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## The Efficacy of Guided Imagery and Music (GIM) On Life Satisfaction and Self-Esteem in the Elderly

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THE EFFICACY OF GUIDED IMAGERY AND MUSIC (GIM) ON LIFE  
SATISFACTION AND SELF-ESTEEM IN THE ELDERLY

by

Barbara Ann Steenrod

A Thesis  
Submitted to the  
Faculty of The Graduate College  
in partial fulfillment of the  
requirements for the  
Degree of Master of Music  
School of Music

Western Michigan University  
Kalamazoo, Michigan  
April 1996



## ACKNOWLEDGMENTS

I would like to thank Brian Wilson, my committee chairperson, for his assistance with this project. His guidance was indispensable from inception to completion. My gratitude is also extended to Ellen Page-Robin, Wayne Fugua, and David Sheldon. These committee members were extremely helpful to me and offered invaluable suggestions. Roseann Kasayka was very helpful in GIM concerns and questions and I thank her for her guidance and support.

Thank you to Louis Weinman, administrator of the research site and Mary Lou Whittaker of Jewish Senior Services. Of utmost importance were the people who participated in the study as subjects, without whom this project would not have been possible. Thank you also to Bowling Green State University Statistical Counseling Center for analyzing the data collected.

Finally, I dedicate this thesis to my husband who has been very supportive not only in this endeavor, but throughout all of my life. May we grow old together.

Barbara Ann Steenrod

THE EFFICACY OF GUIDED IMAGERY AND MUSIC (GIM) ON LIFE  
SATISFACTION AND SELF-ESTEEM IN THE ELDERLY

Barbara Ann Steenrod, M.M.

Western Michigan University, 1996

The purpose of this study was to determine the efficacy of Guided Imagery and Music (GIM) on life satisfaction and self-esteem in the elderly. Twenty-two elderly people took part in the experimental study with 11 subjects in the experimental condition and 11 subjects in the control condition.

The Life Satisfaction Index-A (Neugarten, Havighurst, & Tobin, 1961) was used to measure life satisfaction and the Self-Esteem Scale (Rosenberg, 1965) was used to measure self-esteem. Data collected from these instruments revealed a significant increase at the alpha level of .05 on Life Satisfaction Index-A scores in the subjects who received GIM. Self-esteem scores appeared not to be effected by GIM. The age of the subjects had no impact on the Life Satisfaction Index-A or the Self-Esteem scores, however, these scores were affected by the number of years subjects lived in the independent living facility.

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## CHAPTER I

### INTRODUCTION

Growing old is a life-long process that involves the whole being. A prominent life-span theory is Erikson's psychosocial theory of development which asserts that the ego develops over time as it deals with specific crises during which individuals attempt to balance the tension between two opposites. This theory contains eight developmental stages which require the simultaneous engagement with a central task along with anticipation of future tensions and reexperiencing tensions that were not adequately integrated when they were prominent. The final stage requires the elderly (approximately 70-90 years of age) to "bring into balance the tension between a sense of integrity, of enduring comprehensiveness, and an opposing sense of despair, of dread and hopelessness" (Erikson, Erikson, & Kivnick, 1986, p. 54).

Remembering and reviewing earlier experiences are believed to be essential in integrating these final opposites (Erikson et al., 1986). The life review process is one way of resolving and reintegrating past conflicts and often

results in an increased level of life satisfaction and a higher sense of self-esteem (Lewis & Butler, 1974; Haight & Burnside, 1993). Both life satisfaction and self-esteem are related to healthy adaptive aging (Thomas, 1988). Life satisfaction appears to be related to the developmental task of a person, whereas self-esteem tends to be a non-developmental personality trait (E. Page-Robin, personal communication, 1995).

Erikson's theory (1963, 1986), along with the works of Gaston (1968) and Sears (1968), form the theoretical basis for this thesis. According to Erikson, satisfaction is the result of the lifelong development of the self, particularly the last stage of development. Gaston (1968) believes that the progress of a person's life corresponds with self development and contends that music fosters growth and change in people. Sears (1968) maintains that music encourages sensory-elaborated behavior and often generates extramusical ideas and associations which can provide personal insight and understanding.

### Need for the Study

A review of the literature indicates that few experimental studies exist regarding life satisfaction and music and self-esteem and music with the elderly. Articles found that directly related to Guided Imagery and Music (GIM)

tended to be philosophical, anecdotal, and descriptive rather than empirical. Okun, Olding, & Cohn (1990) reviewed 31 studies pertaining to subjective well-being interventions among the elderly and found that few experimentally designed studies were aimed at enhancing the subjective well being of the elderly, i.e., happiness, morale, and life satisfaction. Their findings suggested that psychoeducational interventions (such as reminiscence) were beneficial to the subjective well-being of the elderly.

Gibbons (1988) reviewed Summer's 1981 descriptive paper on GIM with the elderly and recommended further research to substantiate this intervention as a viable treatment with the elderly. Short (1992) concluded her qualitative study of music and imagery with physically disabled elderly residents with a recommendation for further studies addressing the needs of the elderly.

#### Statement of the Problem

The purpose of this study was to examine the effect of the Bonny Method of Guided Imagery and Music (GIM) on life satisfaction and self-esteem in the elderly. Life satisfaction was operationally defined as the score on the 18 item Life Satisfaction Index-A (LSI-A) (Neugarten, Havighurst, & Tobin, 1961) with the modifications recommended by Adams (1969). Self-Esteem was operationally defined as



the score on the Rosenberg (1965) Self-Esteem Scale (Breytspraak & George, 1982).

### Research Subproblems

Research subproblems included examining the effects of age, gender, and the amount of time living in an independent living facility on life satisfaction and self-esteem. Also of interest to the investigator was the elderly person's responses to the classical music genre.

### Assumptions

It is expected that this study will be viewed as an exploratory study of the effect of GIM on life satisfaction and self-esteem as related to Erikson's last developmental stage. It is further assumed that the instruments employed for measuring life satisfaction and self-esteem measured what they were intended to measure.

### Delimitations

The results of the study are applicable only to the 22 participants of the study residing in northwest Ohio, most of whom were Jewish. Caution is suggested in generalizing the results to other elderly populations.

The intent of this study was to examine one treatment, GIM, and its effect on life satisfaction and self-esteem in

the elderly. The research was conducted over a six week period and included twelve, 1 hour sessions. It is conceivable that research conducted over a longer period of time may reduce the novelty effect of treatment and may therefore produce somewhat different results. It is also conceivable that a larger number of subjects representing more diverse ethnic and religions backgrounds and residing in broader geographical locations may produce somewhat different results.

The application of a placebo treatment for the control group attempted to make all groups appear to be treated similarly. It is hoped that the inclusion of the placebo treatment aided in the elimination of possible experimenter bias effects and the Hawthorne effect.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

#### Music Therapy With the Elderly

A review of the music therapy literature produced only two studies that referred to Eriksonian theory. Short (1992) mentioned Erikson in relationship to the elderly's concern over impending death. Harvey (1984) related Erikson's final life stage to the degree of orientation to reality that the 19 subjects in her study (ages 80-94) experienced. She compared the effects of validation therapy and reality orientation and found a significant improvement on the measure of ego integrity with the 11 elderly subjects who participated in the validation therapy group.

Although few music therapy studies were found that specifically addressed Eriksonian theory with the elderly, research has been performed by music therapists which somewhat parallels the "principle of reexperiencing" (Erikson et al., 1986, p.40) with relation to increased life satisfaction and self-esteem. Active music making and listening to or playing familiar music from the past has been employed to encourage review of past life events and experiences in order to increase cognitive skills, reality

orientation, memory recall, quality of life, and life satisfaction. In a survey of music therapy practices in gerontology (Smith & Lipe, 1991), music therapists reported several treatment goals including spiritual affirmation wherein overall well-being was addressed. Palmer (1989) described the services that music therapists currently provide, or may be providing to the elderly in the future. She suggested working towards goals that contribute to the optimum quality of life for the elderly.

Lipe (1991) employed a case study approach to demonstrate the effect of music therapy in enhancing the quality of life in an elderly person with Alzheimer's type dementia. Observation of behavioral responses during music therapy interventions suggested that the client had a reduction in agitation and an increase in pleasure or satisfaction. Referring to Butler's (1963) beliefs in the value of reminiscence in the elderly, Wylie (1990) compared the effects of old familiar songs and other stimuli on the reminiscence of sixty nursing home residents. She found that all conditions contributed to the reminiscence process and recommended further research to investigate the relationship of different types of music to this process.

The effect of familiar music on memory recall with individuals with probable Alzheimer's disease (AD) was also explored by Prickett and Moore (1991) and Smith (1986).

Pricket and Moore found that individuals with dementia were capable of learning new songs as well as recalling familiar songs, and they suggested that singing be incorporated into the treatment goal of maintaining a good quality of life for individuals with AD. Smith (1986) believes that music is a way to activate pathways to retrieve memories. He assessed the effectiveness of verbal and musical stimulation on cognitive functioning level of individuals with AD and found that music may be a useful means to foster functioning in this area.

Vanderark, Newman, and Bell (1983) examined the effects of participation in a music program on the quality of life of 20 elderly nursing home residents. Twenty nursing home residents served as the experimental group which met twice per week for five weeks. Each of the 10 active music making sessions lasted for 45 minutes each and included singing familiar songs, playing accompaniments to songs on the autoharp or tone bells, and keeping time to music. The control group, which received no treatment, consisted of 23 residents of another nursing home.

Both the experimental group and the control group were individually administered a pretest and a posttest using the Perceived Satisfaction and Quality of Life Index (Vanderark et al., 1983, p. 75). Data analysis revealed that life satisfaction, as well as music attitude and music

self-concept improved significantly following participation in musical activities. Recommendations for future research included using a larger sample with random assignment, and examining social and psychological factors that affect the type of music activity utilized with elderly people.

### Music Employed in Therapy With the Elderly

Music therapy research indicates that the elderly prefer familiar music from the past. Gibbons (1977) found that the elderly she surveyed preferred music of their younger adult years (ages 20-30). Jonas (1991) discovered that country music was preferred over art music, jazz, and currently popular music. These preferences were affected by the educational level of the participants, the size of the community where they grew up, and musical training. A 1992 study by Moore, Staum, & Brotons of the musical preference of 514 elderly (over the age of 65) found that patriotic music, popular songs, and hymns were the most preferred.

Glassman (1983) used client-preferred music, usually songs from the past, in an attempt to meet the needs of the healthy elderly through participation in a talent show. Smith (1986) employed music familiar to the nursing home residents who participated in his study on the cognitive functioning of Alzheimer patients. Lipe (1991) reported

that familiar music was successful in aiding the recall of relative information in a client with AD, even in the later stages of the dementia. Wylie (1990) used old familiar songs as one of four materials employed to encourage reminiscence of nursing home residents.

In summary, the research indicates that music therapists most often employ client-preferred and popular music of the past for therapeutic purposes which include evoking specific memories, reminiscing about past life events, enhancing the quality of life, and increasing life satisfaction in the elderly.

### Life Satisfaction and the Elderly

Life satisfaction is defined as having the components of zest, resolution and fortitude, congruence between desired and achieved goals, positive self-concept, and mood tone. People are considered to be satisfied with their lives if they take pleasure from daily activities, think their lives are meaningful, feel that they have been successful in attaining goals, have a positive self-image, and have an optimistic mood and attitude (Neugarten et al., 1961).

Life satisfaction was a component of the definition of ego integrity in Goebel & Boek's (1987) study of ego integrity and fear of death. Their research examined the im-

pact of place of residence (institutionalized or independent living) and difference in development (ego integrity versus despair) on fear of death among 51 adults, ages 70-90. The results indicated an inverse relationship between ego integrity and fear of death, i.e., higher ego integrity scores resulted in lower fear of death scores.

Sherman (1987) conducted research with 104 subjects (average age of 73.8), which compared reminiscence (Butler, 1963) and focusing (Gendlin, 1981) on life satisfaction and self-concept. Subjects were recruited from four community settings and met in groups of up to 10 subjects each for a total of ten, 1-1/2 hour sessions. Subjects in the conventional groups used the life review process (Lewis & Butler, 1974) while the subjects in the focusing groups employed the techniques as outlined by Gendlin.

The Life Satisfaction Index-Z (LSI-Z) was employed to measure life satisfaction of the participants of the study. Findings revealed that the groups increased in life satisfaction, although not statistically significant. In addition, the individuals in the groups that employed the focusing technique experienced an integrative and accepting attitude towards their past which improved their current mood.

Slivinske and Fitch (1987) studied the effect of control enhancing interventions on the well-being of elderly



individuals living in retirement communities. A modified version of the Life Satisfaction Scale (Neugarten et al., 1961) was used to measure morale. Pretest/posttest mean gain scores were analyzed using analysis of covariance (ANCOVA) revealing an insignificant increase in morale of the subjects in the experimental group and a decrease in scores for members of the control group. Soumerai and Avorn (1983) conducted a study measuring life satisfaction in the elderly in relationship to part-time work. While the life satisfaction scores of the subjects in the experimental group did not show a significant increase, the authors concluded that part-time employment had a positive effects on the 25 subjects in the experimental group.

Scates, Randolph, Gutsch, & Knight (1985-86) employed the LSI-A to measure differences in life satisfaction and the effects of cognitive-behavioral, reminiscence, and activity treatment on life satisfaction and anxiety and the elderly. The reminiscence group employed lecture, discussion, and homework which emphasized past and present integration. Life satisfaction scores, which fell into the normal range in the pretest, did not increase significantly in any of the conditions.

A study comparing the effectiveness of professionals and nonprofessionals as instructors of classes intended to help the elderly manage depression (Thompson, Gallagher,

Nies, & Epstein, 1983) employed the LSI-Z to assess psychological well-being in 68 elderly people with a mean age of 68.4. Data collected showed gains in the LSI-Z scores in both groups of participants although the post scores adjusted for pretest levels suggested a slightly larger gain in scores with a professional leader. The results of the LSI-Z scores of 1,837 elderly Americans (65 and over) collected by the National Council on the Aging, Inc. (Harris & Associates, 1981) suggested that discontent is increasing in the elderly in America. Scoring (Wood, 1969) showed a drop of 1.3 points compared to the 1974 survey.

### Self-Esteem and the Elderly

Self-esteem has been defined as the affect associated with an evaluation of one's self (Bretyspraak & George, 1982) and as self-acceptance or a basic feeling of self-worth (Rosenberg, 1965). Several studies were found that examined self-esteem and the elderly.

Buschmann and Hollinger (1994) employed both the Life Satisfaction Index (Neugarten et al., 1961) and the Rosenberg Self-Esteem Scale (1965) in their study concerning the influence of social support and control on depression in the elderly. Fifty older adults living in a nursing home participated in the study which investigated touch as the affective social support. The authors concluded that touch

had an influence on depression while locus of control, self-esteem, and life satisfaction did not. Thomas (1988) also utilized the Life Satisfaction Index and the Rosenberg Self-Esteem Scale in investigating the effects of meditation and relaxation with 21 elderly black women (age 60 and over). He proposed that changes associated with aging can affect satisfaction with life, self-esteem, and can produce adverse stress factors. Thomas hypothesized that these factors may be reduced through the acquisition of meditation/relaxation skills, thus resulting in increases in life satisfaction and self-esteem. The experimental group (meditation/relaxation training) and the control group (didactic stress management) met once per week for 45 minutes for 10 weeks. Statistical significance was shown for life satisfaction and self-esteem for the experimental group through data analysis and through self-reports.

Johnston and Guelldner (1989) reported an increase in self esteem in 31 people (ages 50-70) who participated in memory skills classes. Chen (1994) investigated the relation of hearing loss, loneliness, and self-esteem on 88 subjects (65-90 years old) and found a significant correlation between a hearing handicap and low self-esteem. Lappe (1987) compared the effect of group reminiscing and group discussion of current events on the self-esteem scores of 83 elderly subjects (mean age 82.6 years). Scores on the

Rosenberg's Self-Esteem Scale (1965) suggested that self-esteem increased more in reminiscing groups than in current event discussion groups. Similar to the present study, Lappe applied the Eriksonian concept of the need for review and reevaluation of life events in order to experience ego integrity in old age.

### Guided Imagery and Music

Guided Imagery and Music (GIM) is a "technique which involves listening in a relaxed state to selected music, a programmed tape or live music, in order to elicit mental imagery, symbols, and deep feelings arising from the deeper conscious self" (Bonny, 1978, p. 5). GIM fosters review, reevaluation, and reintegration of life events through music listening and imagery. Three levels of mandatory training are available for professionals desiring to use GIM in therapy (Summer, 1988). Level I provides a foundation for understanding GIM. Level II requires a two week intensive workshop during which both dyadic and group GIM techniques are taught and experienced. Successful completion of Level II training qualifies the professional to practice Group GIM. Fulfillment of Level III training, which is a two year mentoring program, results in full certification in the GIM method by the Association for

Music and Imagery which accredits the Bonny Foundation (Bonny Foundation, n.d.).

Bonny (1978) used a cut-log model to demonstrate the different levels of consciousness (Appendix C). The directing/observing ego is in the center of the cut-log with the areas nearest to this center representing preconscious states such as daydreaming and intense concentration. Areas farther away from the center represent states of consciousness that are less accessible such as deep dreams and suppressed feelings. These less accessible areas of the psyche are traveled to through relaxation and concentration. Relaxation and concentration are facilitated during GIM through relaxation, using techniques such as progressive relaxation (Jacobson, 1938) or autogenic training (Schultz & Luthe, 1959), suggestion by the therapist of a scene, and playing programmed music that is considered appropriate by the trained therapist. Relaxation promotes concentration while concentration promotes relaxation. This results in accessing areas of awareness through which new insights into the self may be gleaned (Bonny, 1975).

Music fosters altered states of consciousness (ASC) through inherent elements such as multidimensionality, movement, and dynamics. Hale differentiates between GIM and other guided imagery techniques emphasizing that the music itself is the stimulus for the imagery, rather than

verbal directives for imagery. Music is rich in its ability to promote recollection of events and aids in the ability of people to "re-member themselves" (Hale, 1990, p. 270). Music has the ability to involve several levels of consciousness simultaneously and/or sequentially. Bonny believes that "an overview of important events and influences in a person's life are experienced as the music carries the subject from one state to another-sometimes to several states simultaneously" (Bonny, 1975, p. 130).

GIM experiences vary with each individual and may range from no imagery at all to a rush of mental imagery that may be in the form of a story or relatively disconnected. The grounding element of continuous awareness of the surroundings allows one to let go and experience such events as reliving childhood memories, symbolic life experience, aesthetic music experience, color experience, and transpersonal experience (Bonny, 1975).

#### Guided Imagery and Music With the Elderly

Because GIM is a relatively new technique, much of the literature related to it is philosophical, anecdotal, and descriptive rather than research based. Case studies and reports using GIM in dyads with various populations were found in the literature, and implications for future use of GIM as a primary psychotherapeutic was suggested (Jarvis,

1988). While group GIM continues to be developed (Goldberg, 1989, Summer, 1988, 1981), only two descriptive studies involving Group GIM with the elderly were located in the literature.

Summer (1981) reported a sampling of results derived from group GIM sessions conducted with elderly residents of six nursing homes over a period of one year. Each group was made up of 15 nursing home residents who met once per week for about one hour. Residents attended voluntarily, were typically verbal, and were relatively reality oriented. Before the commencement of the GIM treatment, the residents engaged in music activities which included musical games, singing, improvising, moving, and playing instruments. The overall goal of these activities was to encourage the development of relationships and bonding among group members necessary for the deeper GIM experience.

After several weeks of music activities, Summer began the GIM groups with five minutes of physical relaxation such as tensing and relaxing the muscles of the body (Jacobson, 1938), deep breathing and/or exercises. She then suggested an image for the group to focus on (i.e., a special vacation site or a cherished memory) in order for the participants to remove themselves from the current environment, release worries and concerns, and to experience the music internally (Summer, 1981).

Following physical relaxation, approximately seven minutes of taped classical music that corresponded to the mood of the group was played. This was followed by a group discussion during which members were encouraged to share feelings, images, and memories that may have been elicited by the music listening experience.

Summer (1981) stressed the importance of attending to the inner needs of the elderly and cautioned that an unsatisfactory life can be the result of a silenced psyche. She believes that "inner processes" (Summer, 1981, p. 39) are necessary for growth in the elderly and describes GIM as a "catalyst for inner or unconscious thought processes" (Summer, 1981, p. 39). According to Summer, a meaningful life can be encouraged through GIM which "allows residents to experience music and themselves on the levels relevant to them, thereby providing a tool to realize their potential as individuals who are not merely aging, but who are growing old" (Summer, 1981, p.42).

Summer (1981) descriptively reported observed positive effects of GIM such as increases in self-esteem, self-awareness, self-acceptance, partaking in new experiences through imagery, joy, and group support. A decrease in rumination over specific memories and thoughts which may be encouraged by familiar songs was also reported.



Summer stated that some participants fell asleep during the relaxation process and that some experienced hesitancy in fantasizing. She recommended group discussion, understanding, and acceptance of these problems as well as suggesting that the relaxation will also be energizing. To encourage imagery, Summer suggested facilitating a prelude discussion that addressed the participant's mood, the mood of the music, and the emotions of other group members.

Short (1992) employed a qualitative descriptive approach to study the efficacy of GIM adapted for a group of 10 physically disabled elderly residents with an average age of 83. Selection criteria included the ability to hear, the ability to remain quiet and focused inward, the ability to communicate, and a "potential for achieving insight into self and situation" (Short, 1992, p. 72).

All of the group members chosen for the study were wheelchair bound and suffered from a variety of disabilities including heart problems, cancer, arthritis, blindness, and strokes. The group averaged four to five clients per session and met weekly for one hour sessions for a total of 21 sessions. The average length of music listening time was 7 minutes and 42 seconds. The standard GIM format was used, (i.e., pre-music discussion, induction, music listening, and post-music discussion) with adaptations for group work and for the physical disabilities and psycholog-

ical factors arising from the participant's disabilities. Short applied modified relaxation and/or autogenic procedures in order to facilitate relaxation in the wheelchair bound participants.

In addition to the physical disabilities of the subjects, Short also addressed psychological factors such as the effects of the disability, bereavement issues, and aging. Short stated that all of the participants were able to enter an altered state of consciousness despite the necessity to relax in wheelchairs, and to use imagery to address issues concerning the past, present, and prospective future events as well as the aging process itself.

Short reported that GIM facilitated insight into issues of concern to the elderly and that the physical disabilities experienced by the participants did not hamper the experience. Past life events and memories were "acknowledged and incorporated into the psyche" (Short, 1992, p. 93). In addition, the group setting appeared to be most suitable for these residents as it offered support, recognition of feelings, and enhancement of individual and group experiences during the GIM process.

Problems reported in this study included the possibility of inaccurate reporting of imagery by clients due to difficulty with short-term memory and the need for "best fit" (Short, 1992, p. 94) inductions. Despite these con-

cerns the author felt that group music and imagery can be an effective way to address many issues encountered by the elderly.

### Music Employed in GIM

Familiar music of the client's past has often been employed by music therapists in studies which utilized verbal processes during normal states of consciousness for the purpose of recalling and reminiscing. In contrast, classical music selected by the therapist is used in the GIM process in order to access deeper areas of consciousness on a nonverbal level for the purpose of self-understanding and personal growth.

Summer (1988) specified that classical music, which embodies art music of the western culture, is the "only music that can be used for GIM" (Summer, 1988, p. 5). Classical music does not have a "fixed meaning, thus the imagery it stimulates has no boundary in its contents" (Summer, 1988, p. 5). Popular music is not recommended in GIM due to its tendency to draw attention to particular images of the performer and to the lyrics which have fixed meanings. Summer (1981) states that familiar songs also may promote repetitive reminiscing in individuals who ruminate and perseverate over particular memories. New age music, which is repetitious and simplistic, does not contain

the multidimensional musical elements necessary to elicit the depth of imagery generally experienced through classical music. Client-preferred music, like popular music, may contain specific associations that encourage alertness and discourage entering into an altered state of consciousness. (Summer, 1988).

Bonny (1989) compiled taped listening programs comprised of various classical compositions to be used by the trained professional facilitating GIM. In selecting the music for these programs, Bonny considered the musical elements of pitch, rhythm and tempo, vocal and/or instrumental mode, melody and harmony, and timbre (Bonny, 1978) to be the most significant to GIM. It is the combination of these elements that determines the mood of the composition and need to be seriously considered by the facilitator when planning music for GIM.

#### Statement of Hypotheses

Elderly people experience either a sense of satisfaction with their lives or a sense of regret and disappointment, depending on their ability to integrate the personality during the last crisis of the life-long developmental stages (Erikson et al., 1986). GIM is a technique which uses relaxation, music, and imagery to actuate self-understanding and personal growth (Bonny, 1989). Existing re-

search suggests that GIM can facilitate the process of re-experiencing and reintegration of past events. It seems plausible then, that GIM can be used with the elderly to facilitate the process of reexperiencing and reintegration, resulting in increased life satisfaction and increased self-esteem.

The purpose of the current study, therefore, is to examine the effect of The Bonny Method of Guided Imagery and Music (GIM) on life satisfaction and self-esteem in the elderly. The following null hypotheses were developed:

Hypothesis 1: There will be no significant interaction between time and group on Life Satisfaction Index-A (LSI-A) scores.

Hypothesis 2: There will be no significant difference in the pretest scores on the Life Satisfaction Index-A (LSI-A) between the experimental group and the control group.

Hypothesis 3: There will be no significant difference in the posttest scores on the Life Satisfaction Index-A (LSI-A) between the experimental group and the control group.

Hypothesis 4: There will be no significant difference in the pretest scores and the posttest scores on the Life Satisfaction Index-A (LSI-A) for the subjects in the experimental group.

Hypothesis 5: There will be no significant difference in the pretest scores and posttest scores on the Life Satisfaction Index-A (LSI-A) for the subjects in the control group.

Hypothesis 6: There will be no significant interaction between time and group on the Self-Esteem Scale scores.

Hypothesis 7: There will be no significant difference in the mean Self-Esteem Scale score between the experimental group and the control group.

Hypothesis 8: There will be no significant difference between the pretest scores and the posttest scores on the Self-Esteem Scale.

Hypothesis 9: There will be no significant interaction among time, group, and age on the Life Satisfaction Index-A (LSI-A) scores.

Hypothesis 10: There will be no significant interaction among time, group and age on the Self-Esteem Scale scores.

Hypothesis 11: There will be no significant interaction among time, group and years living in the independent living facility on Life Satisfaction Index-A (LSI-A) scores.

Hypothesis 12: There will be no significant interaction among time, group and years living in the independent living facility on Self-Esteem Scale scores.

Hypothesis 13: There will be no significant interaction among time, group, and gender on Life Satisfaction Index-A (LSI-A) scores.

Hypothesis 14: There will be no significant interaction among time, group, and gender on Self-Esteem Scale scores.

## CHAPTER III

### METHOD

#### Subjects and Setting

##### Selection of Subjects

Subjects for the study were members of the Senior Adult Program of the Jewish Senior Services in northwest Ohio and were recruited through advertisements published in the Jewish Senior Services newsletter and in the Tenants Association newsletters. In addition oral presentations were made to 48 members of the Friendship Club and to 53 members of the Tenants Association of Pelham Manor.

Twenty-four of the 32 subjects who volunteered to participate in the study met specific selection criteria which included normal to minimally subnormal cognitive and hearing ability, and the ability to communicate verbally. (It was assumed that subjects met this criteria if they were able to demonstrate them during the pretest session).

Individuals experiencing advanced cognitive disorders, hearing and speech difficulties, and/or active mental difficulties such as hallucinations were excluded from the study. Of the 24 volunteers, one person withdrew due to



the death of her sister, and one person withdrew after one session for personal reasons.

### Description of Subjects

Twenty-two subjects, ages 62-94 (mean age 79.36 years), participated in this exploratory study. Sixteen subjects resided in an independent living facility (average length of stay was 5.97 years) and six lived in their homes or apartments. Two subjects were male and 20 were female. The majority of subjects (72.7%) were of Jewish backgrounds while 27.3% were of other or unspecified religious affiliations. The average educational level of the subjects was 13 years of schooling. Twenty-one subjects were ambulatory (three walked with the aid of a cane) and one resident utilized an electric wheelchair for movement and also required oxygen. Many subjects experienced age-related physical difficulties such as arthritis and diminished visual ability. Several subjects wore hearing aids. The non-resident subjects were similar to the resident subjects in age, cognitive ability, hearing, and communication level.

### Setting

The research site was a low income senior citizen government subsidized independent living complex located in northwest Ohio. One hundred and twenty tenants ages 62 and

over (average age 83) reside in the facility which had been in existence for approximately 15 years. All sessions were facilitated in a designated area of the fully carpeted recreation room located in the basement of the facility. Three couches were arranged in a triangle to facilitate group interaction. Straight backed chairs with arms were available for subjects who were not able to sit comfortably on the couches. Lamps and flowers were placed on the tables to create a trusting and inviting atmosphere conducive to music listening and group interaction. In addition, an office with a desk and telephone was provided for the investigator's use.

#### Consent and Approval

This research project was proposed to the administrator of the independent living facility and written approval was given to conduct the research (Appendix A). Approval was also granted from the Western Michigan University Human Subjects Institutional Review Board upon completion of the Human Subjects Approval Form (Appendix A). Following approval and written and oral recruitment, a total of 24 people signed the consent forms (Appendix B) and completed the questionnaires. Due to the withdrawal of two people, a total of 22 subjects were included in the study.

### Experimental Design

A pretest-posttest control group design (Gay, 1987) was employed for this study using the following model:

R 00        X1        00

R 00        X2        00

R = random assignment

0 = instruments (two) used for testing

X1 = condition 1 (twelve, 1 hour GIM sessions)

X2 = condition 2 (twelve, 1 hour music listening sessions)

The dependent variables were the life satisfaction of the subjects as measured by the Life Satisfaction Index-A (Neugarten et al., 1961) and the self-esteem of the subjects as measured by the Self-Esteem Scale (Rosenberg, 1965). The independent variables in this study were the two conditions: the 12 GIM sessions and the 12 music listening sessions.

Of the 22 subjects who participated in this experimental design exploratory study, 11 were randomly assigned to the experimental group and 11 were randomly assigned to the control group. The subjects were then assigned to the appropriate group based on their scheduling and daily living needs (sleep habits, need for transportation, appointments, etc.). The following four groups were established: Group I: morning control group consisting of five members; Group

II: morning experimental group consisting of eight members; Group III: afternoon control group consisting of six members; and Group IV: afternoon experimental group consisting of three members. Membership in the groups remained consistent throughout the study, however some members were periodically absent due to previously scheduled commitments such as doctor's appointments.

### Equipment and Materials

Musical selections recorded on cassettes and compact discs were played on an AIWA compact disc stereo radio cassette recorder (Model EX350). The volume control varied slightly depending on the musical composition and the purpose and needs of the group, i.e., some of the compositions for the control group required a slightly higher volume level than the compositions for the experimental group. Pencils, paper, and art materials were available for writing or drawing imagic material, however, several subjects expressed difficulty using them due to tremors, arthritis, and/or vision problems. These materials were subsequently eliminated for all subjects in order to maintain consistency throughout the study.

## Instruments

Information regarding age, gender, amount of time living in an independent living facility and other pertinent information was obtained through a demographic questionnaire administered at the time of the pretest. Two psychological instruments were used to measure the dependent variables. The Life Satisfaction Index-form A (LSI-A) (Neugarten et al., 1961) with the modifications recommended by Adams (1969) was used to measure life satisfaction which was defined operationally as the score obtained on the 18-item instrument. It was chosen for its ease of administration and its applicability to people over the age of 65. Formal tests of reliability and validity have been performed (Wood, Wylie, & Sheafor, 1969; Adams, 1969; Neugarten et al., 1961). The mean LSI-A score for Adam's sample was 12.5 with a standard deviation of 3.6.

The Self-Esteem Scale (Rosenberg, 1965; Breytspraak, L.M. & George, L.K., 1982) was employed to measure feelings of self-worth which was operationally defined as the score obtained on the Self-Esteem Scale (Rosenberg, 1965). This instrument consists of 10 items and may be self-administered with responses reported along a continuum, i.e., strongly agree, agree, disagree, strongly disagree. It was originally developed to measure self-esteem in high school students but has also been employed with elderly subjects

(Atchley, 1969; Kaplan & Pokorny, 1969; Ward, 1977).

Based on previous reports of reliability and validity, it was decided that the use of this instrument with older subjects was appropriate (Breytspraak & George, 1982). The mean score for Ward's sample was 29.4 with a standard deviation of 3.07.

### Procedure

#### Pretest

Prior to treatment, the investigator met with each of the subjects individually for approximately 30 minutes to administer the demographic questionnaire, the LSI-A (Neugarten et al., 1961; Adams, 1969) and the Self-Esteem Scale (Rosenberg, 1965). The investigator read the questionnaires aloud to the subject while the subject followed along using a large print copy of the test. Possible answers to the questionnaires were printed in large type on 5X7 index cards as a visual aid for the subject. The investigator entered the numbers that corresponded to the subject's answers on the numerically coded testing form. If subjects added comments to their answers, they were redirected back to the one word answers in order to keep the testing procedure consistent.

Following the pretest, subjects were randomly assigned

to either the experimental condition or the control condition and were placed in one of the four groups. The 11 subjects in the experimental groups received two, 1 hour GIM sessions per week for a total of 12 sessions and the 11 subjects in the control groups received two, 1 hour music listening sessions per week for a total of 12 sessions.

### Experimental Condition

The experimental group, which received GIM (comprised of the prelude, relaxation and induction, music/imagery, and postlude) met for approximately one hour for 12 sessions. The participants met in the same room as the control group and were informed that the purpose of the sessions was to discover what effect music listening had on life satisfaction and self-esteem.

The prelude began by addressing each person directly, stating the purpose of the session, describing the GIM process, and stating the goal for the session as suggested by Summer (1988). Key words were interjected into the prelude dialogue, i.e., "we're going to get relaxed," "an adventure with music," "explore what the music brings up in you," "after the music we'll discuss" (Summer, 1988, p. 12). The prelude format remained consistent throughout the course of the study with the previous sessions guiding the next one in content.

The autogenic relaxation technique of Schultz & Luthe (1959) was employed throughout this study with variations made as appropriate to the group development and the GIM process. Participants sat upright on the couch or in chairs with their eyes closed during this procedure which lasted approximately two to five minutes depending on the GIM process and group dynamics.

The induction, which included an image and a goal (Summer, 1988), followed the physical relaxation. The content of the induction was either concrete or metaphorical, depending on the progress of the groups and the goal of the session.

Taped classical music chosen by this researcher to match the participants' needs and/or the goal of the session was played while the subjects' listened in silence. Selections ranged from 3 minutes and 58 seconds to 10 minutes and 30 seconds with an average playing time of 6 minutes and 35 seconds. No guiding occurred during this portion for group GIM (Summer, 1988).

The postlude, which brought the subjects back to normal consciousness, began upon completion of the musical composition. Subjects were informed that the music had ended and were asked to continue keeping their eyes closed. They were then instructed to complete their imagery and, after a few moments, were encouraged to return to the room



through awareness of this instructor's voice and a desire to move their heads, fingers, legs, etc. and, finally, to open their eyes.

Guiding took place during the postlude. Subjects reported their imagery and were assisted in verbally processing this material through the interventions of exploration, validation, deepening, and relating the experience to life (Bonny, Goldberg, & Summer, 1993). The group came to a close after all participants had an opportunity to report and process their imagery individually and as a group.

The above format remained consistent for all 12 sessions. Changes were made in the relaxation and induction and the musical selection based on individual needs, on group phase and development, and on the preconceived contour of the groups over the six week period, i.e., introduction, deepening experience, and closure. Music, images, and goals used in GIM sessions in the experimental condition can be seen in Appendix D.

#### Control Condition

The control group, which received no treatment other than music listening, also met for approximately one hour for 12 sessions. The participants met in the same room as the experimental group and were informed that the purpose of the sessions was to discover what effect music listening

had on life satisfaction and self-esteem. The session began by addressing each person in the group, stating the purpose of the session, and introducing the music to be played during the session. The first three sessions consisted of music chosen by the investigator, while music for subsequent sessions was often suggested by group members.

In contrast to the experimental group, the music was from several genres rather than limited to classical music and was played for approximately 40 minutes as opposed to the average 6 minutes and 35 seconds for the experimental group. Participants often commented on memories that were evoked during the playing of familiar music. Since the control condition was designed as a music listening experience, these comments were accepted and validated but were not explored as was the imagic material in the experimental group. As physical relaxation was not employed in the control condition, music was listened to in a normal state of consciousness. The group came to a close after the music-listening was completed. Suggestions for music to be played at the next session were made by group members or were asked for by the investigator. Musical selections used in the control condition can be seen in Appendix E.

### Posttest

Following the completion of the 12 sessions, the subjects were administered the LSI-A and the Self-Esteem Scale in the identical manner in which the pretest was given. Final closure was provided following the posttest by means of a 45 minute evening reception during which live harp music was played and achievement awards and thank you notes were given to the participants of the study.

## CHAPTER IV

### ANALYSIS AND RESULTS

#### Analysis

Data were analyzed at the Statistical Counseling Center, Bowling Green State University, using SAS computer program (SAS Institute, 1987). The statistical procedures used were the repeated measures analysis of variance (ANOVA) and the  $t$ -test. The .05 level of significance was selected for all statistical testing.

#### Results

Hypothesis 1: There will be no significant interaction between time and group on Life Satisfaction Index-A (LSI-A) scores.

This hypothesis was rejected at the .05 level,  $F(1,20) = 8.05$ ,  $p = .01$ . A repeated measures ANOVA was applied to test for between subject effects and for within subject effects producing sufficient evidence that time and group interacted to affect the LSI-A scores. Results can be seen in Tables 1 and 2.

Table 1

Repeated Measures Analysis of Variance for Between  
Subjects Effects on Life Satisfaction  
Index-A (LSI-A) Scores

	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
(n = 22)					
Between Groups	1	9.09	9.09	.68	.42**
Within Groups	20	266.64	13.33		

\*\* Not significant at the .05 level.

Table 2

Repeated Measures Analysis of Variance for Within  
Subjects Effects on Life Satisfaction  
Index-A (LSI-A) Scores

	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
(n = 22)					
Time	1	7.36	7.36	1.48	.24**
Time X Group	1	40.09	40.09	8.05	.01*
Error (Time X Group)	20	99.55	4.98		

\* Significant at the .05 level

\*\* Not significant at the .05 level.

Hypothesis 2: There will be no significant difference  
in the pretest scores on the Life Satisfaction Index-A

(LSI-A) between the experimental group and the control group.

This hypothesis was rejected at the .05 level ( $t = 5.17$ ). Analysis using a  $t$ -test provided evidence that the pretest scores on the LSI-A for the experimental group and for the control group differed significantly. Results can be seen in Table 3.

Table 3

Means, Standard Deviations, and  $t$ -Test Values for the Experimental Group and the Control Group on the Pretest Life Satisfaction Index-A (LSI-A)

Pretest		
	Experimental ( $n = 11$ )	Control ( $n = 11$ )
<u>M</u>	10.45	13.27
<u>SD</u>	3.64	2.90
<u>t</u> value	5.17*	

\* Significant at the .05 level.

Hypothesis 3: There will be no significant difference in the posttest scores on the Life Satisfaction Index-A (LSI-A) between the experimental group and the control group.

This hypothesis was accepted, ( $t = -.78$ ). Analysis using a  $t$ -test revealed no significant difference in the

posttest scores on the LSI-A between the experimental group and the control group. Results can be seen in Table 4.

Table 4

Means, Standard Deviations, and  $t$ -Test Values for the Experimental Group and the Control Group on the Posttest Life Satisfaction Index-A (LSI-A)

	Posttest	
	Experimental ( $n = 11$ )	Control ( $n = 11$ )
$\bar{M}$	13.18	12.18
$SD$	2.79	2.68
$t$ value	-.78**	

\*\* Not significant at the .05 level.

Hypothesis 4: There will be no significant difference in the pretest scores and the posttest scores on the Life Satisfaction Index-A (LSI-A) for the subjects in the experimental group.

This hypothesis was rejected at the .05 level, ( $t = -2.87$ ). Analysis using a  $t$ -test revealed a significant difference in the pretest scores and the posttest scores on the LSI-A between the experimental group and the control group. Results can be seen in Table 5.

Table 5

Means, Standard Deviations, and  $t$ -Test Values for the  
Experimental Group on the Pretest and Posttest  
Life Satisfaction Index-A (LSI-A)

	Pretest	Posttest
	(n = 11)	
<u>M</u>	10.45	13.18
<u>SD</u>	3.64	2.79
<u>t</u> value	-2.87*	

\* Significant at the .05 level.

Hypothesis 5: There will be no significant difference in the pretest scores and posttest scores on the Life Satisfaction Index-A (LSI-A) for the subjects in the control group.

This hypothesis was accepted, ( $t = 1.15$ ). Analysis using a  $t$ -test revealed no significant difference in the pretest scores and posttest scores on the (LSI-A) for the subjects in the control group. Results can be seen in Table 6.

Hypothesis 6: There will be no significant interaction between time and group on the Self-Esteem Scale scores.

This hypothesis was accepted at the .05 level,  $F(1,20) = .41$ ,  $p = .53$ ). A repeated measures ANOVA revealed that



time and group did not interact to affect the Self-Esteem Scale scores. Results can be seen in Tables 7 and 8.

Table 6

Means, Standard Deviations, and  $t$ -Test Values for the Control Group on the Pretest and Posttest Life Satisfaction Index-A (LSI-A)

	Pretest	Posttest
	(n = 11)	
<u>M</u>	13.27	12.18
<u>SD</u>	2.90	2.68
<u>t</u> value	1.15**	

\*\* Not significant at the .05 level.

Table 7

Repeated Measures Analysis of Variance for Between Subjects Effects on Self-Esteem Scale Scores

	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
	(n = 22)				
Between Groups	1	36.36	36.36	1.15	.30**
Within Groups	20	633.27	31.66		

\*\* Not significant at the .05 level.

Hypothesis 7: There will be no significant difference

in the mean Self-Esteem Scale scores between the experimental group and the control group.

This hypothesis was accepted,  $F(1,20) = 1.15$ ,  $p = .30$ ). A repeated measures ANOVA revealed that there was no significant difference in the mean Self-Esteem scores between the experimental group and the control group. Results can be seen in Table 9.

Table 8  
Repeated Measures Analysis of Variance for Within  
Subjects Effects on Self-Esteem Scale Scores

	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
(n = 22)					
Time	1	236.46	236.46	21.59	.0002*
Time X Group	1	4.46	4.46	.41	.53**
Error (Time X Group)	20	219.09	10.96		

\* Significant at the .05 level.

\*\* Not significant at the .05 level.

Table 9  
Means for the Experimental Group and the Control  
Group on the Self-Esteem Scale

	Experimental (n = 11)	Control (n = 11)
M	34.00	35.82

Hypothesis 8: There will be no significant difference between the pretest scores and the posttest scores on the Self-Esteem Scale.

This hypothesis was rejected,  $F(1,20) = 21.59$ ,  $p = .002$ ). A repeated measures ANOVA indicated that the mean posttest score on the Self-Esteem Scale was significantly higher than the pretest score for the same scale. Results can be seen in Table 10.

Table 10  
Means for the Pretest Scores and Posttest  
Scores on the Self-Esteem Scale

	Pretest	Posttest
<u>M</u>	32.60	37.23

Hypothesis 9: There will be no significant interaction among time, group, and age on the Life Satisfaction Index-A (LSI-A) scores.

Age (less than 82 years of age or more than 82 years of age) was added as a second between factor to see if there was any relationship between age and LSI-A scores. There was no significant three-way interaction effect on LSI-A scores among age, group, and time,  $F(1,18) = 1.80$ ,  $p = .20$ .

There was no significant two-way interaction effect on LSI-A scores between age and time,  $F(1,18) = .03$ ,  $p = .87$ .

There was no significant two-way interaction effect on LSI-A scores between age and group,  $F(1,18) = .90$ ,  $p = .36$ .

Finally there was no main effect on LSI-A scores due to age,  $F(1,18) = 3.46$ ,  $p = .08$ . Thus, it was determined that age had no effect on LSI-A scores and this hypothesis was accepted.

Hypothesis 10: There will be no significant interaction among time, group, and age on the Self-Esteem Scale scores.

Age was added as a second between factor to see if there was any relationship between age and the Self-Esteem Scale scores. There was no significant three-way interaction effect on the Self-Esteem Scale scores among age, group, and time,  $F(1,18) = .08$ ,  $p = .78$ .

There was no significant two-way interaction effect on Self-Esteem Scale scores between age and time,  $F(1,18) = .30$ ,  $p = .59$ . There was no significant two-way interaction effect on Self-Esteem Scale scores between age and group,  $F(1,18) = .43$ ,  $p = .52$ .

Finally there was no main effect on Self-Esteem Scale scores due to age,  $F(1,18) = .27$ ,  $p = .61$ . Thus, it was determined that age had no effect on Self-Esteem Scale scores and this hypothesis was accepted.

Hypothesis 11: There will be no significant interaction among time, group, and years living in the independent living facility on Life Satisfaction Index-A (LSI-A) scores.

The number of years that the subjects lived in the independent living facility (less than 2.5 years or more than 2.5 years) was also added as a second between factor to see if there was any relationship between years living in the independent living facility and the LSI-A scores. There was no significant three-way interaction effect on LSI-A scores among years living in the independent living facility, time, and group,  $F(1,18) = .30$ ,  $p = .59$ .

There was no significant two-way interaction effect on the LSI-A scores between years living in the independent living facility and time,  $F(1,18) = .14$ ,  $p = .71$ .

There was, however, a significant two-way interaction effect on LSI-A scores between group and years living in the independent living facility,  $F(1,18) = 14.11$ ,  $p = .001$ . For the control group, there was no difference in mean LSI-A scores between those living in the independent living facility less than 2.5 years and those living in the independent living facility for more than 2.5 years, ( $t = 2.14$ ). For the experimental group, there was a significant difference in mean LSI-A scores between those living in the independent living facility less than 2.5 years and those

living in the independent living facility more than 2.5 years ( $t = 3.17$ ). The mean LSI-A score for those living in the independent living facility less than 2.5 years, (13.58) was significantly higher than the mean LSI-A score for those living in the independent living facility more than 2.5 years, (9.7).

For those living in the independent living facility less than 2.5 years, there was no significant difference in mean LSI-A scores between the control group and the experimental group, ( $t = -1.87$ ). However, for those living in the independent living facility more than 2.5 years, there was a significant difference in the mean LSI-A scores between the control group and the experimental group, ( $t = 3.173$ ). The mean LSI-A score for the control group, (13.58) was significantly greater than the mean LSI-A score for the experimental group, (9.7).

Hypothesis 12: There will be no significant interaction among time, group, and years living in the independent living facility on Self-Esteem Scale scores.

The number of years living in the independent living facility was also added as a second between factor to see if there was any relationship between years living in the independent living facility and the scores on the Self-Esteem Scale. There was a significant three-way interaction effect on the the Self-Esteem Scale among years living

in the independent living facility, time, and group,  $F(1,18) = 5.93$ ,  $p = .03$ .

Since this three-way interaction was significant, the mean Self-Esteem Scale scores for those living in the independent living facility less than 2.5 years were compared to the mean Self-Esteem Scale scores for those living in the independent living facility more than 2.5 years, for each time and group combination. There was a significant difference in the mean Self-Esteem Scale scores between those living in the independent living facility less than 2.5 years and those living in the independent living facility more than 2.5 years, ( $t = 4.11$ ) for those in the control group on the pretest. The mean Self-Esteem Scale scores for those living in the independent living facility more than 2.5 years, (38.33) was significantly greater than the mean Self-Esteem Scale scores for those living in the independent living facility less than 2.5 years, (28.4). For the experimental group on the pretest, there was no significant difference in the mean Self-Esteem Scale scores for those living in the independent living facility less than 2.5 years and those living in the independent living facility more than 2.5 years, ( $t = .28$ ).

For the control group on the posttest, there was no significant difference in the mean Self-Esteem Scale scores between those living in the independent living facility

less than 2.5 years and those living in the independent living facility more than 2.5 years, ( $t = -.77$ ). For the experimental group on the posttest, there was no significant difference in the mean Self-Esteem Scale scores between those living in the independent living facility less than 2.5 years and those living in the independent living facility more than 2.5 years, ( $t = .33$ ).

Hypothesis 13: There will be no significant interaction among time, group, and gender on Life Satisfaction Index-A (LSI-A) scores.

Gender was excluded as a variable in the data analysis due to the relatively small number of males, ( $n = 2$ ) as compared with females, ( $n = 20$ ).

Hypothesis 14: There will be no significant interaction among time, group, and gender on Self-Esteem Scale scores.

Gender was excluded as a variable in the data analysis due to the relatively small number of males ( $n = 2$ ) as compared with females ( $n = 20$ ).



## CHAPTER V

### DISCUSSION

The results of this study indicate that GIM was effective in increasing the life satisfaction, but not the self-esteem, of the 11 elderly subjects in the experimental group. A repeated measures ANOVA applied to the data to test for time (pretest and posttest) and group (control and experimental) interaction revealed significant interaction on the LSI-A scores but not on the Self-Esteem Scale scores. Therefore, the data indicates that the GIM treatment had an effect on the LSI-A Scores of the experimental group. Any change in the LSI-A scores in the control group and the Self-Esteem Scale scores in both the experimental group and the control group was likely due to chance rather than the treatment.

Due to the results of the ANOVA, further t-tests were applied to the LSI-A scores which examined the pretest scores and posttest scores between the groups as well as the pretest and posttest scores for the subjects in the experimental group and the control group. The pretest score on the LSI-A for the experimental group, (10.45) was below the norm established by Adams (1969), (12.5), while the score of the control group was above the norm, (13.27).

Posttest scores for both groups were near the norm, (experimental group = 13.18, control group = 12.18). The subjects in the experimental group acquired a posttest score near to that of the posttest scores of the subjects in the control group. A significant difference was found between the pretest scores and the posttest scores for the subjects in the experimental group, while no significant difference was found for subjects in the control group on these sets of scores. The results of the repeated measures ANOVA suggest that this difference was due to the treatment.

These results should be interpreted with caution, however, since the subjects in the control group were apparently more satisfied with their lives. The control group may have already reached their optimum score on the pretest, whereas the subjects in the experimental group had more room to improve their scores on the LSI-A.

The results of the repeated measures ANOVA indicate that there was not a significant interaction between time and group on the Self-Esteem Scale scores or between the mean Self-Esteem Scale scores for the experimental group and the control group. A significant difference was found between the mean pretest scores and the mean posttest scores which showed an increase in the posttest scores.

Thus, mean posttest scores increased overall but this increase cannot be attributed to the treatment.

Factors that may have contributed to this increase in scores include social interaction in and out of the sessions, the group setting of the sessions, and the presence and attention of the investigator. Although many of the participants in both the experimental condition and the control condition were previously acquainted with each other before this study and had opportunities for social interaction through the independent living facility, reports from the administrator of the facility and observations by the investigator suggest that social interactions increased among some of the participants during this study.

Apparently age did not have an effect on either the LSI-A scores or the Self-Esteem Scale scores, however, the number of years living in the independent facility did effect the scores on these measures under some conditions. Finally, the effect of gender on the scores could not be determined due to the small number of males in the study.

Imagery as reported by Summer (1981) and by Short (1992) was also present in this study. The elderly people in this study reported concrete imagery (a particular person or place) and abstract imagery (blending of swirling colors). They also experienced kinesthetic imagery (feeling as if one is playing volleyball) as well as

olfactory imagery (smelling a flower). On the surface, some imagery appeared to be unrelated to a specific past experience such as the imagery of a subject who saw herself playing volleyball. She reported that she had never played this game in her life but that it felt wonderful to be "running around and feeling so free." Other imagery was less concrete like that of the person who reported seeing "swirling colors of yellow and blue blending together to make green."

Unpleasant or unwelcome images were sometimes dismissed as was the case of the individual who imaged himself walking alongside of a brook. "I came to a place where I stopped, but it was mucky there with a lot of debris floating on top of the water. It wasn't pretty and I didn't want to stay there. I moved on and followed the brook to a prettier place in the woods and stayed there for a while."

Subjects frequently described their imagic material in the present tense (reexperiencing), then related it to the past. For example, one lady "saw" and "talked" with a male friend that she had not seen in approximately 65 years. After relating the conversation between the two of them and the feelings associated with the reunion, she talked about the relationship that they had had. In closing, she stated that she was happy with the man that she had married and with the family that she had raised (adaptation). In other

words, the subjects of the experimental group tended to focus on their imagery, relate it to past life events, and put closure on it with adaptation phrases.

Rumination (Summer, 1981) was experienced by one member of the experimental group who perseverated over present problems and related them to the past. For example, she was told that the bus that ordinarily took people shopping would not be running on that day. In relating this to the group, she stated that she wished she could still drive like she used to. She continued to dwell on the past until redirected by the group or this facilitator.

The group setting was appropriate for this study with members playing an invaluable role in the processing of past material and adaptation to the present. Group support was evident both during the sessions and outside of group time. During the sessions the group members were listened to, challenged, and supported by others. Adaptation statements such as acknowledging declining health while also recognizing existing strengths and, ultimately, still being alive, were expressed frequently in group. Outside of group observations and reports by the administrator of the facility included increased walking to and from the sessions with others, increased visiting with each other, and increased "getting along" with each other.

Physical relaxation and increased sleep at night were also reported by group members in the experimental condition. One person stated that she was able to relax her neck, while another person reported that she had slept through the night for the first time in many years. Other physical sensations reported were floating, deep relaxation, and "being in another world". Falling asleep during group was a problem for only one person on two occasions.

One of the initial problems encountered involved hearing. Some group members experienced difficulty hearing the facilitator during the relaxation portion of GIM. Ordinarily, a quiet voice is used during relaxation to enhance physical relaxation. Adjustments were made in vocal dynamics and seating arrangements which resulted in a satisfactory auditory level. Chairs and couches were provided for in the before-group planning sessions which alleviated any problem associated with sitting and physical comfort. Physical problems associated with aging presented a problem for one person whose arthritis was severe enough during one session to impede physical relaxation and imaging.

The use of classical music with the elderly was of interest to the investigator. The research suggests that music therapists typically employ familiar music from the client's past as a stimulus for reminiscence, as well as for other therapeutic purposes. Classical music in combi-

nation with physical relaxation generated imagery that the subjects in the experimental group related to past life events. Few comments were made in this group concerning the music itself. People did comment, however, on their physical or imagic response to the music. For example, when a barcarolle was played, several people stated that they felt as though they were rocking. Subjects in the control group where popular music was frequently played often made statements directly related to the music such as "I like/don't like that music."

People in the control group preferred the familiar music that was played and experienced the classical selections in one of two ways. Those who were knowledgeable about the genre tended to enjoy listening to the classical compositions. Those not familiar with classical music tended to express a dislike for it. Three comments expressed toward the classical genre were that subjects "didn't understand it", "it didn't mean anything to them", or "it didn't remind them of anything."

#### Recommendations for Further Study

Outcomes from this study suggest that GIM can be effective in increasing life satisfaction in the elderly. Subjects who received GIM reviewed past life events that were associated with their imagic material. Typically, mu-

sis therapists employ familiar music from the past as a stimulus for verbal life review. Future research which compares the effects of GIM (which generated spontaneous life review) and the effects of verbal life review on life satisfaction and self-esteem in the elderly are recommended. Since the results of this study produced a significant two-way interaction effect on LSI-A scores between group and years living in the facility, it is recommended that this factor be taken into consideration in future studies.

Replication of this study with extended treatment time and a larger sample with an equitable number of males and females is suggested. It is also recommended that the pretest be administered by someone other than the clinical therapist within a strictly limited time frame. This procedure would minimize the tendency of the participants to comment during the testing and reduce the likelihood of the subjects utilizing the pretest as a life review instrument which is inherent in the questions themselves.

Finally, in view of the amount of support offered through the group process, it is recommended that group GIM continue to be investigated and implemented along with individual GIM with the elderly.



## APPENDICES

**Appendix A**  
**Approval Forms**



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## WESTERN MICHIGAN UNIVERSITY

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Date: May 3, 1995

To: Steenrod, Barbara

From: Richard Wright, Interim Chair

Re: HSIRB Project Number 94-10-19

This letter will serve as confirmation that the changes to your research project "The efficacy of guided imagery and music (GIM) on life satisfaction and self-esteem in the elderly" requested in your memo dated April 22, 1995 has been approved by the Human Subjects Institutional Review Board. These changes are:

1. the control group will now receive an aesthetic music listening experience.
2. subjects will receive the Self-Esteem Scale, pre and posttest.
3. change in the title as written above.
4. use of a demographic questionnaire.

The conditions and the duration of this approval are specified in the Policies of Western Michigan University.

You must seek reapproval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: Nov. 11, 1995

xc: Wilson, Brian, MUS



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WESTERN MICHIGAN UNIVERSITY

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Date: November 11, 1994

To: Barbara Steenrod

From: Richard Wright, Interim Chair

Re: HSIRB Project Number 94-10-19

This letter will serve as confirmation that your research project entitled "The efficacy of guided imagery and music (GIM)" has been **approved** under the **expedited** category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you must seek specific approval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date. In addition if there are any unanticipated adverse or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: Nov. 11, 1995

xc: Wilson, MUS

August 10, 1994

To Whom It May Concern:

Ms Barbara Steenrod has my permission to conduct research for Master's Thesis at Pelham Manor. Our tenants and I are looking forward to working, along with Barbara, when she pursues her project.

Sincerely,



Louise Weinman, Administrator, Pelham Manor

Darlington House  
2735 Darlington Road  
Toledo, Ohio 43606  
(419) 531-4465  
FAX (419) 534-6651



Pelham Manor  
2700 Pelham Road  
Toledo, Ohio 43606  
(419) 537-1515  
FAX (419) 534-6651

Harold W. Harris  
Therapy Center  
2735 Darlington Road  
Toledo, Ohio 43606  
(419) 531-4465  
FAX (419) 534-6651

Senior Adult Program  
2700 Pelham Road  
Toledo, Ohio 43606  
(419) 531-2119  
FAX (419) 534-6651

**Appendix B**  
**Informed Consent Form**

Consent Form  
Western Michigan University

Department of Music

The Efficacy Of Guided Imagery And Music (GIM) On Life  
Satisfaction and Self-Esteem In The Elderly

Principal Investigator: Brian Wilson, MM, RMT-BC

Research Associate: Barbara Steenrod, RMT-BC

I have been invited to participate in an experimental research project entitled "The efficacy of Guided Imagery and Music (GIM) on life satisfaction and self-esteem in the elderly. I understand that this research is intended to study how listening to music in a relaxed state which encourages imagery may enable an elderly person to experience changes in life satisfaction and in self-esteem. I further understand that this project is Barbara Steenrod's master's thesis project.

My consent to participate in this project indicates that I will be asked to participate in one of the two following conditions:

Condition 1: I will attend a total of fourteen sessions; two, one-half hour private sessions with Barbara Steenrod and twelve, one-hour group sessions with Barbara Steenrod and other group members. I will be asked to meet Barbara Steenrod and the other group members at Pelham Manor. The first session will involve completing three questionnaires, the Life Satisfaction Index-A, the Self Esteem Scale, and some questions about myself such as where I live. The next twelve sessions will be with Barbara Steenrod and other group members. These sessions will involve group discussion, physical relaxation, listening to taped music, and another group discussion and group process. The fourteenth session will involve completing the Life Satisfaction Index-A and the Self Esteem Scale again. Condition 2: I will attend a total of fourteen sessions; two, one-half hour private sessions with Barbara Steenrod and twelve, one-hour group sessions with Barbara Steenrod and other group members. I will be asked to meet Barbara Steenrod and the other group members at Pelham Manor. The first session will involve completing three

questionnaires, the Life Satisfaction Index-A, the Self Esteem Scale, and some questions about myself such as where I live. The next twelve sessions will be with Barbara Steenrod and other group members. These sessions will involve listening to taped music. The fourteenth session will involve completing the Life Satisfaction Index-A and the Self Esteem Scale again.

As in all research, there may be unforeseen risks to the participant. If an accidental injury occurs, appropriate emergency measures will be taken; however, no compensation or treatment will be made available to me except as otherwise specified in this consent form. I understand that one potential risk of my participation in this project is that I may experience a variety of feelings. I understand, however, that Barbara Steenrod is prepared to provide support and that she is prepared to make a referral if I need to further discuss my feelings. I will be responsible for any costs incurred if I choose to pursue this. I also understand that I may be inconvenienced at times in order to attend the sessions instead of participating in another activity or outing. Barbara Steenrod will make every effort to schedule sessions during times when other activities are not regularly scheduled.

One way in which I may benefit from this activity is the possibility of feeling more satisfied with my life and feeling a higher level of self-esteem, which research indicates is important in the aging process. I also understand that other elderly individuals may benefit from the knowledge that is gained from this research.

I understand that all the information collected from me is confidential. This means that my name will not appear on any papers on which this information is recorded. The forms will all be coded, and Barbara Steenrod will keep a separate master list with the names of participants and the corresponding code numbers. Once the data are collected and analyzed, the master list will be destroyed. All other forms will be retained for three years in a locked file in the principal investigator's office. In addition, participants will be reminded at the beginning and end of each session that each person's verbal contributions to the group need to be respected and kept confidential. Time will be



available after the group for additional individual processing if desired.

I understand that I may refuse to participate or quit at any time during the study without prejudice or penalty. If I have any questions or concerns about this study, I may contact either Barbara Steenrod, RMT-BC at 867-6992 or Brian Wilson, MM, RMT-BC at 616-387-4724. I may also contact the Chair of Human Subjects Institutional Review Board or the Vice President for Research at 616-387-8298 with any concerns that I have. My signature below indicates that I understand the purpose and requirements of the study and that I agree to participate.

---

Signature

---

Date

**Appendix C**  
**Cut Log Model Depicting Levels**  
**of Consciousness**

# ALTERED STATES OF CONSCIOUSNESS

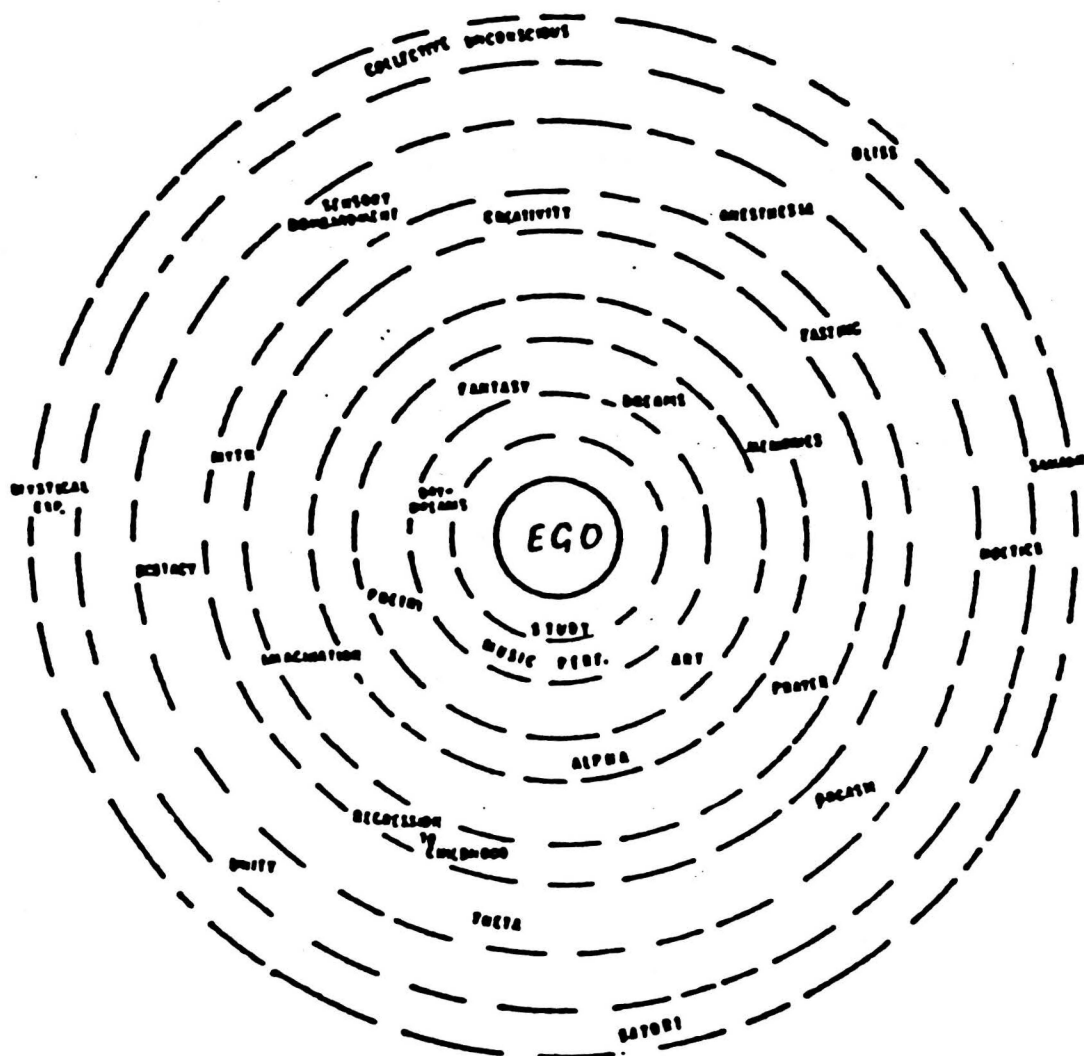


Figure 1 - Cut Log Diagram

## MEANS:

sleep  
meditation  
exhaustion  
drugs  
hypnosis  
biofeedback  
music  
sex  
aesthetics

## METHODS:

relaxation  
concentration

To Whom It May Concern:

I grant my permission for Barbara Steenrod, RMT-BC to copy the cut-log diagram located on page 6 of the GIM Monograph #2, *The Role of Taped Music Programs in the GIM Process* (Bonny, 1978). This diagram will be included in the master's thesis entitled *The Efficacy of Guided Imagery and Music (GIM) on Life Satisfaction and Self-Esteem in the Elderly* for the purpose of representing levels of consciousness.

Signature:

Date:

Helen L. Bonny

Helen Bonny, PhD, RMT/CMT

October 18, 1995

## **Appendix D**

### **Music, Images, and Goals Used in GIM Sessions in the Experimental Condition**

### Music, Images, and Goals Used in GIM Sessions in the Experimental Condition

Session	Music	Time	Image	Goal
1	"Sheep May Safely Graze" (Bach, 1685-1750, track 6).	4:43	Garden	Notice the flowers
2	"Venus, The Bringer of Peace" (Holst, 1874-1934, track 2).	8:46	Meadow	Feel warmth of sun
3	"Cannon In D" (Pachelbel, 1653-1706 track 1).	7:09	Beach	Waves bring something to you
4	"The Pines of the Janiculum" (Respighi, 1879-1936, track 7).	7:10	Woods	Follow the path
5	"Symphony #1, Un Poco Allegretto E Grazioso" (Brahms, 1833-1897, track 2).	4:41	Mountain	Something on mountain for you
6	Cello Concerto in C, Adagio (Haydn, 1732-1809, track 1)	9:45	Precious Pearl (Steenrod, 1995)	Lost and found treasure
7	"Dances Sacred and Profane" (Debussy, 1862-1918, track 1).	10:30	Friend (Bonny & Savory 1990)	Meet a friend

Session	Music	Time	Image	Goal
8	"Lohengrin, Prelude to Act 1" (Wagner, 1813-1883, track 5).	9:50	If I had my life to live over (Martz,1992)	Change the past
9	"Symphony #4 Scherzo" (Tchaikovsky, 1840-1893, track 3).	5:17	When I am an old woman I shall wear purple (Martz, 1987)	Do things differently now
10	"Sheep May Safely Graze" (Bach, 1685-1750, track 6).	4:43	Garden	Notice the flowers
11	"Morning From Peer Gynt Suite No. 1,Op. 46" (Grieg, 1843-1907, track 4).	3:58	For Warmth (Maclay, 1900)	Thankfulness
12	"Barcarolle" (Offenbach, 1819-1880, track 15).	3:26	For Music (Maclay, 1990)	Closure

Appendix E

Musical Selections Used in the  
Control Condition



### Musical Selections Used in the Control Condition

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Selections from Classic Nouveau (Barabas, 1994, track 2-10).

"School For Scandals Overture" (Barber, 1910-1981).

"Appalachian Spring Suite" (Copland, 1900-1990, disc 8, track 6).

"Fanfare For The Common Man" (Copland, 1900-1990, disc 8, track 1).

"The Girl with the Flaxen Hair" (Debussy, 1862-1918, disc B, track 11).

"But Not For Me" (Gershwin, 1898-1937).

"Embraceable You" (Gershwin, 1898-1937).

"Girl Crazy Medley" (Gershwin, 1898-1937).

"I've Got Rhythm" (Gershwin, 1898-1937).

Selections from The Classics: Exploring Nature with Music (Gibson & Gibson, 1991, track 2-9).

Selections from Benny Goodman Pure Gold (Goodman, 1909-1986, track 1-13).

"American Salute" (Gould, 1913-, disc 8, track 8).

Selections from The Great Gospel Women (Helibut, 1993, track 3, 8, 11, 12, 22, 23, 29).

"Variations on "America"" (Ives, 1874-1954, disc 8, track 7).

"Guru Ram Das" (Kaur & Robertson, 1991, track 1).

Selections from Broadway Show-Stopppers (Kunzel, 1992, track 3, 4, 6, 7, 8, 12).

Selections from Your Hit Parade 1950 (McCardell, 1988a, track 1, 2, 3, 4, 6, 12, 14, 17, 22).

Selections from Your Hit Parade 1951 (McCardell, 1988b, track 1, 2, 4, 5, 7, 10, 13, 14, 17, 19, 21).

Selections from Your Hit Parade 1945 (McCardell, 1989, track 1, 3, 4, 10, 13, 16, 18, 20, 22, 23).

Selections from The Best of Glenn Miller (McCuen, 1965, track 1-12).

"Pavane For A Dead Princess" (Ravel, 1875-1937, track 14).

Selections from The 3 Tenors (Rudas, T., 1994, track 4, 5, 7, 8, 9, 10, 14-25).

"Piano Concerto No. 1 in B Flat Minor, Op. 23" (Tchaikovsky, 1840-1893, disc a, track, 1-3).

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