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The Effect of Group Music Therapy Interventions and Individual Music Therapy Interventions on Changes in Depressive Symptoms in Elderly Persons with Dementia in Residential Facilities

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THE EFFECT OF GROUP MUSIC THERAPY INTERVENTIONS AND INDIVIDUAL MUSIC THERAPY INTERVENTIONS ON CHANGES IN DEPRESSIVE SYMPTOMS IN ELDERLY PERSONS WITH DEMENTIA IN RESIDENTIAL FACILITIES

By

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ABSTRACT

The purpose of this study is to determine which form of music therapy sessions, bi-weekly group sessions or weekly individual sessions, is more effective in increasing music participation and decreasing depressive symptoms in elderly persons with dementia in a residential facility environment. The Participants (N=13), were each chosen based on a diagnosis of dementia from two residential facilities in Florida. Participants in group one (N=7) received two 30 minute group music therapy sessions twice a week for three weeks, while participants in group 2 (N=6) received a 20 minute individual music therapy session once a week for three weeks. Each group acted as its own control, so data were taken the week prior to treatment as well.

The instruments used in this study were a simple on task/off task form to observe participation levels. Participation levels were converted into charts and graphs. Results showed that participation levels were consistently higher in the individual sessions than in group sessions. The researcher used the Cornell Scale for Depression in Dementia (CSDD) to observe depressive symptoms. The CSDD was administered four times, at the end of the first week to establish baseline and the following three weeks of music therapy intervention. Data for the CSDD were statistically analyzed using a two-way repeated measure, ANOVA. There were significant differences in both groups on the CSDD between no intervention and the music therapy conditions (F=23.091, df=3, α=.000). However, there was no significant difference between group vs. individual music therapy sessions (F=1.247, df=3, α=.309).
INTRODUCTION

With the US government’s recent attempts to salvage Social Security benefits that years ago seemed simply to be a part of life, one begins to consider future ramifications of our rapidly aging population. As our government addresses the need for interventions in order to preserve quality of life for our current seniors and future generations of the elderly in the area of social security, researchers and scientists likewise have found an urgent duty to preserve the overall quality of life in our aging populations. Perhaps the greatest underlying issue here is the dramatic increase of seniors that is expected within the next decade as the baby boomer generation ages in monumental numbers.

According to the Federal Agency on Aging-Related Statistics, the elderly population expanded from a mere 100,000 in the early 20th century to 4.2 million by the year 2000. Furthermore, the “baby boomers,” the generation born between 1946 and 1964, will officially enter the aging population by 2011, inversely creating a stark increase in the aging population in that 20 year period, 2010-2030. By the year 2030, the elderly population is projected to have doubled from 35 million in 2000 to approximately 71.5 million which will then represent 20% of the total US population. Not only will the aging population continue to grow during this time period, but also due to technological and medical advances, people will be more likely to live longer. The US Census Bureau estimated that those 85 and older may grow from 4.2 million to 21 million by 2050 (Older Americans 2004).

In observing this emerging pattern of growth in the aging population, the magnitude of this shift in population must be considered in order to prepare adequately for the future. However, the “future” is rapidly approaching which emphasizes the urgency of vision, research, interventions, and implementation of ideas to foster holistic care for the aging. In so doing, one focuses on the issues that the elderly are presently encountering and will continue to encounter in the future. One such issue is the growing diagnoses of dementia which is becoming more frequent as the aging population increases (Special Committee on Aging, United States Senate, 2004).

Scientists speculate that nearly 4.5 million Americans suffer from AD, Alzheimer’s Dementia. Moreover, they suggest that 5% of people ages 65 to 74 have AD and nearly 50% of people over 85 may have the disease (National Institute on Aging...
In addition, the number of cases diagnosed annually is projected to increase from 360,000 in 1997 to 1.14 million new diagnoses in 2047 (Brookmeyer, PHD, Gray, BS, and Kawas, 1998). As a result of this expansion of diagnosis, dementia has become one of the primary concerns of geriatric care givers (Albert, PHD, MSc, 2004).

Beyond its numerical growth, dementia concurrently is costing the US economy approximately $100 billion annually. Seeing this somewhat alarming expansion of the disease there are several implications (Fenstemacher, 2003). First, researchers acknowledge the importance of researching possible causes, prevention, and early diagnosis. Following alongside in significance, researchers as well as nurses, doctors, and care givers recognize the necessity for discovering ways to treat dementia and related symptoms to better facilitate a pleasing quality of life for those suffering with the illness.

Among those concerned about the proper treatment of persons diagnosed with dementia, is the administration of assisted living facilities. With the influx of dementia cases and people living longer, those living with the disease have come to represent a noticeable percentage of the population of residential facilities. Some of the assisted living facilities’ goals for residents with mental health care needs are improving quality of life, educating staff, implementing effective interventions for decreasing negative behavioral symptoms, and promoting a positive, peaceful physical environment in order to help the patient foster a healthy sense of stability and comfort with his or her surroundings (Cohen, Blank, Cohen, Gaitz, Liptzin, Maletta, Meyers, and Sakauye, 2003).
CHAPTER ONE
REVIEW OF LITERATURE

Dementia and Depression

First, it is essential to define both dementia and depression and note their diagnostic criteria. In defining each diagnosis, one establishes a more intensive understanding of the nature and characteristics of each disease. Due to the nature of this study, the primary focus of defining each diagnosis will be centered on the criteria associated with late-onset. Then, the next crucial step in researching these diagnoses is to analyze the similarities and differences. Finally, it is valuable to consider the frequency and implications of comorbidity in order to best seek accurate assessment and treatment.

Clinically defined,

“a dementia is characterized by multiple cognitive deficits that include impairment in memory. The dementias are also listed according to presumed etiology: Dementia of the Alzheimer’s Type, Vascular Dementia, Dementia Due to Other General Medical Conditions (e.g., human immunodeficiency virus [HIV] disease, head trauma, Parkinson’s disease, Huntington’s disease), Substance-Induced Persisting Dementia (i.e., due to a drug of abuse, a medication, or toxin exposure), Dementia Due to Multiple Etiologies, or Dementia Not Otherwise Specified” (if the etiology is indeterminate) (DSM-IV-TR, 2000).

While there are many types of dementia, the two most common types are Alzheimer’s disease, being the most common, and Vascular dementia, being the second most common. Although there are many possible types most types of dementia result in “the loss of intellectual function, memory impairment, loss of judgment, and personality changes” (Chernoff, 2003). Additional diagnostic features of dementia are cognitive disturbances such as: “aphasia, apraxia, agnosia, or a disturbance in executive functioning,” which “must be sufficiently severe to cause impairment in occupational or social functioning and must represent a decline from a previously higher level of functioning” (DSM-IV-TR, 2000).

The Diagnostic and Statistical Manual of Mental Disorders, DSM-IV manual, further defines the diagnostic criteria. Foremost, memory impairment is defined as
“impaired ability to learn new information or to recall previously learned information”. Following, aphasia is defined as “language disturbance,” apraxia is defined as “impaired ability to carry out motor activities despite intact motor function,” agnosia is defined as “failure to recognize or identify objects despite intact sensory motor function,” and lastly disturbance in executive function is defined as a disturbance in “planning, organizing, sequencing, and abstracting” (DSM-IV-TR, 2000).

Depression, although not a normal part of the aging process, clearly affects the aging population and may coexist with dementia, further complicating dementia, and even possibly be a cause of dementia. Therefore, it is important to properly diagnose and treat depression in the elderly (Burrows, 2004). Depression symptoms often vary from case to case, but some overall similarities in symptoms among the elderly have been observed. Anorexia and weight loss, psychomotor abnormalities, and cognitive impairment, or “dementia of depression,” are the most common symptoms of depression experienced among the elderly population (Ahmed and Takeshita, 1996-7). However, it is important to have a detailed definition of depression in order to examine the similarities and differences between depression and dementia.

Like dementia, depression encompasses a wide spectrum of diagnoses stemming from various etiologies. Also, depression can occur at varying degrees. According to DSM-IV, in order for the diagnosis to be considered major depression, the patient must have a minimum of five symptoms that persist for at least two weeks. Among these symptoms one of them must be “depressed mood,” or “loss of pleasure”. The other four may consist of various symptomatic behavior such as: “significant weight loss or weight gain when not dieting, or decrease or increase in appetite nearly every day”, “insomnia or hypersomnia nearly every day,” “psychomotor agitation or retardation nearly everyday,” “fatigue or loss of energy nearly every day,” “feelings of worthlessness or excessive or inappropriate guilt nearly every day,” “diminished ability to think or concentrate, or indecisiveness, nearly everyday,” and “recurrent thoughts of death, recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide” (DSM-IV, 2000).

As with the diagnostic criteria of dementia, depression also has common symptoms observed in all forms of depression. Despite the seemingly contrasting
diagnoses, dementia and depression are often times confused and often misdiagnosed. In fact, a severe case of depression can often cause the patient to experience symptoms similar to that of dementia resulting in a “pseudo dementia,” which in turn makes diagnosing the patient’s illness quite a difficult task (Fenstemacher, 2003, and Ham, 1997). One of the similarities of dementia and depression is memory difficulty; however, the patient with dementia is often unaware of their cognitive decline in functioning whereas the patient with depression is usually aware of their cognitive decline in functioning (Green, 2001).

Other similarities include the patient’s affective state which is characterized as “sad or stoic” as well as the sleep wake cycle which is often disturbed in both diseases. Nevertheless, differences avail in the sleep-wake cycle disturbances as well. Those with depression are more likely to have frequent disruption in sleep patterns; whereas those with dementia may only occasionally have disruptions in their sleep patterns. Both diagnoses demonstrate language dysfunctions only in the severest cases. Language dysfunction in both diseases is related to the cognitive decline that occurs; however, the patient with depression is more often aware of his or her cognitive decline. In contrast, dementia patient is not usually aware of his or her cognitive decline (Green, 2001).

In the midst of the confusing similarities and minuscule differences that allow for distinguishing the diagnoses, memory testing provides a method of ascertaining a probable diagnosis. The basic difference in memory testing between the diagnoses is the expected outcome and the actual score. Patients with dementia will perform more deficiently than they expected, while those patients with depression often perform more efficiently than they expected (Green, 2001). So, though both diseases result in cognitive decline, it is the level to which the patient recognizes this decline that can help differentiate the two diagnoses. However, many similarities exist making the diagnoses difficult.

Despite the confusion in differentiating depression from that of dementia, the diseases may coexist, (Reynolds, Small, Stein, and Teri 1994) creating a comorbid diagnosis. For example, in previous studies researchers have found one fourth of those diagnosed with dementia were likely to also have a “coexisting depressive disorder” as well (Ballard, Bannister, and Solis, 1996, Wragg and Jeste, 1989). Another study records
that 11.8% of seniors diagnosed with dementia had major depression, while only 3.9% of seniors not diagnosed with dementia had major depression (Forsell and Winblad, 1998). Another study found “57 out of 146 AD patients had a lifetime diagnoses of MD,” accounting for over one third of this particular population sample (Kockler and Ptok, 2002).

Further research cites comorbidity of depression and dementia, particularly AD, as a frequent occurrence (Lyketsos and Olin, 2002). Also according to research, agitation, anxiety, depression, apathy, delusions, sleeplessness, and wandering, are behavioral symptoms commonly associated with dementia (Fox, Heston, Terry, and Lamb, 1986). One study reports that 78% of the patients diagnosed with dementia exhibited depressive symptoms (Tractenberg, Einer, and Patterson, 2003). In noting the prevalence of the comorbidity of depression and dementia, researchers have studied and sought out new and improved methods of assessment and diagnosis.

Assessment

Assessing, particularly diagnosing, dementia among the elderly can be rather challenging due to the fact that those suffering with the disease are not likely to notice the decrease in their functioning, cognitive and otherwise. However, researchers continue to seek out methods of early detection of the disease as well as preventative measures. Meanwhile, the Mini-Mental State Examination (MMSE), the Clock Drawing Test, and the Functional Activities Questionnaire are current tools used in assessing dementia (Thibault and Steiner, 2004). The MMSE is perhaps the most frequently used and studied instrument in quantifying cognitive functioning (Davey and Jamieson, 2004); it is perceived as reliable and valid but its effectiveness relies on the “age, education level, and ethnicity of the patient” (Randhawa, 2004).

The MMSE is not only useful in the initial assessment of the patient with a diagnosis of dementia, but also in later observations of cognitive decline. As the patient progresses through various stages of dementia, the patient’s primary care physician may choose to use the MMSE in order to chart the patient’s level of cognitive decline (Zepf, 2004). It is important to use these assessment tools in order to be able to quantify data and chart the patient’s rate of decline. As a result, the researcher may make useful observations that may make this disease more manageable and bearable for both the
patient and the caregiver. In addition, interviews of the patient, or self-report, and interviews of the caregiver further assure accuracy in diagnosis, initial assessment, and follow-up assessments (Fenstemacher, 2003).

Diagnosing and assessing depression in the elderly can also be an arduous task. In fact, despite its prevalence in the general geriatric community (Wells, 1996), and the elderly diagnosed with various forms of dementia (Sharp and Lipsky, 2002), depression has often been overlooked in the elderly and under diagnosed. Being able to diagnose and treat depression effectively, and preferably early, is imperative to the overall quality of life of the elderly patient with depression (2002). Therefore, it is important to choose the most effective and accurate assessment tools available. Furthermore, because depression symptoms may differ according to age, it is helpful to consider assessment tools for depression that focus mainly on the symptoms of depression that are most common in the elderly.

Some of the commonly used assessment tools among the geriatric community are the Geriatric Depression Scale, the Hamilton Depression Rating Scale, and the Cornell Scale for Depression in Dementia, specifically for those with dementia. Both the Geriatric Depression Scale and the Hamilton Depression Rating Scale have been proven effective in assessing depression. The Geriatric Depression Scale is particularly helpful in the geriatric community because of the fact that it was designed expressly for the elderly and consists of 15 simple, straight-forward yes or no questions (Yesavage, Brink, Rose, Huang, and Adey, 1996). While this simplicity in format decreases time needed to assess patients, it does not leave room for a more accurate observation of gradual changes in depressive symptoms.

Both the Hamilton Rating Scale for Depression and the Cornell Scale of Depression in Dementia require a qualified person to make observations and rate the patient’s symptoms of depression. By design, both these instruments are more complex and time consuming; nevertheless, due to the cognitive decline in dementia patients, these two assessment tools are more appropriate than a self-report scale (Alexopoulos, Abrams, Young, and Shanoian, 1988). Furthermore, the Cornell Scale of Depression in Dementia has been proven to both valid and reliable in assessing depression in those with dementia.
(Amuk, Karadag, and Oguzhanoglu, 2003). Moreover, studies have indicated its high interrater reliability (kw=0.67) (1988).

**Treatment**

Researchers continue to seek out the underlying root causes of various dementias and in doing so, have found several forms of treatment that either aid in preventing, delaying, and reversing symptoms of dementia. Some treatment options make no claims at curing the disease and exist for the sole purpose of improving the patient’s quality of life. Prevention and cures are noble goals indeed, and a definite possibility, but improving the patient’s quality of life is also a noble goal that benefits the patient as well as caregivers.

Scientists believe a possible cause of dementia may be due to failures in the brain and nervous system. Likewise, studies have shown that some forms of dementia and depression may be caused by a deficiency in Folic acid, which could explain the similarities and comorbidity of the two diseases. The study further explores the idea that these forms of dementia and depression may be prevented, and even reversed by acquiring the proper recommended amount of folic acid which is found in Vitamin B (Reynolds, 2002).

Accordingly, nutrition in general is highly linked to dementia. Therefore, researchers have carefully examined dietary patterns that may cause dementia as well as deficiencies that cause or worsen dementia. One such dietary pattern was examined in two studies in which the results demonstrated that those who had a diet high in monosaturated fatty acids, like those found in olive oil, were less likely to experience cognitive decline when aging (Moore, 1999). These fatty acids are thought to “help maintain the structural integrity of neuronal membranes” (Capurso, 1999). It is helpful to take these studies into consideration for dietary guidelines for adults in hopes of future prevention, but it is also helpful to consider medical treatments available to those currently diagnosed with the depression in dementia and currently in need of treatment.

While there are pharmacological options available for the elderly suffering with depression and dementia, it is important to understand that these medications may not have been thoroughly researched for their effects on the elderly populations due to the difficulty of conducting pharmaceutical experiments on the demented elderly. In
addition, some treatments for depression in dementia may have adverse side effects that could be potentially harmful to the patient (Antonuccio and Danton 1995). Nonetheless, antidepressants used in conjunction with other therapeutic interventions may be beneficial to the patient’s overall quality of life.

Meanwhile, with non-pharmacological interventions, the goals becomes managing problem behaviors, improving quality of life (Banazak, 1996), and ameliorating or completely eliminating depressive symptoms altogether (Reynolds, Small, Stein, and Teri, 1994). Both pharmacological and non pharmacological interventions have been proven to be effective in alleviating depressive symptoms in the elderly with dementia (Journal of the American Geriatrics Society, 2003). In cases of agitation, non pharmacological treatments are actually preferred (Geriatrics, 1997). Art, recreational, music, and other behavioral therapies are among effective non pharmacological interventions helpful in decreasing depressive symptoms and improving the patient’s quality of life (Zeltzer, Stanley, Melo, and LaPorte, 2003). Finally, studies show that group therapies that involve a socialization aspect to the intervention such as that of group music therapy assist in the management of depression (Ahmed and Takeshita, 1996-7).

**Music and Dementia**

While the patient with dementia experiences a consistent cognitive decline and may lose verbal forms of communication and access to memories, he may be able to participate in music therapy sessions and find an outlet to express himself, and further improve his quality of life. Music can make otherwise difficult and unmanageable tasks, manageable. For example, a study with elderly patients, some of whom had dementia, was conducted in order to determine if music could help these subjects with face-name recognition. These 7 subjects were all female residents of a nursing home and had various diagnoses such as Alzheimer’s Dementia, stroke, dementia, senile dementia, and COPD. The results of this study proved music therapy to be effective in enabling some of the subjects to remember names of the nursing home residents and staff members of the facility (Carruth, 1997).

Music may also be able to create an environment where persons with dementia are able to relate in a more socially acceptable and desirable manner. One study
consisting of 19 subjects with Alzheimer’s Dementia explored the effect of music on verbal and social behaviors. Music “sessions” were held for 60 minutes twice a week for three weeks and there were two groups, N=9 and N=10. The music sessions were conducted by nurses and not a certified music therapist; however the results of the experiment were statistically analyzed. The music portion merely consisted of playing music and observing the subjects before and after treatment. Yet, the music sessions still seemed to be effective in achieving the desired goal of increasing desired behaviors. The results of this study showed a significant difference in the verbal behavior of the participants in the pre and post test, before and after music. Also, it was noted that immediately following the sessions the subjects increased in their socializing with one another with “acceptable” behaviors (Sambandham and Schirm, 1995).

Music may be helpful because persons with dementia may lose their verbal fluency abilities before they lose their musical abilities (Lipe, 1995). For instance, a study of 10 subjects with a probable diagnosis of Alzheimer’s Dementia assessed the participants’ ability to remember material that had been sung versus material that had been spoken. Each participant received three 20 minute individual sessions of sung and spoken material interspersed with new material and orientation questions. The sessions were videotaped for later analysis in order to accurately count the amount of correct information recalled by each participant through visual and audio clues. The results indicated that the participants of the study more readily remembered the sung material than spoken, even rhymed, speech. Results of the study also suggested that persons with dementia may be able to recall material from “long-familiar” songs more frequently than material from newer, unfamiliar songs. Yet, results show that dementia patients may still be able to learn new songs though learning new spoken material may be difficult or nearly impossible. So, music may be useful in teaching new information to persons diagnosed with dementia (Prickett and Moore, 1991).

Similarly, even patients with aphasia are able to express themselves by singing along to old songs (Kartman, 1990). As a result, interventions using music may be beneficial to patients with dementia due to their ability to evoke positive responses to music that other stimuli are not able to. Music therapy comes in many forms of stimuli and is not limited to singing. A study of 6 male subjects with severely regressed
dementia sought to determine if there was any difference in the subjects’ responses to vibrotactile and non-vibrotactile musical stimuli. Out of 6 subjects only one subject sang, but even he decreased his singing participation as his dementia progressed and his cognitive deficits increased. Furthermore, there was a statistical difference between vibrotactile and non-vibrotactile responses, vibrotactile responses being the greatest. This evidence implies that music therapy should be individualized to the patient’s needs and level of regression in the disease. Also, that those persons with severely regressed dementia may benefit from multi sensory stimulation such as vibrotactile stimuli which involves sound, touch, and felt the vibrations (Clair and Bernstein, 1990).

However, singing alone can be an effective musical stimulus in comparison to other stimuli. For instance, a study with 26 subjects who had late stage dementia and no longer had any discernable language evaluated these subjects’ alert responses to the researcher reading the newspaper, singing unaccompanied familiar songs, or sitting in silence. Each subject was given 40 minute individual sessions which included segments of all three stimuli. Sessions were videotaped and observations of specific responses were later made using an interval recording data collection method. The data proved that singing evoked the most alert responses, followed by reading the newspaper, and lastly sitting in silence. Still, there was no significant difference between singing and reading the newspaper, but there was a difference between singing, reading, and sitting in silence. Hence, singing may be an effective tool for obtaining alert responses from persons with severe forms of dementia (Clair, 1996).

On the other hand, playing instruments, movement or dancing, and musical games were all found to be effective music therapy activities for persons with dementia as well. Twenty female residents from two nursing homes who had a probable diagnosis of dementia were tested to see which of these activities including composing and improvisation was their most preferred activity. The structure of the experiment was 30 minute small group sessions that were held twice a week for five sessions in all. The researcher videotaped each session and observed and recorded the subjects’ response to each activity as well as collected data from the subjects on their preference through verbal self-report. Results showed that responses to composing and improvisation were significantly lower than responses to the other activities. But, with the other activities
verbal self report and behavior did not concur, so one can assume that either they enjoyed each activity or they were not able to accurately express their preferences verbally (Brotons and Pickett-Cooper, 1994). Another consideration is whether or not self-report is an accurate measuring device for persons with dementia.

Another study was conducted concerning different musical activities for dementia patients among 51 subjects with ADRD, Alzheimer’s disease and Related Disorders at three different levels of cognitive function: high, medium, and low. However, this study focused more on effectiveness than preference. Each activity: singing, dancing, and rhythm, was presented on differing levels of difficulty and the subjects’ responses were placed in one of the five categories: (1) high response, (2) low response, (3) passive involvement, (4) passive disruption, and (5) active disruptions. Results indicated that dancing/movement received a greater amount of high response among all three stages of cognitive functioning. Yet, subjects responded well to singing and rhythm activities when they were presented at “lower levels of demand” (Hanson, Gfeller, Woodworth, Swanson, and Garand, 1996). One could ascertain that music therapy groups containing patients with varying stages of dementia would benefit by adding movement or dance to their structured music sessions and well as making the singing and rhythmic activities based on a lower level of demand in order to maximize participation and effectiveness.

Meanwhile, music may be used as a mechanism to effectively increase desired behaviors and decrease unwanted behaviors of persons with dementia. An example of this is a study that evaluated subjects’ bathing behavior with music. The subjects were 14 residents of the same facility who had a diagnosis of Alzheimer’s Dementia and showed a resistance to bathing and an interest in music. The researcher conducted three treatment observations and three post-treatment observations. Aggressive behavior showed a significant difference, decreasing after treatment. Not only was music beneficial in decreasing the subject’s aggressive behavior while bathing, but also in “improving the subject’s quality of life and the care-provider’s job satisfaction” (Thomas, Heitman, and Alexander, 1997).

In her observations and research, Ruth Bright found that the size of the group is important to the effectiveness of a music therapy session (Bright, 1986). Another study with dementia patients used group music sessions versus discussion sessions to test affect
on behavior. The subjects consisted of 10 Alzheimer’s Dementia patients, 7 females, and 3 males, who were residents of a nursing home specifically for AD patients. The researchers held 30 minute group singing sessions twice a week. Results showed higher verbal and vocal participation in music sessions and a significant behavioral change following music sessions (Olderog-Millard and Smith, 1989). Music sessions appear to be more effective than ordinary group discussion sessions in increasing desired behaviors.

Likewise, another study focused mainly on music sessions effect on wandering among dementia patients. This study consisted of 30 subjects, 16 females and 14 males, but these sessions were held individually. Each subject was given 7 one to one sessions which consisted of either 5 music sessions and 2 reading sessions, or 2 music sessions and 5 reading sessions. There was no significant difference between groups since a decrease in wandering over sessions one through five was observed for both groups (Groene, 1993).

Yet another study examined if there was any correlation between music participation and social behavior in patients with moderate to severe Alzheimer’s Dementia. The 8 subjects in the study were 3 males and 5 females whose ages ranged from 67 to 85. Each subject received six 20 minute individual sessions over a period of two weeks. A pre-test and post-test behavioral checklist was used to collect data. Overall, there was a 24% increase in social behaviors. Also, positive responses to sessions observed by the researcher included increased participation, smiling, eye contact, and verbal feedback. Not only did results show increased social behavior during the music session, but the results also showed increased social behavior immediately following the sessions (Pollack and Namazi, 1992).

One study showed that music therapy sessions can improve the quality of life of the care giver of the person with dementia. This study evaluated 15 couples in which one member of the couple had late stage dementia. Music therapy sessions were conducted in groups and were held for 50 minutes twice a week for 4 weeks. Each session began and ended with a ten minute conversation between couples with ten minute intervals of group singing, ballroom dancing, and rhythm playing on paddle drums. The researcher when collecting data was looking for (a) participation in music, (b) initiating touch, and (c)
responding to touch. Results indicated higher levels of participation in music activities than in conversation. As far as initiating touch, the results showed that the care givers initiated touch more frequently and that the care receivers were more responsive to touch. Most importantly the researcher noted that the care givers’ pleasure in visits increased when adding music therapy. Increasing the care givers’ pleasure is important because many care givers are likely to experience burn out and even depression themselves (Clair and Ebberts, 1997).

Just as improving the care giver’s quality of life is important, so is managing unwanted behaviors in those persons with dementia in order to increase the satisfaction of the care providers, who will then in turn, most likely provide better care as a result of that satisfaction. One such unwanted behavior is repetitive disruptive vocalizations. A small study was conducted on 3 subjects with Dementia of the Alzheimer’s Type, DAT, who each had a history of disruptive vocalizations. Three types of interventions were used in various patterns: (A) no intervention, (B), relaxing classical music, and (C) favorite music. Results indicated that both classical and favorite music were effective in decreasing the number of disruptive vocalizations in 2 out of the 3 subjects. The other subject received only classical music which may explain the lack of effectiveness if that subject did not prefer classical music or find it relaxing. So, overall in this small case there may be indication that music may be helpful in decreasing unwanted behaviors in persons with dementia (Casby and Holm, 1994).

Finally, music therapy sessions have been shown to be helpful to the quality of life for the care giver, care provider, but most of all, to the dementia patient. As shown in the previous section, depression and dementia often coexist and with depression in dementia alleviation of depressive symptoms can be key in increasing the patient’s quality of life. One study shows specifically how the use of music therapy can affect changes in depressive symptoms of those persons with dementia. This study of 20 subjects, 3 male and 17 female consisted of small group sessions that focused primarily on reminiscence based music therapy. Each patient served as his/her own control and changes in depressive symptoms were measured by the Cornell Scale for Depression in Dementia. Results for this study suggest that music therapy may be helpful in decreasing depressive symptoms in persons with dementia (Ashida, 2000).
CHAPTER TWO

METHOD

Purpose

The purpose of this study was to determine whether group vs. individual music therapy was effective in ameliorating depressive symptoms in elderly patients with dementia and in increasing participation levels in music therapy sessions.

Design

The study consisted of two experimental groups: group one, (N=7), who received group music therapy sessions, and group two, (N=6), who received individual music therapy sessions. Groups were constituted as a convenience sample by residential location. The dependent variables were the Cornell scale of Depression, CSDD (see Appendix D for Cornell Scale for Depression in Dementia form) and observed participation. The CSDD has been proven to be a valid and reliable in assessing depression in those with dementia (Amuk, Karadag, and Oguzhanoglu, 2003). Moreover studies have indicated its high interrater reliability (kw=0.67) (1988).

Subjects

There were a total of 13 participants in this study. The participants from group one (N=7) consisted of 3 males and 4 females whose ages ranged from 64 to 96 years, with a mean of 84.4 years old. The participants from group two (N=6) consisted of 6 females whose ages ranged from 65 to 93 years, with a mean of 80.7 years old (see Table 1, Subject Demographics).

The researcher obtained approval from the Human Subjects committee and two residential sites (see Appendix A for Human Subjects Committee Approval Letter). One site was a 120 bed nursing home facility and the other a 38 bed assisted living facility specializing in caring for persons with dementia. At each location the participants with a diagnosis of dementia were referred to the music therapist by the activities director.

Then, each participant signed an informed consent form (see Appendix B), or if...
they were not deemed competent to sign for themselves, their legal guardian signed a consent form (see Appendix C for Legal Guardian Informed Consent Form).

Table 1. Subject Demographics

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Group</th>
<th>Age</th>
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<tr>
<td>S13</td>
<td>2</td>
<td>82</td>
<td>F</td>
</tr>
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</table>

Procedure

The music therapist collected data for a period of four weeks for both groups. Week one was the baseline and the following three weeks were the experimental condition. During week one no music therapy or any form of intervention was given to the participants. A qualified staff member from each facility administered the CSDD at the end of the week to establish the participants’ level of depressive symptoms before music therapy interventions. The CSDD administrators had daily interaction with the patients from their facility, made observations of those patients, and interviewed each one. The CSDD was administered to each participant from both groups at the end of weeks two, three, and four.
Each group received three weeks of music therapy, week two through week four. Group one (N=7), received two 30 minute sessions a week, while group two (N=6), received one 20 minute session once a week. Age appropriate music was selected for the sessions (see Appendix E for Song list). Activities for group music therapy sessions were conducted in an activities room. The activities used for group sessions included group singing, dance/movement, reminiscence, and games (see Appendix F for Music Therapy Session Plans). Individual sessions were held in the participants’ room. Furthermore the activities for individual sessions included more singing and reminiscence.

Each session was videotaped and later independently reviewed by the music therapist and a reliability observer to gauge participation levels (see Appendix G for Participation Definitions). The same form was used to record participation for both groups (see Appendix H for Participation Observation form). The first fifteen minutes of each session was observed using a schedule of observing for 20 seconds and recording for 10 seconds.

Two reliability observers were used: one was a graduate music student, and the other an undergraduate non-music student with a background in music. The researcher explained the participation definitions and how to use the observation form. These reliability observers watched the tapes independently and the results were compared. The researcher’s percentage of on task responses was compared with the reliability observer’s for each session. Then, the researcher added those percentages and the sum were divided by the number of sessions in order to calculate a mean reliability. Results showed a mean interrater reliability of 100%.
CHAPTER THREE
RESULTS

Changes in CSDD scores across weeks were statistically analyzed using a two-way repeated measure ANOVA. There were significant differences in both groups on the CSDD between no intervention and the music therapy conditions ($F=23.091$, $df=3$, $\alpha=.000$). However, there was no significant difference between group vs. individual music therapy sessions ($F=1.247$, $df=3$, $\alpha=.309$).

Figure 1 shows mean CSDD scores by group across weeks and condition. There was a decrease in depressive symptoms from week one to week two for both groups ($F=16.599$, $df=1$, $\alpha=.002$). There was no significant difference between week two and three for either group ($F=2.603$, $df=1$, $\alpha=.135$). Finally, there was a significant difference between week three and week four again for both groups ($F=20.431$, $df=1$, $\alpha=.001$).

The researcher recorded the participation levels for all sessions conducted during treatment, including group participation levels for the group sessions and individual participation for individual sessions. The researcher then calculated the mean of each group’s weekly participation levels and graphed the results (See Figure 2 for Participation Results).
Table 2. Results of Repeated Measure ANOVAs

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<td>Level 2 vs. Level 3</td>
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<td>Level 3 vs. Level 4</td>
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<td>2.266</td>
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</table>
Figure 1. Mean CSDD Scores by Group and Weeks
Figure 2. Participation Levels by Group and Weeks
Participation levels were analyzed with charts and graphs. Group two, individual music therapy sessions, maintained consistently higher levels of participation than did the music therapy sessions.
CHAPTER FOUR
DISCUSSION

Participation

The results of this study indicate that subjects who participated in individual sessions consistently had greater participation levels, as measured by on task responses, than the subjects who participated in group sessions. Overall, results indicated relatively high participation levels for both groups. Both forms of music therapy interventions significantly reduced depression symptoms from baseline, but there was no significant difference in depression symptoms by type of session.

The limitations of this study were small group size and two different people collecting data by site. Because there were two different people collecting data one might consider whether the results were due to the type of music therapy session or due to the differences in scorers. Yet, it is important to notice that both groups began the study at generally the same mean scores for the CSDD. However the differences from week to week may have been influenced by the scorers. For future studies this confounding of data could be eliminated by not using a convenience sample and by using the same two observers for both groups.

Group one (N=7), had only two sessions, with less than perfect participation (sessions 2 and 5). Session 5 was the only session with an extremely low participation level. According to the findings of this study, group sessions may generally elicit less participation than individual sessions. Perhaps this is due to the fact that in group sessions not all participants will equally enjoy all songs and activities. As a result, participants of group music therapy sessions may choose not to actively participate in certain activities. Also, on a given day one or more participants of group music therapy sessions may not be feeling well physically, mentally, or emotionally and may not participate fully or at all due to their state of being. Consequently, group participation levels, subject to the participation of the entire group, may be affected by the lack of participation of one participant. This may have been the cause for a decrease in participation levels for group 1 for both session 2 and session 5. For example, in session 2 a participant had recently returned from the hospital and was not feeling well and thus was less responsive than he/she had been in previous and following sessions.
Similarly, group one had an extreme decrease in participation for session 5 which may have been caused by another participant’s state of being. One of the usually active participants had a stroke the day before session 5. She attended the session, but was not able to participate. She struggled to keep her eyes open and slept a great deal of the session. However, by the next session she was able to participate more actively, but still not at the level of participation she exhibited prior to the stroke.

However, one could argue that the participants, even while not actively participating, may still be receiving benefits from music therapy sessions. For example, sleeping, while not considered active participation, may be beneficial, and even the goal for a given patient. The music may act as a calming agent and aid in the participants’ sleep and relaxation which may be helpful in decreasing symptoms. Results of this study indicate that both groups’ depressive symptoms decreased regardless of participation levels.

Clearly there are benefits of individual music therapy sessions which may be the reason for greater participation levels. For example, in an individual music therapy session, the music therapist plans and adapts the session to fit the specific needs and goals of the participant. Also, the music therapist is able to inquire as to the participant’s preferred music and use only preferred music which is typically more effective in fostering reminiscence, conversation, and participation.

In addition, individual sessions were held at the participant’s convenience which may have resulted in higher levels of participation. For example, an individual session was rescheduled if the participant was feeling tired, sick, or unable to attend for other reasons. On the other hand, due to the nature of group sessions, the participants may attend often in spite of possibly feeling tired or sick. These benefits may have been contributing factors to group two’s consistently perfect participation scores as shown in Figure 2.

**Changes in Depression Symptoms**

There was a significant difference in depressive symptoms over time but not between groups. Therefore, both group and individual music therapy sessions may be effective in decreasing depressive symptoms. Individual music therapy sessions which focus on one to one interaction as well as group music therapy sessions which focus on
social interaction within a group setting both appear to be beneficial to dementia patients in decreasing depressive symptoms. Graph A shows a decrease in group one’s and group two’s depressive symptoms, as measured by each participant’s weekly CSDD scores over a four week period.

Group one’s scores seemed to steadily decrease after receiving music therapy. Whereas, group two’s scores decreased greatly from week one to week two and then leveled off from week two to week three and then decreased again from week three to week four. Perhaps individual music therapy sessions are effective in quickly decreasing depressive symptoms and then maintaining low levels of depressive symptoms. In contrast, group music therapy sessions may be effective in slowly and steadily decreasing depressive symptoms over time.

Depressive symptoms may have decreased as a result of the positive experience the participant had, whether in an individual session or group session. Perhaps music is the mechanism that enables the participant to experience positive social interactions on a one to one or group level. Further, music may empower the participant making him/her more able to communicate and express themselves. Self-expression through group or individual interaction with the music therapist may be a cause of decreasing depressive symptoms.

This study has several implications for music therapy. Even though this study consists of a small sample, a few generalizations can be made for the practice of music therapy and ideas for future research. According to this study, individual music therapy sessions would be preferred if the goals included eliciting the participation of persons with dementia. Either group or individual music therapy sessions would be effective if the intent was to decrease depression symptoms. Future studies could be conducted in order to determine other variables effective in decreasing depressive symptoms in persons with dementia.
APPENDIX A
HUMAN SUBJECTS COMMITTEE APPROVAL LETTER
Office of the Vice President For Research
Human Subjects Committee
Tallahassee, Florida 32306-2763
(850) 644-8633 · FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 12/7/2004

To:
Sharon Dobbins
316-A Stadium Dr.
Tallahassee FL 32304

Dept.: MUSIC SCHOOL

From: John Tomkowiak, Chair

Re: Use of Human Subjects in Research
    The effect of group music therapy interventions, individual music therapy
    interventions, and group and individual music therapy interventions on changes in
    depressive symptoms in elderly persons with dementia in residential facilities

The forms that you submitted to this office in regard to the use of human subjects in the proposal
referenced above have been reviewed by the Human Subjects Committee at its meeting on
10/13/2004. Your project was approved by the Committee.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh
the risk to the human participants and the aspects of the proposal related to potential risk and
benefit. This approval does not replace any departmental or other approvals which may be required.

If the project has not been completed by 10/12/2005 you must request renewed approval for
continuation of the project.

You are advised that any change in protocol in this project must be approved by resubmission of the
project to the Committee for approval. Also, the principal investigator must promptly report, in
writing, any unexpected problems causing risks to research subjects or others.

By copy of this memorandum, the chairman of your department and/or your major professor is
reminded that he/she is responsible for being informed concerning research projects involving
human subjects in the department, and should review protocols of such investigations as often as
needed to insure that the project is being conducted in compliance with our institution and with DHHS
regulations.

This institution has an Assurance on file with the Office for Protection from Research Risks. The
Assurance Number is IRB00000446.

cc: Jayne Standley
HSC No. 2004.695
APPENDIX B

PARTICIPANT INFORMED CONSENT FORM
Informed Consent Form

I, ________________, give consent for myself to participate in the music therapy project entitled: "The effect of group music therapy interventions, individual music therapy interventions, and group and individual music therapy interventions on changes in depressive symptoms in elderly persons in residential facilities".

This project is being conducted by Sharon Dobbins, a graduate student in music therapy at Florida State University. This project is a requirement for the completion of a Masters of Music Therapy Degree.

I understand that this project is designed to increase positive mood and decrease depressive symptoms among participants. I also understand that as a participant I will be asked to participate in group, and/or individual music therapy sessions with the music therapist.

I understand that as a participant I will at no time be asked to engage in any task which might be dangerous or harmful. I understand that I may withdraw consent to participate at any time.

I understand that I will be videotaped by the researcher. These tapes will be kept by the researcher in a locked filing cabinet. I understand that the researcher and two observers will review these tapes for research purposes only and that these tapes will be destroyed by May 15, 2003.

The data collected from this study will be used only for completing this project in fulfillment requirements for a Masters Degree in Music Therapy. I understand that neither my name nor any identifying information will be made public in any way.

I have read this consent form. This project has been adequately explained to me to my satisfaction. By signing this consent form, I give written consent for myself to participate in this project.

Participant's Signature ___________________________ Date ________________

Witness ___________________________
APPENDIX C

LEGAL GUARDIAN INFORMED CONSENT FORM
Informed Consent Form

I, __________________________, the Legal Guardian of __________________________, give consent for him/her to participate in the music therapy project entitled: “The effect of group music therapy interventions, individual music therapy interventions, and group and individual music therapy interventions on changes in depressive symptoms in elderly persons in residential facilities”.

This project is being conducted by Sharon Dobbins, a graduate student in music therapy at Florida State University. This project is a requirement for the completion of a Masters of Music Therapy Degree.

I understand that this project is designed to increase positive mood and decrease depressive symptoms among participants. I also understand that the participant will be asked to participate in group, and/or individual music therapy sessions with the music therapist.

I understand that the participant will at no time be asked to engage in any task which might be dangerous or harmful. I understand that I or the participant may withdraw consent to participate at any time.

I understand that the participant will be videotaped by the researcher. These tapes will be kept by the researcher in a locked filing cabinet. I understand that the researcher and two observers will review these tapes for research purposes only and that these tapes will be destroyed by May 15, 2005.

The data collected from this study will be used only for completing this project in fulfillment requirements for a Masters Degree in Music Therapy. I understand that neither the participant or my name nor any identifying information will be made public in any way.

I have read this consent form. This project has been adequately explained to me to my satisfaction. By signing this consent form, I give written consent for __________________________ to participate in this project.

Legal Guardian’s Signature __________________________ Date __________________________

Witness __________________________
# Cornell Scale for Depression in Dementia

Name ___________________________  Age ______  Sex ______  Date __________

**Inpatient**  **Nursing Home Resident**  **Outpatient**

## Scoring System

<table>
<thead>
<tr>
<th>A = unable to evaluate</th>
<th>0 = absent</th>
<th>1 = mild or intermittent</th>
<th>2 = severe</th>
</tr>
</thead>
</table>

Ratings should be based on symptoms and signs occurring during the week prior to interview. No score should be given in symptoms result from physical disability or illness.

### A. Mood-Related Signs

1. Anxiety: anxious expression, ruminations, worrying (a)
2. Sadness: sad expression, sad voice, tearfulness (a)
3. Lack of reactivity to pleasant events (a)
4. Irritability: easily annoyed, short-tempered (a)

### B. Behavioral Disturbance

5. Agitation: restlessness, handwringing, hairpulling (a)
6. Retardation: slow movement, slow speech, slow reactions (a)
7. Multiple physical complaints (score 0 if GI symptoms only) (a)
8. Loss of interest: less involved in usual activities (score only if change occurred acutely, i.e. in less than 1 month) (a)

### C. Physical Signs

9. Appetite loss: eating less than usual (a)
10. Weight loss (score 2 if greater than 5 lb. in 1 month) (a)
11. Lack of energy: fatigues easily, unable to sustain activities (score only if change occurred acutely, i.e., in less than 1 month) (a)

### D. Cyclic Functions

12. Diurnal variation of mood: symptoms worse in the morning (a)
13. Difficulty falling asleep: later than usual for this individual (a)
14. Multiple awakenings during sleep (a)
15. Early morning awakening: earlier than usual for this individual (a)

### E. Ideational Disturbance

16. Suicide: feels life is not worth living, has suicidal wishes, or makes suicide attempt (a)
17. Poor self esteem: self-blame, self-depreciation, feelings of failure (a)
18. Pessimism: anticipation of the worst (a)
19. Mood congruent delusions: delusions of poverty, illness, or loss (a)
1. Danny Boy  
2. Bicycle Built For Two  
3. My Favorite Things  
4. King of the Road  
5. Baby Face  
6. Just a Closer Walk With Thee  
7. Wonderful World  
8. Singin’ in the Rain  
9. When the Saints Go Marchin’ In  
10. Jambalaya  
11. Don’t Sit Under the Apple Tree  
12. In the Garden  
13. Let Me Call You Sweetheart  
14. He’s Got the Whole World in His Hands  
15. My Wild Irish Rose  
16. Summertime  
17. I’ll Fly Away  
18. Oh What a Beautiful Mornin’  
19. By the Light of the Silv’ry Moon  
20. Old Folks At Home  
21. Hey Good Lookin’  
22. In the Good Old Summertime  
23. Home on the Range  
24. Amazing Grace  
25. America the Beautiful  
26. Give Me That Old Time Religion  
27. Old Smoky  
28. When Irish Eyes Are Smiling  
29. Crazy  
30. Battle Hymn of The Republic  
31. Because He Lives  
32. Red River Valley  
33. It Had To Be You  
34. The Old Rugged Cross  
35. Over the Rainbow  
36. Swing Low, Sweet Chariot  
37. Edelweiss  
38. Down By The Riverside  
39. Don’t Fence Me In  
40. Cold, Cold Heart  
41. This Land is Your Land  
42. She’ll Be Coming Round the Mountain  
43. Shenandoah  
44. Oh! Susanna
APPENDIX F

MUSIC THERAPY SESSION PLANS
Group One Week One Session #1

- Hello Song/ Greeting (5 minutes)
- Music Game
- Battle Hymn
- My Wild Irish Rose
- Don’t Sit Under the Apple Tree
- By the Light of the Silvry Moon
- Down By the Riverside
- Reminiscence (5 minutes)
- Old time Religion
- Crazy
- Don’t Fence Me In
- Let Me Call You Sweetheart
- She’ll Be Comin’ Round the Mountain
- Goodbye

Group Two S9 Session #1

- Hello (2 minutes)
- Old Time Religion
- Down By the Riverside
- Reminiscence (5 minutes)
- Let Me Call You Sweetheart
- Reminiscence (3 minutes)
- Crazy
- Red River Valley
- Reminiscence (3 minutes)
- America
- What a Wonderful World
- Goodbye

Group Two S10 Session#1

- Hello (2 minutes)
- Red River Valley
• My Wild Irish Rose
• Hey Good Lookin
• Crazy
• Let Me Call You Sweetheart
• Don’t Fence Me In
• By the Light of the Silvry Moon
• Don’t Sit Under the Apple Tree
• Goodbye

Group One Week One Session #2
• Hello Song/ Greeting (5 minutes)
• Music Game
• Hey Good Lookin’
• This Land is Your Land
• Baby Face
• Old Smoky
• Red River Valley
• Swing Low Sweet Chariot
• Reminiscence (5 minutes)
• Jambalaya
• King of the Road
• By the Light of the Silv’ry Moon
• Reminiscence (5 minutes)
• Don’t Sit Under the Apple Tree
• Oh Susanna
• She’ll be Comin’ Round the Mountain
• Over the Rainbow
• Oh What a Beautiful Morning
• Goodbye

Group Two S8 Session#1
• Hello (1 minute)
• Let Me Call You Sweetheart
• Reminiscence (3 minutes)
• Good Old Summertime
• Bicycle Built for Two
• Hey Good Lookin’
• Reminiscence (3 minutes)
• Crazy
• By the Light of the Silv’ry Moon
• Don’t Sit Under The Apple Tree
• Reminiscence (2 minutes)
• Baby Face
• Oh Susanna
• What a Wonderful World
• Goodbye

Group Two S12 Session #1
• Hello (2 minutes)
• Edelweiss
• My Favorite Things
• Down By the Riverside
• Old Time Religion
• America
• My Wild Irish Rose
• Reminiscence (10 minutes)
• What a Wonderful World
• Goodbye

Group Two S11 Session #1
• Hello (1 minute)
• Hey Good Lookin
• Reminiscence (5 minutes)
• Don’t sit Under the Apple Tree
• Baby Face
• Reminiscence (5 minutes)
- Crazy
- Over The Rainbow
- Goodbye

**Group Two S13 Session #1**
- Hello (1 minute)
- Hey Good Lookin
- Crazy
- My Favorite Things
- Reminiscence (5 minutes)
- Red River Valley
- Reminiscence
- Don’t sit Under the Apple Tree
- Goodbye

**Group One Week Two Session #1**
- Hello Song/Greeting (5 minutes)
- Movement Activity- recording of Respect
- Reminiscence (5 minutes)
- Music Game
- Over the Rainbow
- Just a Closer Walk With Thee
- Old Folks at Home
- Hey Good Lookin
- King of the Road
- Red River Valley
- By the Light of the Silv’ry Moon
- Don’t Sit Under the Apple Tree
- Goodbye

**Group One Week Two Session #2**
- Hello Song/Greeting (5 minutes)
- Down By The Riverside
- Good Old Summertime
• Don’t Sit Under the Apple Tree
• Old Time Religion
• I’ll Fly Away
• Just a Closer Walk With Thee
• Reminiscence (5 minutes)
• She’ll Be Comin’ Round the Mountain
• Hey Good Lookin’
• Goodbye

Group Two S10 Session#2
• Hello (1 minute)
• When Irish Eyes Are Smiling
• Bicycle Built for Two
• Red River Valley
• Hey Good Lookin’
• Crazy
• Over The Rainbow
• By The Light of the Silv’ry Moon
• Don’t Sit Under the Apple Tree
• Goodbye

Group Two S13 Session#2
• Hello (2 minutes)
• What a Wonderful World
• Reminiscence (5 minutes)
• By the Light of the Silv’ry Moon
• Don’t Sit Under The Apple Tree
• Reminiscence (5 minutes)
• Red River Valley
• Old Time Religion
• In the Garden
• Reminiscence (5 minutes)
• Goodbye
Group Two S8 Session#2

- Hello (2 minutes)
- America
- Hey Good Lookin
- Reminiscence (5 minutes)
- Jambalaya
- Crazy
- Reminiscence (3 minutes)
- By the Light of the Silv’ry Moon
- Don’t sit Under the Apple Tree
- Baby Face
- Let Me Call You Sweetheart
- Goodbye

Group Two S12 Session #2

- Hello (3 minutes)
- Leaving on a Jet Plane
- My Wild Irish Rose
- Reminiscence (5 minutes)
- Oh Susanna
- Reminiscence (3 minutes)
- She’ll Be Comin’ Round the Mountain
- Crazy
- Edelweiss
- Oh What a Beautiful Morning
- Over the Rainbow
- Goodbye

Group One Week Three Session#1

- Hello Song/ Greeting (5 minutes)
- Red River Valley
- Hey Good Lookin
- By the Light
• Reminiscence (3 minutes)
• Don’t Sit Under the Apple Tree
• Oh Susanna
• Reminiscence (3 minutes)
• Let Me Call You Sweetheart
• Old Rugged Cross
• Just a Closer Walk With Thee
• He’s Got the Whole World In is Hands
• Baby Face
• Goodbye

Group Two S11 Session#2
• Hello (2 minutes)
• Old Time Religion
• Reminiscence (5 minutes)
• Just a Closer Walk With Thee
• Reminiscence (3 min)
• Shenandoah
• Down By The Riverside
• Great is Thy Faithfulness
• Goodbye

Group Two S9 Session#2
• Hello (1 minute)
• Red River Valley
• Baby Face
• By the Light of the Silv’ry Moon
• Reminiscence (5 minutes)
• Don’t Sit Under the Apple Tree
• Summertime
• Goodbye

Group One Week Three Sesseion#2
• Hello Song/ Greeting (5 minutes)
• Down By the Riverside
• Let Me Call You Sweetheart
• Hey Good Lookin
• By the Light of the Silv’ry Moon
• Don’t Sit Under the Apple Tree
• Baby Face
• Crazy
• Reminiscence (3 minutes)
• Red River Valley
• Just a Closer Walk With Thee
• Goodbye

Group Two S8 Session#3
• Hello (1 minute)
• Hey Good Lookin
• Reminiscence (5 minutes)
• By the Light of the Silv’ry Moon
• Let Me Call You Sweetheart
• Red River Valley
• My Wild Irish Rose
• Edelweiss
• Over the Rainbow
• Don’t Sit Under the Apple Tree
• Baby Face
• Goodbye

Group Two S10 Session#3
• Hello (1 minute)
• Red River Valley
• In the Good Old Summertime
• Let Me Call You Sweetheart
• Hey Good Lookin
• Crazy
• Don’t Sit Under the Apple Tree
• Goodbye

Group Two S11 Session #3
• Hello (3 minutes)
• Old Time Religion
• Just a Closer walk With Thee
• Reminiscence (10 minutes)
• Old Rugged Cross
• Goodbye

Group Two S9 Session #3
• Hello (2 minutes)
• Let Me Call You Sweetheart
• Reminiscence (5 minutes)
• Edelweiss
• Reminiscence (5 minutes)
• Don’t sit Under the Apple Tree
• Baby Face
• What a Wonderful World
• Goodbye

Group Two S12 Session #3
• Hello (2 minutes)
• Just a Closer walk With Thee
• Reminiscence (5 minutes)
• My Wild Irish Rose
• Let Me Call You Sweetheart
• Baby Face
• Don’t sit Under the Apple Tree
• Leaving on a Jet Plane
• Edelweiss
• Goodbye
APPENDIX G
PARTICIPATION DEFINITIONS
PARTICIPATION DEFINITIONS

PARTICIPATION (+) - singing, dancing, clapping, tapping, humming, and/or eye contact.

NON-PARTICIPATION (O) - sleeping, eyes closed for more than 2 minutes, wandering, and/or leaving the session.
APPENDIX H

PARTICIPATION OBSERVATION FORM
<table>
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<th>TIME</th>
<th>ACTIVITY CODE</th>
<th>INTERVALS</th>
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<td>4-RECORD</td>
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<td>(1)</td>
<td>(3)</td>
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<td>OBSERVE</td>
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<tr>
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</table>

On-task = \( \frac{5}{8} \times 100 \) \( \% \)

Off-task = 100 - \( \% \) On-task = \( \frac{3}{8} \times 100 \) \( \% \)

Intervals Observed

<table>
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<tr>
<th>Total</th>
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<th>M</th>
<th>O</th>
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</thead>
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<td>Observations</td>
<td>+</td>
<td>N</td>
<td>M</td>
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REFERENCES


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