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Contributing to Quality of Life by Facilitating Music-Based Social Interaction for Adults with Intellectual Disability

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CONTRIBUTING TO QUALITY OF LIFE
BY FACILITATING MUSIC-BASED SOCIAL INTERACTION FOR
ADULTS WITH INTELLECTUAL DISABILITY

A DISSERTATION

submitted by

Julie Andring

In partial fulfillment of the requirements
for the degree of
Doctor of Philosophy

LESLEY UNIVERSITY
May, 2015

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ABSTRACT

The purpose of this mixed method investigation was to discern whether participation in a task-specific music therapy group contributed to quality of life for adults with intellectual disabilities. Engaging in social interaction had previously been shown to benefit physical and emotional health (Duvdevany, 2008) while lack of social connection had produced detrimental effects, most often loneliness and depression (de Belvis et al., 2008). Two research questions were posited: 1) Does the level of social interaction increase when individuals participate in a group activity as compared to unstructured leisure time? 2) Does active participation in the group activity contribute to the quality of life of the participants? Socialization was defined as a verbal statement. Intervention consisted of 12, 45-minute music therapy sessions during which each of the three small group ($n = 3$) engaged in the process of producing and ultimately publically presenting a music DVD of themselves singing. The control group ($n = 4$) participated in coffee breaks of equal duration, frequency, and location. Employing the Social Interaction Scale and Group Environment Scale (Moos, 2002), four categories of verbal response were measured quantitatively for each participant: Initiating with the therapist, responding to the therapist, initiating with a peer, and responding to a peer. In addition, session content, a pre-post session Quality of Life Interview (Snow and D'Amico 2009), and an informal post-performance interview were analyzed qualitatively.

Quantitative analysis demonstrated no statistically significant increase in any of the identified interaction categories. The only notable finding was a moderate effect size ($r = .40$) for initiations with the group as demonstrated in the Mann Whitney U test results. Interestingly, the control group actually produced more verbal statements,

However, the content of these conversations proved rote, repetitive, often non-reciprocated, and engaged in unequally by participants. Conversely, while the intervention groups talked less, the verbal exchanges were robust, varied, new, interesting, reciprocated, and all participants engaged with relative equality.

Qualitative analysis produced two major themes: The need for social interaction, and prevailing loneliness. An additional theme of nervousness presented during the initial sessions, but later subsided. Overarching findings indicated participants' strong desire to be socially engaged yet frequently expressing feelings of loneliness. The post-performance interview revealed that nine of the ten participants expressed a positive response to participation in the project and public event. Qualitative results also indicated that there was healthy group process and positive cohesion amongst participants, implying that quality of life was increased by participation in this project.

CHAPTER 1

Introduction

For many years I have been employed as a board-certified music therapist in a large state institution for adults with intellectual disability. The facility was home for more than 300 residents, many of who did not have regular family contact. With an average client age of 68, their aging parents faced difficulties in maintaining relationships with their adult children: inability to provide required physical assistance or specialized care; age-limited travel ability; and distance of their retirement localities. Nonetheless, families made efforts to visit when the residential cottages held special events such as holiday parties. In the fall of 2002, one of the cottages was planning a party for that coming December.

As I thought about December holidays with their traditional exchange of gifts, I pondered what songs and activities to include in the coming music therapy sessions for the residents of that cottage. It occurred to me that this group of individuals, who were so often on the receiving end, had something very precious to give. The gift was their voice. I presented the idea of recording their singing and making multiple CD copies for each of them to give to a family member or friend. The group heartily embraced the idea and we soon began to work on this project. Together, the group members chose the songs, the lead singers, and the instrumentation. Discussions ensued, cooperation was facilitated, and a sense of accomplishment and pride emerged. I marveled at the clients' excitement when singing with a microphone, and at the group cohesion that manifested during the project.

At the December party, the room was filled with laughter, smiles, and a ubiquitous sense of joy. After the holiday sing-a-long, each of the clients gave a copy of the recording to their family or friend. The recipients appeared to be deeply touched by this gift. As I mingled with the guests, many parents spoke to me about the conflict of longing to spend more time with their child and the difficulty of being able to visit more often. I was told how much the gift was appreciated, how important it was. Being able to hear their son or daughter's voice, I was told, would provide some consolation for the lack of contact. What began as a goal of reversing the clients' role from receiver to giver resulted in giving a very precious gift to families and friends.

At that time, I did not have the language, the knowledge, or the skills necessary to undertake a scholarly inquiry into what had occurred. However, I came away from this experience knowing that it had positively affected the residents and family members in a powerful way which I pondered a great deal. I surmised that the interactive process of making the CDs had increased their quality of life and that receiving the recording impacted the quality of life for their parents as well. This experience led me to continue to engage my clients in other less-formal opportunities to work together on projects that included making music CDs.

Ten years later, with three years of doctoral studies behind me, I began to plan my dissertation research. Here was my opportunity to research the effect of the group recording that I had facilitated in 2002, to assess whether that process contributed to the residents' quality of life. With this in mind, I began to read the literature on social interaction.

The absence of social interaction or unsatisfactory social contacts was found to be predictors of other emotional conditions, most notably loneliness (de Belvis et al., 2008; Duvdevany, 2008; Heiman, 2000; McVilly, Stancliffe, Parmenter & Burton-Smith, 2006) and depression (Cummings, 2002; Heiman, 2000; Parmalee, Katz, & Lawton, 1992). The people who were at the greatest risk of depression, according to Parmalee, Katz and Lawton are older adults. Lack of social interaction may have implications beyond being lonely and depressed. Mortality was associated with people who were socially isolated and lonely (Steptoe, Shankar, Demakakos, & Wardle, 2013) or who lack social contacts (Berkman & Syme, 1979). According to de Belvis et al. (2008), “People embedded into social networks are strengthened in a social role and are likely to have lower mortality rates from cardiovascular diseases, accidents, suicides and all causes” (p. 785).

While the negative effects of limited social interaction were significant, so were the benefits of being socially engaged (Cooper, Okamura & Gurka, 1992). Social interaction was found to decrease feelings of loneliness (Bloom, Asher, & White, 1978; Duvdevany, 2008; McVilly, et al., 2006). If social interaction most naturally occurred when engaging in a shared activity with other people then “the more social relationships one has, the less lonely one feels, and the more involved one is in leisure activities, the higher is one’s quality of life” (Duvdevany, 2008, p. 227). People who engaged in social interaction were found to have positive emotions such as joy, satisfaction, and optimism (Diener, Lucas, & Oishi, 2009) and to be happier (Kampert & Goreczny, 2007). “Social activity has been identified as one of the most consistent predictors of peoples’ subjective reports of happiness” (Cooper et al., 1992, p. 573).

Furthermore, according to Kerins and Bruder (2003), social interaction was one component that older adults required to maximize their health care. “Social relationships play a key role in health and social promotion among the elderly and more frequent social ties are likely to be linked with improvements in self-perceived health” (de Belvis et al., 2008, p. 791). Even people with chronic health conditions have been found to have a positive attitude toward the future when they possess some degree of personal control, have social support, and maintain engaged in life in meaningful ways (Do Rozario, 1997; Quinn, Barton & Magilvy, 1995).

Engaging in social interaction has been reported to increase self esteem (Diener et al., 2009; Hartup & Stevens, 1997), self-determination, coping (Hartup & Stevens, 1997), and personal well-being (Duffy & Fuller, 2000). Social interaction lies at the foundation of friendships, meaning, and being part of the fabric of society. “Interacting with other people is a basic emotional human need” (Moon, 2005, pp. 3-4).

While large state residential institutions for individuals with intellectual disability are no longer being constructed in the United States, congregate living facilities such as nursing homes and assisted living facilities remain a common and acceptable form of providing for the needs of people in the health care system. For clients who are not readily able to initiate interaction, providing home or day program gatherings that engendered social interactions could be a positive component of their day. However, day programs are all too often environments where limited staff or programmatic interventions are designed to foster interaction and nurture relationships (de Waele & Van Hove, 2005). In my facility, I had repeatedly observed that despite situating residents in close proximity to each other only minimal peer conversations between them

occurred, however when staff entered the area the residents were eager to engage in conversation with them. Moreover, as cited by Crites and Howard (2011), simply providing resources that would revolve around social interaction (e.g., games) was inadequate while “planned activities was effective in increasing engagement of clients with severe disability” (p. 8). Nonetheless, paraprofessionals often did not plan activities nor were they taught how to engage the clients. Similarly, numerous researchers have reported that nursing homes, mental health facilities and other long-term care facilities were commonly devoid of meaningful social interaction between the residents (Bratt & Johnson, 1988; Duvdevany, 2008; Emerson & Hatton, 1996; Mansell, 1996; Newtown, 1993). De Waele and Van Hove (2005) also concluded that boredom was a result of the limited number of leisure activities made available.

As the design of the investigation developed, my goal took on a much wider scope – that of positively impacting quality of life through cohesive social interaction as described by Moon (2005). Drawing on previous avenues of inquiry, the intervention also focused on tasks that challenged clients, built confidence, and engendered a sense of pride (Diener, Lucas & Oishi, 2002; Hartup & Stevens, 1997). The planned intervention also incorporated a creativity component (Hiltunan, 1997; Syzmanski, 2000) and involved the individuals as key decision makers (Hartup & Stevens, 1997). Over twelve-sessions, groups of clients would work together on a project to make music DVDs that would be publicly presented at the residential facility. Studied in the context of quality of life, the findings of this investigation may reflect the relationship between the level of social interaction and participation in the project to the quality of life of the participants.

Based on this information, this investigation focused on the following research questions:

1. Does the level of social interaction increase when individuals participate in a group activity as compared to unstructured leisure time?
2. Does active participation in the group activity contribute to the quality of life of the participants?

For the purposes of this inquiry, social interaction was defined as speaking to someone.

It is important to state that the major underlying assumption of this study embraced the theory and practice of QOL, a practice which was not widely applied to people with intellectual disabilities until the 1970s when it began to replace the medical model. Moreover, it was postulated that there would be potential beneficial outcomes for the clients who participated in the study. Since the facility where the study was conducted strove to provide quality of life for the residents, it was assumed that the outcomes of this research endeavor would be of value to the system.

CHAPTER 2

Literature Review

This study encompassed two major components: Quality of Life theory, and social interaction as a contributor to QOL. This chapter begins with the literature review, followed by the tenets of Quality of Life theory.

Quality of life was unequivocally relevant to all people including people with intellectual disabilities who resided in institutions. Notwithstanding the fact that quality of life had multifaceted definitions, all definitions included a social component for example, social interaction, social belonging, relationships, or making connection with others (Dagnan et al., 1998; Dunn & Brody, 2008; Duvdevany, 2008; Griffen et al., 2010; Kampert & Goreczny, 2007; McNary et al., 1997; McVilly et al., 2006; Schalock & Verdugo, 2002; Snow & D'Amico, 2009; Verdugo et al., 2005). Individuals who participated in enjoyable social activities with other people were considered to have a higher quality of life than those individuals who do not engage in enjoyable social activities.

Quality of life has increasingly become a subject of study and research. Spitzer (1987) reported that in a review of publications from 1968 – 1970, a total of four articles were found with the words “quality of life” in the title; by 1972 – 1993, Hughes and Hwang (1996) found 87 studies on quality of life.

Sheppard-Jones, Prout, and Kleinert (2005) conducted a robust study comparing the quality of life for adults with developmental disabilities ($n=502$) with the general population ($n=576$). Using the Core Indicators consumer survey, measures were taken on the four topics of autonomy, community participation, well-being, and access-rights. The

194 proxies answered questions on autonomy, community participation and access rights however they did not report on well-being since those items were only valid when answered by the participant. By extension, a total quality of life scale score was not computed for those participants. Implementation of the survey was primarily administrated in a face-to-face interview for the participants in the study group; implementation for the control group was done over the telephone. Using a two-tailed t test the overall findings were that there was a significant disadvantage for adults with developmental disabilities in the areas of well-being, autonomy, and the total quality of life scores.

Social Roles

In Western civilization the value of social roles a person played became synonymous with the value of the person; someone with many negative social roles was seen as a person with low value to society, conversely a person with many positive roles was seen as being valuable to society (Wolfensberger, 2000). In reality, each person's identity was made up of multiple social roles, some positive and some negative. Positive roles often elicited comments from acquaintances or strangers; they may have provided a topic for conversation or served to identify areas of common interest between people. Obtaining and maintaining valued social roles can be difficult for individuals who experience limitations that impact their relationships or acceptance in community. People with disabilities frequently became associated with roles that were viewed as negative (e.g., burden, rejected, unable, welfare) (Wolfensberger, 2000).

Drawing upon data from two previous studies, Hachey, Boyer, and Mercier (2001) looked at role patterns for 48 adults with mental health problems. In both studies

a role checklist was completed during a semi-structured interview. In the 2001 study, Hachey et al. found that the number of roles participants currently held was less than the number of roles they held before the condition or illness and that fewer than 50% of the participants anticipated regaining those roles. Hachey et al. suggested, “Perhaps treatment should focus on the fostering of a sense of belongingness and improving interpersonal relationships, followed by the development of skills related to the productive roles (home maintainer and hobbyist)” (p. 118).

Szymanski (2000) held similar beliefs. He believed that self-image was a component of happiness and that having a positive perception of self would lead to a positive self-image. His typical approach, an uncommon perspective in 2000 for organizations serving people with intellectual disabilities, was to “give individuals opportunities and supports to help them engage and succeed in tasks that are socially valued and concrete” (p. 358). The following studies reflected Hachey et al. (2001) and Szymanski’s suggestions and approach of nurturing self image, that of providing opportunities and supports to attain positive social roles which fostered interpersonal relationships and promoted a sense of belonging.

Bell’s (2008) qualitative single subject study was designed to provide a 17-year-old male with Down syndrome the opportunity to make music twice per week for three months. Using stages of musical development, data on the participant’s response to engaging was obtained from the researcher’s observations that revealed that the participant advanced in the stages of musical development. Data on the perceived impact on the participant was obtained through a focused interview with the participant’s mother. The mother reported that her son gained confidence, increased his ability to

make creative decisions, and developed his singing voice. He also demonstrated the ability to compose and record original music. A limitation of this study was the exclusion of an interview with the participant. Bell's conclusion was that the young man experienced a sense of accomplishment and began to see himself as an artist because other people perceived him as an artist.

Bell's approach resembled that of Hachey et al. (2001), and Szymanski (2000). Bell believed if an individual with intellectual disability had an interest in playing music then the opportunity should be provided. Experiencing music may inform the individual "...whether or not they might have a desire to play. The desire grows out of experiences and opportunities as well as ambitions" (Bell, 2008, p. 20-21). Due to the single-subject study and the potential bias of the researcher who delivered the intervention, the findings cannot be generalized.

In a different arena, six ice skating lessons were given to 22 children, aged five to 12 years, with a variety of developmental disabilities (Fragala-Pinkham, Dumas, Boyce, Peters & Haley, 2009) who were recruited by advertising the program in a children's hospital. Ice skating instructors taught the class, and students from the university assisted the children on a 1:1 basis. Adaptations were made as needed to facilitate each child's ability. One of the program's goals was that the children would be able to skate forward ten feet without assistance. By the end of the six weeks 86% ($n=19$) of the children accomplished the goal; the remaining 14% ($n=3$) needed assistance but less assistance than was needed at the beginning of the program.

The program's goal for the parents was that they would be highly satisfied, as measured by having them anonymously complete an adapted questionnaire from a

previous exercise program. The questionnaire had four open-ended questions and 21 closed-ended questions that were answered using a Likert scale. Seventeen of the 18 parents completed the survey. Results showed that 100% the parents were very satisfied with the program. The parents most often commented on their perception of the social interaction between their child, the coaches, and peers, and the importance of this social interaction. The parents also commented that learning to skate gave his or her child a sense of accomplishment.

While the study found that the parents were satisfied with the program, satisfaction or enjoyment data were not gleaned from the participants leaving the reader wondering whether the children enjoyed the lessons. In conclusion, Fragala-Pinkham, Dumas, Boyce, Peters, and Haley (2009) wrote, “Ice skating may help improve or maintain a child’s strength, balance, coordination and self-esteem, which in turn may positively impact function, participation and quality of life” (p. 216). Given the small sample size it was not possible to generalize the findings.

Ezell and Klein-Ezell’s (2003) study used the same approach of the aforementioned studies (Bell, 2008, Fragala-Pinkham et al., 2009, Hachey, et al., 2001; Szymanski, 2000) of providing opportunities and supports to help participants attain positive social roles. Magic tricks were taught to 26 elementary and secondary school-aged children with various disabilities, including intellectual disabilities, and then provided opportunities for the students to perform for other school children. Self-esteem was measured with a pre and post-test of the *Self Confidence Dimension of The Student and Self-Concept scale* (Ezell & Klein-Ezel, 2003). Responses to the scale’s statements were made on a three point Likert scale. Sixty-nine percent ($n=18$) of the children

significantly increased scores between pre and post-test self-confidence scores indicating that accomplishment of unique skills was experienced as a positive attribute. Participants who answered as “unsure” or “not at all” to questions about being proud, being fun to be with, or being happy on the pre-test responded as being confident on the post-test. Data on some sub-scales resulted in differences for the entire group, which may be due to the wide range of disabilities of the participants, the wide age range, and the small sample size (Ezell & Klein-Ezell, 2003).

Souza and Kennedy (2003), Ingber (2003), and Hiltunen (1997) anecdotally reported positive outcomes to strategies that provided opportunities to people with intellectual disabilities to participate in socially valued activities. Souza and Kennedy brought Juanita, a 20-year-old with severe intellectual disabilities to her places of interest that were frequented by other individuals and connected her with people who befriended her in those settings. The opportunities facilitated Juanita meeting new people and engaging in preferred, socially valued activities. Ingber taught adults with moderate or severe intellectual disability how to use musical instrument digital interface (MIDI) software for keyboard; the recordings made were played at facility events. Both studies described the experiences as contributing to the attainment of new, positive social roles that were embraced by the participants.

Hiltunen (1997) practiced a process-oriented approach to assist adults with intellectual disability, developmental disability, and multiple disabilities to write and perform poetry. The invitation to express feelings was out of the norm for people who had lived most of their years in a state institution, a life script that was similar to many of the participants in this study. It may be that the poem *I Lived in a Place*, (Hiltunen, 1997,

pp. 22-23) written and performed by C.L., would resonate with some period of life of the study participants.

I lived in a place.

No Friends.

Eat and that's all

Cold cereal and milk and bread.

I don't know where that place is at.

Somebody else go.

Not me.

I don't know where that place is at.

Don't know.

I was a little girl.

I went there.

I don't want to tell you that.

Somebody told me 'bout that.

I don't want to go up there.

I turn around.

Turning, turning.

What I like to do.

I turned all around.

You sit down first.

I turned around.

I won't hurt myself.

Fine

Happy.

Turn around.

That's all.

Social Relationships

A socially satisfying life was composed of acquaintances and personal relationships. "Personal relationships are one of the key areas requiring attention if people with disability are to experience a quality life as valued members of the community" (McVilly et al., 2006, p. 201). Having friends had also been found to contribute to life satisfaction (Cummings, 2002).

Cummings (2002) studied the psychological well-being of 57 non-demented residents in assisted living facilities. In face-to-face interviews, information was collected on demographic, depression, life satisfaction, health, and social support variables. Analysis of the interviews revealed that there was a moderately low level of depression and moderate levels of life satisfaction among all residents but that in a sizable minority there were high levels of depression and low levels of life satisfaction. Depression was significantly related to perceived social support and satisfaction with friends, while life satisfaction was significantly related to number of social activities attended and satisfaction with living situation. Cummings suggested that attention should not only be given to providing activities to attend, but to foster relationships among the residents, and between residents and staff.

Life satisfaction of older people was studied by Subasi and Hayran (2005). Through face-to-face interviews, information was collected from 183 residents of nursing homes for the *Life Satisfaction Index-A questionnaire* which used a three point Likert scale. Quantitative computations showed that the 59% of the people who engaged in leisure activities had a higher level of life satisfaction than people who did not engage in leisure activities. The study did not emphasize fostering relationships as did Cummings (2002). The leisure activities mentioned (i.e., reading, handicrafts, walking, exercise, gardening) were activities that could be done solitarily or with other people.

A robust mixed method study on the importance of having friends was done by McVilly, Stancliffe, Parmenter and Burton-Smith (2006). The study consisted of a 15-item loneliness scale completed by 41 adults with intellectual disability and intermittent support needs. Statements were rated on a five-point Likert scale. They found that “there was a significant, negative correlation between participant ratings of loneliness and their reported duration of contact with nominated friends; i.e. ratings of loneliness decrease as reported duration of contact increased” (p. 196). This finding was not surprising, however, further analysis revealed that neither the number of people known nor the average frequency of contact did not have a significant relationship with a loneliness rating, implying that the qualitative experience needed to be taken into account. This study was important in the literature seeing that many studies reported on the number of activities attended or people seen. Attaining statistical numerical significance was but one indication of having a socially satisfying life.

Cooper, Okamura and Gurka (1992) conducted a study that was based upon two previous studies on the relationship between being involved in social activities and

subjective well-being. Personality traits of the participants were gathered through answers given on multiple scales designed to indicate extraversion, the need for social approval, and satisfaction with the amount of activities with parents, relatives, friends, and groups of people. One study was completed in 1990 ($n = 131$) and replicated in 1991 ($n = 118$), with the addition of administering the questionnaire in various social situations (e.g., no one else present, in the presence of friends, in the presence of strangers). All other methods were the same.

The strongest positive predictor for subjective well-being (happiness) was satisfaction with social activities; those people had greater life satisfaction, less negative affect, and more positive affect. Within the category of social activities, the only consistent predictor of happiness was the frequency of group activities. It was also found that people who were happier had a greater number of interactions in their social activities. Of these two findings, Cooper et al. (1992) found that the latter is the more important of the two. This finding is similar to the findings of Cummings (2002). There were significant correlations between group activities and all well-being measures.

Regarding the completion of the questionnaire in various social situations, the people who completed it in the presence of friends scored higher in life satisfaction than those who completed it in the presence of strangers (Cooper et al., 1992). This implied that being around friends, even when there were no interactions between them, fulfilled some portion of the social needs of the participants.

The following articles primarily focused on people who joined social groups that met on a regular basis, which allowed a greater possibility of developing personal

relationships thereby contributing to their quality of life; music groups often function as such vehicles for social interaction.

Judd and Pooley (2014) studied the importance and meaning of singing in a public choir. During an in-depth interview that was conversational in nature, probing questions were asked of the ten choir members. All members reported positive emotions related to singing in the choir. Additionally, several participants reported that being in the choir was particularly beneficial during time of major life changes, when dealing with illness, and when depressed. Using an interpretive approach for analysis, themes of individual psychological benefits (sub-groups of psychological, musical, and physical), group psychological benefits (sub-themes of ethos, and group dynamic), and mediating factors emerged (sub-themes of past experiences, type of choir, and musical director). In the sub-theme of group dynamics all members spoke about social aspects of being in the choir, mentioning the types of people, and the strong bonds between members. The researchers concluded “group singing is a joyful activity that promotes wellbeing and is life enhancing for those involved.”

Group singing was also the intervention used with ten people with Parkinson’s disease. Elephant et al., (2012) studied the effect of group singing on speech, singing, and depressive symptoms. A progressive neurodegenerative disease, one of Parkinson’s earliest symptoms is voice impairment that might lead to the person withdrawing from social interaction due to feelings of embarrassment. Physiological and neuromusical studies support the intervention of singing as a means of building abdominal muscle coordination and strength that are necessary for speech. The intervention consisted of five activities: opening conversation, breathing exercises, vocal exercises, singing

exercises, and closing conversation. Following sixty-minute sessions were held once per week for 20 weeks significant improvements were found in vocal analysis for singing. The researchers assume that the areas of improvement are indicators of increased control over the voice in singing and voice production endurance. Carry-over to speech was not realized however had the participants been worked with individually greater results might have been attained. Although the effects did not carry-over to speech, there was no deterioration in speech function that might be attributed to the intervention exercises. There was no change in depression that might be explained by the low baseline scores from the outset. Limitations of the study include a small sample size and the absence of a control group.

Lyric analysis was a research tool in the study by Grocke, Bloch, and Castle (2009) to determine whether music therapy contributed to quality of life and social anxiety. The participants lived in the community and had severe and enduring mental illness (schizophrenia, schizoaffective disorder, bi-polar disorder, psychosis and intellectual disability). The intervention ran for 10 weeks with one-hour sessions per week for five groups ($n = 5$). Data were taken on 17 participants who completed the questionnaires. Intervention activities included singing familiar and preferred songs, facilitated song writing, and instrumental improvisation to enhance the song.

At the end of the 10 weeks original songs were professionally recorded. Qualitative data were obtained from analysis of lyric themes and semi-structured focus group interviews. Results showed statistically significant improvement on five items (social support, health, and quality of life) on the 26-item Quality of Life Scale. Themes from the focus groups were: music therapy gave pleasure and joy, and working as a team

was beneficial. The participants were surprised at their creativity and were proud of their songs. Analysis of song lyrics resulted in six themes: peace and the environment, a concern for the world, living with mental illness is difficult, religion and spirituality are sources of support, coping with mental illness requires strength, living in the present is healing, and working as a team is enjoyable.

Cohen (1985) investigated the importance of music to older adults. He asked 300 older adults to fill out a questionnaire on their involvement in music (e.g., singing, playing, listening) and to rate how important music was to them. Forty-three percent of the older adults gave it the highest rating; high ratings correlated with past and current music involvement. The findings were not correlated with age or mental status/competence implying that music is important regardless of mental status or age. Responses to questions about favorite styles and eras of music indicated that music listened to early in life had the most significance in the later years. Although specific quality of life measures were not included in the questionnaire Cohen inferred that since music had such importance that it contributed to the quality of life of seniors.

Hays and Minichiello (2005) also studied the importance of music to 38 older adults (aged 60-98 years) with an added emphasis on the personal meaning it had for themselves. They firmly concluded that music promoted quality of life in older adults lives. Participants' musical skills ranged from no skill to being a professional musician. This qualitative study found that music contributed to a number of quality of life indicators. Through in-depth interviews, four themes were identified: Wellbeing, Connection, Spirituality, and The Benefits of Music. Music facilitated the participants' development of their identity, contributed to positive self-esteem through feeling

competent and independent, helped maintain wellbeing, and provided a means to express spirituality. A recurrent theme was sharing music with other people. The music served as a vehicle for people to get together on a regular basis and develop personal relationships. As was found with McVilly et al. (2006), the participants also said that feelings of isolation and loneliness were reduced when they listened to or made music.

Similar to Hays and Minichiello (2005), Wise, Hartmann, and Fisher (1992) focused on understanding the importance of participation in choral activities and who would be more apt to join a choral group in old age. Data were collected from a questionnaire that was given to each of the 49 members of the choir and to 49 randomly selected people from the retirement village. The questionnaire was composed of sections on music background, life satisfaction, personal orientation inventory, and an alienation scale. There were no significant findings in music backgrounds between the choral group and the control group although the members of the choral group did have a richer musical upbringing. In response to the question of why they sang in the choir, the two predominant answers were that they liked the interaction, and that they liked singing and working on a group project. The choir was a means to enrich their social life while engaging in an activity that was enjoyed. Contrary to Hays and Minichiello (2005) and McVilly et al. (2006), no group differences were found on the analyzed alienation scores.

Using the same philosophy as Hachey et al, (2001), Szymanski (2000), and Bell (2008), a program developed by the Spanish Cultural Ministry focused on improving older adult's social quality of life by providing older adults opportunities to engage in one of three social and cultural music activities held approximately once per week for nine months. Unlike most studies, Solé, Mercadal-Brotons, Gallego, and Riera (2010) were

attentive to making the environment conducive to social interaction. It was designed so that older adults could visit while participating in classes with the intent that being with other adults would expand interpersonal relationships and reduce isolation while encouraging the use of personal abilities thereby contributing to personal well-being.

Solé et al. evaluated the impact of the music activities of participating in choir, attending a music appreciation class, or receiving preventive music therapy, and investigated the reasons the 83 older adults participated in them and the difficulties of participating. Data was taken by five mean researcher-designed questionnaires: (a) pre-test of 23 items regarding the above two questions; (b) quality of life questionnaire that included items in the construct of quality of life (physical health, subjective health, psychological well-being, and interpersonal relations) that was administered pre and post-test; (c) interpersonal relations questionnaire that asked how frequently he or she participated in social events; (d) two questionnaires that were given post-test only and measured the participants perceived change in their lives; and (e) and their level of satisfaction with the program. Answers were given on a Likert scale that ranged from of one to four.

Analysis of the quality of life questionnaire found no substantial changes between the pre-test and post-test scores. Contrary to these results, the qualitative responses indicated that the participants perceived an increase in quality of life. The stated reasons for attending were to meet people, to have fun with friends, to be around pleasant people, to learn, and to use their imagination. Qualitative responses confirmed that friendships had been made, knowledge was acquired, there was an increased feeling of being useful, and outlook on life was more optimistic.

VanderArk, Newman, and Bell (1983) studied the effect of music participation on the quality of life of 20 people residing in a nursing home. This group participated in 10 music sessions over five weeks. The music sessions were task-focused and involved learning new skills. There was a control group of people from a different nursing home ($n = 23$). Two pre and post intervention questionnaires developed by the investigators consisted of questions on life satisfaction, self-concept, quality of life, and self-concept in music and attitudes toward music.

One questionnaire used a Likert scale of one to five, and one questionnaire used a yes/no response. Administration of the tests was done on a one-to-one setting where the investigator read the test items and the resident orally responded. Pre-tests and post-tests were compared and a t test calculated for each. VanderArk, et al. (1983) found that the music group participants had significant improvements in life satisfaction, music attitude, and self-concept in music. Wise et al. (1992) speculated that while a group activity requires subordination of individual goals it provided high satisfaction. Working together on a group goal had the potential to bind members together, which resulted in joy that provided the motivation to remain in the choir.

Working with younger participants, Humpal (1991) studied social interaction of children in an integrated school music program. Fifteen four-year old children in a typical school had music sessions with 12 children aged three to five years old and moderate levels of intellectual disability. The children grouped together for music sessions once per week for 15 weeks. The sessions were structured to address early childhood domains and social skills in a way that fostered social interaction such as choosing partners and sitting next to each other in a circle. Data consisted of a checklist

of observed behaviors and a questionnaire that solicited opinions and suggestions from staff. "Interaction" was defined as choosing a partner. The results showed that from pre-test to post-test the mean percentages of children who chose a partner from the home school decreased from 62% to 47% due to the increase in choosing partners from the other school (7% to 46%). Interaction of all children increased from 69% to 93%.

Assisting staff members substantiated the findings on a questionnaire that elicited their perspectives on the children's interaction. The importance of this study was that, after a relatively short period of time, children chose partners that he or she did not know even though they were not specifically instructed to do so. Humpal (1991) emphasized the importance of structuring the sessions and providing support, noting that simply bringing the children into the same room would not have the desired result of increasing social interaction.

McGillen's (2004) qualitative research was on the interaction of people slightly older than Humpal's (1991) participants, specifically 21 musicians aged 14-18 years who were members of a garage band. Over a period of six months, McGillen asked the members to write narrative reflections, complete questionnaires, and participate in pre and post semi-structured interviews in a small group format. Using a thematic keyword search, four main themes emerged regarding the groups' process of cooperative learning, and the nature of the relationship between the participants. The themes were Cooperation, Identity, Relationships, and Belonging; the theme of relationship was present in most aspects of the project. McGillen reported that, due to being in the band, each member's social relationships expanded. They met people from different grades and developed social relationships that otherwise were not likely to happen. One band

member expressed it this way, “You’re connected to these people. It’s almost as though you all belong together, and even though you’re not in the same classes, and completely different year levels, I always say, ‘Hi’ to them” (p. 289).

McGillen’s (2004) findings on role identity were similar to the findings of Wise, et al. (1992); the individual participants’ identity became less important than the group identity. For the youth, the group also functioned as a place of acceptance. “What became clear as the project progressed was the significant role the group played in their lives and the ‘haven’ it provided for the participants as they traversed the complex world of early adulthood in an isolated rural community” (p. 288). McGillen concluded, “Music became a means for exploring ideas and identities and provoke thinking about who we were, are and could possibly become” (p. 292). Although the number of participants was small, it was notable that McGillen’s four themes are all indicators in the social domain of quality of life, which implied that attaining or progressing in these areas provided the band members with quality of life.

Drawing on ten years of experience of working with inpatient and ex-patient psychiatric patients to produce and perform theatrical productions, Emunah and Johnson (1983) wrote about how being involved with the production and performance of a show created a milieu of people working together for a common goal. Emunah and Johnson described different stages of being a member of a cast for a performance and common emotional responses associated with the stages. Being a member of the cast conveyed positive status upon the individuals, a role that also required commitment, compromise, and group interdependence. While Emunah and Johnson did not collect data, their work described how individuals joined a group whereupon they met other people with whom

they were expected to interact. Relationships were made and changed through the experience of being a member of the cast. Emunah and Johnson found that by the performance date the cast had often become a cohesive unit and that this cohesiveness helped to diminish the fears of performing. This anecdotal report was similar in content to that of Hays and Minichiello (2005) and Wise et al. (1992).

Similarly, preparing a performance was the topic of a descriptive report by Lister, Tanguay, Snow, and D'Amico (2009). In the musical production, adults with developmental disabilities acted, sang, danced, and held all the leading roles; volunteer college students provided assistance. Two years of therapeutic work that addressed social integration, quality of life, and self-worth preceded the production. "The interns, supervisors, parents, and caregivers who are with the clients daily almost uniformly see positive changes in the clients' creative accomplishments and in areas of self-esteem, social skills, and communication" (p. 36), all of which were indicators in the domain of social quality of life.

The culture in which music is created and played must be considered when studying the effects that it has upon the population. Stige's (2009) essay was in response to Barz's (2006) *Singing for Life*, a book that addresses an ethnographic study of multiple healing systems and music in Uganda. In Uganda, treatment of illness and disease was the function of a traditional healer. Although modern medicine is being practiced in Uganda as well, it is argued that some traditional healing rituals such as drama groups, amateur music, and dance, may achieve what modern medicine cannot.

Educational performances that are rooted in local music, dance and drama while informed by modern medicine have been invaluable for teaching citizens in the rural

areas about HIV/AIDS. Music activities have also been used to empower, create support and community, and challenge gender stereotypes. A powerful example of using dance is illustrated in the women who are sick and who embody the disease in their dancing. Music, dance and drama are everyday events in Uganda's culture for the singing, the community, and the health benefits.

An interpretative phenomenological study on the effects of singing in a community choir was conducted by Bailey and Davidson (2003). The participants were homeless men who frequented a soup kitchen. Wanting to have a greater impact, a volunteer in the kitchen organized and led the community choir. The regular attendance stabilized around 20 men. All of the participants had been homeless and had compounding issues of drug, alcohol, and/or parental abuse, limited education, chronic unemployment, poverty, and psychological disorders. Seven men volunteered to participate.

Similar to Stige, the culture in which the men lived was the respected during the study. Conducted in the facility where the men were living, each man was interviewed for approximately 75 minutes during which the researchers attempted to explore the changes that each member experienced since joining the choir. The semi-structured interview contained five sections with questions progressing over time and beginning when the participant was young. Analysis of the interviews suggested four primary themes of: emotional health, social interaction and reconnection through performance, group process, and mental stimulation.

Results in the emotional health domain were that over 50% of the responses pertained to positive change and awareness. The researchers said these results seemed to

come from the connection with the music. Social interaction results gained through the many performances of the choir. The members connected with the public and they were also learning to accept and relate each other. Benefits of the group process were noted in the increased abilities to interact appropriately when in a group setting. Benefits of mental stimulation were actualized in learning and memorizing an extensive amount of music. Opportunities to be creative are expressed in this domain.

Bigby and Knox's (2009) qualitative study with 16 adults (aged 52-80 years) with intellectual disabilities focused on life as an older person and their aspirations; findings were gleaned from in-depth interviews that were conducted. One of the four themes that emerged, Being Connected and Valued, was based on social relationships. Bigby and Knox reported that 94% of the participants responses were summarized as saying, "Services were an important catalyst for an identifiable set of positive social relationships with staff and other service users that gave older people a sense of belonging, being valued, and recognised [*sic*] as an individual" (p. 221). They further described how there were two main categories of social circles, one circle was friends who were also service users, and one circle was family. Both social circles involved shared activities but there was little overlap of the circles.

This changed for one individual when a service volunteer befriended a consumer, similar to the approach used by Souza and Kennedy (2003). The consumer was introduced to the volunteer's social network, which created a new social network for the consumer. The interesting aspect of this article was that given the findings of separate social circles the service providers incidentally discovered how to bridge relationships into the broader community, to merge the social circles. It was not part of the planned

study, but the life events of the service provider and the person befriended revealed this strategy and the effectiveness of it.

Going on a recreational canoe trip was the scenario of McAvoy, Smith, and Rynders' (2006) study. The group consisted of 23 support staff and 23 individuals with cognitive disabilities; members of the latter group did not know each other. The post-trip interview on social/socialization that was completed by 15 participants (there were various reasons the other eight participants were not interviewed) provided qualitative data on social/socialization development. A major theme was learning and practicing appropriate social skills. "These skills focused on interacting with different people and being better able to be a contributing member of a group" (p. 193). The individuals said they enjoyed getting to know one another and many said that they would miss each other. Growth was also seen in areas of social adjustment, interpersonal relationships, and sensitivity to others. While there were no formal attempts to teach any particular skill, the qualitative findings at the end of the trip contained many comments on the importance of teamwork, cooperation, and trust. The study did not have follow-up data on contact between people after the canoe trip. Further review showed that growth in task skills and social achievement may have a positive correlation. The findings did not say which one precipitated the other. This question was one that could be asked about all the studies reviewed thus far. The optimum place to enter this circular pattern required further study.

Performance. Implicit with performance was a group of people with valued social roles that had met on a regular basis in preparation for the performance. Working together for a single goal further drew the members together (McGillen, 2004; Wise et al., 1992). Some of the previously mentioned studies included a formal performance

(Hiltunan, 1997; McGillen, 2004) or an informal performance such as performing for family members (Bell, 2008). In each instance there was preparation for the performance and in all instances, performing elicited a positive effect on participants.

It was unfortunate that none of these studies on performance attempted to document or measure the importance of the performance for the participants. Even when the performance was a planned part of the project it was not studied as an intervention unto itself. The effect of performing on the participants was a broad and barren area of research in the creative arts. In spite of the absence of data collection, some studies included reflective comments on the individuals after performing (Emunah, & Johnson, 1983, Lister et al., 2009). Observations of the individuals varied from broad smiles to positive changes in behavior; changes that were not attributed to the development of the art piece but to the performance of the art piece.

Formal performances. Formal performances were those events in which a venue and a date had been reserved for the performance, an audience gathers and the performance commences. Formal performances occurred on high school and theater stages, in school classrooms, at jam sessions, and in other public spaces.

McGillen (2004) qualitatively studied interaction of 21 adolescent musicians aged 14-18 years who were members of a garage band. Over a period of six months, McGillen (2004) asked members of the band to write narrative reflections, complete questionnaires, and participate in pre and post semi-structured interviews in a small group format. The band performed regularly in the school, the region, and the state. Performance was not one of the emergent themes, but the effect of performing was noted as contributing to the identity of the band and the musicians.

The report by Emunah and Johnson (1983) on producing and performing theatrical performances with psychiatric patients addressed how the preparation for the performance heightened and intensified emotions as the performance date approached. Emunah and Johnson (1983) addressed differences between performing for strangers and performing for people you know (in-house); the latter scenario can be inhibiting. The last curtain call brings it all to an abrupt end and with it, the natural letdown and depression of the cast, an emotional response that was reportedly common to all actors. One factor that primarily determined the impact of these emotions was the processing of interpersonal relationships. To deal with the post-performance emotions, Johnson (1980) described a “continuity of care” (p. 271) that began when the show ended and the real therapeutic work began.

Hiltunen’s (1997) anecdotal report spoke of writing poetry as fulfilling the need to express oneself, and the performance as “the vehicle for self-esteem building through processes of self-creation and self-affirmation” (p. 215). Reflections of the performances were also done through writing poetry. The following poem *Therapy Theatre Company* (Hiltunen, 1997, p. 233) written by A.B. was written immediately after a public performance and speaks to the experiences of the poet and the audience.

I got on the stage.

I got a fan in my hand.

It is nice.

I got a fan right there in my hand.

Dancing “Mother Nature”

That was me.

My mother liked it so much,

She got tears in her eyes.

I got on the stage.

I got a fan in my hand.

In Ezell and Klein-Ezell's (2003) study elementary and secondary school aged children with various disabilities, including intellectual disabilities were taught magic tricks and performed them in other classrooms. Data were collected from a pre and post test of the Self Confidence dimension of The Student and Self-Concept Scale. Responses to the statements were made on a three point Likert scale. As noted earlier in this paper, 69% ($n = 18$) of the children significantly increased scores in self-confidence, however the scale included all aspects of the process although there was no breakdown of score particular to the performance aspect. The authors wrote about common barriers of making a public presentation (i.e., nervousness, fear of making mistakes) but they thought "increased self-esteem and self-confidence may be due to the success experienced in learning and performing magic tricks" (p. 447).

Performances were included in anecdotal reports by Aasgaard (2001) and Lister, et al. (2009). Aasgaard's (2001) article described how a pediatric oncology patient named Brian texted, set to music, and then recorded a song that was performed during the scheduled music hour on the pediatric floor. This performance resulted in "Big Applause! Brian watched the performance from the sidelines. He does not sing or say a word himself, but he is blushing and smiling" (p. 178).

As a public outreach event the members of the Creative Arts Therapies Center in Montreal performed an original musical that incorporated dealing with self-esteem issues

and overcoming obstacles. In the musical production, adults with developmental disabilities acted, sang, danced, and held all the leading roles; volunteer college students provided assistance. “Such an experience fosters a sense of belonging, which is essential to the notion of culture” (Lister et al., 2009, p. 37). The Centre for the Arts in Human Development considered the productions to have successfully met the goals of social integration, quality of life, and self-worth and encouraged other organizations to consider implementing a similar program.

Recorded performances. Recorded performances were performances that were captured on some media format such as audiotape, videotape, or digital material. The sharing of the recording could be formal or informal, similar to that of live performances. Informal audio performances were an outcome of Colwell, Davis, and Schroeder’s (2005) research with 24 hospitalized children in which they composed either art or music; performance was not part of the study but the intervention naturally led to performance. Both art forms were developed to the point where an informal performance was possible. The artwork was framed, and the music was recorded onto CDs. Many of the children yearned to share their finished product; some children sought out another person to share the product. “Informal behavioral observation of a change of body postures and facial affect seemed to indicate that patients in the music composition group were very proud of their products” (p. 59).

To remind performers of their accomplishments, Emunah and Johnson (1983) videotaped the live performance. It was sometimes found that the client feared success on the stage because the clinicians may then see the patient as no longer needing help when the client still felt the need for help. They reported that given “reminders of

achievement (i.e., performance videotapes, photographs, newspaper articles), symptomatic behavior gradually subsides and the new self-image is assimilated” (p. 237). Similarly, Ingber’s (2003) report of teaching MIDI skills to adults with developmental disabilities evolved to include informal performances when the residential facility requested original, recorded music for special occasions. Although the participants were not on stage, Ingber said that having other people hear recordings of their original music was an additional reward.

No studies were found that incorporated audio or video recording in a formal performance. There were, however, a number of anecdotal articles in which the recorded performance was then given as a gift to another individual (Aasgaard, 2001; Clements-Cortes, 2010; O’Callaghan, Petering, Thomas, & Crappsley, 2009; Shipley, 2007). The focus of these articles was not on whether the recipient listened or watched the performance; the focus was on the importance of making and giving the gift. Reasons for making the recording included wishing good health to a friend who was sick (Aasgaard, 2001), grieving over imminent death (Shipley, 2007), and preparing to part with this world (Clements-Cortes, 2010; O’Callaghan et al., 2009). The gifting of the recording seemed to fulfill needs of the person who made the recording.

Unlike using the recordings as a formal or informal performance or fulfilling the need of the individual who made the recording, these recordings were used as a means to analyze the content such as transcribing a song or verbal exchanges (Bell, 2008; Chin et al., 1980; Ellis, Leeuwen, & Brown, 2008; Lan & Morgan, 2003; McGillen, 2004; Michel & Blitstein, 1979). Even though some of the studies compiled significant events into a master file, which had great potential for a formal performance, none of the studies

included a performance nor mentioned praising the participants if the videos were reviewed with them.

Quality of Life Theory

The world has never seemed so small. Distance was easily and rapidly traversed by cars, trains, and airplanes, not to mention the immediacy of internet face-to-face conversations with people who are far away. Leaving one's homeland no longer meant saying good-bye forever. As means of transportation increased, so had the means of staying in touch with one another across the distance. At breakneck speed, technology as providing the means for friends and family to remain socially connected in ways that were, perhaps, unimaginable a decade ago. Being in social relationships with those we love was a hallmark of human society. Regardless of age, gender, profession, and any other factor that categorizes humankind, people long for, seek out, and cherish friendships with other people.

Social interaction was a fundamental facet of the prevalent quality of life theory (Dagnan, Ruddick, & Jones, 1998; Dunn & Brody, 2008; Duvdevany, 2008; Griffen, Hanks, & Meachen, 2010; Kampert & Goreczny, 2007; McNary, Lehman, & O'Grady, 1997; McVilly et al., 2006; Schalock, 2000; Snow & D'Amico, 2009; Verdugo, Prieto, Caballo, & Peláez, 2005). Quality of life theory had deep roots; it was built upon the works of psychological and ethical theories that preceded it. In the concept of disability, the medical model faded as a leading theory in the 1970s as the attitude became one that placed importance on social factors. This shift in attitude was prominently supported by the book *The Principle of Normalization in Human Services* (Wolfensberger, 1972).

The normalization movement led to many other concepts (e.g., active support, person-centered planning, choices, self-determination, individualization, and self-advocacy). These initiatives furthered the attention of the contributions of societal factors to the make-up of people with disabilities and called for the creation of environments that supported people to make decisions that affected their lives (Shogren, Wehmeyer, Buchanan, & Lopez, 2006). The change in attitude towards people with intellectual disability continued to evolve into a theory and practice that has become known as Quality of Life. This researcher/therapist is using the configuration of physical health and safety, social interaction, rights, and emotional health as defining domains of quality of life.

Maslow's Hierarchy of Needs

The component of *social* interaction was present in theories whose purview extended beyond the social realm. One such theory that gained recognition was Abraham Maslow's humanistic psychology. In 1943 Maslow wrote *A Theory of Human Motivation* in which he described a hierarchy of five categories of needs that humans generally seek: physiological, safety, love, esteem, and self-actualization. As shown in Table 1, Maslow's theory posited that humankind strove to meet these needs in a progressive order, beginning with physiological needs. The need for love and belonging was included in the domain of social interaction.

If both the physiological and the safety needs are fairly well gratified, then there will emerge the love and affection and belongingness needs, and the whole cycle already described will repeat itself with this new center. Now the person will feel keenly, as never before, the absence of friends, or a sweetheart, or a wife, or

children. He will hunger for affectionate relations with people in general, namely, for a place in his group, and he will strive with great intensity to achieve this goal. He will want to attain such a place more than anything else in the world and may even forget that once, when he was hungry, he sneered at love. (Maslow, 1943, pp. 380-81)

Quality of Life Concept

In the 1970s to the 1980s the term ‘quality of life’ was used in the field of mental health, particularly regarding deinstitutionalization when societal attitude ascribed that quality of life for people with disabilities was more than material possessions; happiness and community belonging should also be considered (Brown, Schalock, & Brown, 2009; Cummins, 2005; Felce, 1997). Today, quality of life was a concept that strives to describe and measure the nature and caliber of an individual’s life. Social interaction was a fundamental facet of the prevalent quality of life theory (Dagnan et al., 1998; Dunn & Brody, 2008; Duvdevany, 2008; Griffen et al., 2010; Kampert & Goreczny, 2007; McNary et al., 1997; McVilly et al., 2006; Schalock, 2000; Snow & D’Amico, 2009; Verdugo et al., 2005). This researcher/therapist was using the configuration of physical health and safety, social interaction, rights, and emotional health as defining domains.

Schalock’s Hierarchical Nature of Core Qualities of Life Dimensions

Robert Schalock (1996) was one of the leading researchers in quality of life. Similar to Maslow (1943), Schalock had a hierarchy of eight domains in which he framed his work. His domains were physical well-being, material well-being, rights, social inclusion, interpersonal relations; self-determination, personal development, and

Table 1

Maslow's Hierarchical Level of Needs

Self Actualization	Morality, Creativity, Spontaneity, Problem Solving, Lack of Prejudice, and Acceptance of Fact
Esteem	Self-esteem, Confidence, Achievement, Respect of Others, Respect by Others
Love/belonging	Friendship, Family, Sexual Intimacy
Safety needs	Friendship, Family, Sexual Intimacy
Physiological	Breathing, Food, Water, Sex, Sleep, Homeostasis, Excretion

emotional well-being. As shown in Table 2, Schalock's domains paralleled Maslow's (1943) domains although they have different names.

From this perspective, quality of life can be seen as a more specific version of Maslow's hierarchy of needs. It was a continuation of a theory established more than 60 years ago. Maslow's work was to identify the basic needs of a person and indicators in the need areas. Quality of life theorists have furthered this by devising measures of successful application and using the outcomes to guide the interventions and services of the system in order to best serve the clients.

Definition of Quality of Life

There were more than one hundred definitions of quality of life, each varying slightly yet incorporating the basic components (Schalock, 2000). This study referenced the definition by the World Health Organization (WHO).

Table 2

Comparison of Maslow's and Schalock's Domains

Maslow's Hierarchical Level of Needs	Schalock's Quality of Life Domains
Self-Actualization	Emotional well-being
Esteem	Self determination Personal development
Love / Belonging	Social inclusion Interpersonal relations
Safety	Physical well-being Material well-being Rights
Physiological	Physical well-being

The World Health Organization defines quality of life as individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of their environment. [World Health Organization, 1997, p. 1](#)).

The Constitution of the WHO's (1997) definition of quality of life, composed from the collaboration of patients with diseases, people in good physical health, and health professionals in different cultures contains four basic components:

1. Subjective and objective responses.
2. Afforded the same opportunities.
3. Applying the same core domains.
4. Multidimensional in nature.

Subjective and objective responses. The phrase *individuals' perception* (World Health Organization, 1997, p. 1) was one tenet of quality of life. During the beginning stages of applying Quality of Life theory only objective evaluations were included; Andrews and Withey (1976) and Campbell, Converse and Rodgers (1976) introduced the concept of subjective responses. Subjective responses were ideally conveyed from the individual however there were some inherent difficulties with having the consumer respond to questions from the service provider (Finley & Lyons, 2001). Difficulties included reluctance to criticize, no standard to compare against, and limited exposure to other possibilities (Foroughi, Misajon, & Cummins, 2001). A proxy spoke on the behalf of individuals who were unable to indicate wants and needs, were unable to understand the complexity of the question, who displayed echolalia or who could be easily led to answers in a certain manner (Nota, Ferrari, Soresi, & Wehmeyer, 2007). Use of a proxy needed to be factored in the analysis of the data (Bonham, et al., 2004). Conducting both objective and subjective evaluations have become the gold standard. Service provisions were better reviewed by objective responses while personal experiences and circumstances were better reviewed by subjective responses (Cummins, McCabe, Romeo, Reid, & Waters, 1997; Sheppard-Jones, Prout, & Kleinert, 2005).

Afforded the same opportunities. The second phrase in the World Health Organization's (1997) definition of quality of life was *of their position in life in the*

context of culture and value systems in which they live (p. 1). This phrase referenced comparison to most people in a given culture and with a similar value system thereby avoiding the comparison of mainstream society to the elite minority of that culture and value system. In the United States, one of the premises of quality of life regarding people with intellectual disability was that they should be afforded the same opportunities as most citizens in the same culture and value system in which they live (Brown et al., 2009; Cummins, 2005). People with intellectual disability largely valued the same attributes and experiences that people without disabilities valued (Hachey, Boyer, & Mercier, 2001) and should be offered the opportunity to obtain them. A range of ideas and options may be necessary to inform the individual of possibilities and assistance may be required to help the individual know reasonable expectations (Brown et al., 2009).

Same core domains. The third phrase of the World Health Organization (1997) quality of life definition, *in relation to their goals, expectations, standards and concerns* (p. 1), delineated domains that were comprised aspects of a person's life. Just as individuals with intellectual disability were believed to deserve the same opportunities as all citizens, it was also believed that people with intellectual disability valued the same core dimensions as people without intellectual disability. Schalock purported that "Quality of life for persons with mental retardation is composed of those same core dimensions that are valued by all of a nation's citizenry" (2000, p. 125).

In earlier work, quality of life was defined by a single domain such as global satisfaction, well-being or happiness (Schalock, 1997; Szymanski, 2000). Increasingly, the desired outcome of the core domains seemed to be personal well-being as indicated in the concepts of happiness and satisfaction; the most commonly used subjective measure

was personal satisfaction (Schalock, 2000). Attaining happiness and personal satisfaction, however, was not limited to one domain, nor was it restricted to residential placement or an individual's health; quality of life was concerned with the comprehensive needs of individuals. While some domains may be more important than others to an individual, a level of wellness in all domains was the desired goal.

An advantage of an established definition was that it afforded understanding of the terminology. As described earlier, language in quality of life theory is still evolving. The tenets of the theory were well presented and understood but contributors to the literature had not yet adopted a single definition of the construct. The lack of defined terminology extended to the names of the domains. Cummins (1996) examined 32 studies on quality of life and found that 118 of the 173 domain names could be classified under seven headings. When factoring in the repeated names of domains it accounted for 83% of the total reported data. As shown in Table 3, many domain titles were similar.

The quandary due to the lack of defined language made it difficult to compare research findings. "The profuseness of the measurement instruments reported in the literature seriously inhibits comparison of the results and ascertainment of significance of the results across different studies assessing similar problems" (Spitzer, 1987, p. 469). At best, there was a general understanding amongst professionals that the many dimensions of quality of life were not entities to themselves but that they interacted with each other (Schalock, 1997). It was notable that in spite of the alternative domain titles that most quality of life theorists included aspects of family and social relationships (Heller, 2002).

Multidimensional in nature. The final sentence of the World Health Organization (1997) quality of life definition was, *It is a broad ranging concept affected*

in a complex way by the person's physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of their environment speaks to the interconnectedness of the quality of life construct (p. 1). The synthesis of the indicators of the domains created a unique and complex matrix for each individual. Owing to the interconnectedness, the matrix changes as the individual's life situation changed. The level of wellness in one domain could drastically have an impact on the level of wellness in a different domain. Quality of life

Table 3

Variations of Domain Titles

Variations	Source
<u>Physical Well-being Domain</u>	
Energy/fatigue;	World Health Organization (WHO), 1997
Health and safety	(WHO), 1997
Health	Verri et al. 1999
Health & wellness	National Core Indicators (NCI) 2013
Physical well-being	Felce, 1997; Schalock & Verdugo, 2002
Physiological and safety	Maslow, 1943
Safety	Maslow, 1943
Safety and personal security	NCI, 2013
Safety	NCI, 2013; Verri et al. 1999
Well-being	Rehabilitation Act Amendments (RAA), 1998; Sheppard-Jones, et al. 2005
<u>Rights Domain</u>	
Access	RAA, 1998
Access-rights	Sheppard-Jones et al. 2005
Agency: Possibilities of action	Ruud, 1997
Autonomy	Cohen, Bailey & Nilsson, 2002; RAA, 1998; Sheppard-Jones et al. 2005
Choice-making	NCI, 2013

Civic rights	Felce, 1997
Control and independence	Duvdevany, 2008
Empowerment and independence	Verdugo Prieto, Caballo, & Peláez, 2005
Environmental mastery	Cohen et al. 2002
Independence: Mobility	WHO, 1997
Independence: Activities of daily living	WHO, 1997
Material well-being	Felce, 1997; Schalock & Verdugo, 2002; Verri et al. 1999
Personal beliefs: Spirituality/religion	WHO, 1997
Protection of and respect for individual rights	NCI, 2013
Rights	Schalock, 2000
Self determination	Cummins, 2005; NCI, 2013; Schalock & Verdugo, 2002
Work	NCI, 2013

Social Interaction Domain

Belonging	Ruud, 1997
Community involvement & social belonging	Duvdevany, 2008
Community participation	NCI, 2013; RAA, 1998; Sheppard-Jones et al., 2005
Interpersonal relationship	NCI, 2013; Schalock & Verdugo, 2002
Intimacy	Verri et al. 1999
Love/Belonging	Maslow, 1943
Place in community	Verri et al. 1999
Positive relationships	Cohen et al. 2002; Ruud, 1997
Social belonging & community integration	Verdugo et al. 2005
Social inclusion	Felce, 1997; Schalock & Verdugo, 2002
Social relationships	de Belvis et al. 2008; WHO, 1997

Emotional Well-being Domain

Affective awareness	Ruud, 1997
Competence and creativity	Duvdevany, 2008
Competence and creativity	Duvdevany, 2008
Emotional well-being	Felce, 1997; Schalock & Verdugo, 2002; Verri et al. 1999
Esteem	Maslow, 1943
Life satisfaction	Duvdevany, 2008
Meaning and happiness	Ruud, 1997
Personal development	Schalock & Verdugo, 2002
Personal life satisfaction	Verdugo et al. 2005

Personal growth	Cohen et al. 2002
Productive	Felce, 1997
Productivity	Verri et al. 1999
Psychological state	WHO, 1997
Purpose in life	Cohen et al. 2002
Self Acceptance / well being	Cohen et al. 2002; Ruud, 1997
Well-being	RAA, 1998; Sheppard-Jones et al. 2005

theory is “multidimensional and influenced by personal and environmental factors and their interactions” (Cummins, 2005, p. 700).

The next major extension of the quality of life theory was the identification of indicators for each domain. An indicator was a specific component that may function as a potential objective. Aligning objectives with identified indicators provided clarity to that domain. Indicators varied from person to person under the domain headings; there was no standard set of indicators. Whereas comparison of domains in studies proved to be difficult, researching indicators allowed juxtaposition of findings with other studies in a meaningful way (Maes, Lambrechts, Hostyn, & Petry, 2007). According to Schallock (1997) the use of indicators followed four rules:

1. The person valued the indicator.
2. Multiple indicators were use.
3. It was connected to the provided services.
4. It could be measured

The most important rule was that the person who received the services implied by the indicators valued the indicators chosen.

A study in 2009 showed that consumers and parents/relatives differed in what was important. Consumers tended to most value the things that impacted the immediate

situation whereas parents/relatives most valued things of a broader nature such as transportation and placement (Barelds, van de Goor, van Heck, & Schols, 2010). Personal judgment of a consumer's declared value system needed to be eschewed; the provider must strive to see the indicators through the eyes of the consumer and their cultural influences, traditions and personal interests. As time passes, the consumer's value for a particular thing may change; something else may supersede it in value making it more or less important than it originally was (Cummings, 2002; Felce, 1997). As the values of the consumer changed so must the provided services change. It was also important to consider the long-term effect of indicators, cognizant that any one indicator may affect another area of the person's life (Brown et al., 2009). The indicators that were chosen must be connected to services or supports that will assist the person to obtain them. The designed plan needed to be measurable and have demonstrated reliability and validity and the program should be evaluated over time.

Impact on Policies and Practices

From the 1980s to the present time the focus of quality of life shifted from gauging a person's quality of life to gauging a systems quality of services. Reviews of the data have become segments of quality enhancement, quality assurance, and quality management (Schalock, 1997). Gerber, Baud, Giroud, and Carminati (2008) reported that when outcome measures were shared with parents that ensuing discussions allowed opportunities for them to share concerns and freely criticize the system while focusing on the shared goal of improving services. Outcome measures and means to improve the system can then be considered in the financial planning of the organization.

Summary

Quality of life theory, a concept that placed importance on social factors, was initially considered for people with intellectual disabilities in the 1970s. The core components of quality of life concepts were: (a) subjective and objective responses, (b) afforded the same opportunities, (c) applying the same core domains, and (d) multidimensional in nature. An extension of Maslow's Hierarchy of Needs theory, the many definitions of quality of life all included a social domain. The literature review concurred that improving quality of life was an important factor in caring for people with intellectual disabilities in institutional settings. Studies on facilitating social roles and relationships addressed techniques and avenues to provide individuals with an increased quality of life.

Although there was abundant research that addressed social interaction, studies that addressed social interaction in relationship to working on a group project were scarce, and only a scant number of articles incorporated using DVDs as a performance medium. Participation, performance, recording and sharing the arts made distinct contributions to quality of life domains. Music did this in ways that were especially appropriate for people with developmental deficits.

CHAPTER 3

Method

Research Questions

Quality of life theorists have deciphered different dimensional aspects of a person's life; many of these theories include a domain of social interaction (Dagnan, Ruddick, & Jones, 1998; Dunn & Brody, 2008; Duvdevany, 2008; Griffen, Hanks, & Meachen, 2010; Kampert & Goreczny, 2007; McNary, Lehman, & O'Grady, 1997; McVilly et al., 2006; Schalock, 2000; Snow & D'Amico, 2009; Verdugo, Prieto, Caballo, & Peláez, 2005). This study sought to discern whether participating in a task-specific music therapy group contributed to the social quality of life (QOL) for adults with intellectual disability through application of a mixed methods study design. The underlying premise was that people with intellectual disability should be afforded the same opportunities as most citizens in the same culture and value system in which they live; they were deserving of a respectable quality of life and society is obliged to provide a milieu of services that support these quality of life indicators. Research questions posed for the current study were (a) Does the level of social interaction increase when individuals participate in a group task focused on music as compared to unstructured leisure time? and (b) Does participation in the group contribute to the quality of life of the participants?

Participants

Criteria for Inclusion

The State Department of Developmental Services served all participants in a large residential facility in New England. Considered a state-of-the-art facility when built in

the 1950s, this institution with 41 residential buildings was originally designed to accommodate 1,200 people with intellectual disability. In its infancy, all educational and day programs were provided on campus. The facility also housed a laundry building, a bakery, a power house, and maintenance shops (e.g., blacksmith, auto repair) and had its own fire department and police oversight (Angelastra, 1965). New admissions were legally closed in 1985. Community placement and attrition by death left approximately 350 clients in residence at the time of this study. Groups of residents ($n = 4-15$) lived in cottages.

Criteria for being a participant were threefold:

1. A diagnosis of intellectual disability with no active comorbid conditions.

Intellectual disability, formerly known as “mental retardation,” is defined as “...significantly sub-average general intellectual functioning, existing concurrently with deficits in adaptive behavior and manifested during the developmental period, that adversely affects a child’s educational performance” (IDEA Partnership, 2004, #7).

2. Expressive verbal skills and ability to speak in sentences, and receptive understanding of commonplace language.

3. Sufficient vision to recognize themselves in a picture.

Having worked at the facility for 10 years thereby knowing most of the residents, the researcher/therapist generated a list of residents who met the criteria and consulted with other long-term employed professionals at the facility to request further referrals of qualified individuals. The selection of participants was made by the researcher/therapist based on the participants’ time availability. Group rosters were also determined by the

researcher/therapist based on the participants' personalities and individual histories of working with one another.

Consent

The Lesley University Institutional Review Board and the State of Connecticut Department of Developmental Services Institutional Review Board approved this investigation. The CEO and the Director of Case Managers of the site facility also endorsed it. After consent was received from the participants' guardians, the researcher/therapist spoke with each individual about the project and asked if he or she would like to join. Verbal assent was received from each participant.

Demographics

There were originally 12 participants in the intervention all of whom had a diagnosis of intellectual disability (ID) and lived at the residential facility. One participant began the intervention sessions but due to relocating during week six, his data were not included in the analysis. A typical residential cottage was home to approximately 15-20 residents; approximately three to five residential staff worked each shift.

One intervention group was composed of Brad, Ron, and Wayne.

- Brad, age 64, was 35 years old when placed in residential care at STS. Brad's records referenced earlier residential placements but dates were not stated. Brad possessed mild ID and had an obvious facial disfigurement. His paid day program job consisted of working with peers and an instructor to produce dog biscuits and to deliver them to local stores. Brad lived with three other people; due to behavioral issues a staff member

always accompanied him. Brad took two psychotropic medications to address major depression that is in remission. He often sang Karaoke in front of an audience.

- Ron, age 70, was 19 years old when placed in residential care. He possessed mild ID. He was formerly employed in a paid off-grounds day program but, due to health issues, now attended a leisure style day program with no options of earning money. Due to poor balance, Ron required staff member assist for walking.

- Wayne, age 53, was placed in residential care at age five. He possessed severe ID. He attended a paid day program job where, along with his peers and an instructor, he cared for chickens. In his leisure time he made bird houses from scrap wood which he gave to people he liked. Wayne regularly went home with his parents and was also allowed to walk the campus unsupervised.

The second intervention group was composed of Eric, Jeff, and Alice.

- Eric, age 54, was 18 years old when placed in residential care. He had mild ID. His paid position was working as a grill cook at the on-grounds café. The work was demanding and he had a great amount of responsibility. He lived with Brad and two other people. Due to behavioral issues, Eric required one-to-one supervision twenty-four hours a day.

- Jeff, age 63, was 11 years old at the time of his placement in residential care. He had mild ID; he took one psychotropic medication for schizophrenia and one for anxiety. He earned money in a supervised off-grounds day program group where he sorted and cleaned bottles and cans. He visited his brother on a regular basis.

- Alice, age 77, had been placed in residential care at birth. She had severe ID.

According to the Brief Praxis Trial Testing (a cognitive assessment) in 2013, she had no

evidence of dementia. She earned money in her supervised day program where she packaged bracelet charms. She frequently said, "I'm a happy girl."

The third intervention group also served as the control group. It was comprised of Lori, Richard, and Alan.

- Lori, age 83, was 34 years old when placed in residential care; she lived in the same cottage as Alice. She had moderate ID. According to the Brief Praxis Trial Testing in 2014, she exhibited no cognitive or functional declines. Her day program also consisted of earning money packaging bracelet charms. Lori used a wheelchair but was unable to self-propel. She often wore a skirt or dress and jewelry and she often conversed with people. In earlier years, she had a hired staff person that took her places.

- Richard, age 87, was 16 years old when placed in residential care. He had mild ID. In August of 2013, according to the Brief Praxis Trial Testing, he showed no marked memory loss, only mild cognitive impairment. He took one psychotropic medication for Psychotic Disorder, NOS. He also earned money in his supervised day program by packaging bracelet charms. Richard opted to self-propel his wheelchair down the long hallway to the session room rather than being pushed.

- Alan, age 64, had lived in residential care since age seven. He had moderate ID. He took two psychotropic medications for Intermittent Explosive Disorder and Dysthymia. He also packaged bracelet charms with assistance to earn money in his day program. On a day-to-day basis he decided whether to go to work or stay in the cottage. He self-propelled his wheelchair.

For the intervention portion only, Vicky joined this group.

- Vicky, age 80, was 14 years old when placed in residential care; she lived in the same cottage as Lori and Alice. She had moderate ID. According to the Brief Praxis Trial Testing in 2014, while having a history of global memory loss, Vicky showed evidence of some preserved functioning. Performing poorly on orientation, she scored well on verbal comprehension, naming, and verbal repetition. She earned money in her assisted day program job where she stocked supplies, filled, and delivered orders for day programs. She initiated closing sessions with a prayer.

Vince participated in the control group but not the intervention group.

- Vince, age 72, lived in residential care since age seven. He had moderate ID. Along with Ron, Alice, Alan and Lori, he earned money in his day program where, with the assistance of a day program instructor, he packaged bracelet charms. Vince participated in the control group sessions but health issues precluded him from moving on to the intervention portion of the study.

The study compared the four control participants with the seven intervention participants, and subsequently three of the control participants were compared with themselves after they received the intervention.

Of the 11 participants, three were female and eight were male. As shown in Table 4, diagnoses ranged from mild to severe intellectual disability. Ages of participants ranged from 53 to 87 years; residential care varied from birth to 37 years of age, and years spent in residential care ranged from 17 to 77 years.

Groups

There was one control group ($n = 4$) who did not initially participate in the intervention. The control group participants were well acquainted with each other since

they worked together. Two intervention groups were initially created. Participants in Group A ($n = 3$) and Group B ($n = 3$) were familiar with each other but had limited social interaction prior to the study. After the two intervention groups completed the intervention phase, the control group became Group C ($n = 3$) and subsequently participated in the intervention project. The study first compared the four control.

Table 4

Demographics of Participants

Name	Level of Intellectual Disability	Age at time of study	Age when placed in residential care	Years resided in residential care
Alan	Moderate	64	7	57
Alice	Severe	77	at birth	77
Brad	Mild	64	35	29
Eric	Mild	54	18	36
Jeff	Mild	63	11	52
Lori	Moderate	83	34	49
Richard	Mild	87	16	71
Ron	Mild	70	19	51
Vicky	Moderate	80	14	66
Vince	Moderate	72	7	65
Wayne	Severe	53	5	48
Average		70	15	55

participants with seven intervention participants, subsequently, due to attrition, three of the control participants were compared with themselves after they received the intervention.

Project

Each intervention group first focused on a project of making a group digital video disc (DVD) of themselves singing along with the professionally recorded songs; the ultimate goal was to participate in a live performance presentation of their DVDs at the facility attended by staff, other residents, and family members. Each group ($n = 3-4$) met for a total of 12 sessions, once per week, for 45-minutes. The sessions were led by the researcher, a board certified music therapist. Each session began with a review of the previous week and ended with open-ended questions about being in the group. During these discussions the music therapist prompted group members to talk to each other rather than talk to her. Similarly, the therapist prompted the participants to respond to questions or comments made by other group members.

During week one, each of the three groups listened to audio clips of songs presented by the music therapist. These songs were chosen for their predictable melody, repetitive chorus, slower paced words, steady tempo and regular beat; such songs had previously proven easier for these clients to learn. Some of the selections were popular songs that were known by the participants, while others were less familiar. Songs that had previously been performed by any group member were not considered for this project. The groups were given the option of choosing from the presented songs or from songs they suggested. As the group listened to the selections, songs that the entire group liked were marked as possibilities to include in their DVD.

In week two, the previous week's songs selections were reviewed and additional songs were sampled. The therapist/researcher established the rule that the choice of songs needed to be unanimous. Ultimately, each group chose from the songs presented by the music therapist. Group A chose all familiar songs: *Stand by Me*, *Drift Away*, and *That'll be the Day*. Group B chose *Give Light*, *Barbara Ann*, and *He Ain't Heavy, He's My Brother*. The song *Give Light* was a new song for the participants; they were familiar with the other two songs. Group C chose *Somebody Loves you*, *When Somebody Loves You*, *Puff the Magic Dragon*, and *Jingle Bells*. The participants were not familiar with *Somebody Loves You*, and *When Somebody Loves You*; they were familiar with the other two songs. This group had four songs because their group met in December and they wanted to record *Jingle Bells* in addition to the other three songs.

In weeks three to seven participants spent the time learning the songs and discussing other aspects of the performance that would be recorded. Typically, the discussions occurred at the beginning of the sessions and included topics of backdrops, props, outfit, and accompaniment for the performance. The music therapist set the rule that there were no solos, and that everyone would sing along with the CD. Each group chose a group name: Summer Tears (Group A), The Rock & Roll Express (Group B), and The Music Singers (Group C). The chosen songs were rehearsed by singing with the recording. Song sheets were provided for those members who could read. Sign language was paired with some words or phrases so that the therapist could cue the group outside of the camera range. With each passing week there was less discussion and more rehearsal of the songs.

In weeks eight and nine, rehearsals incorporated the sound system to familiarize the members with holding a microphone and hearing their voices through the speakers. No group pursued making a backdrop, including props, or adding instrumentation.

With the camera prominently in place, Week 10 consisted of recording each group singing their songs along with the professional recordings. The order of the songs had already been decided. After recording, there was discussion about the upcoming performance. During Week 11, the DVD was viewed and the group was given the option of re-recording any song(s) they were not satisfied with. All three groups chose to retain the recording as already completed. Week 12 was spent watching the final production twice. The project culminated with a presentation of the recordings in a performance event that was open to all residents and staff on campus. Family and guardians were also invited. After the performance each group member received a copy of his or her own recording.

The control group ($n = 4$) also met 12 times, once per week for 30-45 minutes during their morning coffee break. This work-site-based coffee break was moved to the same room in which the intervention groups were held. With the camera turned on, the researcher/therapist brought the participants to this room, served them coffee and snacks provided by the day program, and then left the room.

Research Tools for Measurement

Tenets of measuring QOL for people with intellectual disability include consideration of subjective and objective responses in accordance with the core domains measured in people without intellectual disability. The World Health Organization (WHO; 1997) embodies these concepts in its definition of quality of life:

Quality of Life was an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of their environment. (p. 1)

The QOL domain most pertinent to this study was social interaction with verbal communication being the objective indicator.

Quantitative Measures

Social interaction scale. Social interaction was defined as verbal interaction.

Data were categorized as initiating conversation with the therapist, responding to conversation from the therapist, initiating conversation with the group, or responding to conversation by another member of the group (see Appendix A). Guardians and participants approved digitally recording all sessions, this was accomplished in an unobtrusive manner. Data were obtained from the researcher/therapist and a colleague from the music therapy department simultaneously observed and tallied the data obtained from watching the recordings of control and intervention groups. In attempts to avoid potential bias, the tallied data was not compared against each other. Ultimately, the colleague's data were used for this study. Data were analyzed by the Mann Whitney U test.

Group environment scale. The Group Environment Scale (GES) Real Form developed by Moos in 1994 and revised in (2002), was a social climate scale organized into three dimensions of Relationship, Personal Growth or Goal Orientation, and System

Maintenance and Change. As shown in Table 5, there were 10 sub-scales that measured the social environments of task-oriented groups. The GES contained 90 true-false statements about the group that the music therapist marked after each session. (see Appendix B for permission to use the scale and Appendix C for sample statements). The responses were compared to the provided key, which indicated the best answer for each question. ‘Best’ answers were worth one point. The points were tallied for each sub-scale. These raw scores were then converted into standardized scores using the conversion table. The resulting scores were presented in a bar graph. According to Moos, (2002) the GES has been used “to describe and compare groups, to examine the determinants of group climates, and to focus on the connections between the group climates and outcomes on both the aggregate and individual level” (p. 2).

Data collection. It should be noted that for both the intervention and control groups, sessions were never held with fewer than three participants attending. All sessions of all groups were digitally recorded. The recordings ran continuously throughout all intervention and control sessions. The therapist completed the GES after each groups’ initial session, fourth session, eighth session, and the final performance.

Qualitative Measures

Quality of life interview. Subjective data were obtained from conducting a pre-intervention and post-intervention interview of each participant using the Quality of Life interview developed by Snow and D’Amico (2009; see Appendix D). The 10-question interview was structured for possible short answers and accommodated all levels of verbal abilities. The researcher/therapist conducted the 20-minute interview with each

participant face-to-face in a private setting. Responses were written down by the researcher/therapist as the interview progressed.

Table 5

Group Environment Sub-scales and Definitions

Relationship Dimension	Definition
Cohesion	The members involvement in and commitment to the group and the concern and friendship they show for one another.
Leader Support	The amount of help, concern, and friendship the leader shows for the members.
Expressiveness	How much freedom of action and expression of feelings are encouraged in the group.
Personal Growth Dimension	Definition
Independence	How much the group encourages independent action and expression among members.
Task Orientation	The emphasis on completing concrete, practical tasks and on decision making and training.
Self-Discovery	How much the group encourages members discussions of personal problems.
Anger & Aggression	The extent to which there is open expression of anger and disagreement in the group.
System Maintenance and Change Dimension	Definition
Order & Organization	The formality and structure of the group and the explicitness of rules and sanctions.
Leader Control	The extent to which the leader directs the group makes decisions, and enforces rules.
Innovation	How much the group promotes diversity and change in its own functions and activities.

Open ended questions. Towards the end of each intervention group session the therapist asked open-ended questions to generate a discussion about how the participants experienced and what they liked about the sessions. Open-ended questions were employed in an effort to avoid the possibility of the participants repeating the last thing heard, a common trait among people with intellectual disability, or concurrence with therapist opinion in an attempt to give the desired answer and please the therapist

Analysis of Data

Data from the groups were combined for analysis to create a single intervention group and a single control group. The social interaction scale data were summed for each person and each group. The sum was then divided by the number of session minutes that were not spent singing resulting in an average number of verbal interactions per minute. These scores were then analyzed by the Mann Whitney U non-parametric t-test and calculations of the effect size to adjust for bias that could be attributed to the small sample size. Graphs of the four categories of interaction were constructed to afford comparison of the intervention group and control group results.

The Quality of Life interview responses and answers to open-ended questions were analyzed across all groups for trends and themes. The group dynamics provided by the GES were referenced as supporting factors for the emerging themes. Discussion of these data results will be presented in Chapter Four.

CHAPTER 4

Results

The goal of this mixed method investigation was to discern the impact of group activities on social interaction and their potential contribution to the quality of life of individuals with intellectual disability residing long term in an institutionalized setting. This chapter reports the findings gained from the applied quantitative and qualitative methods, and summarizes the overall findings. Quantitative data were generated by application of the Social Interaction Scale and the Group Environment Scale (Moos, 2002). Results were analyzed using the Mann Whitney U Test and the effect size calculations. Qualitative data were obtained through a pre- and post-intervention Quality of Life interview (Snow & D'Amico, 2009), responses to open-ended questions, and conversation during the sessions. The study compared the four control participants with the seven intervention participants, and subsequently three of the control participants were compared with themselves after they received the intervention.

Quantitative Results

Social interaction was defined as verbal interaction. Data were collected in the four categories of initiating conversation with the group, responding to conversation from the group, initiating conversation with the therapist, and responding to conversation from the therapist. Since the researcher/therapist was not present during the control group sessions, data was only collected in the categories of initiating and responding to the group. Sessions were approximately 45 minutes long. Raw data were converted into the number of verbal statements per minute and averaged across the number of minutes per

session. It should be noted that the intervention group data included only those minutes when the participants were not engaged in singing.

Table 6 reflects response average differences between the intervention and control participants. The lower standard deviation scores of the intervention participants in the categories of initiating with the group and responding to the group indicated that the interactions between the intervention participants were inclusive of all group members and more equally dispersed than the control group.

Further analysis involved looking at the minimum and maximum scores of the intervention and control participants. As also indicated in Table 6, intervention participants demonstrated a narrow minimum to maximum response range in the categories of initiating or responding to the group. This result appears to indicate that all the intervention participants engaged in the conversations in relatively equal levels; no individual dominated the conversation and no participant completely refrained from the conversation. This finding was further supported by the median and mean. The mean response scores for intervention participants were relatively close to the median, again indicating that all participants engaged in the dialogue with relative equality.

In contrast, the range between the minimum and maximum response scores was significantly greater for the control group participants. This finding indicated that the participants did not equally engage in the conversations. As evidenced in Table 6, at least one participant rarely engaged and at least one participant dominated the conversation. The mean and the median, also wide ranging, further confirmed this outcome.

Table 6

Descriptive Statistics of Intervention (n = 7) and Control (n = 4)

	Initiate with Group	Respond to Group	Initiate with Therapist	Respond to Therapist
<u>Intervention (n = 7)</u>				
<i>SD</i>	0.70	1.24	1.55	4.83
Means	0.08	0.22	0.29	1.22
Median	0.05	0.12	0.22	1.15
Min	0.02	0.09	0.16	0.75
Max	0.16	0.37	0.55	1.94
<u>Control (n = 4)</u>				
<i>SD</i>	4.65	5.07		
Means	0.85	1.05		
Median	0.58	0.86		
Min	0.17	0.25		
Max	1.70	1.41		

The same dynamics existed for the second intervention group comprised of three of the original four control participants, when they later transitioned to being intervention participants. As shown in Table 7, in the categories of initiating with the group and responding to the group, their intervention sessions also demonstrated a lower standard deviation, closely aligned means and medians, and a narrow range between the minimum and maximum response scores, all of which supported relatively equal participation. Similarly, under the control condition, this group demonstrated the same dynamics as the first group: higher standard deviations, more diverse means and the medians, and wider ranges between the minimum and the maximum response averages. Data indicated that as control participants, they did not equally engage in the

conversations. Here again, at least one person participant rarely engaged and at least one participant dominated the conversation.

Data examination for the categories of initiating or responding to the therapist revealed a slightly different picture. Interestingly, for all intervention participants, the standard deviations derived from participant-therapist exchanges were far greater than either of the peer-to-peer interactions. This result appeared to indicate that the conversations between the intervention participants and the researcher/therapist were not as equally dispersed as they were when initiating or responding to their peer group.

Table 7

Descriptive Statistics of Same Subjects (n = 3)

	Initiate with Group	Respond to Group	Initiate with Therapist	Respond to Therapist
<u>Intervention (n = 3)</u>				
<i>SD</i>	0.63	1.82	3.05	4.32
Means	0.07	0.25	0.38	0.81
Median	0.06	0.15	0.27	0.73
Min	0.00	0.05	0.09	0.35
Max	0.13	0.45	0.76	1.30
<u>Control (n = 3)</u>				
<i>SD</i>	4.25	4.52		
Means	0.80	0.99		
Median	0.40	0.72		
Min	0.16	0.25		
Max	1.70	1.41		

While differences between the means and the medians remained relatively small, the range of minimum and maximum scores was also greater than that of

initiating and responding to the peer group. Summarily, the data indicated that the participants' engagement in conversation with the therapist was irregular; some participants seldom engaged and some participants were highly engaged.

Overall, the quantitative results indicated that while the number of communicative initiations and responses to the group were higher in the control condition than the treatment setting, the interactions between the intervention participants were inclusive of all group members and more equally dispersed than the control group. In addition, the conversations engaged in by the intervention groups appeared more diverse, robust, and interactive as compared to the repetitive and unreciprocated attempts that prevailed in the control group setting.

Mann Whitney U Test

The Mann Whitney U test was applied to compare changes in interactions over the 12-week intervention period between the control ($n = 4$) and intervention ($n = 7$) group participants. Visual inspection of the data suggested that there would not be statistical significance; this was confirmed: there were no significant differences in initiations with the group ($U = 7.00, p > .05$), responses to the group ($U = 14.00, p > .05$), or total interactions with the group ($U = 14.00, p > .05$).

Effect size was then calculated from the Mann Whitney U test results. The only notable finding was a moderate effect size ($r = .40$) for initiations with the group. Due to the small sample size and the high variability of the data, significant results were neither expected nor obtained.

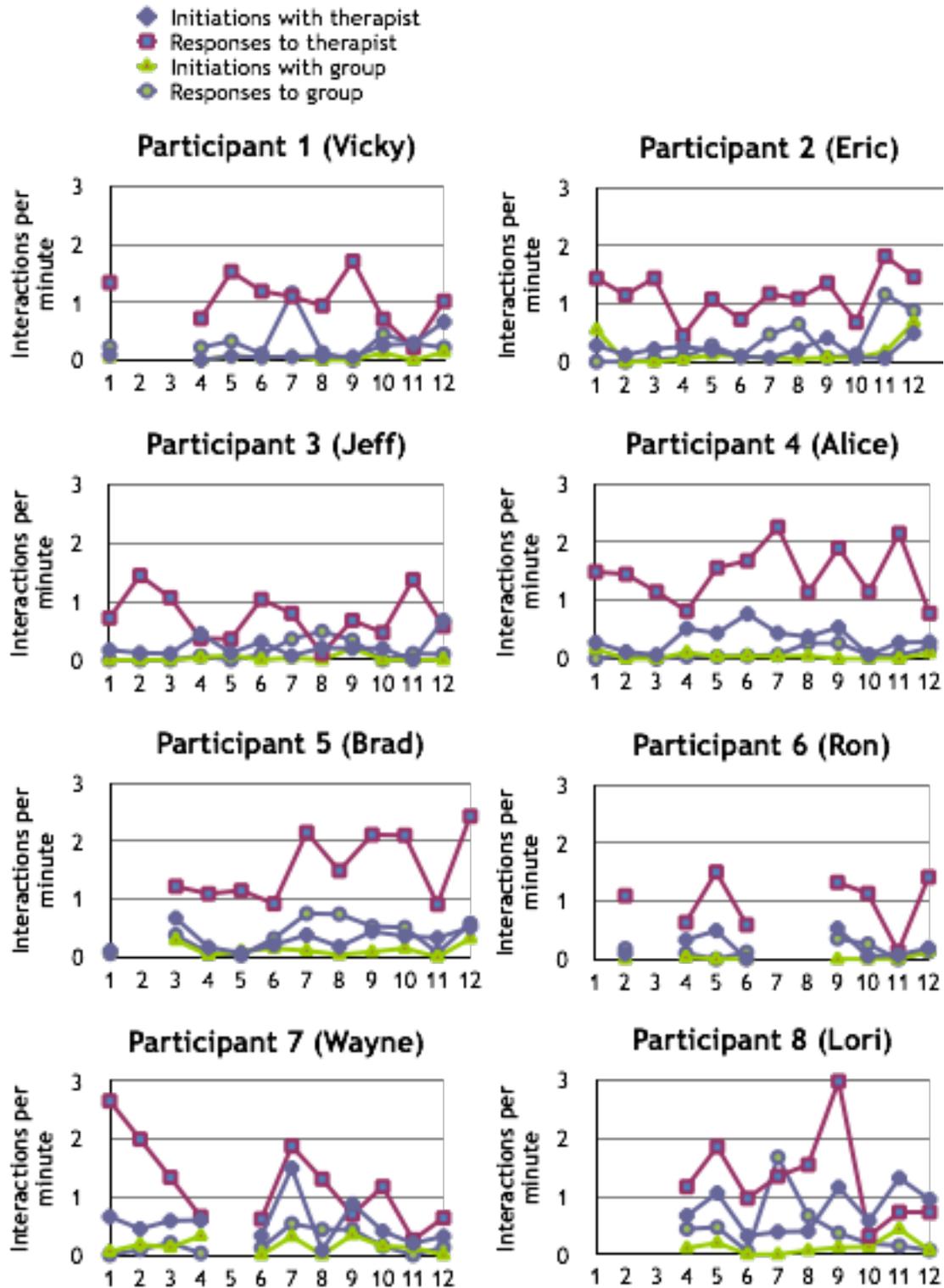
Social Interaction Scale

Further analysis of the figures as single subjects data were then considered, and this conversion allowed for visual inspection of the trends in interaction variables for each participant as shown in Figure 1. The graphs clearly demonstrate that responses to the researcher/therapist were the most frequent interaction of all 10 participants followed by initiations with therapist for seven participants. The final three participants' second most common interaction was responses to group.

Conversely, the category of initiations with the group was the least frequently observed interaction for all 10 participants. There were higher incidences of responding to the group and to the therapist than initiating to the group or to the therapist. This result suggests that more than one response was made per each initiation (i.e., indicating a conversation was occurring). Responses to the therapist remained at fairly stable levels across the 12 weeks for all participants, though frequent spikes were witnessed. The remaining three categories of interaction: initiation with the group, response to the group, and initiation with the therapist, held primarily flat throughout the treatment phase with the exception of a slight increase in initiation to the group for five participants during weeks 11 and 12.

Figure 2 displays the group interaction variables for the three participants who were in both the treatment and control conditions. As indicated, the number of initiations and responses to the group were higher in the control condition than the treatment condition. Similar to the individual participant responses witnessed under the treatment condition, responses to the group were the most frequently observed interaction, again implying that a conversation was occurring.

Figure 1. Participants in Treatment Conditions



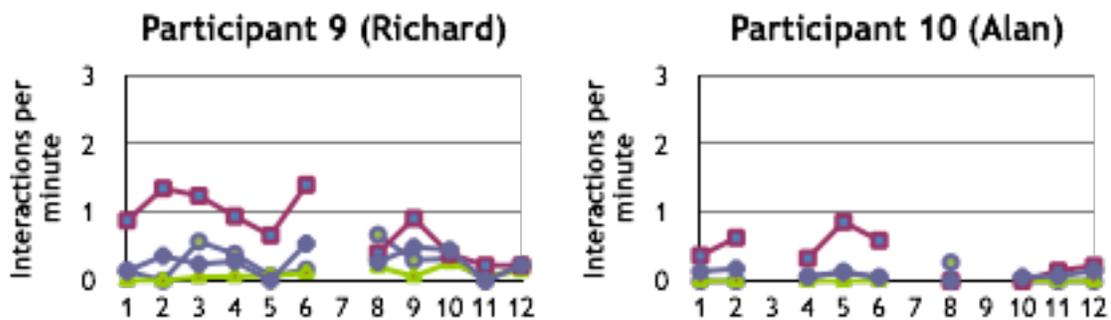
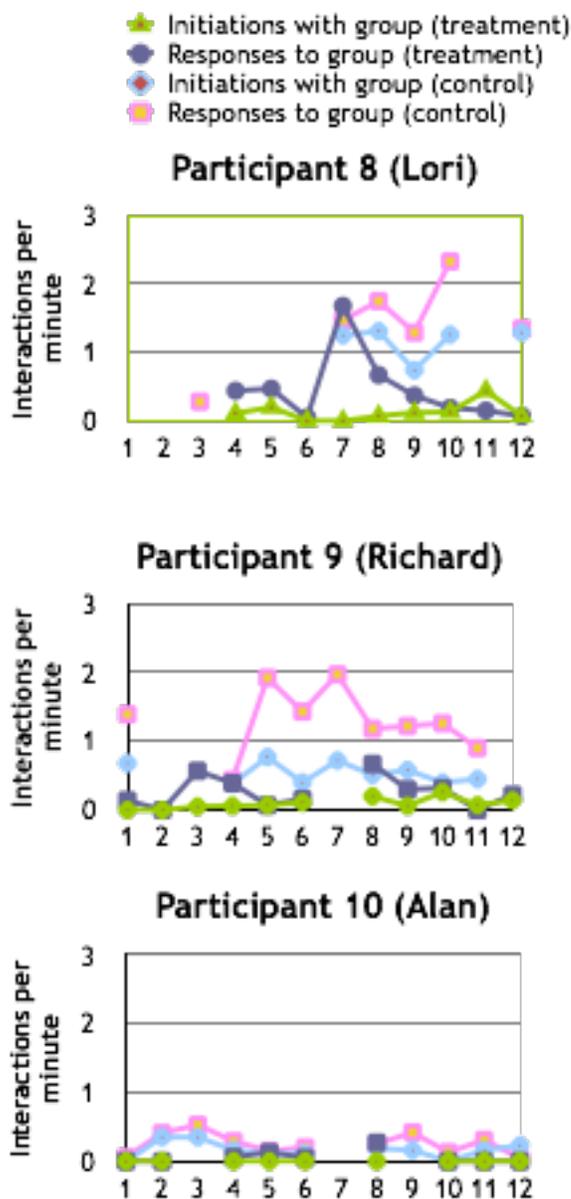


Figure 2. Participants in Treatment and Control Conditions



Group Environment Scale

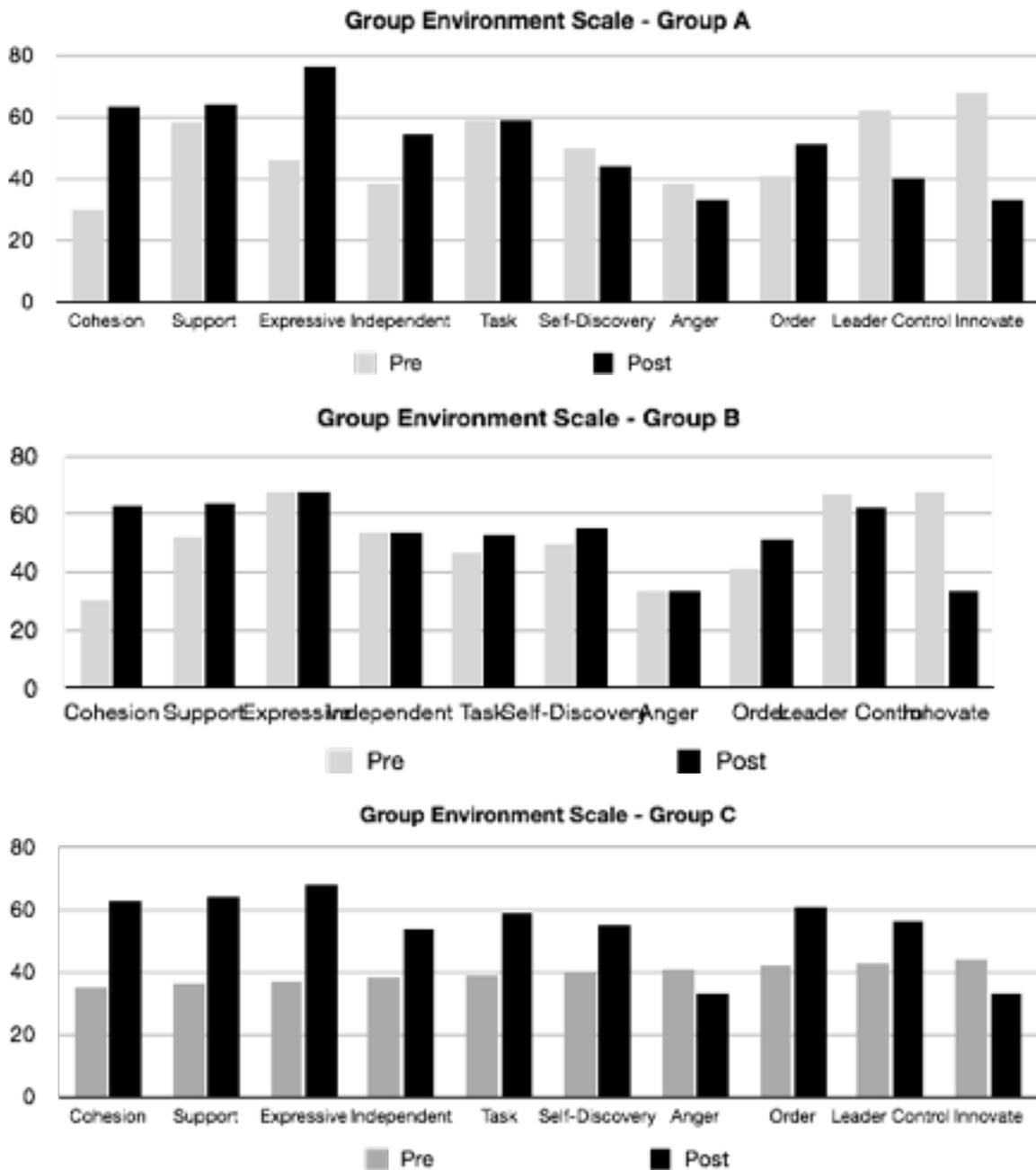
The intervention participants were divided into three small groups. Results drawn from the Group Environment Scale (Moos, 2002) indicated that all three intervention groups made gains in five or more of the 10 social climate sub-scales which fell under the domains of Relationship, Personal Growth or Goal Orientation, and System Maintenance and Change (see Figure 3 and Table 8). The Relationship dimension of the GES scale held the most relevance for this inquiry. As demonstrated in Figure 3, all three intervention groups posted significant increases in this domain area.

Within sub-scales of Cohesion, Leader Support, and Expressiveness, the greatest improvement was witnessed in Cohesion, with increases of between 44% to 52%. Likewise, the sub-scale Leader Support showed gains of between 10% to 44% across all groups, and the sub-scale of Expressiveness saw an increase of 40% to 46% in two of the intervention groups (the final group showed no change of score).

Additionally, the Personal Growth dimension either also increased or remained unchanged for all three groups in the sub-scales of Independence and Task Orientation (30% to 50% and 11% to 33% respectively). Sub-scales of Self-Discovery and Anger and Aggression displayed mixed results; two of the three groups saw modest increases in Self Discovery (9%-27%) while the third group decreased by 9%; scores either decreased (-13% to -24%) or held constant on the Anger and Aggression sub-scale as indicated in Figure 3.

The dimension of System Maintenance and Change contained the sub-scales of Order and Organization, Leader Control, and Innovation. Order and Organization scores increased in all three groups (20%-31%). In contrast, the scores for Leader Control and

Figure 3. Pre and Post Scores on the Group Environment Scale.



The Relationship domain consists of Cohesion, Leader Support, and Expressiveness. The Personal Growth domain consists of Independence, Task Orientation, Self-Discovery, and Anger and Aggression. The System Maintenance and Change domain consists of Order and Organization, Leader Control, and Innovation.

Table 8

GES Gains in Scores

Dimension	Sub-scale	Group A	Group B	Group C
Relationship				
	Cohesion	52%	52%	44%
	Leader Support	10%	19%	44%
	Expressiveness	40%	0	46%
Personal Growth				
	Independence	50%	0	30%
	Task Orientation	0	11%	33%
	Self-Discovery	-9%	9%	27%
	Anger & Aggression	-13%	0	-24%
System Maintenance and Change				
	Order and Organization	20%	20%	31%
	Leader Control	-35%	-7%	23%
	Innovation	-51%	51%	25%

Innovation proved mixed. Leadership Control decreased by -7% to 35% in two groups and increased by 23% in the third group. At the same time, two groups increased by 51% in Innovation while one group decreased by 25%. The results of the GES (Moos, 2002) demonstrated an improved social climate in each of the intervention groups

Qualitative Findings

Three sources of data served as the basis for the qualitative inquiry portion of this study: Quality of Life pre- and post-test, the open-ended questions that were administered at the close of each of the 12 intervention sessions, and in-session conversations.

Analysis discerned three themes pre-performance: Need for Social Interaction, Prevailing Loneliness, and Nervousness; and two themes post-performance: Internal Approval and External Approval.

Quality of Life Interview

The Quality of Life interview by Snow and D'Amico (2009) was administered to each of the 10 participants preceding the intervention and again during the week following the performance (see Appendix B). The interview consisted of 10 questions:

1. How are you feeling today?
2. How do you feel about yourself and what do you think you are good at?
3. What you do on the weekends and with whom; If you go out to eat who do you go with and who decides where to go?
4. How do you get to work?
5. Why are you interested in going to the music sessions?
6. What are your goals and what do you want to get out of attending the music sessions?
7. Who do you talk to if you have a problem or want to talk?
8. How much fun and enjoyment do you get out of life?
9. How good are you at your job?
10. How much control do you have over things you do every day?

Feelings about self. When asked how they felt on the days of the pre- and post-test, everyone stated that they felt “all right” or “good.” For example, during the pre-test, Ron and Richard, who both had ambulation issues, referenced their ability to walk well that day.

Each participant was also asked how he or she felt about him or herself. During the pre- and post-test, nine of the 10 participants indicated that they did feel good about themselves. Ron said, "I try hard, I'm a good guy. I'm happy with who I am" and Richard replied, "I'm not worried about when I die. I'm OK. I want a cross with Jesus on it." Eric confidently stated, "It's my life and I try to enjoy it." On the contrary, during his pre-test, Brad, the man with facial disfigurement, replied "What do you think when you look at me? I can't do anything about it." This sentiment was again stated in the post interview when he said he did not feel good about himself and wanted to change. "I don't know about who I am. I don't like myself. I want to change it."

Day program. A majority of residents at this facility had a formal day program, however few of the programs provided the opportunity to earn money. All participants in this study had a day program and nine of the 10 participants earned money. A residential cottage staff person or a campus-based bus driver drove all participants to their day program.

In the pre-test, Brad, Jeff, Alice, Vicky, Alan, and Wayne eagerly described what their job entailed and the praise they received from supervisors. Three other participants talked about the lack of reinforcement received from their supervisors. Lori stated, "My supervisor knows I'm good but she doesn't tell me," Richard related, "I'm really very good but no one tells me I am good" and Eric said, "I get no reinforcement." However, on the post interview Lori and Richard claimed that their supervisor told them that they did good work.

It was interesting that although these nine individuals earned money at their job, only Brad and Jeff mentioned it (pre-test and post-test, respectively). In the pre- and

post-test Ron, who earned minimum wage for many years but due to health issues now attends a non-earning leisure day program, spoke hesitantly but proudly about his daily activities. “I watch TV, I do wooden puzzles. I don’t make money. My supervisor tells me I’m good.” Overall, post-test responses to this question revealed that each participant felt that he or she did a good or a very good job.

The responses to this interview question imply two things. One is that the amount of reinforcement needed to satisfy one’s ego varied from person to person. The varied responses indicated that the amount of praise sometimes fell short of the needs of these people. The second implication was that while earning money had status, being told that you do good work appeared to hold equal or greater importance as evidenced by the lack of comments about being paid for work.

I’m good at that. Another question on the QOL interview queried what you think you are good at doing. Of interest, in the pre-test, being good at his or her job or day program activities was not mentioned by seven of the 10 participants; only Lori and Alice said that they were good at their jobs and Ron stated that he was good at doing puzzles. Similar results were obtained during the post interview. Ron again said he was good at puzzles, and while Lori and Alice did not speak of their work, Jeff said he was good at his day program job. Clearly, for these participants, the job one held did not define the person.

While work was not the answer for most, in the pre- and post interviews every participant described things at which they felt they were good. Some of the activities mentioned took place off campus and in the greater community. Five participants, Brad, Eric, Jeff, Alan, and Wayne, spoke of participating in the Special Olympics (duck-pin

bowling, skiing, basketball, baseball/softball, cycling) and attending or participating in the Summer Special Olympics. Alan also spoke of horseback riding and going on a fishing boat, activities that were part of the summer to camp he attends.

Responses describing social events that occurred in the residential building were restricted to playing BINGO and telling jokes (Ron), and doing the Bunny Hop (Lori). The remaining answers entailed activities that could be done with another person but were predominantly done alone such as playing with tinker toys (Jeff), doing puzzles and watching movies (Ron), building birdhouses (Wayne), and listening to music (Eric).

Favorite hobbies. Similar to previous responses, the pre- and post-test answers to “What are your favorite hobbies” fell into two main categories: community based social events or solitary residential hobbies. Nine of the 10 participants identified hobbies that were community based social events (Special Olympics, shopping, concerts, the fair, camp, flea markets, the movies, visiting family, attending church). For these nine participants, a correlation existed between declared hobbies and the things he or she said they were good at doing. The 10th participant, Richard, asserted that he had no hobbies. Overall, responses to this question painted a positive picture of community integration through valued social activities. However, a dichotomy was revealed in the post-test when Lori, Ron, Richard and Alice continued the conversation saying that he or she did not go in to the community very often.

The five Special Olympians (Brad, Eric, Jeff, Alan, and Wayne) were the participants who most often went into the greater community. They were the people that participated in Special Olympics, went to flea markets, fairs, shopping, and concerts.

Additionally, Brad and Alan talked about going to a camp for people with intellectual disabilities and Jeff and Wayne spoke about going to their family homes.

The remaining four participants (Lori, Alice, Ron, and Richard) did not frequent community based social activities although they, too, had preferred hobbies that occurred there. Lori and Alice expressed the desire to go shopping while Ron wanted to go to church; Alice also wanted to attend movies or concerts. These four individuals complained about the lack of activity on the weekends. Lori stated, "I'd go anyplace. I did nothing. Not too much on weekends." A similar sentiment from Ron was "We don't go out so much" and Alice said, "I do nothing." Richard, the man who said he had no hobbies reported, "I sit around and watch TV. I'd go anywhere. I stay in the building."

Seven of the participants also mentioned preferred hobbies that they did in the residence. Brad and Jeff stated that they liked listening to music. Eric noted that he enjoyed taking a nap and playing games on the computer. Jeff, Ron, and Alice said that they liked watching TV, while Vicky, Ron and Lori replied that they liked doing puzzles. Ron specified that he preferred reading joke books. It is noteworthy that all those hobbies were things that one does by oneself.

Eating out. When questioned whether they eat out or not, pre-test responses indicated that eight of the 10 participants go out to eat. Vicky said, "No, not often" and Jeff explained, "I used to go out to eat last year. I'm waiting for the 'OK' for my weight to come down. I'm on a diet." Nonetheless, he described opportunities to eat out. "My brother takes me home. The day before coming back he takes me to McDonalds. I get a double pounder with cheese, french-fries, apple pie, sundae, and coke."

On the post-test Vicky again declared that she does not eat out while her residential peer, Alice, said she eats out once in a while, noting that she'll go out to eat soon for her birthday; however her birthday was months away. These are the women who did not frequent the community to engage in preferred hobbies. Jeff again said he did not eat out but he sounded hopeful adding "Maybe in the summer." The other seven participants again noted that they do eat out.

Brad, Eric, Ron, and Alice listed favorite local restaurants while nine of the 10 participants described favorite foods. Lori, who lived with Vicky and Alice, said, "I love Chinese" then suddenly appeared distraught and began to cry. Richard said he did not have favorite foods but added that he does like soda and coffee. Food preferences ranged from McDonald's to a fine dining, award-winning restaurant. No one spoke of restaurants or foods that they disliked. Brad and Eric used their earnings to pay for their meals; the other participants' meals were paid for by individual monthly allocation funds.

Decision makers. Questions were also asked about who determined which residents got to go to on-ground or off-ground events or out to eat. Two participants did not answer this question on the pre- and post-test; however the other eight participants unanimously identified the staff as the decision makers. Brad, Eric, and Alan said they had some influence in decisions. Some residences posted a calendar with events and the names of residents as a means to ensure that everyone had an opportunity to leave campus and experience the larger community.

Responses to who gets to go on the events was not quite unanimous; eight of the participants said they go "with the group" or "with the guys." According to staff, groups typically consisted of two residents and one staff, or five residents with two staff. This

varied given the ambulation support and level of supervision required for the people who were going. Eric had one-to-one supervision that allowed him to go places with just one staff. One evening each week was designated as his night to go out. He said did not have complete control in deciding where to go but that he did have strong influence on the decision. Richard did not answer the question.

Who has control. “How much control do you have over things you do every day, like going to bed, eating, and what you do for fun” was assigned three possible answers: little control; some control; and complete control. Abstract concepts are often difficult for people with intellectual disability to understand; this broad, complex question followed suit. The examples included in this question (when do you go to bed, what you eat, what you do for fun) formed the basis of initial responses for most of the participants. It may be possible that participants thought that they were the entirety of the question since little else was mentioned.

On the pre-test, Wayne and Richard said he had complete control, six participants (Brad, Eric, Jeff, Alan, Ron and Vicky) said they had some control, and Lori and Alice said they had little control. On the post-test Eric, Richard, and Ron lowered their perceived level to having little control. No one increased his or her perceived level of control.

There seemed to be some dividing lines between ‘some’ and ‘little control. Those people who picked out what to wear, had a choice of what to eat, and could go to bed when they wanted to reported that they had some control. Those participants who were not offered these choices generally responded that they had little control. As Ron stated “Staff pick out my clothes. They give me hot cereal. The cook cooks the food and lets

us know what we'll have.” Alice made another comment indicating little control when she said, “Staff bought me clothes and they tell me what to wear.” Richard, who said he had complete control, referenced the items mentioned above and then confidently asserted “They don't tell me anything.” Likewise, Wayne described his freedom to walk to different buildings by himself. Due to limited mobility or level of supervision required by the other participants, he was the only one who was allowed to do this. It was interesting that none of the participants talked about the frequency of going into the community or the availability of materials for their preferred hobbies. Since neither were a suggestion presented in the question, it's plausible that the participants did not think about them.

I have a problem. Participants were asked if they had anyone to talk to about problems. Apart from Richard, who said he has no problems, all participants noted that they had a staff member who they could talk to. Alice also listed had a friend, and Wayne mentioned his family. These responses remained consistent across pre- and post-tests.

Music DVD project invitation. A three-part question was asked about the music sessions: why are you interested in attending it, what are your goals, and what do you want to get out of it? The participants did not answer most of the questions, perhaps due to the question's abstract nature, the complexity of the language, unfamiliarity with the activity of making a music DVD, or the opportunity to choose for themselves.

Little detail was given to the participants before they accepted the invitation to attend the music sessions. Despite the fact they all quickly and clearly accepted the invitation to participate, during the pre-test only four participants had an answer

regarding why they wanted to attend the music sessions. Two of those answers pertained to music: Vicky said, "I like to sing," and Ron replied "singing." Brad and Eric said that they would rather do anything than do nothing. Eric added that he'd like "to do something for 12 weeks" and he was interested in attending "because you asked me to come."

Answering the question about goals for the music sessions proved even more difficult. On the pre-test, nine of the participants did not respond; Alice was the only one who said she wanted to watch herself on TV. Even after making and performing the music DVDs, only five participants were able to respond to this question during the post-test. Three (Brad, Jeff, and Alan) stated that they liked making the movie. Eric said he liked using his voice, and Richard noted that he liked hearing the therapist play piano.

The concept of "what you want to get out of it" was quite similar to "what is your goal." No one answered this question on the pre-test. On the post-test, six participants (Eric, Lori, Richard, Jeff, Alan, and Ron) responded by stating that they liked making the DVD. Of these, four were the same participants who answered the question about the goal (Eric, Richard, Jeff, and Alan).

This set of questions was particularly difficult to answer and garnered the shortest responses to any of the questions. There appeared to be almost an element of surprise in reaction when asked the questions; perhaps they had not been asked these types of questions in the past. Ultimately, considering the complaints of lack of activity and the prevalence of solitary hobbies in the residence, it could be postulated that participants were eager to enlist in a group doing something that they liked, that would be socially interactive and that would occur outside of the residence.

Fun and enjoyment. The penultimate question on the Quality of Life interview was how much fun and enjoyment do you get out of life. Three possible answers were provided: not much, some, and lots. There was a great deal of fluctuation in the answers from pre-test to post-test. On the pre-test, Eric said he did not have much fun and enjoyment, five participants reported having some fun and enjoyment (Jeff, Ron, Alice, Vicky, Wayne), and four participants said they had lots of fun and enjoyment (Brad, Lori, Richard, Alan). On the post-test, six of the participants altered their response. There were then three participants who newly said they did not have much fun and enjoyment (Brad, Ron, Vicky) along with Eric who did not change his answer; and five other participants (Lori, Richard, Jeff, Alan, Alice) who now said they had a lot of fun and enjoyment. Wayne, who said he had some fun in the pre-test, reconfirmed his answer on the post-test; he became the sole respondent in that category. It may well be, however, that these answers represented a temporal response and were simply a reflection of what each individual was feeling at the moment.

Open Ended Questions

At the end of each intervention session, the therapist asked open-ended questions to generate a discussion of how the participants were experiencing the sessions. Upon analysis, three prominent themes emerged: social interaction, loneliness, and nervousness. Open-ended questions asked after the performance revealed two additional themes of internal approval and external approval. Using the GES scale in conjunction with the open-ended questions allowed the researcher/therapist to examine whether a correlation existed between the social climate and prominent themes.

Intervention Participants' Themes

Need for Social Interaction

Open-ended questions posed at the end of each intervention session probed for emotional responses regarding how the participants were experiencing the group sessions. Surprisingly, even though the sessions emphasized making music DVDs, the major theme that emerged from the content analysis centered on social interaction. Common responses to the recurrent questions of “How is it?” and “How do you like being part of this group?” were “Excellent” (Jeff, Alice), “Feels nice” (Eric), “Good” (Ron, Jeff, Wayne), and “Good! I love it!” (Brad). A number of participants also responded with positive attitudes: Brad and Wayne both said “I feel good,” while Jeff and Alice each commented “It makes me happy.” Ron said he had fun. Brad said that he liked getting to do what he wanted to do. While all the respondents indicated that they enjoyed the music-based project, they stated that the best part was spending time together, as Wayne said, “Hanging out with the guys.” Eric commented “It’s nice having a small group like this rather than having one humungous group...It gets me out of the building. That’s the best part.” As expected, all participants consistently stated that they would return the following week.

By comparison, similar camaraderie did not appear to be present in the control group setting. Even though control participants acted civilly toward each other during these unstructured coffee breaks, their conversation attempts remained highly repetitive and frequently ignored or unreciprocated. For example, Richard often stated “I know you, I’ve known you for a long time” or Lori repeatedly asked “What are you getting to eat?” but no one replied.

Being part of a group inevitably involves utilizing social skills to promote amicable relationships. Decision-making, problem-solving and taking control were all components in these music sessions. Choosing the songs, deciding how to perform them (e.g., solos, unison singing), determining the order in which they would be sung, and selecting instrumentation all had to be agreed upon by the group members.

There were occasions when participants did not agree. In one instance, Brad announced to the therapist “I want it to be me only, all of them will help. I want them to sing in the background.” His group peers, Ron and Wayne, did not agree with that plan. This led to a discussion about group process versus authoritative role, consideration of everyone’s wishes, and looking beyond one’s own desires. When disagreements arose, the participants typically looked to the therapist to solve the problems; however, during this project, the therapist coached the individuals to find solutions themselves; they were also encouraged to tell each other how they felt.

An interesting case involved Wayne, a generally passive man when it came to disagreements. When such conflicts arose, he always made eye contact with the therapist and waited for an approving nod before he would speak. He would then assertively state his opinion, making eye contact with the therapist before he spoke each time. It appeared that he was looking for permission to continue the discussion, or a sign of disapproval in which case he would stop responding and allow the other person to ‘win.’ Wayne continually sought this level of support to engage in emotionally charged exchanges; it is highly probably that without an approving nod, he would not have entered these discussions at all. It was also of note that Brad, who is used to getting his way, yielded to Wayne and Ron in more than one instance as a result of this process.

In all instances the participants came to mutual agreements of their own accord. Participating in the intervention sessions appeared to contribute to the participants' quality of life by providing enlivening social interaction and the opportunity to influence the decision making process in a positive and supportive environment.

Prevailing Loneliness

Another theme that emerged from analysis of the open-ended question responses was loneliness. At its basic element, loneliness could be described as the absence of meaningful social interaction. It is the absence of friendship, the absence of being with people you like, the absence of doing things with someone else. Feelings of loneliness can occur even when there are people around and activities going on if the people and the activities hold little meaning for the resident. In the Quality of Life interview, individuals spoke of the things they were good at doing. It is notable that the activities they cited were most often passive activities and solitary endeavors--undertakings that were not dependent upon social interaction.

One aspect of loneliness may involve a longing to see friends or family. At one of the intervention sessions, Alice arrived in tears because she was expecting a card from a friend and it had not come; she stated that she felt forgotten. This led to a conversation about getting mail or having visitors. Eric, who did not often show his tender side, offered solace by saying that he only gets telephone bills in the mail and "I don't get phone calls. Nobody calls me." This exchange revealed that he possessed the status symbol of a cell phone and he paid the monthly bill, but the unstated question was "why." It appeared that this status symbol of being socially connected had become a symbol of loneliness when it never rang.

Another time, Jeff spoke about missing his mother which led to a group discussion of how to deal with feelings of missing people and feeling lonely. Eric said he tries not to show it when he misses people. He related that he doesn't talk about it in the cottage because "staff tell everyone in the world." He explained that he'd rather have privacy and deal with his feelings on his own. Alice said that she sometimes gets upset when she misses people.

Loneliness was regularly discussed throughout the initial six sessions due to one man's planned move to a different residential facility. The idea of moving led to a discussion about the changes that occur when someone moves. The topic of an uncertain future was laden with a mixture of emotions from worry to excitement. A discussion was facilitated on the uncertainty of changes and sharing the excitement of thinking about the future. It was not until the fifth session that Brad entered these conversations when he said that he was not going anywhere and that the therapist "better not be leaving." In the same session Ron began to talk about staff persons retiring, missing friends and family who live far away, and his longing to get a card from them. In the sixth session Brad, upon seeing the man who will be moving, spontaneously greeted him and asked him when he'll be moving. The reply was that it would be soon and would we come to his going-away party. Neither the participants nor the therapist received notice about the move or the party and by the next session he had moved. The other members of the group (Brad, Ron, Wayne) expressed disappointment that they missed his party.

Throughout these weeks, one group was learning the song "*He Ain't Heavy, He's My Brother*" (Scott & Russell, 1969). Rehearsing the lyrics and discussing what they meant sparked conversations about who you can count on and who counts on you. Brad

said that there was no one on which he could depend but he tried to be a person on whom others could rely. Alice, who has no biological family involved in her life, referenced counting on a friend of hers; however this person lived across the country and contact was sporadic. While the individual scenarios described were different, all the participants focused on the topic of loneliness and offered similar content in their stories. On the Quality of Life interviews, all participants responded that they had someone to talk to if they had a problem; however, the people cited were predominantly staff persons.

The participants willingly shared their stories of being lonely given the invitation to do so. Some did so spontaneously (Alice, Jeff, Lori) while others needed only the invitation and the assurance of being heard (Eric, Brad, Alan). Given the invitation to share, Ron spoke of a sibling who lives relatively close by yet rarely visits. The lack of regular contact by, perhaps, the only person outside of the facility that you know, seemed to magnify the absence. Discussion of song lyrics whose content included feeling lonely revealed that everyone in the groups had those feelings; the sessions afforded them the opportunity to express them. In contrast, when a participant in the control group happened to speak of feeling lonely, no one responded.

Nervousness

Nervousness, one of the three themes that emerged from open-ended questions, is a normal human response when engaging in new adventures. Given that the therapist had previously worked with all participants and had positive relationships with each of them it seemed logical that the source of the nervousness was the newness of the project. While Brad and Eric had prior experience with preparing and solo performance video and sharing it with their peers, the remaining eight participants reportedly had never seen

themselves in a video. Preparing a video and sharing it in a performance venue on campus represented two new adventures for the participants.

Most of the participants' nervousness was subdued after two or three sessions, however Alice's nervousness about being on TV did not lessen. She frequently asked "Do I have to be on TV?" Recognizing that this was forefront in her mind and that she was unable to enter into other discussion until this question was favorably answered, the therapist wrote "No TV for Alice. No!" on a piece of paper. When she posed the question the paper was shown to her and read aloud. To incorporate social exchange and support from peers, the therapist began to ask Eric or Jeff to read the paper out loud. The group members patiently listened each time Alice asked for reassurance and either Eric or Jeff then read the paper. As this pattern continued, Eric and Jeff began to spontaneously take turns reading the paper. This pattern continued for the initial four weeks.

Those discussions created a sense of support for each other and contributed to healthy group dynamics that are referenced in Moos' (2002) GES. Dealing with Alice in a calm and reassuring manner facilitated cohesiveness of the group (Cohesion). The group showed concern and friendship for Alice, who was willing to talk about her issue (Self-discovery) and the way that it affected her emotional state (Expressiveness). The self-generated responses from Eric and Jeff (Independence) were encouraged and acknowledged by the therapist. This scenario also involved Leader Support in the form of showing concern and friendship to Alice.

The presence of nervousness provided opportunities for the group members to interact with and support the individual; to develop empathy. Participating in these intervention sessions contributed to Alice, Eric, and Jeff's quality of life by providing

meaningful social interaction, developing positive group attributes, and working towards a common goal.

Performance Themes

A public presentation was held as the culminating activity for the three groups' DVD projects. Maintaining the culture of the participants (Stige, 2009), the performance of the music DVDs was held in a building on campus for all the facility's residents as well as the parents and guardians of the participants. An announcement had been sent out, inviting everyone to come to the performance. It was quite impressive that every participant involved in the project attended; it spoke to the importance that the staff gave to the project. The viewing audience was largely made up of residential peers of the participants.

Leader support was necessary at the performance, checking in with each participant, making sure that everyone felt comfortable with what was about to occur, and organizing the event to ensure a smooth presentation. The therapist welcomed the audience and gave a brief summary of the process of making the DVDs. The participants were introduced and asked to stand or wave. It was obvious from their reactions that they felt like celebrities; they were the important people of the evening. After each DVD was shown, the audience loudly applauded which brought broad smiles to the participants' faces. Post-performance, the audience members positively praised and congratulated the performers.

The researcher/therapist met individually with each participant within a week following the performance and using open-ended questions, informally asked what he or

she thought or felt about the performance. Upon analysis, the responses to these open-ended questions aligned with the themes of internal approval and external approval.

Internal approval. Internal approval was conveyed by participant comments that began with the pronoun “I” indicating judgment of the performance according to his or her own expectations or feelings. During these post-performance conversations, all but one participant first responded from a place of internal approval e.g., “I did all right” (Vicky), “I did good” (Ron, Alan, Lori, Wayne), “I liked it” (Richard), “I did really good” (Jeff), “I loved it” (Eric) and “I had fun” (Alice). In contrast, Brad’s comments revealed a different thought process. He first spoke about other people’s perspective before voicing his own disapproving opinion. “I didn’t like watching myself on the screen. I don’t sound good.”

Internal approval was also conveyed with statements of personal opinion without regard to what other people thought. Brad stated, “The movie we made was excellent.” Other comments from participants included “Showing it was the best part” (Vicky), “That was fun, seeing myself on the screen” (Jeff), and “It made me feel good” (Alan). An activity that was both enjoyable and brought a sense of accomplishment to one’s life would be viewed as contributing to quality of life; it is something that is internally valued by the person.

External approval. Approval from outside oneself, or external approval, was also important to the participants. External approval was conveyed by the comments that began with pronouns other than “I.” The participants judged the performance according to the responses of the audience or significant people in their life. Ron, Alan, Jeff, and

Brad commented on how good it felt when there was applause and cheering. Several group members made specific comments about how the audience responded:

Jeff: The whole audience clapped. Made me feel really good;

Vicky: They told me I'm doing good;

Eric: People liked it. If they didn't they'd have walked out. They did not walk out.

Every participant said that he or she would like to make another music DVD.

It was not only important for the participants to feel that they had done a good job, but that other people thought so, too. As discussed earlier, one question in the Quality of Life interview was whether the participant does a good job at work and whether they are told so. As noted, all responded that they did a good job but responses fluctuated on the aspect of being told that they did good work; some participants were given positive praise, some participants were not. This performance afforded them an ever important opportunity to hear approval from people.

Overall, the qualitative analysis provided a much more in-depth and personal account not only of the project's success but the way in which participation enhanced each participant's social interaction opportunities and quality of life. The themes drawn from the Quality of Life interviews, open-ended questioning, and general session conversation demonstrated that people with ID at this facility displayed an enduring sense of loneliness and a great need to interact with other people. The results indicated that their quality of life was enhanced by participation in the group DVD project which appeared to alleviate loneliness and contribute to increased social engagement.

Summary

This mixed method inquiry employed a combination of quantitative and qualitative methodology applied to more fully explore whether individuals with ID who resided in a long term institutional setting would benefit from participation in a music-based group project designed to enhance social connection and quality of life. Outcomes were mixed.

The quantitative results indicated that the control groups exhibited higher frequencies of verbalizations than the intervention groups. However, these interactions proved unbalanced; members did not engage equally in the dialogues. As noted, one or two members controlled the discussions while others remained far less engaged. Moreover, their verbalizations were generally rote, stale, and oftentimes unreciprocated. In contrast, the conversations that occurred during intervention sessions were more interesting, robust, and equally inclusive of all participants with no one person dominating the interactions.

Analysis of the qualitative data produced the three major themes: Need for Social Interaction, Prevailing Loneliness, and Anxiousness. Two additional themes emerged from follow-up interviews conducted after the performance of the music DVDs: Internal Approval, and External Approval. The themes also aligned with responses to the Quality of Life interview.

As the intervention groups engaged in their project, the supportive environment fostered a productive social climate for member participation; indeed, the Group Environment Scale indicated that all three intervention groups demonstrated positive gains in five or more of the 10 sub-scales. This healthy atmosphere served as the

platform for the interactions that occurred between members and the researcher/therapist. The intervention participants were not only able to discuss and implement plans for the project, they also talked about personal issues and engaged in amiable negotiations. Once the music DVDs were completed and presented to the public, the positive audience response validated the participants' efforts which no doubt contributed to their personal self-esteem and quality of life.

Chapter Five will further discuss these findings, review their relationship and potential contribution with respect to the literature, offer plausible causes for the expected and unanticipated results, cite future research potentials, and draw inferences from and conclusions about the overall significance of this research effort.

CHAPTER 5

Discussion

Social and leisure activities are important to the quality of life of older adults (Cooper et al., 1992; Cummings, 2002; Dagnan et al., 1998; Janicki, 1990b; Subasi & Hayran, 2005). Engaging in social interaction has long been known to benefit individuals' physical health (Bonny, 1986; Cohen et al., 2006; de Belvis et al., 2008; Janicki, 1990b; Kerins & Bruder, 2003; Reynolds, 2004) and psychological well-being (Bloom et al., 1978; Cooper et al., 1992; Diener, et al., 2009; Do Rozario, 1997; Duffy & Fuller, 2000; Duvdevany, 2008; Kampert & Goreczny, 2007; McVilly, et al., 2006; Quinn et al., 1995). Likewise, lack of interpersonal contact has proven to be detrimental (Berkman & Syme, 1979; Cummings, 2002; Heiman, 2000; Parmalee et al., 1992; Wolfensberger, 2000). It could be postulated that such quality of life issues impact individuals residing in institutional settings. The current investigation sought to examine the impact of group activities on social interaction and potential contribution to the quality of life of individuals with intellectual disability residing long term in an institutionalized setting.

The study posed two questions: 1. Does the amount of social interaction change when individuals participate in a group activity as compared to unstructured leisure time? and 2. Does participation in the group enhance quality of life for these individuals?. The study compared 10 participants who worked in small group settings to complete the task of making a music DVD of their singing; with three control participants who received a coffee break in the music therapy session room for the same amount of time. Digital recordings of the sessions were quantitatively analyzed using the Social Interaction Scale

(Andring, 2013) which measured the number of the participants' verbalizations within the categories of initiating conversation with peers, responding to peers, initiating conversation with the therapist, and responding to the therapist. Additionally, the Group Environment Scale (Moos, 2002) was completed by the researcher/therapist at several intervals over the course of the twelve sessions.

Data analysis of the two intervention and two control groups indicated that the control groups demonstrated higher levels of social interaction in the two categories of initiating and responding to each other. Yet, statistical analysis demonstrated no significant differences between groups. Effect size was ($r = .40$). Neither analysis produced meaningful results. However, it is important to note that analysis failed to factor in the social interaction of singing together. Nonetheless, the analysis of the standard deviations informed that the participants in the intervention groups had more uniform engagement than the participants in the control groups.

The Group Environmental Scale (Moos, 2002), a social climate scale, consisted of 90 true/false statements organized into three dimensions of Relationship, Personal Growth or Goal Orientation, and System Maintenance and Change. The Relationship domain, which proved to be the most relevant to this study, contained sub-scales in cohesion, leader support, and expressiveness. Graphic analysis of the scores demonstrated increases in the Relationship domain as well as in the Personal Growth's sub-scales of Independence, and Task Orientation.

Quality of Life (QOL) is a concept that strives to describe and measure the nature and caliber of an individual's life; social interaction is a fundamental facet of this theory (Dagnan et al., 1998; Dunn & Brody, 2008; Duvdevany, 2008; Griffen et al., 2010;

Kampert & Goreczny, 2007; McNary et al., 1997; McVilly et al., 2006; Schalock, 2000; Snow & D'Amico, 2009; Verdugo et al., 2005). Quality of life indicators fall into the following domains: physical health and safety, social interaction, rights, and emotional health (Cummings, 2002; Felce, 1997; Schalock, 1997). During this study, the content of participants' social interactions was qualitatively analyzed through individual responses to a Quality of Life interview (Snow & D'Amico, 2009) and open-ended questions. Analysis of the data from the 12 intervention sessions revealed themes of social interaction, loneliness, and nervousness. Analysis of the post-performance data yielded additional themes of internal approval and external approval.

This chapter seeks to explain these results by discussing plausible explanations and factors that may have affected the findings. The obstacles and limitations of the study will then be discussed. Suggestions for future research and contributions to the Expressive Therapies field will also be highlighted.

Quantitative Results

While the efficacy of this study certainly suffered from the small number of participants, the researcher/therapist was surprised to discover that the participants in the control groups verbalized as much or more than the intervention groups. However, closer examination revealed that the majority of these control group verbalizations were comprised of non-reciprocated communicative attempts or were highly repetitive in nature. It may well be that the lack of control for these types of responses in the data were responsible for the increased verbalizations demonstrated within the control group.

Interestingly, the control participants' continued attempts to engage with their peers, regardless of outcome, seemed to imply the need for social interaction. While the

Mann Whitney U test showed no significance difference, a moderate effect size ($r = .40$) was demonstrated in the category of Initiating with the Group. However, the effect size was not necessarily an indicator of treatment effect; rather it was largely attributed to one participant who was a strong initiator of conversation who was unable to participate in the intervention sessions. The absence of his data in the group of participants who engaged in both the control and interventions sessions lowered the overall frequency of initiations. Given the small sample size, this was not surprising.

Conversely, analysis of the standard deviations informed that participants in-the intervention groups did exhibit more uniform engagement than those in the control groups. Additionally, several factors may have influenced the lower conversation level of intervention participants: irregular participant attendance; small sample size; altered approach to conducting a session; and exclusion of singing as data. Participant absence resulted in an irregular schedule of the intervention sessions that may have affected the development of interpersonal relationships. Also, two participants needed to be dropped from the study due to relocation and health issues, consequently decreasing the number of intervention participants in each group to three.

Sessions were never held with less than three attendees; therefore, the absence of one participant, at times, resulted in cancelation of a planned session. Reasons for participants absence varied: transportation problems, staff shortage, outings, participants' vacations. Similar to Hughes and Walden (1999), coordination of the residential and intervention schedules proved difficult. Increasing the size of the participant pool could have avoided the disruptive potential of older adults' escalating health issues. Likewise, ascertaining individuals' schedules, plans, or health status prior to the onset of the study

could have mitigated against such unfortunate occurrences. Scheduling a make-up day for each group would have been beneficial and likely increased regular participation as well.

Notably, while the participants in the intervention groups were acquainted with each other, many had not previously engaged in activities together. This slight degree of unfamiliarity may have initially resulted in a decreased level of social interaction. Moreover, this dynamic may have been exacerbated by the length of time between sessions. In contrast, the regularity of the control sessions and the familiarity between participants may have contributed to higher levels of conversation.

It is also possible that the researcher/therapist's altered approach of conducting the intervention group contributed to lower levels of verbalizations. The approach of facilitating peers to interact with peers to make group decisions differed from regular music therapy sessions where clients predominantly asked questions of and made comments to the therapist. The graphs of the participant responses reflected patterns of interaction that were typical of individuals in this residential facility e.g., asking questions of the staff, seeing staff as having control, and interacting more with peers when staff were not present.

Similar to the events in McAvoy's et al. (2006) study, as the intervention progressed, the need to establish ground rules to create greater possibilities for peer to peer interaction arose; at times this bordered on teaching social skills. To prepare the participants, the researcher/therapist should have informed them of the altered approach: how decisions would be made, how each participant could contribute to the group process, and an explanation that the researcher/therapist's role was to provide the

structure that promoted interaction between participants, and to monitor the interactions for fairness and appropriateness.

Most importantly, the decision to exclude the social engagement which occurred during the intervention groups' singing from the data proved to be a major limiting factor of this study. Quantifying singing in terms of initiating or responding to peers or the therapist presented difficulties. Given that the control group did not have a similar activity against which it could be measured, it was decided to exclude measures of singing from the study. Nonetheless, it should be noted that on average 48% of each intervention session (21 minutes) was spent cooperatively singing together. In retrospect, it was truly unfortunate that this highly social, cooperative interaction was omitted from the statistical analysis.

In addition to the Social Interaction Scale, the Group Environment Scale (GES, Moos, 2002) was utilized to measure the dynamics of the intervention groups. This social climate scale contained 90 in-depth true/false statements about group dynamics which "examined the determinants of group climates, and to focus on the connections between the group climates and outcomes on both the aggregate and the individual" (Moos, 2002, p. 2). The researcher/therapist completed the GES for each group immediately after sessions one, four, eight and 12. Seeking to maintain a neutral stance and attempting to control for possible bias, the researcher/therapist then filed each GES assessment until the study was completed to mitigate potential persuasion of scoring based on previous scores. However, it cannot be negated that the researcher/therapist was solely responsible for this scoring and acknowledgement must be made that bias may have remained a contributing factor.

Qualitative Results

Quantitative analysis did not support the hypothesis that there would be an increase in the quality of life for the intervention participants as defined by the Social Interaction Scale. Nonetheless, similar to Solé et al. (2010), the qualitative analysis did indicate that these participants demonstrated improved quality of life as measured by the Quality of Life (QOL) Interviews (Snow & D'Amico, 2009), open-ended questions, and the Group Environment Scale (Moos, 2002).

The Quality of Life Interview was designed for people with intellectual disability, a diagnosis that covers a broad range of abilities. The 10 question interview employed simple language and short answers; however the questions were written for individuals with greater cognitive ability than the participants in this study. Questions requiring abstract responses (i.e., “How much control do you have over things?”) proved very difficult for the participants to answer. Truncated answers were probed with “tell me more.” When no ideas or opinions were offered, a scenario that encompassed the question without providing a leading answer was offered. This technique was successful in most instances.

Each interview question addressed an aspect of quality of life. Analysis of the interconnected responses revealed a complex matrix. Four questions pertained to participant abilities, preference of activities and setting, and frequency of activities. Responses indicated that 100% of the participants preferred activities that they were able to do well. Ninety percent of the participants preferred activities that were of a social nature, and all participants preferred community settings. Additionally, participants

reported that staff members had control over frequency and location of activities, and that participant influence was minimal.

Though social activities could occur in the residential cottages, participants reported that the activities they engaged in at home were predominantly solitary in nature which likely contributed to feelings of loneliness. As Humpal (1991) noted, simply bringing residents into the same room would not have the desired result of increasing social interaction. Szymanski (2000) concurred, stating that opportunities needed to be presented and then support given for participants to engage and succeed in socializing. This approach was implemented in the study by Ronning and Nabuzoka's (1993) which showed that engagement by children with and without intellectual disability in a group activity did not occur until a staff member modeled and prompted inclusion.

A compelling study was reported by Davis, Young, Cherry, Dahman, and Rehfeldt (2004) who offered individuals with intellectual disability preferred materials without social interaction, social interaction only, or the combination of preferred materials and social interaction. The individuals chose the combination of preferred materials and social interaction, followed by social interaction only. It is noteworthy that simply having preferred materials was least desired. Likewise, Hooper (2001) found that intervention participants who participated in music activities and control participants who played ball games both increased social interaction implying that it was not the specific activity that produced the increase but rather it was the engagement with staff and peers. The responses to the QOL interview that relationships were more valued than the activity corroborated Davis' et al. (2004) and other research findings (Fragala-Pinkham et al., 2009; Hachey et al., 2001; Wise et al., 1992). The responses of the intervention

participants paralleled the results of the above studies. The participants also indicated that the preference for engaging in activities superseded the location of the activities.

It is not surprising that the importance of social interaction and prevailing loneliness emerged as themes in this study; what was surprising was the depth of these needs. While there were no explicit questions about loneliness on the GES or the QOL interview, the dichotomy between feeling lonely and wanting social interaction was heard in the quick responses to the QOL question of ‘why are you interested in coming to the music sessions.’ Two participants (Eric and Brad) said it was something to do, and Eric continued to say he’d attend because he was invited. Attending the 12 music sessions could not only alleviate feeling lonely for those 12 hours but it would satisfy the desire to participate in social activities.

The prevailing significance of loneliness was heard in the discussions during the music sessions. The impetus of discussing loneliness came from discussing song lyrics; participants initiated the discussions which indicated that they were consciously aware of these feelings and the opportunity to talk about them was compelling for them. No one had to think hard to recall his or her own experiences of being lonely. All participants had experienced varying degrees of trauma related to ongoing loneliness no participant seemed immune from it.

The discussions about loneliness created a sense of commonality among the participants that aligned with sub-scales of the GES (Moos, 2002). Sharing these experiences and feelings provided opportunities for the group members to interact with and support each other by demonstrating concern and friendship (Cohesion) offering encouragement (Independence), and the chance to be heard (Cohesion, Leader Support).

The participants were daring to freely express feelings (Expressiveness), to talk about their own personal hurts and struggles (Independence and Self-Discovery), and to safely venture into feelings of anger (Anger and Aggression). Throughout the conversations, the researcher/therapist needed to support each person (Leader Support) and provide safe boundaries (Leader Control). Importantly, the content of the discussions during these sessions appeared to increase the quality of life by providing a these individuals with a safe place to explore and address their feelings of loneliness.

Given the level of pervasive loneliness, it is not surprising that the antidote to loneliness, social interaction, was a theme that also emerged in this study. Since an inverse relationship likely exists between the two (i.e., an increase in one likely causes a decrease in the other and vice versa), loneliness and social interaction are closely related. Again, what was surprising was the depth of the need to socially interact with other people.

The most startling realization concerning the depth of personal desire for social interaction came from the control group. The four control group members all worked in the same day program setting. They rode the same bus to and from work. They shared the day-to-day happenings in the day program setting. They had their coffee break and lunch together. On any given day, there was little to talk about that the other participants did not already know, and yet this group had higher numbers of interactions than the intervention participants. Session after session, they sat around a table, drinking their coffee and repeatedly stated the same rote phrases multiple times. There was rarely anything new in these exchanges, and responses to each other were generally short.

For example, one participant, Vince, who was the primary initiator of conversation, would direct one of his typical phrases to a specific individual (e.g., “I’ve know you for a long time”); if the person did not respond, Vince would repeat the statement, adding the peer’s name to the end of the phrase. At this point, the other individual generally responded with a short “Yup.” Likewise, Lori’s repeated attempts to engage her coworkers in conversation were frequently ignored. With determination, she would again make her comment or ask her question until someone answered her or a different conversation arose in which she could join.

The dialogue was not informative, refreshing, nor equally engaged in. Data analysis of these exchanges indicated higher and more widely spread standard deviation scores than evidenced in the intervention groups, appearing to indicate that these conversations were less reciprocal, that some participants rarely engaged (Alan, Richard), and that at least one person dominated the conversation (Vince, Lori). The equally wide spread means and medians appear to confirm this dynamic. Examination of these groups’ session videos led to increased awareness of the deep need for the social interaction that these participants sought. Repetitive, stale conversation or futile attempts to engage a peer seemed preferable to no conversation at all.

Similar to Bailey and Davidson’s (2003) study, while the patterns of the intervention participants’ behavior was not surprising, it did demonstrate how socially interacting with each other fostered cohesion and friendships. First, these participants’ willingness to attend 12 sessions provided the strongest indication of their desire to participate in social events. At no time did any participant talk about withdrawing from the project. In addition, their behavior aligned with their responses to the QOL interview

question about what they liked to do; 90% cited a preference for activities of a social nature.

Secondly, all of the intervention participants engaged in conversations at relatively equal levels as demonstrated by low standard deviation scores, the narrow spread between the minimum and maximum tallies, and the relatively close means and medians drawn from the data. Moreover, the conversations were new and fresh both within and across the sessions. Topics varied and were generally anything but repetitive. Moreover, sentence lengths were longer than one or two words witnessed in the control group, with personal issues discussed along with the plans for making and showing the music DVDs. The dialogues appeared healthier and more robust than those of the control group; however the narrow definition of social interaction employed in this study didn't afford analytical factoring of this level of nuance.

The social interaction created a sense of camaraderie between the participants that aligned with the Moos (2002) GES sub-scales. It was evident that each participant liked being there and liked the other members in the group (Cohesion). There was a dependable structure and predictability of content in the sessions (Leader Support). The participants shared suggestions and ideas for the project (Expressiveness, Independence) and kept their focus on bringing the task to completion (Task Orientation). Discussion of personal issues were incorporated in the dialogue when an individual initiated the conversation (Self-Discovery). Ultimately, it appeared that participation in the intervention phase of this study contributed to the participants' quality of life by providing meaningful social interaction which combatted loneliness in other parts of their lives.

Transforming events from solitary to social has the potential to reduce feelings of loneliness while increasing positive social interaction. This transformation requires flexibility in affording staff the time to assist in and encourage participation during activities. However, it may be possible that staff members are not adept at facilitating social interaction; the need for staff development in this area has long been noted in the literature (Caldwell, Brinko, Krenz, & Townsend, 2008; Dyer et al., 1984; Fragala-Pinkham et al., 2009; Lister et al., 2009; McAvoy, Smith, & Rynders, 2006). Harvey (2009) promoted three interactive staff trainings of (a) sensitivity training to embody what it might feel like to be the person with ID, (b) understanding commonality of needs with people with ID and a positive approach to providing for these needs, and (c) counseling skills for paraprofessionals including active listening, anger management, and problem solving.

I believe that our greatest commitment to the individuals with ID that we serve is to give our all to training the staff working directly with them. If this training can assist a person who typically does not have a college degree in acquiring the skills needed to help individuals with ID in solving problems, getting their psychological needs met, and building a meaningful life then we have truly benefited these individuals. However, if we neglect the training of the direct care staff and focus primarily on professional interventions we will be doing the individuals with ID an injustice. (Harvey, 2009, p. 75)

Other researchers have noted that the absence of structured activities does not preclude fostering relationships between residents, or between residents and staff members (Cummings, 2002; Hachey et al., 2001). Interacting with the residents could gratify their

need for social interaction while simultaneously fostering positive social relationships with peers and staff (Cummings, 2002; Bigby & Knox, 2009).

However, as evidenced by the QOL interview responses, opportunities that incorporated social engagement, a preferred activity, and a community setting could fulfill multiple desires of the respondents. In this study, participants identified music as a preferred activity and attending 12 group sessions provided social interaction.

Employing group music activities as a means of promoting social interaction has previously been supported by McVilly et al. (2006), and Hays and Minichiello (2005), who demonstrated that listening or making music reduces feelings of isolation and loneliness. Although the optimum setting for this study would have been in the community, the participants reported that they were satisfied that the sessions were conducted away from their residences, albeit still on the residential campus.

The juxtaposition of QOL responses of how and where participants spent their time with their responses of who possessed the locus of control revealed an interesting dynamic. The participants uniformly reported that staff maintained control; only three participants said that they had some influence in making decisions. The researcher/therapist found it peculiar that participants did not speak about lacking control, nor was their tone of voice disapproving, although scenarios were described that illustrated staff control when it was not necessary (i.e., staff members purchased participants clothes and daily told them what to wear; participants were awakened on weekends when there was opportunity to sleep in; food was chosen for participants even though they were capable of making a choice). Staff was also in control of scheduling community outings and determining which individuals would be included.

The decision-making process that occurred in this study contradicted this facility's practice of staff making the majority of decisions, regardless of the abilities of the residents to decide for themselves. As mentioned earlier, the researcher/therapist used an approach of facilitating peers to interact with peers to make group decisions. Presented with the questions to be answered, the participants chose the songs to sing, they chose the order to sing them in, they decided if instruments were played, they decided if there would be solos, and many other aspects of making and performing the music DVD. As the participants gained an understanding of being in control of their group, their ability to form their own opinions and engage in discussions emerged hesitantly yet naturally. This development of group process most aligned with the GES (Moos, 2002) domain of System Maintenance and Change, with sub-scales of Order and Organization, Leader Control.

The sub-scale of Order and Organization addressed group structure and group rules. All three intervention groups increased in this sub-scale; each group established a general session structure and appropriate behavior became the basis of rules of engagement. The GES sub-scale of Leader Control had an inverse correlation with the other sub-scales; a decrease in score implied that the leader diminished decision-making and enforcement of guiding rules. Two of the three groups had a decrease in this sub-scale. As the leader stepped back from being the decision-maker, the participants stepped forward to negotiate agreeable solutions.

There was some initial hesitancy on the participants' part regarding the rules of behavior. When two peers did not agree on a certain point and the researcher/therapist told them to figure it out, it was not uncommon that the more passive person would

frequently glance at the therapist as though to check if he or she was getting in trouble by arguing the issue. A slight nod of approval by the researcher/therapist indicating to continue the discussion was all that was needed for the participant to continue discussing the issue. At times the discussion ended although no decision had been made. The therapist then outlined the issue, reiterated what each person wanted, clarified the area of incompatibility, and again instructed them to figure it out. Eventually, they came to a resolution. The behavior of the participants was appropriate throughout the discussion. It was notable that personal opinion was quickly formed although there was some uncertainty about openly and clearly stating personal opinion when in opposition with another person's opinion.

These experiences illustrated that participants were able to engage in thoughtful discussion, speak confidently about a personal opinion, and be appropriate when negotiating a solution. If they were capable of this level of problem-solving it leads one to believe that they were also competent to choose clothes, make food choices, and engage in discussions about where he or she wants to go in the community. Staff should allow for independence and only provide assistance to the point where the participants can successfully complete the task. The presence of controlling staff, shortage of time, and institutional routine may curtail the inclusion of the residents in making day-to-day decisions and influence in deciding where to go and what to do.

Yet, similar to the finding by Foroughi, Misajon, and Cummins (2001), there seemed to be a prevailing tendency amongst residents to conceal criticism or disappointment about staff members and provisions. Individuals rarely criticized staff or provisions, however, if a conversation was initiated in a session away from the presence

of residential staff, and if the clients felt safe, they would mildly talk about who they did not like and/or provisions that were desired. Even in this scenario, the individuals were cautious. An example was during one session when the group was talking about food, and the closest that Alice could come to saying that she did not like a particular food was to say “I like it a little.” Disappointment of varying levels were present for individuals however it appeared that the clients were adept at censoring those comments.

Another plausible explanation for this level of passivity was that the residents had come to accept the routines of the facility. Many of these participants had lived in residential care an average of 52 years and presumably acclimated to the system. Adjusting to institutional living with what it does and does not offer rather than focusing on “the more generally valued aspects of life may help them adapt to the conditions in which they happen to live, and account to a considerable extent for most people being able to live relatively satisfactory lives” (Brown et.al., 2009). Perhaps acceptance of the current condition rather than dwelling on what one desired it to be imparts contentment. It was also probable that the residents had never been exposed to or remembered other ways of being.

Internal and External Approval

Self-approval and the approval of the audience viewing the DVDs was cited as important by the participants. The variance of participant answers to the question of how it felt to complete the performance implied that the amount of praise sometimes fell short of the participants’ personal expectations/needs. This sentiment was also voiced in response to the quality of life question about how good one was at work. The implication

of this finding was that appropriate levels of praise are individualistic in nature and participant needs encompass a variety of means and frequencies.

As noted, this study's group dynamics score results trended in a positive direction, which paralleled Emunah and Johnson's (1983) and McGillen's (2004) findings that being a member of and contributing to the group product enhanced group cohesion. Similar to research results of Szymanski (2000), Bell (2008), and Ezell and Klein-Ezell (2003), indicators of increased internal approval, external approval, and positive self-image—all of which contributed to a higher quality of life—were achieved through group participation.

Obstacles to Implementing Quality of Life

The outcomes of this study when combined with prior research findings beg the following question: If application of Quality of Life theory accomplishes all that it purports to then why don't all residential facilities implement it? There are a few possible answers to this question. First, many of these facilities were developed in the medical model and continue to operate from that perspective. Designed to treat deficiencies of the residents, institutional philosophy may not have shifted with the rest of society toward recognition of the capabilities and potential of these consumers (Schalock, Bonham, & Verdugo, 2008). Organizations that base practices on a deficiency platform attempt to provide quality through a top-down model that holds the power and control and focuses on big-picture issues such as health and safety while ignoring the other quality of life domains such as social and community inclusion, personal development, self-determination, and the necessary individualized supports (Schalock et al., 2008).

Secondly, encouraging the consumer to be actively involved in thinking, designing, exploring, and setting priorities is incompatible with organizations that are not set up to be flexible, where there are uniform slots for individuals (Schalock et al., 2008). Quality of Life theory empowers the consumer to exert control over dictating processes to attain desired outcomes which does not align with the prevailing organizational structure.

In addition, funding sources for organizations may impede changes in approach. Stipulations attached to monies must be met to maintain financial stability. If stipulations do not support Quality of Life concepts, then the funding to implement practices that promote Quality of Life are not available. Additionally, the infrastructures of organizations have been set up to process the funding sources in particular ways. Changing the method of accounting for differing degrees of support may encompass more change than the organization is willing to accept (Schalock et al., 2008).

Lastly, at the front line level there may be little or no staff training, lack of trainers, lack of acknowledgement or support for the staff attempting to implement QOL theory, and frequent turnover of staff. An informal review of direct care workers' wages in Connecticut indicated pay rates were \$11 to \$13 per hour. Given a State minimum wage of \$9.15 (National Conference of state Legislatures, 2014) the rate of compensation for direct care workers may not be lucrative considering the expectations of the position. The culmination of these types of events and factors makes it easy to understand why staff might be resistant to change (Crites & Howard, 2011). Yet as this study and others have shown, QOL was important. In a society that has increasingly come to value all its citizens, implementation of residential programming based on the needs of the 'whole'

individual must take into account more than physical and medical needs. Quality of life must be considered in residential settings just as it is part of life in society.

Limitations of the Study

A number of factors present within this research endeavor no doubt served as mitigating factors on the outcomes and warrant discussion. First, it must be noted that the very small sample size that resulted from the discontinuation of two participants due to health issues and relocation reduced the ability to draw generalizable conclusions from this research effort. In addition, participant absence led to an irregular schedule of the intervention sessions which may have affected the development of interpersonal relationship and, consequently, could have resulted in lower levels of social interaction. This dynamic may also have been exacerbated by the length of time between sessions.

Although the QOL interview employed simple language and allowed for brief answers, the fact that it targeted individuals with greater cognitive ability than the participants in this study proved problematic as well. As a result, a higher level of explanation and cognitive support was necessary. Additionally, some of the questions were directed towards people who live in the community which was out of the realm of understanding for these participants. An uncomplicated study designed for people who have lived most of their years in residential facilities may have elicited more accurate answers.

In addition, it must be acknowledged that the participants and the groupings of the intervention groups were determined by the researcher/therapist and the GES was both administered and scored by the researcher/therapist. While safeguards were implemented in an attempt to minimize bias, it cannot be denied that due to the researcher/therapist's

long history at this institution and established relationships with most of the participants that bias can be assumed but not quantified.

However, these factors, though significant, do not negate the fact that the intervention participants were positively affected by participation in the DVD making and performance process. The increased QOL that was evidenced within the qualitative interview responses, open-ended questions which were supported by the results of the Group Environment Scale, and persistent attempts to interact with other people lie in testament to the importance of social interaction for individuals who reside long term in a residential setting.

Future Related Research

Every study has defined methods and manners of implementation. The findings of any lone inquiry cannot stand as definitive, regardless of the strength or weakness of the results. This study clearly identified that social interaction is a necessary component to quality of life. The vivid example of the need to socially engage, as seen in the behavior of the control participants who continually attempted to engage with their peers regardless of outcome, justifies the importance of continuing to conduct research on this topic and with this population.

Replicating this study with alterations to aspects of the present methodology would not only further illuminate aspects of the findings but potentially overcome the limitations of the present research application. For example, conducting the study with participants who live in a family setting versus a communal setting (group home, residential facility) or varying the age group of the participants could yield information

on the relative importance of social interaction in various residential settings and life stages.

In terms of social interaction and loneliness, it would be interesting to analyze the effect of relocation of residence—especially in light of the present trend away from large residential facilities. Residential size factors would also be useful to explore. Additional studies on social interaction, residential settings, and life stages would cumulatively present a more comprehensive picture of the needs and strengths of people with intellectual disability.

Importantly, these replicated studies should be designed with larger sample sizes to ensure greater viability of the results. Moreover, applying all the methods utilized with the intervention groups to the control group would also afford additional comparisons. In this study the GES was scored only on the intervention groups. Had this measure been similarly applied to the control group, analysis of the social climates between the control group and the intervention group would have been possible, thus adding another dimension to the obtained information. Another beneficial approach would be to use an alternating treatment comparative study where control and intervention groups switch roles to see if results obtained vary similarly with the application of each of these research phases.

As noted, a major weakness of the study's design was the decision not to factor the time the intervention groups spent cooperatively singing together into any analysis. Judging from the percentage of session time spent singing in the intervention setting, it is highly possible that the overall results would have proven much different if this data had

been included. Replication including data from the cooperative, group activity portion of the sessions should be explored.

Another potential avenue of future investigation could explore the option of allowing the control group to use the social activities present in the room where they met. For example, they could have played the music instruments or sung songs. The degree to which they did so could then be compared to the intervention groups' time spent engaged in a directed cooperative activity to discern DVD making produced greater effect. Additionally, changing the definition of Social Interaction to exclude repetitive statements and unreciprocated comments would be enlightening.

Examination of engagement in a focused project versus a non-focused project would afford another view of the social setting. It may be that cooperatively engaging in a common goal affects social outcomes with this population. Information on whether engaging in a group project builds greater cohesion than less focused endeavors would prove beneficial to those engaged in designing programs within residential settings.

Present literature studying the effect of creating and presenting a video performance remains scarce. Increasing knowledge of the usefulness of this and other modern technology to the therapeutic process could prove useful to practitioners working in the expressive arts field. Likewise, investigations that centered on making, giving, and receiving recordings of oneself to family or friends could contribute to knowledge of the process of establishing or maintaining important familial bonds across the residential borders, especially given the issues surrounding aging or distant relatives.

Assessing the participants and recipients of the importance of making or receiving the DVD over time would further inform the profession of the lasting effects of

participating in a successful group project. Additionally, it would be interesting to compare staffs' initial expectations of the individual(s) with expectations at the end of the project, and if the individual(s) exceeded expectations whether the newly recognized abilities changed the staffs' perspective and manner of interacting with the individual.

Furthermore, understanding of the dynamics involved in group interaction and the effects of group cohesion on therapeutic outcomes would benefit those whose work involves implementing social group arts sessions. Overall, using this present research effort as a springboard, significant avenues of inquiry could both illuminate and ultimately ensure more productive engagement and greater quality of life for those individuals who reside in institutional settings large and small.

To correct for some of the limitations of the study, certain changes would be made should this researcher/therapist replicate the basic approach of this study. The number of participants would be increased to strengthen generalization from the findings and to avoid cancelation of a session if one person was absent. Given that these participants were familiar with each other prior to the study, a length of eight weeks would be sufficient for the group to evolve and to complete the focused task. The Group Environmental Scale (Moos, 2002) would be completed on the intervention group and the control group thereby allowing comparison of group dynamics. Additionally, the control group would be given the invitation to use the music instruments in the room. The degree to which they engaged in a self-directed manner could then be analyzed in comparison with engagement in the group activity when the researcher/therapist was present to facilitate the members to participate. Follow-up data would be collected from the participants and the recipients of the DVDs to ascertain the lasting effects on the

quality of life. Lastly, a music therapist other than the researcher would conduct the sessions.

Potential next steps in this project include a pilot project on implementation of a “game night” in two residential cottages and working with staff to facilitate social interaction amongst the residents. Additionally, I have joined the committee that is newly implementing the National Core Indicators, a quality of life tool. Future scholarly endeavors are presenting these findings at conferences, investigating the interaction of task-specific groups versus non task-specific groups, or studying the importance and presence of social interaction for people living at this facility with the people who are moving into the community.

Conclusion

This mixed-method investigation sought to illuminate dimensions of social interaction and quality of life issues confronted by individuals who reside in long-term institutional facilities. The findings, however, are applicable to other marginalized people and other settings e.g., nursing homes, group homes, day programs, mental health facilities, correctional facilities. Despite its limitations, the outcomes did appear to indicate that the participants experienced a higher quality of life by participating in the group task of making a DVD of themselves singing and then showing the recordings to peers and staff. However, the very small sample reduced the ability to draw generalizable conclusions from this research effort. No single piece of the gathered data gives a full picture of what transpired in the intervention sessions. Individuals who were acquainted but had never collaborated on a project produced self-recorded music DVDs, which they premiered for the residents of the facility. During the intervention sessions they were

decision-makers. They worked through being self-centered and amiably resolved disagreements. Notwithstanding the newness of the project and the trials that were encountered, there were many moments of laughter, joy, and camaraderie.

Ultimately, this study focused on providing opportunities for social interaction for people with ID who reside in large care facilities. Although an arguably more progressive model of care encompasses living in the community in smaller groups (e.g., group homes) western society continues to provide services to people in large, congregate settings (e.g., mental health facilities, institutions for people with ID, nursing homes) and studies focusing on this segment of the population remain relevant and necessary.

The outcomes of this study imply that people—regardless of intellectual disability—have social needs, expressly the need to engage in positive activities with other people. Lack of social interaction contributes to personal loneliness, which seemingly may be inherent in institutionalized living. Social activities do not need to be grand events; sitting at an outdoor concert together or going for a walk with someone whose company one enjoys can suffice. As the results of this research endeavor have once again illuminated, the fostering of relationship is the most important factor.

Many people with intellectual disability require guidance to engage in reciprocal discourse, to respond to another person's needs, to develop empathy. The arts lend themselves well to group projects where this responsiveness can be nurtured and developed. As noted, the purpose of coming together is often secondary to the growth that happens once people gather.

When working predominantly with people who are not spontaneously able to actively participate in the decision making process, a therapist can become accustomed to

assuming the majority of control. Therapists should be mindful of adjusting that degree of control to the individual capacities and proclivities of each group member they encounter. Empowering groups and individuals to take more active roles in interpersonal exchanges by deflecting decisions and re-directing the conversations toward peers contributes to a healthy group environment. Clients rise to the occasion and in so doing, the cohesion of the group begins.

This study has attempted to begin discerning a few of the necessary components that influence quality of life for individuals who continue to reside in large institutions—fulfilling social relationships, the need to belong, and fostering self-esteem. It is the hope of this researcher/therapist that the future of these individuals' lives will be a bit brighter due to this small effort, and that others will continue to engage in the much needed work of providing the optimal approach to addressing the quality of life issues inherent in residential life.

Appendix A

Social Interaction Scale

Instructions: Record each verbally initiated or response a person makes.

Initiate = Initiated a question or statement

VP = Verbal prompt required (prompt could be an individual's name)

Respond = Engaged in conversation

If verbal prompting (VP) was required for the person to speak record it as "VP".

Date:	Name	Name	Name	Name	Name
Initiate with Facilitator					
Respond to Facilitator					
Initiate with Peers					
Respond to Peers					

Julie Andring

Appendix B

Permission to use Group Environment Scale

For use by Julie Andring only. Received from Mind Garden, Inc. on November 2, 2011



To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material;

Instrument: *Group Environment Scale* Author: *Rudolf H. Moos*

Copyright: *1994, 2002 Rudolf H. Moos* for his/her thesis research.

Five sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any other published material.

Sincerely,

Robert Most

Mind Garden, Inc. www.mindgarden.com



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Appendix C

Group Environment Scale Sample Statements

There is a feeling of unity and cohesion in this group.

When members disagree with each other, they usually say so.

Personal problems are openly talked about.

In this group, members are learning to depend more on themselves.

It's o.k. to say whatever you want to in this group.

Appendix D

Quality of Life Interview

- 1A How do you feel about yourself?
 1B What do you think you're good at?
- 2A Who decided which activities you do on the weekend?
 2B What are your favorite hobbies? Pastimes?
 2C Who do you do them with?
- 3A Do you go out for supper sometimes?
 3B With whom?
 3C Who decided where you go (what you eat)?
 3D What is your favorite restaurant? (note: Modified to add "or food")
- 4A How do you get to work or to the music department?
 4B on-grounds bus? 4C Do you walk? 4D Does someone drive you?
- 5A Why are you interested in coming to the music sessions?
 5B What are your goals? (What do you want to do in this project?)
 5C What do you want to get out of coming to the sessions?
- 6A Who do you go to when you have a problem or need to talk?
 Staff: Residential/Day Program/Other: _____ Friends Family
- 7A How much fun and enjoyment do you get out of life?
 1. Not much 2. Some 3. Lots
- 8A How good do you feel you are at your job?
 1. I'm having trouble at my job.
 2. I'm good but no one tells me.
 3. Very good and others tell me I am good.
- 9A How much control do you have over things you do every day, like going to bed, eating, and what you do for fun?
 1. Little 2. Some 3. Complete
10. How are you feeling today?

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