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A Comparative Analysis of the Effects of Music Therapy in the Geriatric Population in Group Sessions versus Individual Sessions

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SCHOOL OF MUSIC

A COMPARATIVE ANALYSIS OF THE EFFECTS OF MUSIC THERAPY IN THE GERIATRIC POPULATION IN GROUP SESSIONS VERSUS INDIVIDUAL SESSIONS

By

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ABSTRACT

The purpose of this study was to investigate the effectiveness of group music therapy sessions versus individual music therapy sessions designed to stimulate various participation and interaction skills on the on-task behaviors of a geriatric population. Specifically measured were on-task behaviors in music, social, and verbal responses. Nineteen subjects ages 40-101 years, with a mean age of 80, participated in this study. Each subject was his/her own control with conditions counterbalanced. Group A consisted of ten subjects who began with a week of group sessions on six consecutive days. This was followed by two weeks of individual sessions. Group B (n = 9) received the same conditions in reverse order. Each subject was randomly assigned to be in either group A or group B. Group sessions consisted of a hello song, an activity used to increase cognitive stimulation, and a movement paired with music. Individual sessions also began with a hello song and involved singing subject preferred music, reminiscing following music, as well as instrument playing when appropriate. Each session was videotaped and observation forms were used by the researcher. The purpose of the observation was to quantify the level of participation and interaction of the subject between group and individual music therapy sessions. Observations were based on whether the subject was on-task or off-task in music, social, and verbal categories during sessions. A Multivariate Test indicated that the individual music and social responses were significantly better than the group responses. There was no significant difference between individual or group structure on verbal responses.

CHAPTER ONE

REVIEW OF LITERATURE

Aging in Today's Society

In the last six decades there has been a dramatic increase in the life expectancy of the worldwide population. In the 1940's, it was reported that there were just over 20 million people in the fifty-five-and-older population with just over 9 million of those aged sixty-five or older (Committee on an Aging Society, 1988). The United States Census Bureau reported in late 2001 that the world-wide population of persons aged sixty-five-and-older had risen to 420 million, an increase of about two percent per year since 1950. The 2000 United States Census shows that about twelve percent of the population, or about 35 million people, are sixty-five years old or older. Projections indicate that in thirty years, one out of every five United States citizens will be in the sixty-five or older age group (Shield and Aronson, 2003). The continuing trend toward longer lives is attributed to reductions in infant mortality, improvements in individual health status and rapidly emerging medical technologies that dramatically increase health care for the elderly (Tirrito, 2003).

While the elderly population is increasing worldwide, the increases in the developed countries, such as the United States, is exceeding the increases in the same population in the developing countries. The fastest growing older population group in America, and the world, is the eighty-five-and-older group. Between 1960 and 1994, that group increased by an astonishing 274%. According to the 2000 United States Census, over 72,000 Americans were over 100 years of age (Tirrito).

The generation of Americans born between 1946 and 1964 are often referred to, collectively, as the "baby boomer generation." This "boom" in the population resulted

from the return home of the World War II veterans and the relative generation of peace that followed. The baby boomers will begin to reach the age sixty-five category between 2011 and 2030 and will substantially change the make up of our society. Their expectations of health care, longevity and their impact on the social and economic structure of the country will be significant. This group is expected to consist of approximately 75 million Americans (Tirrito).

The increases in the aging population and the associated issues that accompany the aging of the population, including health, social and economic issues, have resulted in a tremendous growth in the science of *gerontology*. Gerontology is concerned with the study of the biological, psychological, medical, sociological and economic factors affecting old age (Aiken, 2001). Practitioners in all of these scientific disciplines, as well as changing popular views on aging, are contributing to our understanding of the aging process and society's ability to deal with the consequences and problems associated with aging (Hirshbein, 2001). This includes new and improved ways of treating age-related problems to improve the quality of life of the older population. What is taken for granted by younger people—independence, mobility, autonomy—becomes more critical in influencing an older person's quality of life (Abeles, Gift, & Ory, 1994).

Problems Associated with Aging

While we all aspire for longevity, none of us are in a hurry to encounter old age (Koller, 1968). Researchers have reported that eighty-six percent of the aging population experience some form of chronic health problems. Usually, an aging person can experience more than one serious age-related health problem at the same time. As one ages, he or she is very likely to experience some form of mental disorder, either a functional disorder or an organic brain disorder. Functional mental disorders include depression, paranoia, neurosis, personality disorders, schizophrenia and drug dependence and seem to be emotionally based. Organic brain disorders resulting from physical problems include acute brain syndrome, senile psychosis, dementia and Alzheimer's disease (Lewis, 1983). One of the myths about aging is that we will all become "senile." Senile is a layman's term and is a catchall that is used to describe a number of symptoms

related to memory loss, confusion and disorientation. However, senility is not a natural outcome of the aging process (Kaminaky, 2003).

Aging is also accompanied by many physical disorders that include Parkinson's disease, arthritis and other joint diseases, osteoporosis, heart disease, cerebral vascular stroke, aphasia, cancer, emphysema and diabetes mellitus (Lewis). Often, physical and mental disorders common to the aging process occur simultaneously. Studies conducted in the 1970s indicated that seventy percent of the population aged sixty-five and older had at least one condition that significantly affected their lives (Gibson, 1991). "Physical functioning and age are significantly correlated with the greatest limitations among those over the age of 85" (Dunkle, Roberts, & Haug, 2001).

One of the most commonly diagnosed forms of dementia associated with the geriatric population is Alzheimer's disease. Symptoms of this disease include memory loss, disorientation, depression and deterioration of bodily functions. While the exact cause of Alzheimer's disease is unknown, much research is being done and a variety of substances and conditions have been associated with it (Aiken, 2001). It is estimated that four million Americans suffer from Alzheimer's disease and the number of people afflicted is expected to triple by the middle of the century (Leifer, 2003). Worldwide, it is estimated that twelve million people suffer from this disease and that 22 million will develop the disease by 2025 (Tirrito). Each year Alzheimer's causes over 20,000 deaths in the United States; the death rate is twice as high in women as men and three times as high in Caucasians as in African-Americans (Aiken).

Alzheimer's disease can run a course of three to twenty years from the beginning of early symptoms. Early symptoms include subtle, short-term memory loss, disorientation in unfamiliar places and inability to remember appointments and obligations (Thomas, 1989). As this disease progresses, patients are unable to recognize family members and memory loss continues to grow worse (Tirrito). This disease not only affects the person suffering from it but also places tremendous burdens and responsibilities on family members and caregivers.

Studies indicate that a common behavioral change brought on by Alzheimer's disease, but one that is often under recognized, is apathy. Alzheimer's patients suffering from apathy seem to experience a marked decrease in daily function and tend to rely on

families or caregivers to provide necessary levels of care. Apathy associated with Alzheimer's has been difficult to diagnosis because it requires physicians to distinguish loss of motivation from loss of ability due to cognitive decline (Landes, Sperry, Strauss & Geldmacher, 2001).

Dementia is a group of symptoms that interfere with cognitive functioning, the most significant feature of which is the impairment of short and long-term memory (Tirrito, 2003). Dementia may be diagnosed when at least four of the following symptoms are present: (1) Impairment in abstract thinking; (2) Impaired judgment; (3) Personality changes; (4) Disturbances of cortical functions such as aphasia; or (5) Short or long-term memory impairments (Birren, Sloane, & Cohen, 1992).

Vascular dementia is the most common form of dementia and is associated with hypertension and vascular damage (Roman, 2003). Personality changes associated with vascular dementia include periods of confusion and memory defects. Patients may experience episodes of laughing and crying and confusion and disorientation as well as losing the ability to perform routine tasks (Aiken). "Alzheimer's disease and vascular dementia are the most frequent causes of dementia in older people" (Zekry, Hauw, & Gold, 2002).

A common functional disorder that tends to increase with the aging process is depression. It is often difficult for a physician to differentiate between depression, as a functional disorder, and disorders caused by physical conditions that exhibit similar symptoms. Depressive behavior in the elderly are exacerbated by many life experiences that tend to increase with age: repeated experiences of loss such as losing a spouse or close friend; the physical disabilities of aging that limit formerly active lives and restrict mobility; and the restraints imposed on the elderly by various disorders they more commonly suffer (Lewis). It is estimated that depression affects about five percent of the population over age sixty-five and there appears to be a greater risk of women developing depression than it developing in the male population (Tirrito). A Swedish study reports that female baby boomers have an increased risk for developing depression (Birren, Sloane & Cohen).

Diagnoses involving depressive behavior include involutional melancholia, manic-depressive psychoses, psychotic depressive reactions and depressive neuroses.

The depressive characteristics of these diseases are presented as anxiety, insomnia, delusions, reduced self regard and severe mood swings (Lewis).

Depression has been successfully treated by both pharmacological and nonpharmacological interventions. Antidepressant medications have been effective for the treatment of major depression but data on the effectiveness of drug treatment on minor episodes of depression is limited. Interestingly, recreational activities are effective in eliminating symptoms in cases of both major and minor depression and structured activities have been seen to be effective as well (Snowden, Sato & Roy-Byme, 2003).

Attitudes Toward Aging

While health problems get most of the headlines when problems with the elderly are discussed, a wide range of concerns for the aging population can be included under the broad issues of social status and quality of life. Americans live in a youth-oriented culture—our heroes are young, in sports, politics and business; media advertising pounds us twenty-four hours a day with youthful, successful propaganda, clearly a false image of reality; rarely does our entertainment feature older people in major roles. The United States Congress had to enact federal laws that prohibit discrimination against older workers. Millions of dollars are spent every year on face lifts, liposuction, hair transplants and other forms of plastic surgery, all for the purpose of recapturing a lost youth. "May-December romances," once more common with older men and younger women but now just as popular in reverse, seem to be a way to turn back the clock for some. It seems that a new way of concealing one's age is invented almost weekly.

While it is easy, and understandable, to find some societal attitudes about aging amusing, many are not. Too often, present day society forces the elderly to feel useless and without a role or purpose for their lives. Today, the wisdom, experience and practical knowledge that it takes a lifetime to obtain is valued less than it was in earlier times. The institutionalized pattern of the life course has become "education, work and retirement" (Schaie & Hendricks, 2000). The industrial and technical-based societies of North America and Europe are losing their tradition of reverence for old age (Aiken), and young people have a tendency to treat all older people alike (Desnick, 1971). As a result

of societal attitudes and longer life spans, many of the elderly are committed to retirement homes, nursing homes and other places where their skills and abilities are completely lost to society and where their physical, mental and emotional decline is accelerated by the attitude that places them there in the first place. However, contrary to the popular myth that Americans are abandoning the elderly to institutional care, families are continuing to provide most care for the elderly (Cancian & Oliker, 2000; Rubinstein, Moss & Kleban, 2000).

> On the whole, our society is organized to satisfy the needs of the young and of adults in their most productive years, and makes relatively few provisions for satisfying the needs of the aged. Our civilization is enormously complex and places great emphasis on energy and speed. Likewise, numerous technological and social inventions lead to frequent and rapid changes in our manner of living. Many old people are unable to keep up with the tempo of our society and feel themselves pushed aside or passed by on the main road toward their goal, with few side roads provided to permit them to take a more leisurely pace (Pollak, 1948).

Pollak wrote the foregoing observations over fifty years ago but societal attitudes about the elderly and aging have remained the same or progressed further along the same lines. One aspect of the social status of the aging population that is especially troubling is the problem of elder abuse.

Elder Abuse

Abuse can come in many forms, some of them subtle and, perhaps, unintended. Failing to accord a person simple human dignity because of his or her age is a form of abuse. Elder abuse, like other forms of abuse, does not have to be manifested by broken bones or bruised bodies, although those signs are certainly present in many circumstances. Withholding the respect or dignity to which an aging parent is entitled or the care or assistance they may need is one of the most prevalent forms of abuse being experienced by the geriatric population (Shield & Aronson). Episodes of elder abuse,

like child abuse, can result from momentary neglect or indifference to events of outright cruelty, exploitation, physical abuse or abandonment.

The tendency of some to be intolerant and impatient of the weaknesses and infirmities of the elderly create many situations of elder abuse. Nursing home workers and other professional caregivers have demonstrated a lack of patience with elderly patients who have become incontinent or exhibited symptoms of senility. The abuse may be verbal abuse or neglect or take a more physical form. Even with loving family members, brief moments of exasperation or impatience with an Alzheimer's patient may result in unintended but damaging abuse (Lesnoff-Caravaglia, 1985).

Statistics on elder abuse are not considered to be reliable because it is, in many instances, a difficult event to verify. Persons that may be the subject of elder abuse often do not have the means or ability to report abuse and some may be too ashamed to admit to authorities that family members or others have abused them (Costa, 1984). However, experts estimate that "one person in ten older that sixty-five years is annually the victim of some significant form of elder abuse" (Shield & Aronson). According to Baumhover and Beall, of the 241,000 United States domestic elder abuse reports received in 1994, the largest proportion came from physicians and other health care professionals, family members accounted for the next largest, and agencies serving the geriatric population accounted for the third (1996).

The Sociology of Aging

Today, "aging" is as much a social status as a biological descriptor of a deterioration of mental and physical functioning. "Sociologically, aging may be viewed as a process accompanied by social isolation, voluntary or involuntary" (Bennett, 1980). The consequences of this sociological process generally fit into five patterns:

1. Devaluation—The devaluation of the elderly is reflected in the negative attitudes and treatment of this population group by younger groups in the society.

2. Stereotyping—The elderly are often viewed as a group all having the same characteristics, abilities, desires and talents. Stereotypically, all of the traits of the elderly population are considered to be negative.

3. Exclusion—The elderly are excluded from opportunities for participation in social, recreational and economic areas simply because of their age and not as a result of a tangible, measurable reason.

4. Role loss—Based simply on age, many are alienated from family and business roles that defined their earlier lives.

5. Role ambiguity—The loss of a long-held or cherished role often leads to confusion on the part of an elderly person; they no longer can define any role for themselves in life and retreat as a result (Rosow, 1974).

As the aging population continues to grow, more attention is being focused on the ethical issues evolving from society's treatment of the elderly (Lesnoff-Caravaglia). New terms such as *ageism* and *handicapism* have been coined to describe ethical dilemmas arising from our treatment of the elderly. *Ageism* is defined as "discriminatory attitudes toward and treatment of older adults resulting in denial of their abilities and accomplishments as well as limitation of their opportunities to participate in social functions." *Handicapism* describes a "pattern of denigrating and patronizing treatment of people with developmental disabilities." (Herr & Weber, 1999). Whether an act is considered ethical is measured against the expectations and requirements of human nature. That is, to do an act ethically is to perform well and within the values of the society (Lesnoff-Caravaglia). Fortunately, there is some evidence that our perceptions of aging and the realities for aging are changing and this is attributable, in large part, to the growing population of aging citizens that have recognized their political and economic power and used it to their advantage (Herr & Weber).

As longevity increases, the political demographics of society change because there are more elderly people, i.e., voters, participating in the political processes on the local, state and national levels. This increased participation by the older population translates into issues that affect that group of voters. Some of these issues, such as pensions, healthcare and welfare, have been referred to as "generational timebombs" (Vincent, 1999). One of the more active political action groups formed by the older generation to promote issues of interest to them is the American Association of Retired Persons (the AARP). In 1990, the AARP had 33 million members and revenues of $300 million—all of which equals political power (Thursz, Nusberg, & Prather, 1995).

Resocialization and Therapy for the Aged

The recognition of the special status and needs of the aging population, the renewed and emerging social conscience demanding better treatment for those living longer lives, the interest of social scientists and the development of many techniques and therapies for improving the lives of the elderly are making possible improvements in the social lives of the aging that accompanies improvements in medical treatment for the physical and psychological infirmities common to that population.

Sociologists and psychologists have known for some time that increased social activities in mental hospitals have resulted in significant improvement in the behavior of persons suffering from psychoses (Bennett, 1980). While many people in the aging population do not suffer from psychoses, some of the symptoms presented by an isolated geriatric group are similar in nature if not in severity—isolation, mental deterioration, loneliness, inactivity. Group sessions that emphasize communication skills and present the opportunity to interact have been effective in reducing or eliminating such symptoms and resulted in improved quality of life for senior citizens (Jarvik, 1978). Other benefits of group participation may include a feeling of belonging, consensual affirmation, integration, and interpersonal learning (Toseland, 1995).

Opportunities for group interaction become increasingly important when elders have been excluded from participation with the families of their adult children, are unable to maintain employment, and are forced to live alone. "Optimally, group therapy leads immediately to relief of depression, loneliness, and the feeling of being rejected by the family. The sharing of common worries would help to form group cohesion. . . . Group therapy gives almost immediate relief to these symptoms that accompany aging" (Jarvik).

A popular and effective therapy for geriatric groups and individuals is music therapy. Music therapy has been defined as "the controlled use of music in the treatment, rehabilitation, education and training of children and adults suffering from physical, mental or emotional disorders" (Karras, 1987). It is widely accepted in the scientific community that music enlivens and energizes older persons that have experienced a loss of physical or cognitive functioning (Hanser, 1999). Music is an excellent medium for therapeutic programs because of the appeal of music in every society and to almost every

individual. Many of our life experiences can be related to music and those experiences can be recalled by different musical styles and types.

Over the last twenty years, documented research has demonstrated music therapy's effectiveness with patients suffering from cognitive disabilities such as Alzheimer's disease and other dementia disorders. In a study by Groene, Zapchenk, Marble, and Kantar, seven subjects, six having a probable diagnosis of Alzheimer's, participated in sixteen sing-along sessions and thirteen exercise sessions over a three week period. Results demonstrated that most of the subjects responded well to both sing-along and exercise programs (1998). Another study included twenty-six subjects who participated in two music therapy groups per week for four weeks. Music sessions were given to half of the subjects while the other half consisted of conversation only. During the music sessions, topics such as animals, flowers, spring, holidays, and countries were included for each day and appropriate songs were selected to sing. Results demonstrated that speech content and fluency improved following music therapy sessions as opposed to conversational sessions (Brotons & Koger, 2000). A recent qualitative review of literature has shown that music therapy in dementia patients improves social, cognitive and emotional skills and decreases behavioral problems (Koger, Chapin, & Brotons, 1999).

Group cohesion has been identified as a primary therapeutic factor needed for improvement to occur. Eighteen subjects who have a diagnosis of being HIV-positive or having AIDS were selected to participate in a study focusing on group songwriting. The experiment consisted of a song writing group, a game playing group, and the last group received no treatment. Study findings reveal that group cohesion scores were the same for all groups. However, results also suggest that group songwriting was more effective in addressing treatment issues than game playing (Cordobes, 1997).

When group therapy is not appropriate for particular individuals, individual therapy may be a treatment option. Individual therapy permits the development of a one-to-one relationship and a level of intensity best suited for the individual. Individual sessions focus on the "precise functioning level of the person at any point in time" (Hanser). Depending upon the subject, individual therapy may facilitate better communication between the therapist and patient which may result in overall

improvement in communication skills. In a study by Pollack and Namazi, eight subjects were treated individually in six music therapy sessions over a two week period. Frequency of social behavior was measured and it was indicated that participation, smiling, eye contact, and verbal feedback expressing pleasure increased from the subjects during the music sessions. Results suggest that individual music therapy sessions may also encourage further social contact following music (1992).

Studies have shown, for example, that sessions focused on reminiscence provide a method and atmosphere for elders to share memories, to improve their self-image and to facilitate engagement between group members (Lin, Dai, & Hwang, 2003). In one study, twenty elderly subjects diagnosed with dementia participated in reminiscence focused music therapy sessions for a period of three weeks. The sessions consisted of an opening drumming activity, topics of reminiscence with appropriate music, and a concluding drumming activity. Results concluded that the group sessions helped to bring about more meaningful interactions between the members of the group and the music therapist. (Ashida, 2000). In a different study, a music therapist incorporated the call and response technique during a sing-along session to stimulate mental functioning. Calling on group members to recall the words of songs from their earlier lives and the memories associated with those songs allowed the music therapist to help rebuild egos and restore the members' self-concepts (Palmer, 1977).

The encouragement of reminiscence and the discussion of those cherished memories promote positive socialization and the practice of communications skills (Karras). Particularly for cognitively impaired individuals, music has the potential to make connections with memories in a way that words cannot. Music, being a universal human behavior found in all cultures, elicits both voluntary and involuntary physiological responses which provide a setting for acceptable shared feelings (Kohut Jr., Kohut, & Fleishman, 1987). "Higher functioning groups generally enjoy an approach to music and movement that is a mixture of affective and cognitive processing. Lower functioning groups are more comfortable working with one process at a time, predominantly affective and reminiscence" (Erwin, 1996). Gaston observed that music, as a nonverbal expression, "links but does not divide," a quality that makes it "an ideal agent for social integration" (1968).

Music has six primary functions with the geriatric population:

1. Listening—The main advantage to music listening is for personal enjoyment; however, music also attracts nonverbal individuals into a group setting.

2. Discussion—Because music elicits different responses in people, it provides a non-threatening environment for group discussion.

3. Identification—Individuals can often relate experiences to music based on the mood and lyrical message.

4. Reminiscence—Music may be associated with significant life events which can be used to recollect memories, feelings, and events.

5. Sensation—Whether the listener is engaging in the music by hand clapping, toe tapping, or head bobbing, or using the music as cue for relaxation, music may be a satisfying sensory experience.

6. Action—Music, used to gain participation and attention, may be paired with a movement exercise to enhance the natural inclination to move with the music (Erwin, 1996).

Conducting group music therapy sessions with older adults presents a significant challenge not always found in other group settings: you may have a range of mental and physical capacities from wiser, serene elderly to weak, dependent and cognitively challenged elderly (Wigram, Pedersen, & Bonde, 2002). Some may be facing degenerative brain diseases while others may have mobility problems but no cognitive problems. However, music therapy, especially singing, in groups has been found to positively affect the development of social relationships within the group (Shulberg, 1981). Singing can be an effective activity because the music therapist can design sessions suited for the members' level of functioning. In group sessions, members can participate by singing, listening, nodding or tapping. In one study on group singing therapy and the behavior of Alzheimer's patients, ten subjects participated in a total of ten group music therapy sessions. The experimental group participated in discussion sessions only while the control group had singing sessions. Following a behavioral checklist, results concluded that verbal participation was much higher in group singing sessions rather than discussion sessions. This was most likely because singing is an activity which incorporates the entire group at one time (Millard & Smith, 1989).

In any aging population, such as is found in nursing homes and assisted living facilities, there will be those that benefit more from individual music therapy sessions than from group sessions. Persons with diminished social and/or communications skills are excellent candidates for individual sessions. At the other end of the spectrum, older adults that excelled in music in their youth or that have a strong background in musical activities benefit greatly from individual sessions that can be tailored to their talents (Karras, 1987).

CHAPTER TWO

METHOD

Purpose

The purpose of this study was to investigate the effectiveness of group music therapy sessions versus individual music therapy sessions designed to stimulate various participation and interaction skills on the on-task behaviors of a geriatric population. Specifically measured were on-task behaviors in music, social, and verbal responses.

Design

Each subject was his/her own control with conditions counterbalanced. Group A consisted of ten subjects who began with a week of group sessions. This was followed by two weeks of individual sessions. Group A was divided into two subgroups (n = 5) for videotaping purposes, both of whom received group music therapy on six consecutive days. Group B (n = 9) was subdivided into two groups (n = 4.5) and received the same conditions in reverse order.

Subjects

Nineteen subjects ages 41-101 years, with a mean age of 80, participated in this study. Of the nineteen subjects who participated, five were male and fourteen were female. One subject was not included in the study due to a hospitalization. Ten subjects

were randomly assigned to Group A and nine subjects were randomly assigned to Group B. Demographics of the subjects are listed in the table following this section.

Procedure

Each subject was randomly assigned to begin with either group or individual music therapy sessions. Group sessions consisted of different activities for each of six days to promote participation and familiarity. Each session began with a hello song, followed by an activity used to increase cognitive stimulation and a movement paired with music. During the music activity, subjects were encouraged to participate by singing age-appropriate songs (see Appendix D), identifying different tunes accompanied on guitar or keyboard, playing a variety of instruments, listening to music and participating in social activities such as reminiscing. Individual sessions also began with a hello song and involved singing subject preferred music, reminiscing following music, as well as instrument playing when appropriate. During one-to-one sessions, modifications were made to adapt to the individual.

Each session was video-taped to record the participation and interactions of each subject. Observation forms were used for later analysis (see Appendix E and F). The purpose of the observation was to quantify the level of participation and interaction of the subject between group versus individual music therapy sessions. Observations were based on whether the subject was on-task or off-task in music, social and verbal categories during sessions. Operational definitions were provided by the researcher for clarification of the three categories (see Appendix H). Each subject was observed for a fifteen second interval throughout the session. A reliability check of ten percent of the total number of sessions (group and individual) was performed by an independent observer. Total reliability was 97.9%, with music reliability being 98.5%, social reliability being 96.6%, and verbal reliability being 98.6%.

Data were collected and analyzed from the video tapes. The results were statistically and graphically analyzed for an accurate comparison of the group versus individual music therapy sessions.

Table 1: Subject Demographics

SUBJECT #	GENDER	AGE	DIAGNOSIS
1	FEMALE	87	ALZHEIMERS
2	FEMALE	92	ALZHEIMERS DEPRESSION
3	FEMALE	101	CVA, HTN, DEMENTIA
4	FEMALE	89	DEMENTIA WITH PSYCHOSIS, HTN
5	MALE	80	ALZHEIMERS, CAD
6	FEMALE	93	CHF, DIABETES, ATRIAL FIB
7	FEMALE	83	COPD, DEMENTIA
8	FEMALE	74	ALZHEIMERS
9	MALE	83	DEMENTIA, COPD
10	FEMALE	88	ALZHEIMERS
11	FEMALE	88	OSTEOPOROSIS, CVA
12	FEMALE	41	MENTAL RETARDATION
13	FEMALE	77	HTN, VASCULAR DEMENTIA, ALZHEIMERS
14	MALE	95	HTN, CVA, DEMENTIA
15	FEMALE	70	DEMENTIA, HTN
16	FEMALE	77	ALZHEIMERS, HTN
17	MALE	53	CVA, DIABETES, HTN, SEIZURES, SCHIZOAFFECTIVE DISORDER
18	MALE	79	HTN, PSYCHOSIS, DEMENTIA WITH DELUSIONS
19	FEMALE	78	SCHIZOPHRENIA, OSTEOPOROSIS

CVA-CEREBRAL VASCULAR ACCIDENT
HTN-HYPERTENSION
CHF-CONGESTIVE HEART FAILURE
CAD-CORONARY ARTERY DISEASE
COPD-CORONARY OBSTRUCTION PULMONARY DISEASE

CHAPTER THREE

RESULTS

A Multivariate Test was used to compare pre and post-test data for music, social, and verbal behaviors. The individual music responses were significantly better than the group responses ($F = 4.57$, $df = 1$, $\alpha = .047$). The individual social responses were significantly better than the group responses ($F = 5.79$, $df = 1$, $\alpha = .028$). There was no significant difference between individual or group structure on verbal responses ($F = 2.86$, $df = 1$, $\alpha = .109$).

Table 2: Group Mean On-Task by Response

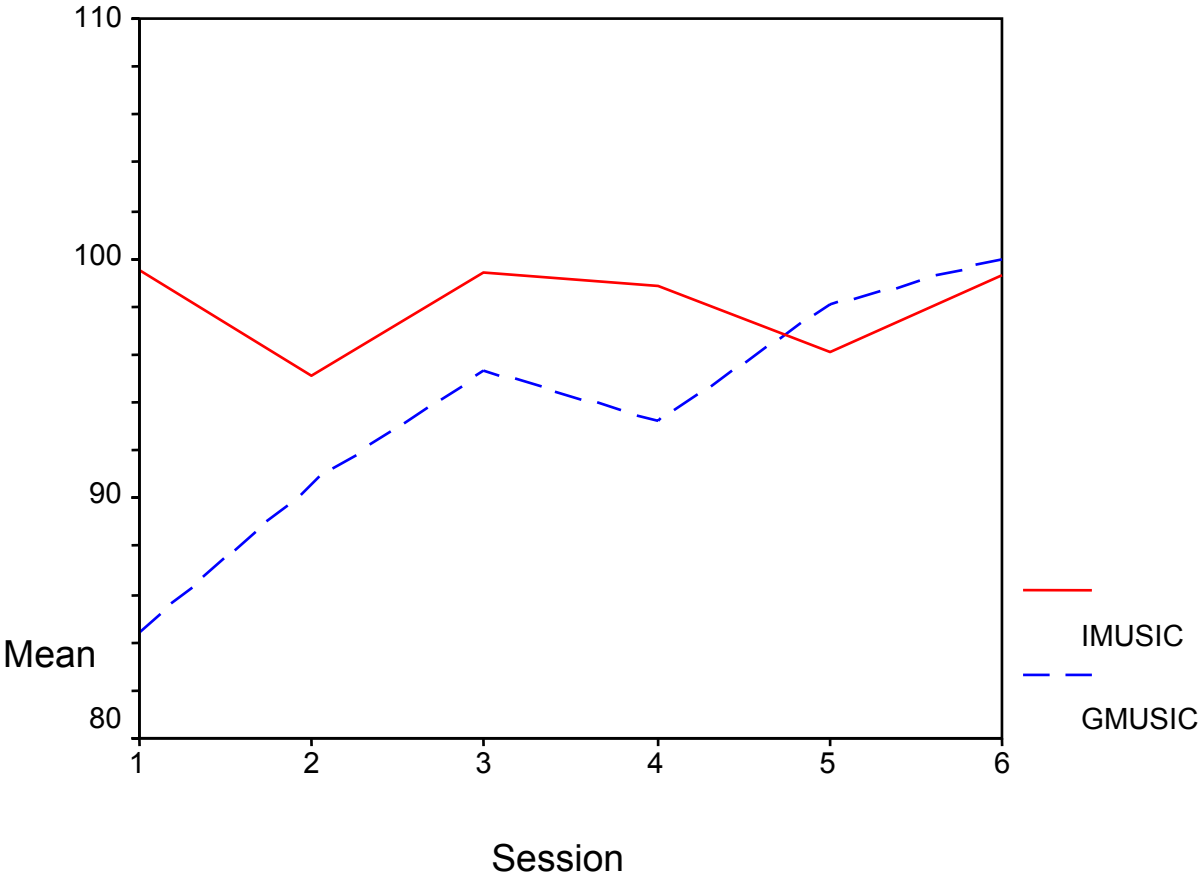
	Music	**Social**	**Verbal**
Individual	.98*	.93*	1.00
Group	.90	.88	1.00

N = 19

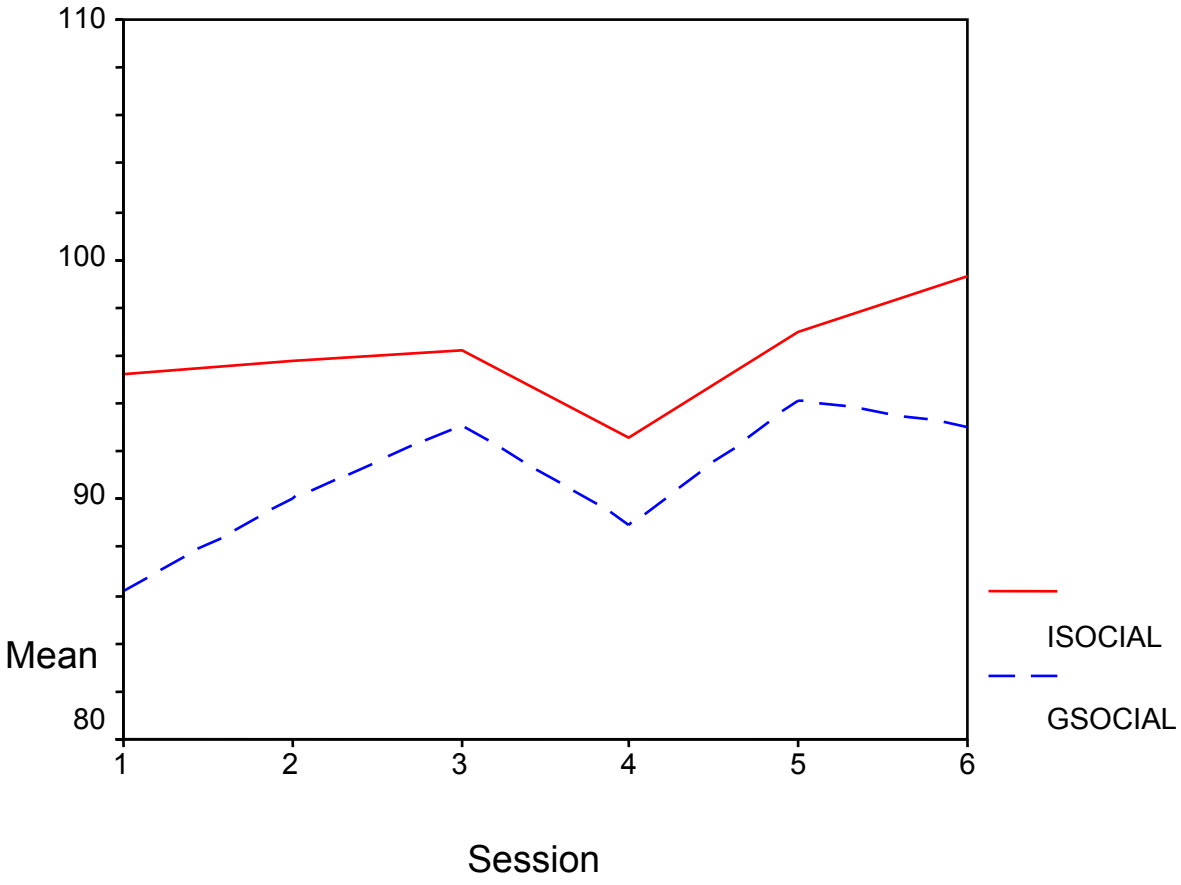
* Significant at $\alpha < .05$

Graphs A, B and C are provided with daily differences between the individual and group observations in order to compare variations that occurred across six sessions. Graph A illustrates individual and group music on-task means of all subjects combined. Graph B and C demonstrate social and verbal means, respectively, in the same manner as Graph A.

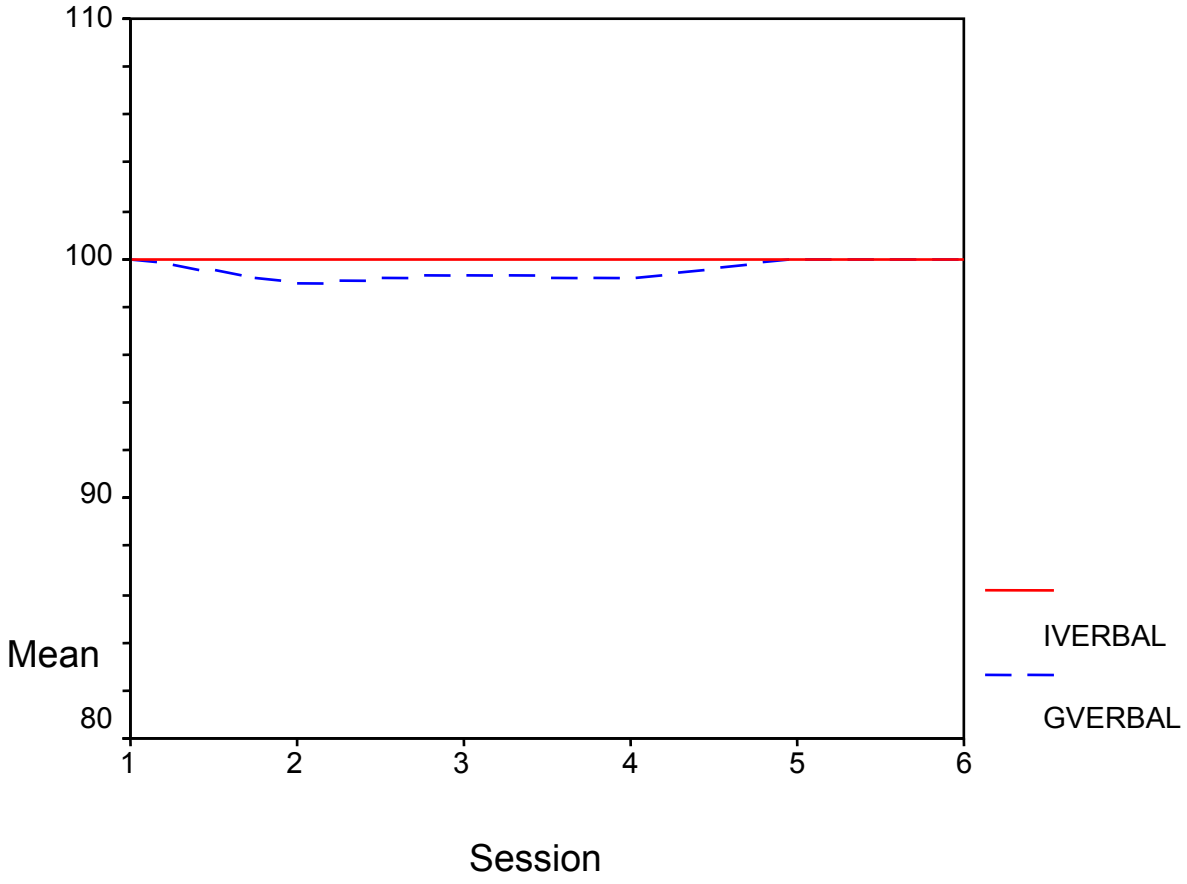
Graph A: Individual and Group Music Means



Graph B: Individual and Group Social Means



Graph C: Individual and Group Verbal Means



CHAPTER FOUR

DISCUSSION

The results found in this study indicate that individual music therapy sessions in a geriatric population generally produce higher music and social responses as compared to group sessions. Verbal responses are generally equal between individual and group sessions. Graph A illustrates that during the first couple of sessions, music responses were higher in individual settings than group settings. However, group responses increased quickly by the third session. By the fifth and sixth session, both individual and group responses were on the rise. This graph suggests that it is beneficial to begin with individual music therapy sessions in a geriatric population to build rapport between the therapist and the individual, and then move to a group setting. The individual usually does better in a group if he/she is more familiar with the therapist. If individual sessions before group sessions are not possible, the therapist should make a point to give the new member of the group extra attention during the first couple of music groups. This may make the individual feel more comfortable in the group, which should increase appropriate response behaviors.

Graph B illustrates that social on-task behaviors are higher in individual settings than in group settings. During an individual session, there are only two people. The person is more likely to remain on-task for a longer period of time during an individual session than during a group session. The larger a group becomes, a person may receive less one-to-one attention, which may result in more off-task behaviors. Again, if individual sessions are not possible, it would be beneficial to have a peer tutor or an aid to sit close by the new member of the group if the therapist is not able to be close by. Having someone by the individual may help to increase appropriate social interaction between the individual, other group members and the therapist during the group session.

Graph C indicates that there is almost no difference between individual and group settings on the effect of on-task verbal behaviors. In this study, off-task verbal behaviors occurred during group sessions involving other group members. There were no off-task behaviors during individual settings.

Throughout the course of this study, the researcher observed the behaviors of the subjects and recorded any comments made. The following are some of the examples that were noted.

One subject, who was always on-task in individual sessions, appeared to be disruptive and socially inappropriate in group settings. This particular individual would sing out loud while music was not being played and would make inappropriate comments to other group members. A comment was made by the staff to the researcher that other residents do not usually get along with this group member because of his/her behavior. It appeared that this person was unaware of any hostile behavior being directed towards him/her and continued to come to group sessions. Several other members of the group would not participate in the group because this individual was there. This person loves music and social interaction, and in this case, individual sessions proved to be much better suited for him/her. Another subject stated that the individual sessions were like "special programs" and that it was nice to have something different.

During the first three individual sessions, a different subject described his/her day as "terrible." By the following three sessions, the same subject described his/her day as "better" and "great." A good friend and fellow resident of this individual commented to the researcher how much the subject's mood had increased following the individual music sessions. The friend also told the researcher that this individual used to not come out of his/her room and would not participate in any programs. However, following the individual sessions, the subject began participating in programs and attended all six group music sessions.

A different subject stated that following individual music sessions, he/she "found comfort and peace with the music" because of the hard times he/she was going through. The staff commented to the researcher that they were surprised this person even agreed to participate in this study due to his/her usual unwillingness to participate in anything. The researcher found in this particular case that it was very beneficial to begin with individual

sessions and build a rapport with this person before moving to group sessions. However, the individual stated to the researcher that he/she much preferred individual sessions to group sessions. When the researcher was going to other individual sessions, this person would come up to the researcher and ask with much excitement when it was going to be his /her time for a music session. One reason this person enjoyed individual sessions so much was because his/her music preference was only hymns and spirituals, which is not always appropriate for groups.

Two subjects would not participate in group sessions at all. The researcher had concluded the individual sessions with these subjects, but could not get either one to attend the group sessions. One individual continued to make excuses for not being able to attend while the other one stated he/she "can't read, doesn't know any music, and can't hear a thing." While these two individuals did not attend any groups, they both enjoyed and completed the individual sessions.

The staff made many positive comments throughout this study. One staff member stated "there is such a difference in the mood and atmosphere when the residents can participate in music activities." Another staff member stated "I wish I could hire you so you could come everyday. The residents love the music."

The biggest difficulty in running this study was finding the time to fit into everyone's schedule. The location for this study already had a full calendar of events planned, not to mention the resident's individual schedule. The ideal situation would have been for the same subjects to attend their designated group at the same time and place while the individual sessions were also consistent with time and place. The researcher had to work around this difficulty and find the subjects when they were available.

Individual sessions during this study proved to be more effective than group sessions for several reasons. One reason is the functioning levels of individuals found in geriatric settings are so varied. It is difficult to lead a successful group session based on the wide variety of functioning levels. Individual sessions also provide more personal attention and social interaction which may achieve more positive results in the end. One subject burst into tears several times during individual sessions, but not once during group sessions. This person was able to allow him/herself to reminiscence following

music and tell the researcher personal thoughts and memories. It appeared that this person detached slightly while in group settings to possibly prevent deep emotions from coming out. This leads to another benefit of individual sessions. In group settings, everyone may not be pleased with the music selections. Individual sessions are most effective with subject preferred music.

While there are many benefits to individual sessions, group sessions are just as important. Group interaction within the geriatric population is very important. Some residents may sit in their private rooms all day with no personal interaction at all. Some residents have no family or friends to visit them. Being able to be a part of a group increases self-esteem, self-concept and gives a feeling of accomplishment and pride.

The implications of this study suggest that it is more beneficial to begin with individual music therapy sessions before group sessions in a geriatric population. Individual sessions help build a rapport between the therapist and the individual, which may encourage appropriate social interaction within a group setting. If individual sessions are not possible, extra attention should be paid to the newest group member during the first few sessions. Further research is needed to determine if long term group or individual music therapy sessions are more effective in producing appropriate behavior responses.

APPENDIX A

HUMAN SUBJECTS COMMITTEE APPROVAL

Florida State
UNIVERSITY

Office of the Vice President
For Research
Tallahassee, Florida 32306-2763
(850) 644-8673 · FAX (850) 644-4392

APPROVAL MEMORANDUM

Human Subjects Committee

Date: 10/23/2003

Mary Virginia Miller
434 W. Jefferson Street, Apt. 208
Tallahassee, FL 32301

Dept.: **Music**

From: **David Quadagno, Chair** DQ/ph

Re: **Use of Human Subjects in Research**
A Comparative Analysis of the Effect of Music Therapy in the Geriatric Population in Group Sessions Versus Individual Sessions

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 Secretary, the Chair, and two members of the Human Subjects Committee. Your project is determined to be exempt per 45 CFR § 46.101(b) 2 and has been approved by an accelerated review process.

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 **10/22/2004** 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. 2003.577

APPENDIX B

INFORMED CONSENT FORM

INFORMED CONSENT FORM

I, the undersigned Project Participant, agree to participate in the research project entitled "A Comparative Analysis of the Effect of Music Therapy in the Geriatric Population in Group Sessions Versus Individual Sessions."

This research project is being conducted by Mary Virginia Miller, a graduate student in the School of Music at Florida State University, in partial fulfillment of the requirements for a Master's Degree in Music Therapy. This project will be designed and conducted for the purpose of determining if music therapy is more effective in improving the quality of a person's life by being administered in group sessions or individually. If I participate in this project, I will receive individual and group music therapy sessions, lasting no longer than 30 minutes each, over a period of three weeks. I understand that I will participate in no more than one session per day and that I will participate in six group and six individual sessions. These sessions will be scheduled through the residential care facility where I currently live. I understand that there are no risks to my health or well-being by participating in this project. There may be quality-of-life benefits associated with my participation.

I understand that these sessions will be observed or recorded on video tape for later analysis. The information documented from the observations or video taping will be used only for the purpose of collecting information that will be used in the final report on this project. My identity will

be known only to the researcher and neither my name, address nor other personal information will be revealed by the researcher to anyone. The video tapes will be stored by the researcher. All video tapes recorded during the music therapy sessions will be destroyed upon the completion of the project but, in no event, later than August 1, 2004. Confidentiality will be strictly maintained to the extent allowed by law.

I understand that my participation is completely voluntary and that I may withdraw my consent to participate in this project at any time. If I decide to withdraw I will not be penalized in any way whatsoever.

If I have questions about my rights as a participant in this research, or if I feel I have been placed at risk, I can contact the Chair of the Human Subjects Committee, Institutional Review Board, through the Office of the Vice President for Research, at (850) 644-8633. The mailing address is 2035 East Paul Dirac Drive, Box 15, 100 Sliger Building, Innovation Park, Tallahassee, FL 32310.

I also understand that I may contact Dr. Jayne Standley, Director of the Music Therapy Program, Florida State University School of Music, 850-644-4565, with any questions I may have. Miss Miller may be reached at 850-222-5988 or via email at MilGn6@aol.com.

I have read this Informed Consent Form and understand its contents.

_____ _____

Project Participant Date

_____

Witness

APPENDIX C

DATE RECORD

SUBJECT	I	I	I	I	I	I	G	G	G	G	G	G
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I = INDIVIDUAL SESSION
G = GROUP SESSION

APPENDIX D

SONG LIST

Gospel
All Night, All Day
Amazing Grace
Because He Lives
Do, Lord
Down by the Riverside
Give Me that Old Time Religion
How Great Thou Art
I'll Fly Away
Joshua Fit de Battle
Rock-a My Soul
Shall We Gather at the River?
Soon and Very Soon
Standin' in the Need of Prayer
Swing Low
This is My Father's World
This Little Light of Mine
This Train
Wade in the Water
What a Friend we have in Jesus
When the Saints Go Marchin' In

Country
Act Naturally
Blue Suede Shoes
Bouquet of Roses
Hey Good Lookin'
Move it on Over
On the Road Again

Patriotic
America
America, the Beautiful
Battle Hymn of the Republic
God Bless America
This Land is Your Land

Show Tunes
Edelweiss
My Favorite Things
Oh What a Beautiful Morning
Over the Rainbow

Oldies
All I have to do is Dream
Bicycle Built for Two
Bye Bye Love
Chantilly Lace
Deep in the Heart of Texas
Down in the Valley
Five Foot Two, Eyes of Blue
Hail, Hail the Gang's All Here
Home on the Range
I've Been Working on the Railroad
In the Good Old Summertime
Let Me Call You Sweetheart
Moon River
My Bonnie Lies Over the Ocean
Oh, Susanna
Peace like a River
Que Sera, Sera
Shenandoah
Sidewalks of New York
Take Me Out to the Ballgame
You are my Sunshine

APPENDIX E

INDIVIDUAL OBSERVATION FORM

Individual Observation Form

Subject # _____ Date _____ Time: Start _____ End _____

Observer _____ Reliability Observer _____

Observation Interval _____ (seconds) Record Interval _____ (seconds)

ACTIVITY						
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V

Totals:

M = On-task: _____
Off-task:_____

S = On-task: _____
Off-task: _____

V = On-task: _____
Off-task: _____

Comments:

*Form modified from Madsen & Madsen

APPENDIX F

GROUP OBSERVATION FORM

Group Observation Form

Subject # _____ Date _____ Time: Start _____ End _____

Observer _____ Reliability Observer _____

Observation Interval _____ (seconds) Record Interval _____ (seconds)

ACTIVITY						
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V
	M S V	M S V	M S V	M S V	M S V	M S V

Totals:

M = On-task: _____
Off-task:_____

S = On-task: _____
Off-task: _____

V = On-task: _____
Off-task: _____

Comments:

*Form modified from Madsen & Madsen

APPENDIX G

SYMBOLS FOR OBSERVATION FORMS

SYMBOLS

O – Subject is on-task.

/ - Subject is off-task.

X – Activity, such as music, was not conducted during observation interval.

APPENDIX H

OPERATIONAL DEFINITIONS

OPERATIONAL DEFINITIONS

M = Music

On-task: Subject remains on-task throughout observation interval by exhibiting behaviors such as: singing, tapping beat with hands/feet, playing instruments, humming, and/or whistling to music.

Off-task: Subject does not engage in musical activity at any time during observation interval. He/she does not sing, tap beat, play instrument, hum, or whistle during activity.

S = Social

On-task: Subject remains on-task throughout observation interval by exhibiting behaviors such as: establishing eye contact with therapist or other group members, displaying positive facial affect such as smiling, and/or interacting with therapist or other group members.

Off-task: Subject does not establish eye contact or display positive facial affect at any time during observation interval. Off-task social behavior could also include: disrupting sessions by displaying inappropriate social behavior such as walking around during session or interfering with other members in the group.

V = Verbal

On-task: Subject responds to questions which the therapist may ask during observation interval. On-task behaviors could also include expressing ideas/comments/preferences.

Off-task: Subject does not respond to questions when asked and/or subject makes inappropriate verbal comments during observation interval.

REFERENCES

Abeles, R. P., Gift, H. C., & Ory, M. G. (Eds.). (1994). *Aging and quality of life.* New York: Springer Publishing Co.

Aiken, L. R. (2001). *Aging and later life.* Springfield: Charles C. Thomas Publisher, Ltd.

Ashida, S. (2000). The effect of reminiscence music therapy sessions on changes in depressive symptoms in elderly persons with dementia. *Journal of Music Therapy, 37*, 170-182.

Baumhover, L. A., & Beall, S. C. (Eds.). (1996). *Abuse, neglect and exploitation of older persons.* Baltimore: Health Professions Press.

Bennett, R. (Ed.). (1980). *Aging, isolation and resocialization.* New York: Van Nostrand Reinhold Company.

Birren, J. E., Sloane, R. B., & Cohen, G. D. (Eds.). (1992). *Handbook of mental health and aging* (2nd ed.). San Diego: Academic Press.

Brotons, M. & Koger, S. M. (2000). The impact of music therapy on language functioning in dementia. *Journal of Music Therapy, 37*, 183-195.

Cancian, F. M., & Oliker, S. J. (2000). *Caring and gender.* New York: Rowman & Littlefield Publishers, Inc.

Committee on an Aging Society, Institute of Medicine and National Research Council. (1988). *The social and built environment in an older society.* Washington, D.C.: National Academy Press.

Cordobes, T. K. (1997). Group songwriting as a method for developing group cohesion for HIV-Seropositive adult patients with depression. *Journal of Music Therapy, 34*, 46-67.

Costa, J. J. (1984). *Abuse of the elderly.* Lexington: Lexington Books, D. C. Heath & Company.

Desnick, S. G. (1971). *Geriatric contentment.* Springfield: Charles C. Thomas Publisher.

Dunkle, R., Roberts, B., & Haug, M. (2001). *The oldest old in everyday life.* New York: Springer Publishing Co.

Erwin, K. T. (1996). *Group techniques for aging adults.* Washington, D.C.: Taylor & Francis.

Gaston, E. T. (Ed.). (1968). Music *in therapy.* New York: The Macmillan Co.

Gibson, H. B. (1992). *The emotional and sexual lives of older people.* London: Chapman & Hall.

Groene, R., Zapchenk, S., Marble, G., & Kantar, S. (1998). the effect of therapists and activity characteristics on the purposeful responses of probable Alzheimer's disease participants. *Journal of Music Therapy, 35*, 119-136.

Hanser, S. B. (1999). *The new music therapist's handbook* (2nd ed.). Boston: Berklee Press.

Herr, S. S., & Weber, G. (1999). *Aging, rights, and quality of life.* Baltimore: Paul H. Brookes Publishing Co.

Hirshbein, L. D. (2001). Popular view of old age in America, 1900-1950. *Journal of the American Geriatrics Society*, *49,* 1555.

Jarvik, L. F. (Ed.). (1978). *Aging into the 21st century.* New York: Gardner Press, Inc.

Kaminsky, M. (Ed.). (2003). The uses of Reminiscence: New ways of working with older adults. New York: The Haworth Press.

Karras, B. (Ed.). (1987). *You bring out the music in me: Music in nursing homes.* New York: The Haworth Press.

Koger, S. M., Chapin, K., & Brotons, M. (1999). Is music therapy an effective intervention for dementia? *Journal of Music Therapy, 36*, 2-15.

Kohut, S., Kohut, J. J., & Fleishman, J. J. (1987). *Reality orientation for the elderly* (3rd ed.). Oradell: Medical Economics Co., Inc.

Koller, M. R. (1968). *Social gerontology.* New York: Random House.

Landes, A. M., Sperry, S. D., Strauss, M. E., & Geldmacher, D. S. (2001). Apathy in Alzheimer's disease. *Journal of the American Geriatrics Society, 49*, 1700.

Leifer, B. P. (2003). Early diagnosis of Alzheimer's disease: Clinical and economic benefits. *Journal of the American Geriatrics Society, 51*, 281.

Lesnoff-Caravaglia, G. (Ed.). (1985). *Values, ethics and aging.* New York: Human Sciences Press, Inc.

Lewis, S. C. (1983). *Providing for the older adult.* Thorofare, N.J.: Slack, Inc.

Lin, Y., Dai, Y., & Hwang, S. (2003). The effect of reminiscence on the elderly population: A systematic review. *Public Health Nursing, 20*, 297.

Madsen, C. K., & Madsen, C. H. (1981). *Teaching/Discipline: A Positive Approach for Educational Development.* Raleigh: Contemporary Publishing Company of Raleigh, Inc.

Millard, K. A. O., & Smith, J. M. (1989). The influence of group singing therapy on the behavior of Alzheimer's disease patients. *Journal of Music Therapy, 26*, 58-70.

Palmer, M. D. (1977). Music therapy in a comprehensive program of treatment and rehabilitation for the geriatric resident. *Journal of Music Therapy, 14*, 190-197.

Pollack, N. J., & Namazi, K. H. (1992). The effect of music participation on the social behavior of Alzheimer's disease patients. *Journal of Music Therapy, 29*, 54-67.

Pollak, O. (1948). *Social adjustment in old age.* New York: Social Science Research Council.

Roman, G. C. (2003). Vascular dementia: Distinguishing characteristics, treatment, and prevention. *Journal of the American Geriatrics Society, 51*, 296.

Rosow, I. (1974). *Socialization to old age.* Berkeley: University of California Press.

Rubinstein, R. L., Moss, M., & Kleban, M. H. (Eds.). (2000). *The many dimensions of aging.* New York: Springer Publishing Co.

Schaie, K. W., & Hendricks, J. (Eds.). (2000). *The evolution of the aging self.* New York: Springer Publishing Co., Inc.

Schulberg, C. H. (1986). *The music therapy source book.* New York: Human Sciences Press, Inc.

Shield, R. R., & Aronson, S. M. (2003). *Aging in today's world.* New York: Berghahn Books.

Snowden, M., Sato, K., & Roy-Byme, P. (2003). Assessment and treatment of nursing home residents with depression or behavioral symptoms associated with dementia: A review of the literature. *Journal of the American Geriatrics Society, 51*, 1305.

Thomas, L. E. (Ed.). (1989). *Research on adulthood and aging: The human science approach.* Albany: State University of New York Press.

Thursz, D., Nusberg, C., & Prather, J. (Eds.). (1995). *Empowering older people.* Westport: Auburn House.

Tirrito, T. (2003). *Aging in the new millennium.* Columbia: University of South Carolina Press.

Toseland, R. W. (1995). *Group work with the elderly and family care givers.* New York: Springer Publishing Co.

Vincent, J. A. (1999). *Politics, power and old age.* Buckingham: Open University Press.

Wigram, T., Pedersen, I. N., &, Bonde, L. O. (2002). *A comprehensive guide to music therapy.* London: Jessica Kingsley Publishers.

Zekry, D., Hauw, J., & Gold, G. (2002). Mixed dementia: Epidemiology, diagnosis and treatment. *Journal of the American Geriatrics Society, 50*, 1431.

BIOGRAPHICAL SKETCH

Name:	Mary Virginia Miller
Date of Birth:	December 9, 1979
Place:	Montgomery, Alabama
Education:	Huntingdon College—Montgomery, Alabama
	Bachelor of Arts (Piano Performance)
	Degree awarded May, 2002
	The Florida State University—Tallahassee, Florida
	Master of Music Therapy
	Degree awarded August, 2004
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	January, 2004—July, 2004