on. Exercises including music frequently included close physical and passionate contact, as when singing together and moving. For some, incorporating those with an extreme level of dementia, moving gave refreshing chances to convey sentiments and keep up a passionate association with friends and family. As one carer recalled, “In fact sometimes, [at] one time, not quite so much now, but one time we would get up and have a little dance, you know just do like a boogie thing ... and we’d just do moving arms, and at one time she’d join in and she’d wiggle hips or whatever you wanted her to do. Now she’ll actually move her arms with you” (Sixsmith & Gibson, 2007, p. 136). This remark demonstrates that music can engage individuals with either mild or serious levels of dementia. Music and exercises that included music advanced the use of touch as a wellspring of nonverbal interaction for an individual with dementia, giving a medium to physical and passionate holding between a person with dementia and his or her family and carers (Götell et al. 2000; Hubbard et al. 2002). Music furnished



individuals with dementia with chances to join with others in important discussions, and to have some measure of control over the discussion.

*Strengthening and control.* Involvement in music gave individuals with dementia a level of strengthening and control over their own lives. At an essential level, playing music to go with an activity frequently had key influence in empowering an individual with dementia to connect with an action. As noted by Sixsmith and Gibson (2007), the mood melodies played by an expert carer reportedly urged one patient to help with the family unit cleaning, which afforded a level of control and bearing over her surroundings and a feeling of being occupied and of keeping up the home space. Comparable benefits were clear in even the most difficult circumstances, such as a woman with serious dementia whose young daughter frequently sang to her and brought her onto the dance floor. At the point when the daughter sang, her mom moved in time to the music and eventually was dancing. These apparently insignificant activities ought not be under-evaluated. This case represents that association in music can bring quite undeniable benefits even to seriously psychologically disabled individuals, and can contribute in a little yet unmistakable route to their personal satisfaction.

Music not only helps in making older adults with dementia feel better, helps them to connect with other individuals suffering from dementia and empowers them to help out in cleaning around the house, as mentioned above, but also helps in calming older adults who suffer from anxiety and depression due to the progression of the disease dementia.

### **Role of Music in Treating Anxiety and Depression in Older Adults with Dementia**

Approximately 20% of Americans aged 65 and over might have melancholy; yet this issue is regularly undiscovered and untreated (Segal, Jaffe, Davies, & Smith, 2007). Researchers

have demonstrated that almost 50% of all nursing home occupants have depression (Starr, 2007). Older adults are at the most elevated risk for suicide, and health care specialists have cautioned about the impacts of poor mental health on physical well-being (BBC News, 1999). Research proposes that individuals being dealt with for discouragement and uneasiness might get lasting advantages from music, to offer them some assistance with relaxing their psyches and bodies (Cromie, 2002).

Assessing the impacts of music therapy on elderly dementia patients has been carried out with different interventional approaches (Holmes, Knights, Dean, Hodkinson, & Hopkins, 2006; Vink, Birks, Bruinsma, & Scholten, 2011). Music appears to influence the autonomic sensory system and the cognitive processing of music is not restricted to one part of the cerebrum. Consolidated with social impacts, private feelings, and individual recollections, the impact of music treatment can be complex. An assortment of musical exercises have been utilized to diminish sorrow in older adults, including choral singing and group instrumental exercises.

One essential point to remember is that individual older adult won't be similarly influenced by the same sort of music. For example, country music may not persuade people who have given hours of listening to traditional or classical music; people who enjoy listening to jazz music might be exhausted with a Bach innovation (a specific sort of console piece by Johann Sebastian Bach, a German composer and musician of the Baroque period). Along these lines, the opportunity to engage in a class of music that "talks" to the individual is critical. Oliver Sacks, an eminent neurologist, noticed that patients with sensory system issues who can't talk or move are regularly ready to sing, and even move, to music, recommending that music has an exceptional ability to compose and revamp a cerebrum that has been harmed (Cromie, 2002).

Memory might break down in multiple ways, yet regularly, a tune will be remembered as a way to mesh recollections into a “fabric of reality” (Aldridge, 2000, p. 9). People with brain damage from Alzheimer’s disease seem to react to music that touches uninjured parts, and music can offer them some assistance with communicating with others and lead a more social life (Cromie, 2002). Music can be utilized as treatment to reduce tumult and meandering in those with dementia, and to help them reconnect with recollections from the past, for example, through war-time anthems. Singing together can be a method for associating, welcoming the person with dementia to take part without going up against their misfortunes, serving as a method for correspondence and social cooperation (Ridder, n.d.).

Behavioral and mental side effects of dementia intensify as dementia becomes more extreme (Cerejeira, Lagarto, & Mukaetova-Ladinska, 2012; Hall & Buckwalter, 1987; Katona et al., 2007). Because of serious psychological impairment, patients with extreme dementia might have difficulty participating in music-related exercises and communicating feeling (Boller, Verny, Hugonot-Diener, & Saxton, 2002). For elderly patients with extreme dementia, the significance of an intelligent segment (for example, cooperation in a musical execution), as opposed to uninvolved music therapy alone, is worth considering (Holmes et al., 2006; van der Vleuten, Visser, & Meeuwesen, 2012).

One study reported that, in persons without dementia, the autonomic sensory system is actuated when listening to music that has been self-selected, through the generation of the neurotransmitter dopamine (Salimpoor, Benovoy, Larcher, Dagher, & Zatorre, 2011). An investigation of elderly people (sound or with mild dementia) reported that self-portraying recollections are inspired by well-known music that summons feelings (Irish et al., 2006;

Schulkind, Hennis, & Rubin, 1999). Taking this into account, and following the Progressively Lowered Stress Threshold Model proposed by Hall and Buckwalter (1987), Gerdner (2000) reported that agitation (turbulence) and stress could be diminished by listening to well known “individualized music” that evokes positive feelings through review of positive recollections.

Individualized therapy—in which the type of music and the music activities used are tailored to the individual—seems to be connected with unique recollections linked to stress reduction and expanded positive enthusiastic reaction (Stern, 2009; Yamaguchi, Maki, & Yamagami, 2010). Individualized music is music that has been incorporated into a particular individual’s life, picked on the premise of individual preferences (Gerdner & Swanson, 1993). Research results do support using individualized music therapy to encourage an individual with dementia to engage in short-term intelligent cooperation in an activity.

In the late phases of the dementia, elderly people tend to pull back from their surroundings (Boller et al., 2002; Ikeda et al., 1998). However, studies have indicated that music therapy might be viable in restoring connections of those with dementia with other individuals, prompting enhanced quality of life (Boller et al., 2002; Stern, 2009; Yamaguchi et al., 2010). Additionally, interactive music therapy was found to viably diminish behavioral and mental side effects of dementia, including paranoid and delusional ideation, interruption in carrying out activities, and agitation toward care givers. In addition to the direct benefits provided the patient, these progressions brought about lessened care giving strain, which has been found to prompt enhanced care giver quality of life (Huang, Lee, Liao, Wang, & Lai, 2011; Miyamoto, Tachimori, & Ito, 2010), which, in turn, can lead to better care for the patient.

Beyond the music therapy session, itself, the addition of music to a patient's environment as a background to various activities has been shown to have positive effects, as previously discussed. Bathing is a standout amongst the most complex exercises of everyday living when helping an individual with dementia. Ninety percent of all nursing home residents requiring help with this activity (Rader et al., 2006). Nursing home residents often show imperviousness to care while showering that may bring about aggressive and agitated practices (Sloane et al., 2004). These circumstances can be stressful for both the individual being showered and the CNA. The dementia and agitation together impede the help being given by CNAs. During bathing and other practices of everyday living, anxiety and difficulties accomplishing the tasks might be reduced by using individualized music. It is essential to give music that conveys solace to the resident being set up for a shower. Thought also must be given to social foundation, rhythm, volume, and temperament of the individual with dementia (Stige, 2002 ). The tone and beat of music chose can influence the enthusiastic reaction. Additionally, the decision of melody may inspire sentiments of resentment, misery, or satisfaction (Quinto, Thompson, & Keating, 2013). These points of interest underline the need of making an individualized playlist for the music and showering activity.

While looking at enhancements in the quality of life of patients, it is vital to understand more about using music to decrease behavioral and mental side effects of dementia. As mentioned earlier in this literature review the main focus of this research study is to determine ways in which music could be implemented into the lives of the older adults suffering from dementia to help them recuperate from anxiety and depression that in most cases accompanies as

the disease progresses. In the following chapter I outline the methods used to collect my data and the procedures used in analysis.

### CHAPTER 3 METHODOLOGY

As a review of scholarly articles showed, older adults with dementia were benefited by using music to assist them in their everyday lives. Research suggests that music can be used as therapy to overcome the issues that accompany with the progress of the disease which help them to live independently for as long as possible. In this research study the researcher chose to use a qualitative approach to interview nursing and therapy staff working with dementia residents in order to understand their perception of the meaning and value music has in the lives of older adults with some form of dementia who were residing at a United States Veteran's Nursing Home in a Midwest state.

#### **Research Questions**

By conducting this research study the researcher looked forward to answering the following questions:

1. What are the perceptions of a music therapist and certified nursing assistants regarding music therapy and the ways that music can help reduce the anxiety and depression levels in residents suffering from dementia?
2. What are the key areas of physical, mental, and social functioning that are important to residents suffering from dementia, and how could music help in identifying those key areas?

To conduct this study the researcher interviewed a music therapist and a number of certified nursing assistants who worked with dementia residents at a nursing facility, and used a qualitative approach to interpret results.

**Informant Selection**

For the purpose of this research study the researcher obtained permission from the director of a Veteran's Administration Home (see APPENDIX A) in which some of the residents had been diagnosed with dementia or Alzheimer's disease.

After permission was given, the CNAs and the music therapist working closely with the residents were recruited to participate in this research project. The researcher handed out flyers (see APPENDIX B) and emailed the nursing staff to inform them about the volunteering opportunity to participate in the project. Informants were selected using a purposive sampling method. For this study the researcher selected 6 CNAs who have worked at least 2 to 3 years at the veteran's home working closely with older adults with dementia and 1 music therapist who had 12 years of work experience in the field.

Informants who had been interested and selected for the research study were given a hard copy of the informed consent form (see APPENDIX C), giving them about 72 hours to review the document, ask questions and decide if they still want to participate in the study. After obtaining the signed informed consent form from the participants the researcher assigned a code name for each interviewee. Also the researcher obtained permission from each informant about using excerpts from interviews to use the information for any of her written research papers or presentations.

**Data Collection**

For this research project the researcher collected data using a one-on-one in-depth interview method. Six CNAs and one music therapist, all who worked at the same facility, were interviewed. Each participant was interviewed individually. The researcher interviewed the



nursing staff and music therapist to obtain some important facts from them about the older adults at the residential care facility. While interviewing, the researcher took field notes. Also, with the acquired permission from the interviewees the researcher audio taped the interviews for later transcription in order to ease analysis for the purpose of writing the research paper.

### **Interview Schedule**

Each interview schedule consisted of 10 to 15 questions focused upon the interviewees' observations of the older residents with dementia and the effect the music has on their residents (see attached APPENDICES D and E for the music therapist and CNAs, respectively). The questions in the interview schedule were based on topics covered in the Behavior Pathology in Alzheimer's Disease Rating Scale (BEHAVE-AD) (Sakamoto, Ando, & Tsutou, 2013) and Music in Dementia Assessment Scale (MiDAS) (McDermott, Orgeta, Ridder, & Orrell, 2014; McDermott, Orrell & Ridder, 2014, 2015). The BEHAVE-AD scale had been developed to enable a researcher to measure the levels of behavior and activity disturbances observed in target subject populations, while MiDAS similarly offered scale items to measure the subjective qualities and attitudes of individuals.

While the cited scales had been used by previous researchers as researcher-coded measures of their direct observations of individuals with dementia, this study had a different purpose. Instead, items in the study's interview schedules were designed to allow the music therapist and the CNAs to answer, to give their perceptions of the dementia residents with whom they worked, as well as to report on their own behaviors and experiences with using music with the residents at the facility. Due to this study's research objectives, and because the primary method to collect the data were semi-structured interviews, the interview questions were written

based on the contents of BEHAVE-AD and MiDUS, in order to get in depth information from the informants.

### **Data Analysis**

The researcher examined the interview transcripts to code responses so that answers to her research questions could be found. First, the researcher uncovered patterns in interviewees' descriptions of the activity disturbances that were viewed as being related to anxiety and depression levels of residents with dementia. Then, reported changes in dementia residents' behaviors after music therapy, or when they had experiences with music, were identified as reported by each interviewee. Third, the Visual Analogue Scale (VAS) items from MiDAS provided a framework for understanding the areas of physical, mental, and social functioning perceived to be important for residents suffering from dementia. This analysis helped answer whether those who work with older adults with dementia—especially the CNAs who share so much time with them—see any benefits of music therapy or the use of music with the residents. Also, the framework gave meaning to the interviewees' narratives, that is, their stories about their experiences working with dementia residents when music was involved.

As stated, in the final analysis the researcher organized interviewees' comments about the impact of music on the residents into those areas identified by the VAS: levels of (1) Interests, (2) Response, (3) Initiation, (4) Involvement and (5) Enjoyment. The researcher believed that transforming the data into VAS could help us understand the key areas that are important to dementia residents and thus will help the nursing staff to provide better quality of life for its residents with dementia with the help of music.

## CHAPTER 4 FINDINGS

### **Characteristics of the Sample**

For this qualitative study the interviewees (informants) were selected using a purposive method. A total of 6 CNAs and 1 music therapist were interviewed.

Five of the 6 CNAs had graduated high school; 2 went to college for a semester or two and had few college credits before they took up CNA jobs. Most went right after graduating high school for some type of vocational training in different types of majors such as medical assistant, child development, or certified medical technician. All of the CNAs interviewed had worked at the nursing home for 2 or more years. All but one CNA were female. Ages ranged between early twenties to mid-fifties. Depending on the time of the day the CNAs seemed quite busy around the mid-morning to afternoon times when they had to help their residents with showers and get them ready for lunch. Even when they were quite rushed at times all of them were quite eager and polite to spare a few minutes for interview.

The music therapist was on-site less often than the CNAs, offering the group therapy session just once a week in one of the four wings on a rotation schedule. She was interviewed over the phone because of a clash in schedules. The music therapist had been working at the nursing home only for 3 months but had 12 years of work experience in the field. She had a bachelor's degree in music therapy and a board certified license with 6 months of internship. She seemed very friendly and very upbeat. She had positive goals for her residents at the nursing home and was always willing to do more to make them happy and smiling.

As part of their jobs CNAs helped residents with their daily activities: toileting, bathing, brushing teeth, dressing, feeding, giving them medications and many more activities. When

asked, "What is it that you do?" CNA1 replied, "We feed them, we also bathe them, their hair, we shave them, take them to the bathroom, put their clothes on them, pretty much anything and everything they may need for daily assistance."

### **Music Therapy and Use of Music at the Facility**

For the music therapy sessions the music therapist has her guitar that she uses to play live music selections from the 1940s to 1950s. She also brings in musical instruments like the jingle bells, flags or stars that she hands out for the residents to wave in the air. At the facility she only does a group session, which is usually attended by 10 to 15 residents from a residential wing. The music therapist is not around after the music therapy session so her observations and perspectives about the residents discussed below are based upon her interactions with the residents at the beginning and during the session.

Besides the weekly music therapy that is offered at the nursing home the CNAs reported that in each neighborhood they have a living room area for the residents where they have the television set for them to watch any shows, they also have the radio system in the living room and the dining room. Like CNA6 said:

But now with music it's on me—and I'm a fan of music in general—and as a therapy it's something everybody should have. So normally when I come in I turn the TVs off and I turn the radios on.

CNAs encouraged the residents to listen to the radio or to the juke boxes they have in their individual rooms, or while working the CNAs like to sing them one of their favorite songs from the time they were young. Besides this, there are school bands that come in every other Saturday to perform for the residents.

**Residents' Behavioral Responses Before and After Music**

The first research question to be addressed was, can music really help in reducing the anxiety and depression levels in residents having dementia? Answering this question involved analyzing the information provided by the Certified Nurse Assistants (CNAs) and Music Therapist who worked with the residents and were with residents during music activities or while music therapy was carried out.

First, the CNAs and Music Therapist were asked to describe the adverse behaviors they observed in dementia residents with which they worked. It was found from the data given by each of the interviewee reported some type of agitation, anxiousness, depression, combativeness, and social isolation behavioral problems in their residents having dementia prior to going to the music therapy session. Table 1 links each CNA and music therapist with each of the issues that they had talked about in their interview when asked about what was it like when working with residents suffering from dementia.

From the data/instances provided by the CNAs and the music therapist it was noted that the residents suffering from dementia before going to a music therapy session or listening to musical activities the residents were seen to exhibit a variety of negative symptoms or experiences. A number of residents seemed to be feeling socially isolated and wanting to go back to their home. Several were observed to be mad or agitated, often because something triggered a negative mood and they would sometimes end up screaming or yelling at other fellow residents. Some residents could get combative with the nursing staff if they remembered their past experiences from the war they served in; some seemed to get grumpy or upset or depressed for

no reason; and some were found to be non-responsive, particularly those in the more advanced stages of dementia.

Table 1. Informants' Reports of Dementia Residents' Behavior Before the Music Therapy Sessions

Informant	Reported Behaviors
CNA #1	Anxious, Social isolation (depression)
CNA #2	Agitated, arguing
CNA #3	Screaming, depressed and socially isolated
CNA #4	Combativeness, rude, hatefulness, wander, agitated, anxious
CNA #5	Angry/agitated, wanting to go home, using foul language, wandering, sexual arousal
CNA #6	Combative, agitated and yell at each other, agitated due to over stimulation
Music Therapist	Non responsive, usually found sleeping, grumpy, depressed, agitated due to over stimulation.

Then, each of the informants interviewed were asked about how the residents responded to music activities or the music therapy that is conducted once a week at their home. They were asked to report their perceptions of what effect music activities or music therapy had on each of the residents. Also, they were asked whether music helped in making their work with the residents any easier. Table 2 summarizes each CNA's and the Music therapist's perspectives of residents during and after the music therapy session or other musical activities.

All six of the CNAs and the music therapist agreed that music helped tremendously with changing the mood of the residents. Negative moods gave way to more positive moods, and music helped residents calm down and relax.

Table 2. Informants' Reports of Dementia Residents' Behavior During and After Music Therapy Sessions or other Musical Activities

Informant	Reported Behaviors
CNA #1	Starts singing and dancing, gets them out of being socially isolated.
CNA #2	Depending on their moods they listen to it, some sing, it relaxes them, helps them to remember the song being played.
CNA #3	Some smile when they hear song they remember, some tap their foot, or clap to music. Depending on music some cry if the song brings sad or emotional memories. Gets them out of being depressed or isolated. Having them sing during the showers makes it a lot easier.
CNA #4	Listening to CD while they bathe is very soothing for them and calms them down, takes them back to relaxing period of their life, changes their whole mood and keeps them happy for couple of hours to a couple of days.
CNA #5	Dance in their chairs or shake the musical instruments, gets them to calm down and stop yelling and using foul language but this might not be the everyday thing, just depends on their feelings and emotions. When listen to music they forget about wanting to go home.
CNA #6	It calms them down while helping them with ADLs, they have smiles on their faces when they listen to songs, puts them in better moods, if have them listen to music for long hours could get them agitated.
Music Therapist	Music gets them to wake up and get in the mood, show positive expressions, they smile, clap their hands, march their feet, tap their feet, waving their hands and arms in air, sing lyrics to the song from their early life, dramatic change in moods, for residents who do not like music could turn into music over stimulation.

During the music therapy session the residents who were found to be grumpy, agitated, mad or upset before the session were able to relax and were observed smiling, laughing, singing the lyrics word-for-word for songs from 1940s and 1950s. Some patents indicated that they

didn't even realize that they knew the song, or they were surprised that they remembered the song. Residents who were found to be physically combative stopped engaging in resistive actions and started tapping their toes or marching their feet in their wheelchairs and waving their arms and hands like they were dancing or conducting music to the songs that the music therapist was playing at the time.

After the music therapy session the CNAs think that the residents come out transformed into a completely different individuals. The residents are seen to be happy, smiling, not complaining any more, much more calmed and relaxed and better approachable. This whole transformation in their residents' moods made it much easier for the CNAs to do their jobs. For example, when helping the residents with the activities of daily living (ADLs), before music activities some residents at first would push them away and would get really agitated and mad at the nursing staff. After a music activity there were very few incidents of anger or agitation. Further, the CNAs mentioned that the effect of the music on the residents could last anywhere from thirty minutes to a couple of days, depending on how much the songs touched a resident's feelings and emotions.

When asked what is the best method that works while conducting the music therapy session on residents with dementia the music therapist said:

Yeah most of the time the most respond is from the music from their generation so it really doesn't matter what I do with it. I haven't been able to find something that all the time works very well but a lot of time the technique with the guitar and when I give them instruments and I play a song from their generation...songs from ...when they were in their 20s and 30s—so we are talking about music from



'40s and '50s—works best...and brings out the best in them. Because that was the peak time in life and that's where the really strong memories often lie so any intervention that I use with those types of songs will usually get overcept of response.

Hence, the music therapist confirms that music popular in the time of residents' young adulthood resonated best with the students. However, it did seem important to get residents' active participation in performing or acting in concert with the music. In the therapist's words:

The more that I do the hands-on, get them moving and get them interacting, the better because [otherwise] sometimes they just tune out a little bit.

In the opinion of the music therapist, music that was familiar and music in which they could participate by playing an instrument, singing, dancing, or other movement seemed to provide the most positive outcome with the residents.

Besides the music therapy sessions, the CNAs interviewed encouraged the use of music in their dementia neighborhood in the forms of using radios in their living room, and dining room area. Residents are also given the jukebox to listen to privately in their own bedrooms.

One of the CNAs shared an incident that happened at their nursing home when in town we had severe tornado warning. The CNAs were asked to get all their residents in their main living room area and were to get all the windows and doors locked down. The residents knew something was wrong and so they all panicked and started flipping out. So the CNA turned on the radio in the living room area and started singing and dancing. She called in other CNAs to join her. Just seeing all the nursing staff singing and dancing to the music helped the residents calm down and relax. Then they had the kitchen staff bring in drinks and snacks for everyone

and they had a fun party during the time of lockdown. During this time music helped to revert the anxious situation into much more relaxed environment. The situation could have gone out of control if all at once about fifty residents would have acted out their anxiety and distress at the same time.

Likewise, a few other CNAs shared their experiences of how they used music while helping their residents with activities of daily living (ADLs). One of the CNAs talked about a female resident who did not like her showers and would get agitated and mad at the CNA who was helping her shower. The resident would be seen screaming and using foul language and being uncooperative with the nursing staff. But if the CNA sang to the resident during the showers or got the resident, herself into singing, she would stop screaming. She liked singing "Silent Night," and she was more happy and more at ease while in the showers and would cooperate without such a fight. One other CNA also talked about similar bathing experience with his residents that do not like their showers. He found that listening to music or their radio while they bathe which instantly turned a resident's mood around, making it easier on them and also on the CNA to carry out this daily activity with ease.

Other CNAs shared instances when the residents were combative, grumpy, socially isolated or depressed, and turning on the radio or having residents participate in the music therapy session helped them to get in the mood to sing, dance, and be more relaxed. CNAs enjoyed singing and dancing around the residents while getting their job done. A few CNAs who were music fans sang songs like "You Are My Sunshine" or any other older songs to their residents and then the residents would sing back to them. Seeing one resident singing often triggered other residents who were quiet and tending to keep to themselves to start singing in a

chorus as buddies. This helped to create a connection between the staff and the residents by making the neighborhood a friendly and welcoming place.

### Themes in the Perceived Effects of Music

The second research question addressed by the analysis was, what are the key areas of physical, mental, and social functioning that are important to residents suffering from dementia, and how could music help in identifying those key areas? Analysis of the information obtained from interviews suggested support for the five key areas in which music impacts dementia residents' lives provided by the Visual Analogue scale (VAS): levels of interest, response, initiation, involvement and enjoyment (McDermott et al., 2014). Table 3 summarizes the themes in relation to the interviewees' perspective about the residents during the music therapy session or other musical activities.

Table 3. Interviewees Perceptions of Music's Benefits by Themes of Musical Effects

Themes	CNA #1	CNA #2	CNA #3	CNA #4	CNA #5	CNA #6	Music Therapist
Interest	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Response	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Initiation	Yes	NA	Yes	Yes	Yes	Yes	Yes
Involvement	Yes	Yes	No	Yes	Yes	Yes	Yes
Enjoyment	Yes	Yes	Yes	Yes	Yes & No	Yes & No	Yes

Yes = reported a resident's positive response to music

No = reported a resident's negative response to music

NA = no report made

**Interest.** All the CNAs and the music therapist interviewed thought that all or most of their residents are interested in listening to music. One major caveat is that it had to be the genre of music that they liked or listened to when they were younger. For example, with the cohort of residents in their facility, few residents were interested in listening to hip hop or rap. Like CNA3 said, one morning they had the MTV channel playing the pop rapping music videos, which made the residents go into bad moods and they spent their entire day grumpy and hateful. Something small like that could trigger their anger for the whole day. CNA6 talked about over-stimulation of music, which could also make them agitated and grumpy. Most residents like music but probably one or two might not.

Having residents listen to music that they don't like doing or having them listen to music for long hours could turn into music over stimulation. They had a resident who would keep screaming and using foul languages at other residents when he would be pushed into listening to the school bands that come in to perform. The type of music used and the length of time exposed to the music before over stimulation occurred were two areas in which residents differed, and showed that there were some limits to using music as a positive therapy. In part, it depended on the personality of the resident and what they are interested in doing.

**Response.** Usually when the CNAs wheeled the residents down to the living room area in order to get them involved in the therapy session, as observed by the music therapist the residents were seen to be non-responsive, sleeping, grumpy, depressed, agitated, and socially isolated. During the session the music therapist would come in with her guitar and also brings in musical instruments like the jingle bells, stars or flags that she distributes among the residents. With her guitar she usually played live music from 1930s, 1940s, and 1950s because that was the

peak time in the life of the residents and that is where their strong memories lie. Listening to the music from their past often brought residents out of their physical or emotional miseries and got them back to the happy years of their life. Listening to music lightened up their whole mood for the day. At the start of the session the residents who were seen to be non-responsive, grumpy, agitated, depressed, and or socially isolated were found singing and dancing along with the music therapist. Residents who were non responsive at the beginning were often found to be mouthing each and every word of the lyrics to the song being played. Some residents would start waving the musical instruments that were being passed out by the music therapist in the air like they are teaching or conducting music. And some others in the wheelchairs would start marching their feet, tapping their toes, and nodding their heads to the beats of music.

*Initiation.* CNAs talked about when they started singing, it triggered one of the resident to sing back to them. Then, seeing that may trigger other residents to sing along with them. Like, CNA1 recounted singing “You Are My Sunshine” or “Home On The Range” to her fellow resident and then he would sing it back to her. Sometimes she would sing part of it and then he would sing the later part of the song; sometimes if other residents were around they would join in singing along with them, creating a bond between the CNA and the residents. CNA3 talked about a resident she used to care for who loved singing “Silent Night” in her showers, and that calmed her down. Once the CNA could get the residents singing, they would join in and sing and dance along with the CNA or the music therapist, forgetting whatever difficulties were going on with them before the music started. For example, if they were grumpy or mad at someone, depressed, socially isolated, or anxious over something, when they started singing those troubles faded away.

***Involvement.*** In the dementia unit the interaction and involvement during the music therapy session within the residents with each other was fairly limited. Residents could be seen singing and dancing with the music therapist during the session, but some residents won't necessarily interact with other residents who are also participating in the session. The level of a resident's involvement in music-related activities probably depended on their stage in dementia and their personality. CNA4 put it that it just depends on the personality of the resident. In the dementia care unit (neighborhood) "there are guys who click together, there are guys who are loners" and probably do not want to interact with anyone "while there are other guys who like to hang out with everyone." These were the "kind of aspects that you will find in any place." She further explained that there were times during the session when the two guys on the side would be very quiet and not want to sing, and the guy in the middle, if he started singing, he might distract the other two guys so that they started singing and joining in. The music therapist said that during the group session there might be two or three residents who would be constantly interacting with each other. They would be engaging in conversation by asking each other questions like, "What was that song?" "Do you remember it?" But, other residents' involvement was minimal. For example, one of the residents was shaking his musical instrument when it fell into some other residents lap, but at least the second resident got involved enough to pick it up and give it back to the first resident.

***Enjoyment.*** All of the CNAs and the music therapist agreed that most of their residents did enjoy the music therapy sessions and the other musical activities conducted at their nursing home. Residents enjoyed what they heard and did at the music therapy session. Like CNA1 said:

Listening to music puts the resident in a good mood, makes them happy and relaxed no matter what they're going through or have gone through...Music helps them to just enjoy the moment and imagine going away in a faraway land without having to worry about what's going on.

While CNA5 did say, most residents enjoyed music, but for some, "if they enjoyed listening yesterday then they might hate it the next day. It's not that the music therapy will work on them everyday, it just depends" on their feelings and emotions and how much they would like to get into listening.

### **Conclusion**

While the music therapist said that it would be ideal to have the music therapy session on daily basis, currently she only does one wing each week. Because the nursing home has 4 wings she sees her clients (residents) from each wing probably just once a month, which is not enough therapeutic session. It would be better for residents to maybe have music therapy a couple times during the week. She felt that if the goal is to improve the residents' overall well-being mentally, emotionally, and physically, then it is important to increase the number of times the session is conducted to get long term benefits. Also, among the six CNAs interviewed, only one of them thought that the residents would benefit more with having an individualized music therapy session. Most CNAs thought that having the group session got the residents more involved and socialized. But on the other hand, the music therapist supported the fact that individualized setting will also help in giving long-term benefits by focusing on each resident's individual needs and by using techniques that will work best for each of them. When she does a

group session some residents might like or might not like certain kind of music that she plays and thus the therapy might not be as effective on them.

Overall, the music therapist and the CNAs were very positive about using music at the facility on a regular basis. Most felt that residents did benefit from both the music therapy and the ways that music was introduced in the residents' lives. They were aware of some of the issues involved, such as, overstimulation or trying to find music that all residents liked. But, they felt that the positives outweighed the negatives.



## CHAPTER 5 DISCUSSION

Music is mood enhancer tool that we use in our everyday lives. It has the ability to influence our brain, emotions, and feelings (Olson, 2015). Like one of the CNAs interviewed put it in relation to the residents of the nursing homes:

Music always makes everybody happier. I think it helps changes with the mood. I mean you could put on sad music and the whole environment can change to sad. You can put on happy music and everybody can be happy. I think it's just the way the world is created when the god created it. It's all in musical forms for all kinds of measures and needs and it's very soothing to us and like I said either you could make it happy or sad, you can change the whole feel of the room by putting on certain type of music.

Music could calm down the stress and anxiety that we go through in our everyday's exhausting lifestyle whether it is your job, care giving burden or maybe going through painful medical treatments such as chemotherapy (Howland, 2015).

The main focus of this thesis project was to look at how music could impact the lives older adults with dementia and how music could help reduce the anxiety and depression that comes along with the progression of the disease. In regards to the research that has been done it has been found that people with brain damage from Alzheimer's disease seem to react to music that touches uninjured parts of the brain, and music can offer them some assistance with communicating with others and leading a more social life (Cromie, 2002). Using music to achieve these goals for Alzheimer's and dementia residents was a primary concern at the facility

where I conducted my research. For example, the music therapist that was interviewed in this study talked about the goals she has for her nursing home residents with dementia. She talked about using music therapy interventions to work on the resident's memory, reality orientation, and physical therapy. She further explained that using old music/songs from the 1930s to 1950s that the older adults grew up listening to brought back their past memories that probably they have forgotten with the progress of dementia. Her observations of the residents did suggest that music was having the desired effect. During the music therapy session the older adults were seen singing word to word the lyrics to the old songs that they didn't even realize that they remembered. Giving them a flashback of their past memories seemed to help them bond with their lost selves and their spouses or families that they had forgotten.

Additionally, singing together can be a method for associating, welcoming the person with dementia to take part without going up against their misfortunes, serving as an method for correspondence and social cooperation (Ridder, n.d.). In her interview the music therapist mentioned that by just remembering the old songs the residents not only start singing but also dancing, marching or tapping their feet, nodding their head, and moving or waving their hands in the air to the music that is being played. Hays and Minichiello (2005a) looked at the experiences and satisfaction with music of older adults, finding that music enhances well-being and feelings of capability and autonomy, while also seems to help older adults feel more connected to other persons and aware of their environment. By moving their hands and feet gives the residents some sort of exercise and physical therapy as most of them are confined to their wheelchairs for most of the time. Research proposes that individuals being dealt with for discouragement and uneasiness might get durable advantages from music to offer them some assistance with relaxing

their psyches and bodies (Cromie, 2002). The music therapist I interviewed also encouraged the use of music to help residents with their reality orientation by helping them to be aware of things and people around them, to know what time of the year it is, and help them be in the present moment.

It is doubtful whether there are drugs or medications that would do more good than using music on older adults with dementia. Although answering that question is not the purpose of this research, it seems that what was learned from this small group of CNAs and the music therapist can encourage continuing to try using music as a supportive therapy. In America's nursing homes today, older adults consume, on average, twelve or more medications per day for different kinds of medical problems they suffering, costing some around \$1,000 on prescribed medications (Rossato-Bennett, 2012). It is seen that by consuming multiple medications causes chemical reaction from the drugs by giving rise to the side effects that at times make their medical situation worse. It has been also found that the residents of the nursing homes are being put on sedating medications to get the individuals to calm down and fall asleep so the CNAs can get their work done (Gubrium, 1975). By sedating the residents we are turning the individuals who were active and engaged into self-withdrawn, socially isolated human beings. We are taking away the one medium they have to communicate their feelings and emotions. On the other hand, music has the ability not only to help the individuals suffering from dementia to express their feelings, emotions, and bring them back to life, but it is also very cost effective.

Existing research has confirmed that significant number of persons with Alzheimer's disease, regardless of the presence of aphasia and memory deficits, continue to recollect and sing old melodies, and react physically and emotionally to older musical selections (Braben 1992;

Brotons 2000). Medications, unlike music, cost thousands of dollars where older persons with dementia may have to choose between their daily living expenses and their medications (McInnis-Dittrich, 1951). Music therapy or using musical activities is not a panacea, but will certainly help make the lives of the residents suffering from dementia better. Medications are necessary to some extent, but should not be the only core treatment used to treat dementia.

Going deeper into the thesis topic, the researcher aimed at finding what health care workers perceived to be the effects of music in lowering the behavioral side effects of dementia in older adults. In order to get a sense of the before and after effects of music therapy six certified nursing assistants and one music therapist were interviewed. Researchers have proposed that individuals who have experienced social isolation and anxiousness might achieve long-term benefits by listening to music or participating in music-based activities (Schneck & Berger, 2006). The CNAs interviewed reported behavioral side effects such as anxiousness, social isolation, depression, combativeness, and agitation prior to participating in the music therapy session. The music therapist, as well, talked about residents who come in for the therapy session and are either sleeping, anxious, agitated, upset, depressed, and socially isolated. Then, during the session there seems to be a change of mood transforming the individuals into completely different human beings. After getting out of the music therapy session the residents who had been grumpy, agitated, quiet or socially isolated were found to be more aware of their surroundings, socially involved, having the biggest smiles on their faces, much more calm and relaxed compared to prior attending the music therapy session.

The music therapist session that is conducted at the nursing home is in a group setting of around ten to fifteen nursing home residents suffering from dementia. Researchers have found

that this kind of interactive music therapy could markedly diminish behavioral and mental side effects of dementia, including paranoid and delusional ideation, interruption in carrying out the activities, and agitation toward caregivers. These progressions brought about lessened care giving strain, which has been found to prompt enhanced caregiver QOL (quality of life) (Miyamoto et al., 2010; Huang et al., 2011). Five out of six CNAs interviewed for this study agreed that the group social setting helps to get the residents who are socially isolated or depressed more involved with other residents and gets them to do singing, dancing or moving the arms and legs that they wouldn't have done otherwise.

However, the music therapist and one of the CNAs felt that music therapy in a more individualized setting would be more beneficial for the residents. There is research to support this view, also. For example, Gerdner and Swanson (1993) have focused on the effects of "individualized music," characterized as music that has been incorporated into an individual's life, picked on the premise of individual preferences. Using Hall and Buckwalter's model, Gerdner (2000) reported that agitation (turbulence) and stress could be diminished by listening to well-known individualized music that evoked positive feelings in residents with serious dementia, inspiring review of lovely recollections. Sakamoto, Ando and Tsutou (2013) speculated that individualized music intercession would have helpful impacts contrasted with a no-music control condition, and that the impacts of intuitive music therapy would be more noteworthy than the impacts of detached music therapy.

The music therapist interviewed for this research said that group setting definitely supports social interaction, which is a must for residents who are depressed and socially isolated, but the individualized setting at the same time will help to give more focus on the personal

preferences of music for each resident. While working in the group setting it might not be easy to obtain the personal details of each resident. For example, the song that she plays during the session might have been played during one of the resident's spouse's funeral which might have an emotional or mental negative effect on the resident. The music therapist thinks that besides having the in-group therapy session she would like to have more individualized one-on-one time with the residents so she gets to see them more often rather than just once a month. The therapist believes that it is important to use music on everyday basis to see more advanced effect on the residents with dementia.

## CHAPTER 6 CONCLUSION

This research project titled “Certified Nursing Assistants’ and Music Therapist Perspective on Effects of Music on Older Adults with Dementia,” looked at what the CNAs and the music therapist had to say about the effect of the ongoing music therapy session on their older residents with dementia. This thesis’s main focus was to discover what caregiving professionals observed about the behavioral side effects of dementia in older adults and how they felt that music helped in reducing those side effects. The obtained data was then transformed into different theme areas related to music such as levels of interest, response, initiation, and enjoyment which helped in understanding the reported effects of music on older residents suffering from dementia.

It was found from the nursing staff and the music therapist’s observation that most of the residents do suffer from behavioral side effects where they are seen to be anxious and agitated one day and unresponsive or depressed the next day. CNAs do believe that something small like watching the television channel that they don’t like might trigger mood change and cause them to be angry and hateful towards others. CNAs who work with the residents suffering from dementia have seen them to be grumpy, agitated, using foul language, anxious, unresponsive, depressed, and socially isolated. They think that different techniques, like massage or reminiscence, that they have tried are not as effective as using music. Music has the power unlike any other relaxing techniques to bring back the person who has been lost far long because of the disease and get the person back to life. Residents who started the music therapy session uncooperative, agitated, anxious, depressed, and socially isolated were somehow during the

session completely transformed into different individuals with positive attitudes and more awareness of their surroundings. During the session the music therapist said that the residents showed response to what music she plays for them. She has seen more response in relation to the old songs that they have grown up listening to which brings back the past memories of the individual. During the session the residents who were in bad mood at the start of the session were found singing, laughing, interacting with other residents, nodding their heads, tapping the foot, and waving their arms and hands and having the biggest smiles of their faces.

Besides the music therapy session that is conducted once a month in each wing the CNAs sing and use music while helping the residents with the activities of daily living (ADLs). CNAs think that using music helps them to bond with their residents and create that trust between the two. Also, using music makes it easier for them to carry out their job duties as the music helps the residents to calm down, relax, keeps them in a better mood for the rest of the day to a couple of days and more easily approachable.

From this research it may be concluded that most residents with dementia are interested listening to music, as shown by their clapping, singing, tapping their foot and waving their hands. They show response to music; they start singing along during the music therapy session. they get involved with other residents, and get more social. which helps them to forget about what happened to them or what they are going through. In the view of the music therapist and certified nurse assistants, dementia residents seem to be more happy people when listening to music than what they usually are without the music.

To conclude, this research project supports the view that it is important to make music a part of the medical treatments because the therapeutic effects that the music could have for a



person with dementia far exceeds what any medication could do. By making music a part of the nursing home life for the residents could help the nursing staff to provide better quality life to its clients.

### **Limitations of the Study**

This study's main limitation is that it was aimed for a very small group of interviewees. For this study a total of only 7 people were interviewed. When working with a larger population there could be more data collection creating different themes or issues to the topic. As well this study was undertaken only at one nursing facility where there are certain rules and things done in a certain way. But adding few other nursing homes as part of the study to collect more data could give a varying information to explore deeper into the topic.

### **Recommendations for Future Research**

Through this study there are opportunities to further investigate topics like whether music alone can help the patients suffering from dementia have a better quality of life without having to rely on expensive medications. And the second question to do some research will be to look into why some residents do not respond to music. From the study as it was discussed above some residents if they do not like the music that is being played or if they listen to longer hours could get them agitated or get them in bad mood but in some cases there are times when the resident does not have any reaction to any kind of music. These questions would certainly help in finding solutions to this incurable disease.

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APPENDIX A  
LETTER OF PERMISSION

Dear V.A. Administrator \_\_\_\_\_;

Thank you for considering my request to conduct my research study titled "Nursing Home Music Therapists and Certified Nursing Assistants' Perspectives about the Effects of Music Therapy on Older Adults with Dementia" at your site. Could you please reply to this email giving me permission to conduct the research there? I will need a statement saying that it is OK to collect data at your location, including the company name, your name and your position. Thank you for your help.

Sincerely,  
Ava Kulkarni

APPENDIX B  
RECRUITMENT FLYER

**Music Therapists and Certified Nursing Assistants Needed for Research Study**

**Project Title:** Nursing Home Music Therapists and Certified Nursing Assistants' Perspectives about the Effects of Music Therapy on Older Adults with Dementia

**Description of Research:** I am conducting a four-week research study at the [River City] Veteran's Home in [Midwest State], during April and May, 2016. The study will examine the ways in which music can help to reduce the anxiety and depression levels in residents suffering from dementia, from the perspectives of nursing home music therapists (MTs) and certified nursing assistants (CNAs). My research will focus on the key areas of physical, mental, and social functioning that are important to nursing home residents suffering from dementia, and how music could help those residents have a better quality of life. Each MT and CNA will participate in one 15-30 minute individual interview about the effects of music and music therapy on Missouri Veteran's Home residents with dementia. The interviews will be completed on site at the Veteran's Home.

**Who Can Participate:** Any MT or CNA who is employed by the Veteran's Home during April or May, 2016

**About the Researcher:** My name is Ava Kulkarni and I am a Master's degree candidate in the Master of Science in Social Gerontology program at the University of Central Missouri. I have completed my Bachelor's degree in biology (pre-medicine) from UCM; I am currently in my last semester of my Masters program.

**Researcher Contact Information:** If you are willing to participate in this voluntary study, or if you have any questions about this study, please contact me by email at [siddhikulkarni123@gmail.com](mailto:siddhikulkarni123@gmail.com) or by phone: 413-418-0816

**Confidentiality:** Participants' identities will remain confidential.

APPENDIX C  
CONSENT FORM

**Identification of Researchers:** This research is being done by Ava Kulkarni, with oversight by Jo Anne Long Walker, J.D., M.A. We are with the University of Central Missouri.

**Purpose of the Study:** The purpose of this study is to find out the Nursing Home Music Therapists and Certified Nursing Assistants' Perspectives about the Effects of Music Therapy on Older residents with Dementia.

**Request for Participation:** We are inviting you to participate in a study on the impacts of music therapy on older adults with dementia. It is up to you whether you would like to participate. If you decide not to participate, you will not be penalized in any way. You can also decide to stop participating in the study at any time without penalty. If you do not wish to answer any of the study questions, you may simply skip them. You may withdraw your data any time before the end of the interview. If you wish to do this, please tell Ava Kulkarni in person about your decision to withdraw from the study.

**Exclusions:** You must be at least 18 years of age to participate in this study.

**Description of Research Method:** This study involves participating in a one-time interview with Ava Kulkarni. The interview questions will ask about your observations about the impacts of music therapy has on older residents with dementia who reside at the Missouri Veterans Home. This interview will take about 15-30 minutes to complete. After you finish, we will explain the purpose of the study in more detail. You will also have a chance to ask questions.

**Privacy:** All of the information we collect will be confidential. We will not record your name, employee number, or any information that could be used to identify you.

**Explanation of Risks:** The risks associated with participating in this study are similar to the risks of everyday life. **(An explanation as to whether any compensation and an explanation as to whether any medical treatments are available if injury occurs and if so what they consist of or where any further information may be obtained.)**

**Explanation of Benefits:** You will benefit from participating in this study by getting firsthand experience in psychological research. You may also enjoy completing the personality test. We will provide you with a coupon that you may use if any of your instructors award credit for research participation.

**Questions:** If you have any questions about this study, please contact. If you have any questions about your rights as a research participant, please contact the Human Subjects Protection Program at (660) 543-4624.

If you would like to participate, please sign a copy of this letter and return it to me. The other copy is for you to keep.

I have read this letter and agree to participate.

Signature: \_\_\_\_\_ Printed name: \_\_\_\_\_

Date:

Person obtaining consent: Ava Kulkarni

APPENDIX D  
MUSIC THERAPIST SEMI-STRUCTURED INTERVIEW GUIDE

### **Introduce Researcher and Explain Research Study Procedures**

#### **Background Questions**

What is your educational and professional background?

Are you a licensed or otherwise credentialed music therapist? How long have you been a music therapist?

What is your current job title? What are your current job duties?

How long have you worked at the Missouri Veterans Home?

Tell me about yourself and your personal and professional background.

#### **Dementia and Music Questions**

(Main questions are in bold type and prompts in regular type)

**1. What music therapy or other music activities are offered at the Missouri Veterans Home?** What is your role in relation to these activities? How often does the Home offer music therapy sessions and other music-related activities?

**2. Tell me about the residents *with dementia* who attend your music therapy sessions.** What are their diagnoses? Do they engage in wandering, repetitive activities, or pacing? Do they display verbal outbursts or physical aggression? Are they tearful or depressed? Are they anxious or agitated? Are they afraid of being alone? What challenges do they face with their activities of daily living (ADLs) and relationships? With mobility and independence?

**3. Tell me about your music therapy sessions.** What approach do you use during these sessions? What types of music activities do you use (recorded music, music making, other activities)? What types of music activities do you use during every session and why? Which music activities have the most impact on the residents? Do you avoid any music activities with residents *with dementia*? If so, why?

**4. How do residents *with dementia* respond to music therapy and other music-related activities?** What behavioral responses to music therapy have you observed in the residents *with dementia*? Are the residents *with dementia* who attend your music therapy sessions agitated, disruptive, calm, depressed, or non responsive before, during, and after the sessions? Do the residents *with dementia* who attend music therapy sessions talk, sing, dance, or tap out the beat of the music before, during, or after the sessions?



**5. Please describe specific responses of residents *with dementia* to music therapy in relation to the people and activities around them.** How *interested* are the residents in the people and activities around them? How *responsive* are they to the people and activities around them? How *involved* are they in the people and activities around them? How much *enjoyment* do they show regarding the people and activities around them?

**6. Are there certain music therapy activities that do not reach residents *with dementia*? If so, why not?** How do you react when residents *with dementia* do not respond to certain music therapy activities?

**7. How has music therapy affected your relationships with the residents *with dementia*?** How has music therapy helped you to connect with residents *with dementia*? How have your music therapy sessions impacted your own sense of well-being?

**8. Describe a story or instance when music therapy had a particularly positive impact on a resident *with dementia*.** Tell me about a time when music affected a resident's anxiety or depression. Describe an instance when music therapy had a negative impact on a resident.

**Closing Questions:**

What are the short-term and long-term impacts of music therapy on residents *with dementia* at the Missouri Veterans Home?

What would make music therapy at the Missouri Veterans Home even more effective?

Is there anything else that I should know?

APPENDIX E  
CERTIFIED NURSING ASSISTANT (CNA) SEMI-STRUCTURED INTERVIEW GUIDE

**Introduce Researcher and Explain Research Study Procedures****Background Questions**

What is your educational background?

How long have you been a CNA?

What is your current job title? What are your current job duties?

How long have you worked at the Missouri Veterans Home?

Tell me about yourself and your personal and professional background.

**Dementia and Music Questions**

(Main questions are in bold type and prompts in regular type)

**1. What music therapy or other music activities are offered at the Missouri Veterans Home?** What is your role in relation to these activities? How often does the Missouri Veteran's Home offer music therapy sessions and other music-related activities?

**2. Tell me about the residents *with dementia* who attend music therapy sessions.** Do they shout or display physical aggression? Are they tearful or depressed? Are they anxious or agitated? Are they afraid of being alone? What challenges do they face with their activities of daily living (ADLs) and relationships? With mobility and independence?

**3. How do residents *with dementia* respond to music therapy and other music-related activities?** Are the residents *with dementia* who attend music therapy sessions agitated, disruptive, calm, depressed, or non responsive? Do the residents *with dementia* who attend music therapy sessions talk, sing, dance, or tap out the beat of the music before, during, or after the sessions?

**4. Describe the responses of residents *with dementia* to music therapy in relation to the people and activities around them.** How *interested* are the residents *with dementia* in the people and activities around them? How *responsive* are they to the people and activities around them? How *involved* are they in the people and activities around them? How much *enjoyment* do they show regarding the people and activities around them

**5. How has music therapy affected your relationships with the residents *with dementia*?** How has music therapy helped you to connect with residents *with dementia*? How have the Missouri Veterans Home's music therapy sessions impacted your own sense of well-being?

**6. Describe a story or instance when music therapy had a particularly positive impact on a resident *with dementia*.** Tell me about a time when music affected a resident's anxiety or depression. Describe an instance when music therapy had a negative impact on a resident.

**Closing Questions:**

What are the benefits of music therapy for residents *with dementia* at the Missouri Veterans Home?

What would make music therapy at the Missouri Veterans Home even more effective?

Is there anything else that I should know?

APPENDIX F  
HUMAN SUBJECT APPROVAL



Office of Sponsored Programs and Research Integrity  
Administration 315  
Education Review  
Warrensburg, MO 64083  
Office 660-543-4264  
Grants/Contracts: osp@ucmo.edu  
Compliance: researchreview@ucmo.edu

Dear Siddhi "Ava" Kulkarni:

Your research project, 'Nursing Home Music Therapists and Certified Nursing Assistants' Perspectives about the Effects of Music Therapy on Older Adults with Dementia', was approved by the University of Central Missouri Human Subjects Review Committee on 4/21/2016. You may collect data for this project until 4/21/2017. Your informed consent is also approved until 4/21/2017.

**If an adverse event (such as harm to a research participant) occurs during your project, you must IMMEDIATELY stop the research unless stopping the research would cause more harm to the participant. If an adverse event occurs during your project, notify the committee IMMEDIATELY at researchreview@ucmo.edu.**

The following will help to guide you. Please refer to this letter often during your project.

- If you wish to make changes to your study, submit an "Amendment" through Blackboard under the "Amendment and Renewals" tab. **You may not implement changes to your study without prior approval of the UCM Human Subjects Review Committee.**
- If the nature or status of the risks of participating in this research project change, submit an "Amendment" through Blackboard under the "Amendment and Renewals" tab. **You may not implement changes to your study without prior approval of the UCM Human Subjects Review Committee.**
- If you are nearing the expiration date for collecting data for this project (4/21/2017) and you have not finished collecting data:
  1. submit your project application via Blackboard under the "Amendment and Renewals" tab (include any revisions and/or amendments approved since you submitted your application initially)

AND

  2. submit a "Renewal Report" through Blackboard under the "Final/Renewal Report" tab.
- **When you have completed your collection of data, please submit the "Final Report" found on Blackboard under the "Final/Renewal Report" tab.**

If you have any questions, please feel free to contact me at researchreview@ucmo.edu.

Sincerely,

Deborah J. Turnbow  
Director, Sponsored Programs & Research Integrity  
University of Central Missouri

cc: jclong@ucmo.edu  
Protocol Number: 490

Equal Education and Employment Opportunity