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ABSTRACT

THE EFFECTIVENESS OF MUSIC THERAPY INVOLVING FAMILY MEMBERS OF TERMINALLY ILL PATIENTS IN HOSPICE ON QUALITY OF LIFE OF THE PATIENT AND STRESS LEVELS OF FAMILY MEMBERS

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The purpose of the present study was to investigate the mutual effectiveness of music therapy involving family members in improving quality of life (QOL) of terminally ill patients and decreasing stress levels (STL) of their family members. A triangulation design of mixed method was used, which used both quantitative data that was collected with the Quality of Life Questionnaire for the patients and with SCARED for their family members' STL, and qualitative data. This research project included two cases (two separate patient/significant loved one pairs). In Case One, no changes were found in QOL and STL for the patient and loved one, respectively, in the quantitative analysis. In the qualitative analysis, the patient's spouse stated that a song written and mandala drawn by the couple became meaningful to the patient's wife and their friends to always remember the patient. Significant improvement in QOL and STL in Case Two were found, and qualitative data also support the mutual effectiveness of music therapy for this couple. Improvisation strongly assisted both the patient and her husband to more deeply access their feelings, open them up, and externalize them. The patient expressed that a "happy ending" was being surrounded by her family, going to heaven, meeting God, and having no pain, while her spouse accepted the reality of loss, despite his earlier denial.

This thesis is dedicated to Yoshio Murata, my grand father

and

Akihisa Ishihara, my brother in law,

who gave me encouragement and passion about supporting terminally ill patients and their families and enabling such a study to take place today.

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CHAPTER ONE

Introduction

Most palliative care and hospice programs are concerned with the needs of the family members of a terminally ill patient, as well as the needs of the patient (Bright, 1986; Weber, 1999). Hospice programs generally engage in meeting physical, psychological, and spiritual needs for palliative and supportive services for both terminally ill patients and their family members (Aldridge, 1996). This care encourages patients to live as fully as possible and allows them to die in peace and with dignity while surrounded by their loved ones (Aasgaard, 1999; Peters, 1987).

The findings of many researchers support the effectiveness of music therapy for terminally ill patients and for their families in palliative care or hospice programs (Aldridge, 1996; Bright, 1986; Bright, 2002; Gilbert, 1977; Hilliard, 2001; Hilliard, 2003; Jackson, 1995; Krout, 2003; Marr, 1998-1999; Munro, 1984). These findings contribute to the improvement of the terminally ill patient's quality of life (Hilliard, 2003; Ruud, 1997) and contribute to helping family members go through this difficult time physically and emotionally. Strategies employed include stress management, relaxation, tension release, and anxiety reduction (Bright, 1986; Bright, 2002; Munro, 1984; Peters, 1987).

Whereas music therapy both for terminally ill patients and for their family members is separately available and beneficial, some researchers also support the effectiveness of music therapy intervention involving family members with a terminally ill patient (Aldridge, 1999; Beggs, 1991; Hilliard, 2001; Martin, 1991; Weber, 1999). Music therapy involving family members of a terminally ill patient is effective in that singing meaningful songs can remind them of past delightful and joyful memories and

provide release and comfort during a difficult time. Family members or loved ones have an important role in helping terminally ill patients to find meaning in their end of life experience and to improve quality of life.

As Hilliard (2003) mentions in his study, there are many qualitative studies and case studies regarding the effectiveness of music therapy for terminally ill patients and their families, whereas only a few quantitative studies regarding this population exist today. Those studies provide much information regarding how music and music therapists can support the patients and their families.

Although many studies support the effectiveness of music therapy for a terminally ill patient and family members of the patient, neither do those studies clearly measure the mutual effectiveness of music therapy on the needs of both a patient and family members, nor do they compare the effectiveness of individual music therapy with family music therapy at the end of life of the patient.

CHAPTER TWO

Literature Review

Terminally ill patients

Terminally ill patients have many needs physically, psychologically, socially, and spiritually (Aldridge, 1996; Bright, 1986; Munro, 1984). Peters (1987) describes four areas of needs of a terminally ill patient as follows:

> *Physical needs* may include relief of acute or chronic pain and physical distress, muscle relaxation, appropriate medication and medical care procedures to manage medical conditions and symptoms, nutritional counseling, or assistance with activities of daily living (bathing, toileting, grooming, eating etc.). *Psychological needs* may include help in increasing or maintaining a healthy self-concept and high self-esteem, decreasing depression or anxiety, finding ways to keep on living to the fullest until death, facilitating expression of a board range of conscious and unconscious feelings, having time and space to grieve or express anger, discussing and finding ways to deal with or work through present concerns, continuing to be involved in decision-making about one's own life or care to the fullest possible extent, reviewing part or all of one's past life, finding outlets for fantasy and creativity, and finding ways to tap and give expression to those parts of the individual that are still vital and healthy. *Social needs* of individuals who are terminally ill include physical touch, companionship, private times with family and friends, ways to stay involved with others in meaningful activities, links to the individual's life before the terminal diagnosis, entertainment or diversion from dealing with the painful reality of terminal illness, and ways to

facilitate conversations between themselves and their family members, including discussion of difficult, emotional, or intimate issues. *Spiritual needs* may include pastoral counseling, grief counseling, finding ways to express and discuss spiritual feelings and questions, finding comfort and reassurance in religious or spiritual beliefs, and/or rituals, obtaining support for one's beliefs, confronting questions about the meaning of life and what comes after death, and facilitating the transition from life to death. (p. 358)

As some of the needs indicate above, the realization that the patient is not simply existing, but living is crucial to increasing and maintaining the quality of life of the patient (Bright, 2002). Several features that improve quality of life in terminal illness are as follows: 1) Being treated as a real person with dignity, 2) As much information about the future as an individual wants, 3) An opportunity to make decisions regarding some life events, 4) An opportunity to express all kinds of feelings, 5) Participation in meaningful human relationships, 6) Having whatever level and type of mental stimulation that an individual prefers, and 7) Something pleasant and fun to look forward to (Bright, 2002, p. 70).

Many music therapy strategies are effective in improving each one of these needs, as well as several of the needs at the same time, thereby improving quality of life for a terminally ill patient. Although music therapy interventions cannot change the cause of the pain, they can help patients change their perception of and responses to the pain. For example, listening to individually preferred music can decrease the perception of pain and facilitate relaxation of muscles in music assisted exercise (Bright, 1986; Munro, 1984). The music therapist helps patients to express their feelings, including sadness and

anger, and connect to their own tender feelings again through gentle music (Weber, 1999). Recorded music is available to help reduce pain and anxiety when the music therapist is absent, especially at night (Bright, 2002; Hogan, 1999). Despite its effectiveness, the recorded music lacks the care and the intimacy that people can provide during a live music performance (Hogan, 1999).

Live music performance is effective in many ways, such as in facilitating pain relief and providing vitality, and in reducing anxiety and physical and psychological tension (Bright, 1986; Bright, 2002; Hogan, 1999; Munro, 1984; Weber, 1999). Bailey (1983) suggests that listening to live music promotes significantly less tension and anxiety, and more vigor than listening to recorded music in her work with hospitalized cancer patients. In addition, she suggests that listening to live music also provides more physical comfort than tape-recorded music does.

Familiar and preferred songs or instrumented music can produce emotional comfort, decrease anxiety, and facilitate verbalization regarding fears and feelings in a terminally ill patient (Aldridge, 1996; Hogan, 1999). Singing or playing instruments can also help maintain feelings of dignity and self-worth, motivate patients to be more independent and to communicate with others, and increase interest in life for a terminally ill patient (Beggs, 1991). Choosing songs or music and instruments to play provides the patients with opportunities they can control in a situation where they frequently have no control. In addition, the songs or other music that the patients choose can be tools to project the feelings that the patients have, particularly, those who have a difficult time verbally expressing things (Bailey, 1984; Bright, 1986; Martin, 1991; Munro, 1984). Song writing helps patient express feelings, memories, and gratitude to family and friends (Bright,

2002). Musical improvisation is also a non-threatening, non-verbal tool for the patient to express feelings and emotions. Creative music activities include singing, listening, playing instruments, improvisation, song writing, and dance or movement to music. They provide a patient with the time to enjoy life and live as fully as possible until the last moment (Bright, 1986; Martin, 1991; Munro, 1984; Peters, 1987).

Some patients with terminal illnesses have deeply felt spiritual needs. For example, religious songs or music provide some patients with comfort and reassurance, and the music becomes a catalyst for expressing their feelings and in seeking the meaning of life (Bailey, 1984; Bright, 1986; Bright, 2002; Munro, 1984).

Music therapists have been working in hospice settings to support the quality of life of the individual, and many qualitative studies and case studies support the effectiveness of music therapy in improving quality of life in terminal illness. However, only a few quantitative studies have evaluated the effectiveness of music therapy on the quality of life of individuals who are terminally ill.

Hilliard (2003) investigated how music therapy affected the quality and length of life of terminally ill patients. In his study, subjects were living in their homes, receiving hospice care, and were diagnosed with terminal cancer. They were randomly divided into two groups. One group received routine hospice services and music therapy sessions, and the other received only hospice services.

Hilliard found that subjects in the group that received hospice services and music therapy sessions reported a higher quality of life than subjects in the group that received only hospice services. In addition, the researcher showed that quality of life improved over time when subjects received music therapy sessions. At the same time, quality of life

decreased over time when subjects did not receive music therapy sessions. This study supported the evidence that music therapy is effective for individuals who are terminally ill to improve their quality of life.

Family of a patient with terminal illness

Family members of terminally ill patients also suffer and need support in physical, emotional, or psychological areas (Weber, 1999). Palliative care and hospice programs support the family members as well as the patients during difficult times (Aldridge, 1996; Bright, 1986). Several needs of the family members of a terminally ill patient are stated as follows (Bright, 1986; Bright 2002; Cheng et al, 1994; Peters, 1987; Weber, 1999): 1) Releasing tension, 2) Reducing anxiety, 3) Being informed of the patient's condition, treatment, and progress of the illness, 4) Meaningful time with their loved one, 5) Practical assistance of financial or legal matters regarding home care and funeral arrangements, 6) Acceptance of the reality of the loss, and 7) Dealing with their grief and sorrow.

One of the main needs of the patient's family members as caregivers is the reduction of stress levels due to physical and psychological distress (de Montigny, 1993; Fuller & Geis, 1985; Hull, 1990; Vedhara et al, 2004). Many of the needs above may be related to the cause of the stress. Song writing and lyric discussion are effective in projecting and expressing feelings and concerns that the family members have, so that music therapists and family members can realize what the sources of stress are and the next step that they both can work on.

Music relaxation techniques are available and are effective in reducing physical and psychological distress (Maranto, 1993; Pelletier, 2004; Unkefer & Thaut, 2005).

Pelletier (2004) states that music relaxation techniques are specifically effective in increasing relaxation when the patient is under an arousal condition caused by stress. The researcher suggests other music relaxation techniques, such as biofeedback, systematic desensitization, hypnosis, improvisation, and music intervention based on the iso-principle in such situations. Individually preferred music used for relaxation distracts the patient from the sources of stress, thus increasing relaxation.

Pelletier also reported the importance of the continuation of music relaxation over time. One result shows that individuals who have more than one music relaxation session experience greater relaxation than those who have only one music relaxation session.

Music therapy involving family members

The need to spend meaningful time with their loved ones at the end of the patient's life is seen as a need of both a terminally ill patient and family members. When this happens, it may increase a terminally ill patient's quality of life and reduce family members' physical and psychological distress during caregiving.

Whereas music itself can be used as a tool to improve quality of life of a terminally ill patient, the family members of the patient also have an important role that may influence the quality of life at the end of one's life. Some research suggests that music therapy involving family members is mutually effective for a terminally ill patient as well as family members (Aldridge, 1999; Beggs, 1991; Bright, 1986; Bright, 2002; Hilliard, 2001; Hogan, 1999; Jackson, 1995; Martin, 1991; Weber, 1999).

Reminiscence, life review, and validation of life experiences with terminally ill patients and their families are crucial for a patient and the family (Bright, 1986; Bright, 2002; Hogan, 1999). Through reflection on their lives, achievements, failings, and regrets,

the patients can gain more meaning in what they are experiencing. Discussion of memories helps the patients clarify their values (Hogan, 1999).

Kelly et al. (2002) investigated the wish to hasten death among terminally ill cancer patients. The data collected in their study included the wish to hasten death, views on euthanasia, health care experiences, impact of the illness on the patient and on others, and the patient's satisfaction with life. The results showed that the patients with a high wish to hasten death have more concerns with physical and psychological situations, perceive themselves to be more of a burden to others, and experience higher levels of demoralization.

The researchers also reported that the patients with a strong wish to hasten death have less confidence in symptom control, less social support, less satisfaction with life experiences, and fewer religious beliefs, than the patients who had a moderate or no wish to hasten death. Thus, some terminally ill patients need to reflect on their lives and have a better understanding of the meaning and value of their lives.

In addition to the clarification of life, validation of emotions of a terminally ill patient in sessions with the patient and family together is also an important role for them, as it helps resolve past issues and present conflicts and alleviate feelings of anxiety, depression, and guilt.

Recognizing and expressing feelings and emotions verbally are difficult for the patients and their family members. They may include stressful and painful topics, which actually influence the needs of both patients and family members. Validation may occur through music experiences. Song choice and lyric discussion through the songs can be a positive prompt and a powerful medium in consciously and unconsciously expressing

their grief and reducing physical, emotional distress (Bailey, 1984; Martin, 1991). The patients and their family members can often be encouraged through the song chosen by either the patients or their family members, to discuss feelings and the topics that have not been dealt with and to enhance their communication with those around them (Martin, 1991).

Weber (1999) noted several cases when music therapy became a bridge between patients and their families in palliative care. When a patient was with his or her spouse, the music therapist played music that they had enjoyed together in "good old times." It connected them by listening to the music together, even though they had not had much time to do so. She also noted that often female patients are concerned about their husbands who wonder what to do during their visiting. However, music performed by the therapist helps fill the time and helps them calm down, so that they are relieved.

Kristjansen (1989) studied the relative rankings of the importance of various health care provider behaviors on family caregivers of cancer patients. The majority of items ranked were the need for prompt, attentive, and thorough medical care. Pain relief for the patient was of the greatest importance. The researcher discussed that the family feels more at ease when a terminally ill patient has less pain. Therefore, when music experiences help a patient release the perception of pain, reduce anxiety and tension, and feel more peace and with dignity, family members are also able to reduce their distress.

Bailey (1984) stated that cognitive stimulation, relationship building, singing, and listening aspects of song experiences provide both cancer patients and their family members with a framework for tension release, integration, and pleasure. The patients

and families can be aided in progress through the contact, awareness, and resolution stages of therapy.

Mutual effectiveness of music therapy

Song experiences in music therapy with the patients and their families provide them with support and changes. Bailey (1984) discusses that the goals of music therapy for the patients and their family members are to promote comfort, develop meaningful communication, and resolve issues. In addition, soothing, energizing, stimulating expression of thoughts and feelings, and helping integrate the patients and their family members into their social environments, providing sensory stimulation, and decreasing pain sensation are also aimed. Towards these goals, the music therapist develops an environment of satisfaction and trust, and this environment encourages the patients and their family members for creative and self-fulfilling expression of their needs.

Bailey gives three stages in the music therapy process for the patients and their family members as follows: 1) Contact (establishing trust and building the relationship between the music therapist and the patients and/or their family members), 2) Awareness (becoming aware of feelings, needs, and desires), and 3) Resolution (experiencing self-fulfillment and relief, letting go issues, thoughts, and feelings). The length of time in each stage may vary according to the needs of the patients and their family members, as well as their willingness to actively participate.

Song experiences are effective, as the melodies and lyrics stimulate emotion and cognition in the patients and their families. Bailey states that the patients and their family members can communicate their needs and issues, and those needs and issues are dealt through the melodies and lyrics. The music therapist provides the patients and their

family members with meaningful outlets for self-expression through identifying, decorating, expanding song themes, and initiating new way to think and feel, so they can experience feelings of inner peace, well-being, and relief.

Music therapy is used for meaningful interaction between patients and music therapists, patients and patients, and also patients and their family members, at the same time as being used in accomplishing clinical goals, such as anxiety reduction and maintaining self-esteem and self-concept. Involving family members in music therapy provides more positive experiences for both of them. In addition, an enjoyable experience provides the patient with a reduction in pain perception, and it could also provide the patient and their families with respite, so that they could deal better with the next stressful situation (Martin 1991).

Gilbert (1977) discusses the perspectives of music therapy in dealing with the issue of death and dying. Although terminally ill patients are willing to discuss with others their condition to the extent that they are aware of it, their condition is not always treated as much as the patient's hope. Several specific concerns of terminally ill patients are stated. One of their concerns is feeling of loneliness due to social isolation. Music experience provides terminally ill patients with the opportunity to draw the patients closer in the group music therapy activities.

Another need of the patients is a life review. Music activities, such as the use of songs, assist the patients for their life review and reminiscence. In addition, the songs that have particular lyrics in their life situations support communication between terminally ill patients and music therapists, family member of the patients and music therapists, or the patients and their family members.

Religious faith is also an important need for the patients and their family members or loved ones. Music and lyrics provides them with a source of comfort and reassurance during their difficult times.

The expression of feelings regarding separation from family is crucial for both terminally ill patients and their family members. Music activities help the patients and their families express emotions, and the patients and families can go through the stage of acceptance of death together.

Decuir (1991) notes that the goals of family therapy are: 1) Restoration of balance within the family, 2) Identification of systemic problems, and 3) Improvement of interdependent functioning. In addition, improving the quality of communication within the family helps realize these goals. One of the main reasons why creative arts therapy, such as music therapy, is more effective than verbal methods is that because it is nonverbal, so that the patients and their family members can more easily express their feelings.

Music therapy is also beneficial for dying brain-impaired patients who have a difficult time verbalizing, as it provides nonverbal musical experience to express feelings and emotions. O'Callaghan (1993) discusses the importance of music-based family sessions for dying brain-impaired patients in palliative care. Music-based family sessions are the focus of her study as well as some music therapy techniques, such as musically supported counseling, musically based life review, active participation in music activities including music performance and song writing. She explains that these techniques help them enhance their communication skills with people around them, especially their family members or loved ones, despite their various difficulties, such as apathy, memory

problems, new learning problems, disinhibition, concrete thinking, problem solving difficulties, and poor emotional expression.

The brain-impaired patients easily remember their favorite songs due to their long-term memories, which many of these patients are relatively able to retain. As music helps convey the important messages that are difficult to express verbally by the patients, music therapists encourage sharing the musically evoked memories. Those memories make positive moments of the associated events with the songs and music used and validation of the important roles of both the patients and their family members in their lives. O'Callaghan mentions that these experiences affirm both the patients and family members.

Although some patients do not show any observable response, many of the patients respond by crying, singing, delighting to their families, friends, and caregivers. In addition, music therapy encourages family members to continue communicating with the patients during the reminiscence and grieving process.

O'Callaghan (1996) also reports the importance of communication between the patients and their family regarding lyric themes in song writing activities for terminally ill patients in another of her studies. She analyzes 64 song lyrics written by 39 palliative care patients. In those lyrics, several themes are found as follows: 1) Messages (in 56 songs, 87%), 2) Self-reflections (in 42 songs, 66%), 3) Compliments (in 32 songs, 50%), 4) Memories (in 29 songs, 45%), 5) Reflections upon significant others including pets (in 20 songs, 31%), 6) Self-expression of adversity (in 16 songs, 25%), 7) Imagery (in 11 songs, 17%), and 8) Prayers (in 7 songs, 11%). The theme "messages" implies the importance of positive communication between them and their families, as it helps the

bereavement process. O'Callaghan states that those lyrics may ease the suffering of family members or loved ones of the patients. She concludes that song writing experience for palliative care patients provides the opportunity for expressing themes significant to their life.

Physical touch is important between terminally ill patients and their family members. Clair (1997) found that both the patients in last stage dementia and their family caregivers initiated and received kisses, hugs, arms around the shoulder, and other gestures during music activities. However, Clair notes that whereas the patients initiated and responded to touch, their family caregivers responded less to the patients than the patients did to the caregivers. A possible reason is that family caregivers may not recognize that the patients are initiating touch to them. The music therapists may then support family caregivers to realize the touch initiated by the patients and to encourage responding.

In her case study, Jackson (1995) brings a specific example of how music therapy was helpful to a terminal breast cancer patient in living her last moment more richly and for her family to communicate with her during the moment. Music therapy supported the goals for the patient to meet her and her family members' physical, emotional, cognitive, and spiritual needs. This patient was a musician and loved music, so music activities, especially singing experience, became the medium to express her emotions. As she was able to express her emotions through music activities, the patient, her family, and her friends were connected to each other both verbally and nonverbally. Through the music experiences, her family members felt more positive in the situation. For example, her family felt that they were sharing and communicating with the patient, even though they

could not communicate verbally anymore at the patient's last moments. Jackson also discusses that for this family, the videotape of the patient funeral concert remained a legacy by which to remember her.

The family members of terminally ill patients often have difficulty expressing their feelings, as do the patients. Family members may feel frustrated, as the patients are not able to respond in communicating with their family members, and the patients' appearance may also be different from their last visit. Krout (2003) states that actively expressing the feelings of grief and anguish by the family members of terminally ill patients is normal and healthy. The music therapist provides the family members with a meaningful experience with the patients.

With individualized interventions for the patients, music activities influence both terminally ill patients and their family members in physical and emotional ways. For example, the music therapist helps facilitate pain management, relaxation techniques, and reduction of feelings of anxiety. With family members, the music activities, such as singing or listening to familiar and favorite songs or music of the patients and their family members, facilitate discussion of life memories, life review, and reminiscence. The music can be then a medium to elicit emotional response and to allow the patients and their family members to share their feelings and emotions. At this point, the music therapist supports validation, normalization, and exploration of these feelings and emotions from the patients and their family members. He also discusses that spiritual needs for some patients and family should be considered, as some patients gain spiritual strength through religious music, such as hymns.

Terminally ill patients are not only adults but sometimes they are children. Fagan (1982) discusses how music therapy influences anxiety and fear in terminal pediatric patients. Fagan describes complacency or more often resignation as the psychological state of terminal pediatric patients, whereas adult terminally ill patients may go through: 1) Denial, 2) Anger, 3) Bargaining, 4) Depression, and 5) Acceptance (Kubler-Ross, 1969).

In using music therapy in the treatment of anxiety and fear in terminal pediatric patients, music therapy experience enriches the patient's quality of life, energizes or relaxes him or her, and provides the opportunity to express emotions in restricted, sterile hospital environment that are associated with their lives outside of the hospital. Although pediatric patients may hesitate to verbalize their concerns, music can help them express their feelings and concerns with a therapeutic relationship that supplies security and trust.

Fagen mentions that music therapy may not solve the burdens of the patients and their family, but it helps treat their anxiety and fear. As the patients and their family must pass through their own "anxiety block," the music therapist then facilitates this process in an open but less frightening way. At the same time, the music therapist should wait until the time is appropriate to discuss the patient's needs and issues.

Hilliard (2001) discusses the effectiveness of music therapy on multidimensional needs of hospice patients and their families through several case studies. In these case studies, music therapy provides the support for bereavement, facilitates reminiscence, supports pain management, modifies behavior, facilitates family interactions, helps gain insight, and helps to come to terms with imminent death. The importance of the process

of music therapy is that the patients become energized or relaxed and explore their creativity during the music activities.

Hilliard states that the ultimate goal for the patients is to have the option of receiving music therapy, and for the music therapists to know which interventions are most useful to the patients. For this goal, he concludes that palliative care music therapy needs to be a research-based clinical intervention in order to best serve patients and families.

Expression, communication, reminiscence, life review, and validation

For the needs of the patients, music therapists may consider developing a safe environment and relationship of trust and satisfaction with the patients and their family members or loved ones. As some researchers suggest, first of all, the music therapists need to build a relationship with security, satisfaction, and trust with the patients and their family members. Without this environment and relationship, the music therapists may not be able to encourage them enough to be aware of their feelings, needs, and desires, and to experience self-fulfillment and relief to cope with their issues, thoughts, and feelings.

In many cases, expression of feelings by terminally ill patients and their family members is one of their needs, and it is not recognized as much as they would hope, despite their willingness to discuss their feelings with others. As a result, the patients may feel loneliness, and that causes social isolation. The lack of communication with their loved ones may lead family members to have physical and emotional distress, such as being stressed out and fatigue from the lack of sleep. Therefore, terminally ill patients need to be able to enhance their expression of feelings and communication skills with others.

As several research studies report, music therapy is effective in enhancing terminally ill patients' abilities to express their thoughts and feelings both verbally and nonverbally. Although the needs of the patients are various, the studies above report that music therapy is able to develop meaningful communication between music therapist, terminally ill patients, and their family members or loved ones. This communication, which occurs between them, provides the opportunity to discuss and solves their issues when they exist, at the same time it helps increase their feelings of physical comfort and decrease pain sensations through a fun, enjoyable musical experience.

Family members may feel frustrated during this difficult time due to a reduced amount of communicating than the patients formerly did. However, family members of terminally ill patients feel more positive about difficult situations when the family members still feel able to share and communicate with the patient. Those opportunities of expression and communication provide them with life review and reminiscence, which are needs of the patients and their family members in validating and normalizing the patient's life. It is important for the patients and families to go through the stage of acceptance of death together.

Many researchers report that specific songs or music of the patients and their families help enhance the discussion of life memories, life review, and reminiscence. In addition, other needs of the patients and their family members may be positively influenced by the discussion. For example, the more they are able to communicate with the patients, the more family members of the patients may feel relief from physical and emotional distress as a result of the feelings of comfort which they gain through the communication.

At the same time as the music therapist enhances communication between the patients and their family members by verbal and nonverbal expression of feelings, physical touch is also an important means in enhancing better communication between them. As Clair (1997) notes, family members of the patients may need to assist the patient in initiating physical touch as communication. The music therapist may need to be careful to assure that symptoms of the patients are not missed by family members.

The music therapist provides the patients and family with the environment of security, satisfaction, and trust. Therefore, they would have opportunities for verbal and nonverbal expression of feelings within the music experience. These expressions stimulate communication between the music therapist, the patient, and his family, and also provide life review and reminiscence. The music therapist then supports them in dealing with the issues to be resolved. This process eventually helps validate and normalize their lives. Unknown needs of the patient and his family may be discovered, and their other needs such as physical and emotional distress may be restored through this experience.

Individualized music therapy plan

The literature points out that the music therapy interventions should be individualized. Music therapists may consider who the patients and their families are, what background they have, what kind of needs they have at that point, and how the music therapists can support their needs. All individuals have different cultures, past experiences, thoughts, beliefs, and moods. All patients and their families have different musical preferences based on their life experiences. As some researchers suggest, the music interventions, such as singing or listening to familiar and favorite music, facilitate

discussion of life memories, life review, and reminiscence. In particular, familiar, favorite, or meaningful songs or music of the patients and their family members can be a bridge to communication of their needs and issues through the specific melodies and lyrics for both of patients and families. Those specific, meaningful songs or music can more easily transport the patients and their family members through images of the place where they used to be and where they can now feel the comfort and peace called "good old times."

Spirituality of the patients and their family members is also an important aspect to be considered individually. For certain patients and their family, music and lyrics of religious songs provide them comfort and reassurance.

Several studies reviewed also note the importance in considering that each terminally ill patient and his or her family members have different levels in anxiety, fear, and stress. Each patient and his family members have unique anxiety blocks, and the music therapist may carefully support the patient through this process in an open but less frightening way (Fagen, 1982).

Qualitative, case, and quantitative studies

There are many research studies regarding the effectiveness of music therapy for terminally ill patients and for their families. Those studies provide much information regarding how music and music therapists can support the patients and their families. However, a few research studies on mutual effectiveness of music therapy between a terminally ill patient and his family member do exist today. Especially, not many quantitative studies regarding mutual effectiveness of music therapy for both the patients and their families exist, compared to qualitative and case studies. As Hilliard (2001) suggests, even more research studies in this field documenting research-based music

therapy interventions may be required to optimally support, encourage, and serve terminally ill patients in hospice and palliative care, as well as their family members or loved ones going through difficult times.

Purpose and Problem

The purpose of this research was to investigate the effectiveness of music therapy interventions on quality of life of the patient and stress levels of family members involving family members of terminally ill patients in hospice. The research questions of this study were as follows: 1) to determine whether terminally ill patients who receive music therapy interventions with their family members show higher quality of life after a three-week intervention, and 2) to determine whether the family members of terminally ill patients who are involved in music therapy interventions demonstrate lower stress levels after a three-week intervention.

CHAPTER THREE

Method

Research design

Creswell and Piano Clark (2007) define mixed method research as a methodology that involves collecting, analyzing, and mixing qualitative and quantitative approaches in many aspects in the process, and also as a research method that collects, analyzes, and mixes those data. They state that the combination of both qualitative and quantitative approaches can provide a better understanding and better results in the research than either qualitative or quantitative research alone. This mixed methodology also provides more comprehensive evidence for the research problems.

Creswell and Piano Clark introduce four major types of mixed method designs as follows: 1) Triangulation design, 2) Embedded design, 3) Explanatory design, and 4) Exploratory design. In this research project, a triangulation design was used. The separately collected data (quantitative and qualitative data) are merged in the interpretation or integrated by transforming the data while it is analyzed for generating an overall interpretation to support the research questions.

Participants

Terminal illness includes several fatal and incurable diseases, such as certain types of cancer which has metastasized to the other parts of the body, AIDS, Alzheimer's disease, Parkinson's disease, etc. (Peter, 1987). In the present study, only terminal cancer patients were asked to participate. Cancer types could include bladder, brain, breast, colon, endometrial, kidney, leukemia, lung, lymphoma, melanoma, non-Hodgkin's, ovarian, pancreatic, prostate, rectal, and skin cancer.

Two adult terminal cancer patients who are over 21 years old and referred by hospice staffs were chosen from a hospice organization. One male and one female patient were referred and the family members who participated in the interventions were their spouses. Each patient needed to have at least one family member or loved one who was available to visit the patient. Inclusion criteria for patients in the present study were as follows (some of the criteria were taken from the 2003 Hilliard study): 1) The patient resided in his or her home, 2) The patient had been notified of his or her diagnosis, 3) The patient could verbally communicate through music therapist and his/her family member or loved one, 4) The patient had been diagnosed by his or her doctor to survive for at least three weeks, 5) The patient could participate in between 30and 60 minute music therapy interventions twice a week , and 6) The patient could answer questions regarding his/her own quality of life.

The family members or loved ones of these two adult terminal cancer patients could participate in the music therapy intervention with the patients. Selection criteria for the family members of the patients were as follows: 1) The family member of a patient had been notified of the patient's diagnosis, 2) The family member of a patient could verbally communicate with the music therapist and the patient, 3) The family member of a patient could participate in between 30 and 60 minute music therapy interventions twice a week, and 4) The family member of a patient could answer questions regarding his/her own stress level.

Procedures

Two terminally ill patients were referred from a hospice organization. Whereas the patients participated in the music therapy sessions, their spouses were also involved in the music therapy sessions. The music therapy sessions were held for each couple.

The maximum time period of every music therapy intervention was one hour. However, the time period of every single session was flexible and could vary between 30 minutes and one hour.

Based on the needs of the patient and the family member, a music therapist suggested the music therapy activities, even though those activities were based on the preference of the patients and the family members and also determined by the skills of the music therapist. The content of the strategies in the session was flexible and was changed during each session.

The music therapy interventions were held twice a week, and the measurement and interview were held three times a week, one at the beginning of the week and after each of two music therapy interventions. After each music therapy intervention and measurement, each patient had with a day for neither measurement/interview nor music therapy intervention.

Testing materials

An experimenter-constructed instrument, a modification from several questionnaires, including the Missoula-VITAS Quality of Life index (MVQOLI) (Byock, 1998) and McGill Quality of Life Questionnaire (Cohen et al, 1995), measured the quality of life of the patients. This instrument included questions regarding pain, physical problems, and psychological problems related to depression and anxiety, spiritual

suffering, and relationship with family and friends as well as the patients' opinion of whether or not the music therapy helped improve quality of life. The participants were asked to answer each question by marking one of the five circles for either agreement or disagreement on the question. The music therapist assisted the patients in the completion of the questionnaire when they had a difficult time. Questions used were as follows: 1) "How severe is your pain?" 2) "I feel sick all the time," 3) "I feel depressed," 4) "I feel anxious or worried," 5) "I am satisfied with relationships with family and friends," 6) "Every day seems to be a burden or gift," 7) "I feel more disconnected from all things now than I did before my illness or I have a greater sense of connection to all things now than I did before my illness," 8) I have less of a sense of meaning in my life now than I have had in the past or I have a better sense of meaning in my life now than I have had in the past," 9) "How would you rate your overall quality of life?" and 10) Music therapy helped improve your quality of life."

The Stressful Caregiving Adult Reactions to Experiences of Dying scale (SCARED) measured stress level of the family members of terminal cancer patients. This is an assessment tool for the frequency, fear, and helplessness through experiences during caregiving. Ten potential distressing caregiving experiences were listed as follows: a) severe pain or discomfort, b) inability to eat or swallow, or choking, c) vomiting, d) dehydration, e) sleeplessness, f) falling, collapsing, or passing out, g) confusion or delirium, and h) other, and also i) felt if "(a patient) had enough" and j) thought if "the patient were dead when he/she was not dead." These items were rated on a three level scale, such as 1: once or twice, 2: every week, 3: every day for its frequency, and 0: not frightened/helpless, 1: somewhat frightened/helpless, 2: very frightened/helpless for the

level of the fear and helplessness senses of a caregiver. In this instrument, a higher total score is significantly ($p < 0.05$) associated with greater impairment in several quality-of-life domains, such as mental health, social functioning, energy, and general health perceptions (Prigerson et al, 2003).

Data gathering

Data were collected from multiple data sources that included both qualitative and quantitative data. Qualitative data were collected from written documents (e.g. assessment, evaluation, and progress report of a patient and his/her family member or loved one), verbal or non-verbal response during music therapy interventions, interviews during and after music therapy interventions, observations, and physical artifacts (e.g. drawing, lyrics written by participants). In collecting quantitative data, questionnaire surveys were used for measuring a terminally ill patient's quality of life and his family member or loved one's stress level.

Musical instruments

Bright (2002) suggests that the instruments used in a music therapy intervention for a terminally ill patient should be chosen according to the preference of the patient and suitability of the instrument for this person's capabilities. In addition, she asserts that the therapist's preference and skills in performance are also important. As she suggests, a variety of musical instruments that are useful in music therapy interventions for terminally ill patients would be made available.

The following instruments were used in the present study along with rationales for using them. Guitar is a mobile musical instrument that can be played anywhere the patient is situated. A classical guitar that has nylon strings may provide a softer sound,

whereas an acoustic guitar that has steel strings may provide a brighter sound. Electric keyboard provides a variety of sounds and rhythm patterns for any kind of music styles. Pressing those buttons on the keyboard is fun for many patients. Although it is not a real piano, its mobility is greater. Sampling machine or sampler is an electronic music instrument that not generates sounds as a synthesizer does but records or samples different sounds, and plays back each sound. Some samplers have pads that play the recorded sounds when pushed. Percussion instruments include shaker, tambourine, paddle drum, rhythm stick, etc, which provide the patient with the opportunity to easily join into the playing of music. CD Player, Tape Recorder, and Video Recorder may be needed for any music or songs from CDs or tapes that the patient would like to listen to, in addition to live music performance by music therapists. Besides, they can be used for recording songs or video for family members of a patient to keep.

Music therapy activities

Since a music therapy intervention is based on the needs of the patients and their family members, music therapy activities in the present study needed to be individualized. In addition, the activities that were used for each family group were different. Music therapy strategies for terminal cancer patients included those that were more focused on improving the physical, psychological, social, and spiritual needs of the patient in a holistic approach (Aldridge, 1996), whereas activities only for the family members of a terminal cancer patient focused on stress management, tension release, relaxation, anxiety reduction physically and psychologically (Peter, 1987). As both terminal cancer patient and the family members participate at the same time, the music therapy interventions were planned, combining the needs for both parties.

Whereas some research supports preferred music or songs by terminally ill patients and/or their family members to help them relax and be more comfortable (Bright, 1986; Bright, 2002; Munro, 1984; Weber, 1999), Bailey (1984) found that song themes emphasizing hope, pleasure, the world, reminiscence, relationships, needs, feelings, loss and death, and peace were helpful. Therefore, songs related to these themes were prepared as well as the music or songs requested before or during music therapy interventions. Music therapy interventions used in this research were such things as live music performance (either by participants or music therapist, or both participants and music therapist), song writing singing familiar or individually preferred songs, playing or improvising on musical instruments, choosing songs and/or discussing song lyrics or memories associated with songs, lyric discussion, and life review or reminiscence through music or songs related to life events.

CHAPTER FOUR

Data Analysis

As this study used a mix method introduced by Creswell and Piano Clark (2007), both quantitative and qualitative were individually collected and analyzed. Each data were analyzed with the following procedures.

Quantitative data

Repeated measures analysis of variance (ANOVA) procedures compared the experimenter-constructed scale scores regarding quality of life of each terminally ill patient across six music therapy sessions over a period of three weeks. Only questions one through nine on the quality of life questionnaire were compared, as question 10 (Music therapy helped improve your quality of life) in the first measurement was not applicable as the measurement was held before the music therapy interventions. Repeated measures ANOVA also compared SCARED scores of each spouse of terminally ill patients across six music therapy sessions over a three week time period. The SCARED event scores, such as frequency, fear, and helplessness scores, were analyzed, instead of analyzing regular SCARED total scores.

Qualitative data

Research studies need to include valid criteria to ensure rigor in the research data. The four main criteria used to evaluate the research data were truth value, applicability, consistency, and neutrality. These criteria are analogous to internal validity, external validity, reliability, and objectivity in quantitative research. They may be applied in qualitative research in naturalistic cases. However, some checks are still necessary in terms of dealing with researcher subjectivity. There are several ways to minimize

researcher subjectivity, including the following: 1) Checks of the researcher's own data production, 2) Checks of the data by the respondents, or 3) Checks of the data by other researchers (Smeijsters & Aasagaard, 2005).

Trustworthiness for qualitative data is described by Lincoln and Guba (1985), and is divided into four different criteria. The criteria of credibility, dependability, transferability, and confirmability are used in qualitative research, whereas internal validity, external validity, reliability, and objectivity are used in quantitative research. These four criteria can be employed to deal with researcher subjectivity.

Smeijsters (1997) offered descriptions of these four general criteria used in qualitative research. Credibility is to make reconstructed patterns credible for participants by describing mutuality in multiple realities. Researchers use the term "dependability" to repeat looking at or re-experiencing thoughts, feelings, images, and so forth. In qualitative research, the results are multiple perspectives that are replicated not the unique treatment but the descriptions of its uniqueness. Transferability is when a research finding can be seen to have any similarities to findings in other cases. As objectivity used in quantitative research is never found in qualitative research, confirmability is used as the appropriate term in qualitative research, which includes the participants' subjective impressions.

Qualitative researchers also use alternative techniques to those of quantitative researchers (Smeijsters & Van Den Berk, 1995; Smeijsters & Aasagaard, 2005). The following alternative research techniques were used in this study: 1) Thick Description (gathering data by containing detailed descriptions of everything that happened and was seen in sessions, which only includes factual descriptions for multiple interpretations), 2)

Peer debriefing (checking for and finding out the researcher's biases and testing working hypotheses by asking other professionals, such as social workers, other music therapists not involved, other researchers involved, etc.), 3) Categories (classifying the concepts identified according to their similarity), 4) Diagnostic themes (generating diagnostic meanings from marked words and grouping similar marked diagnostic words together), 5) Treatment proposals: (including indications, goals, objectives, music therapy intervention techniques, etc.), 6) Triangulation (using different data sources (clients, music therapists, researchers), different techniques of collecting data (assessment, observation, evaluation, progress report of participants, researcher's subjective notes, interviews, physical artifacts), different theoretical models), and 7) Dialectical roles (separating the roles of music therapist and the researcher).

CHAPTER FIVE

Case One: Tim and Mary

The clients

A 29 year old male patient who was diagnosed with cancerous brain tumors was referred to music therapy from a hospice organization. He was first diagnosed when he was 21 years of age. His tumor was removed, and he went through six weeks of radiation. He remained cancer free for about seven years. When he was 26, another tumor that could not be removed was discovered. During the next two years, he took an oral chemotherapy pill. After a few months, he began radiation treatment again for another new tumor.

The patient was aware of all of his diagnoses and made all decisions regarding his treatment. According to his spouse, "He was determined to beat the cancer again and opted for aggressive treatments."

The patient was willingly engaged in all music therapy interventions and interviews for three weeks until he passed away. He was able to interact with his spouse and the music therapist by verbalizing, nodding/shaking his head, using his hand in playing instruments, and giving "thumbs up" for expressing a positive emotion. He participated in several different kinds of music therapy activities that either the music therapist suggested or the patient preferred. He shared that his favorite activities were listening to preferred music and music improvisation.

The patient's spouse also willingly participated in all music therapy interventions and interviews. She was open to share anything that the music therapist asked and supportive to the patient and was positively involved in all music therapy procedures. She

stated that she had especially enjoyed singing songs and song writing, through which she expressed her emotions and feelings during the difficult time.

The assessment results in each area for both the patient and his spouse were as follows. The patient had pain due to chronic headaches. This feeling of pain influenced other area of his needs. He also claimed that he had not had enough rest and sleep. This area was the primary need for the patient. Goals for the patient's physical needs were as follows: 1) Relief of acute or chronic pain and physical distress and 2) Muscle relaxation. The caregiver had physical distress due to the demands of full time caregiving. She did not get adequate sleep. Goals for the caregiver's physical needs were as follows: 1) Releasing tension, 2) Muscle relaxation, and 3) Decreasing physical distress.

As the patient was not able to handle daily activities as much he formerly did, he needed to increase and maintain his self-concept and self-esteem as well as being provided with an opportunity for decision making. He mentioned that he felt increasing anxiety and depression. In providing the best care for him, facilitating expression of feelings was one of the important goals, since feelings expressed might help the music therapist meet his needs better. Goals for the patient's psychological needs were as follows: 1) Increasing/maintaining self-concept and self-esteem, 2) Decreasing anxiety and depression, 3) Facilitating expression of feelings, 4) Continuing to be involved in decision making about his own life, and 4) Finding ways to give expression to those parts of himself that were still vital and healthy. The caregiver stated her emotional distress and anxiety as her main concern. Goals for the caregiver's psychological needs were as follows: 1) Reducing anxiety and 2) Decreasing emotional distress.

The music therapist set the goal for them to have more meaningful time together when remembering past meaningful times. Goals for their social needs were as follows: 1) Provide an opportunity for life review and reminiscence and 2) Facilitate more meaningful time together.

Both the patient and caregiver had a strong Christian faith. The following goals were set to draw out their spirituality with music: 1) Facilitate expression of meaning of life, 2) Provide the time for discussion of spiritual feelings and questions, and 3) Increase feeling of comfort and reassurance found in religious belief.

Quantitative data

Change across time on Quality of Life Questionnaire is shown in Figure 1. The ANOVA procedures revealed no differences in the patient's quality life among the nine questions across six music therapy sessions over a period of three weeks. Means and standard deviations for the various measurement periods are shown in Table 1, and Repeated Measures ANOVA on Quality of Life Questionnaire is shown in Table 2.

Change across time on various components of SCARED is shown in Figure 2, and SCARED total score is shown in Figure 3. The ANOVA procedures revealed no differences in SCARED score of the patient's wife among the nine questions across six music therapy sessions over a period of three weeks. Means and standard deviations for the various measurement periods are shown in Table 3, and Repeated Measures ANOVA on SCARED is shown in Table 4.

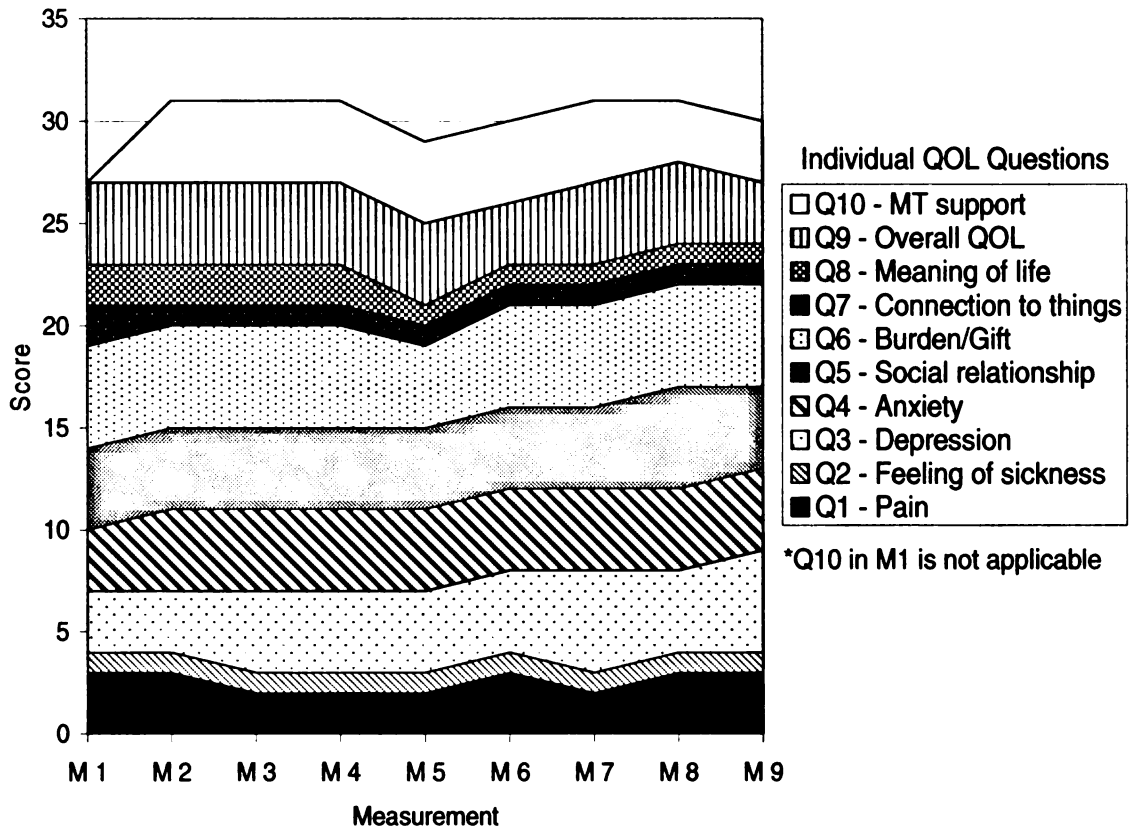

Figure 1. Change across time on Quality of Life Questionnaire

Table 1. Means and Standard Deviation on Quality of Life Questionnaire

	Mean	Std. Deviation
Measurement 1	3.0000	1.22474
Measurement 2	3.0000	1.41421
Measurement 3	3.0000	1.50000
Measurement 4	3.0000	1.50000
Measurement 5	2.7778	1.48137
Measurement 6	2.8889	1.53659
Measurement 7	3.0000	1.73205
Measurement 8	3.1111	1.69148
Measurement 9	3.0000	1.65831

Table 2. Repeated Measures ANOVA: Quality of Life Questionnaire

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
factor1	Sphericity Assumed	.617	8	.077	.382	.927

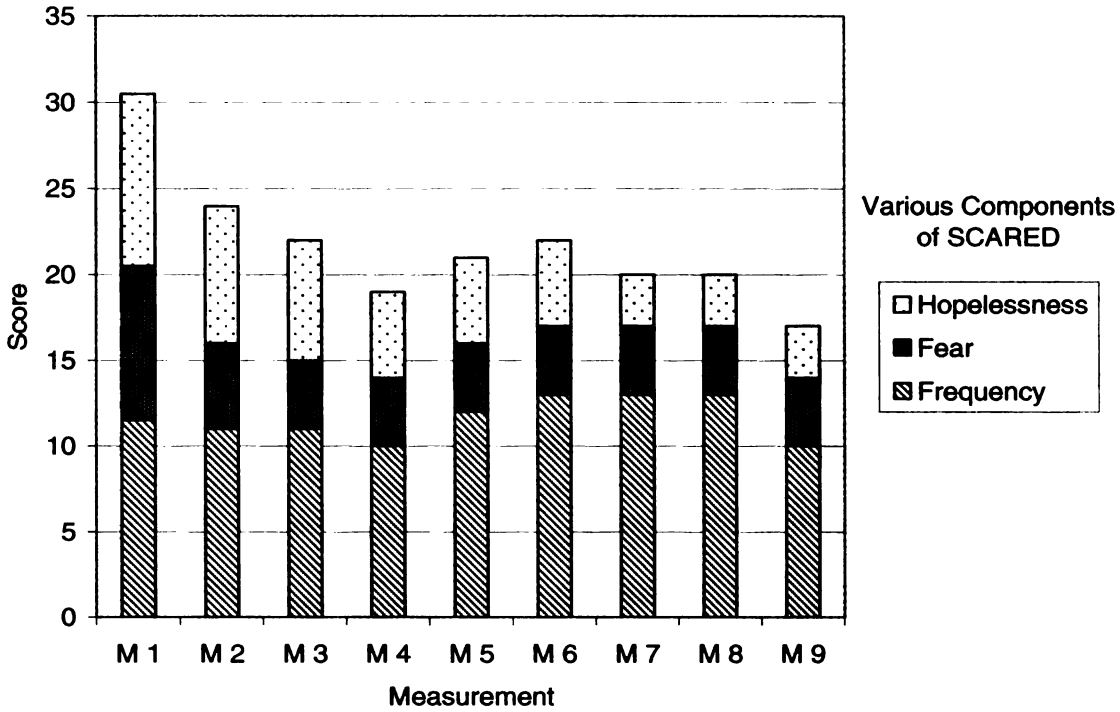

Figure 2. Change across time on various components of SCARED

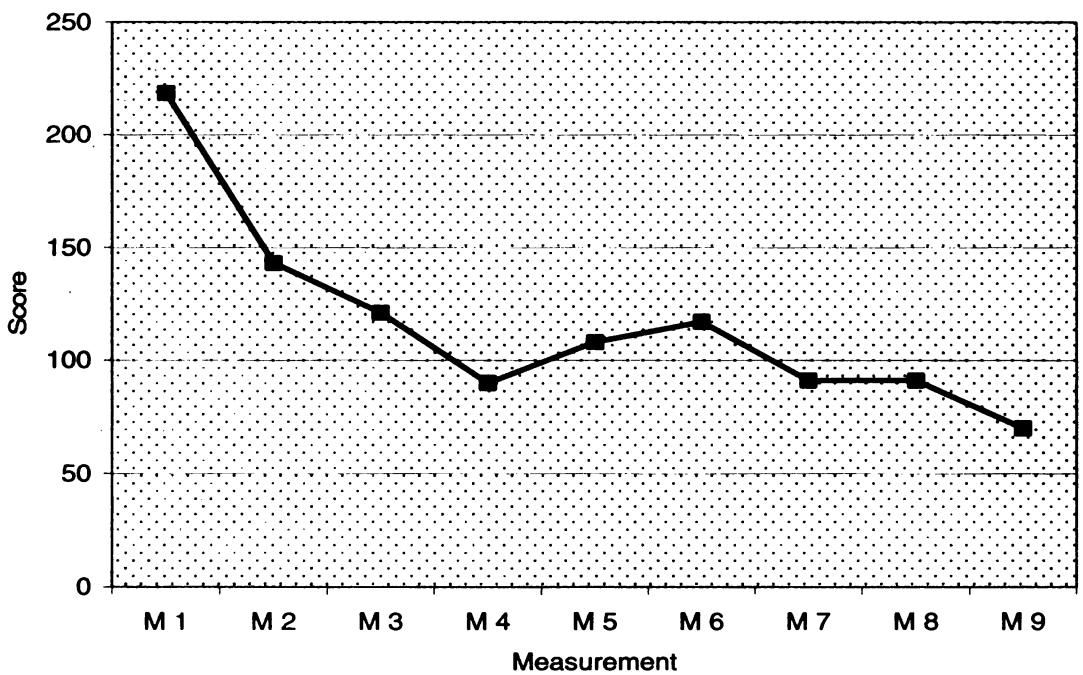

Figure 3. Change across time on SCARED total score

Table 3. Means and Standard Deviation on SCARED

	Mean	Std. Deviation
Measurement 1	10.1667	1.25831
Measurement 2	8.0000	3.00000
Measurement 3	7.3333	3.51188
Measurement 4	6.3333	3.21455
Measurement 5	7.0000	4.35890
Measurement 6	7.3333	4.93288
Measurement 7	6.6667	5.50757
Measurement 8	6.6667	5.50757
Measurement 9	5.6667	3.78594

Table 4. Repeated Measures ANOVA: SCARED

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
factor1	Sphericity Assumed	39.519	8	4.940	1.856	.139
Error (factor1)	Sphericity Assumed	42.593	16	2.662		

Qualitative data

The duration of the music therapy interventions and the number of activities were limited in each session, as the patient had pain, fatigue, and irregular sleep, due to chronic headaches. Generally, one or two activities in a 30-minute or so music therapy session were carried out for the patient and his wife.

Singing-along, the way of reminiscence. In sessions 1, 2, 3, and 5, the patient and his wife chose a sing-along activity. It was a way for them to look back not only at positive memories but also expressing feelings that they had not touched for a while. Those songs also provided them with meaningful interaction and communication.

The song that they both hoped to sing several times was "Angel" by Sarah McLachlan (1999), as they had positive memories of that song. The wife shared a story about the patient and this song in the first session. While dating for two years, they had listened to this song so many times when they were in college. The patient first started singing the song, and his wife joined in. The picture of them singing the song revealed how much they enjoyed their life in college. This song might bring them back to their youth. After the song, the wife and the music therapist sang some more songs chosen by the wife, but the patient became quiet and closed his eyes. He might have wanted to reflect alone. In session 2, the song was chosen again. They both made a good eye contact with each other while singing the song. After the song ended, the music therapist repeated the last line of the song by saying, "Hope you would find some comfort." After he said it, the patient and his wife quietly looked at each other, held their hands, and smiled. Using a song to both of them enhanced meaningful communication as well as reminiscence through the song. This meaningful communication was also seen in session

3 when they sang it again. But the difference was that the patient initiated holding his wife's hands, so the song changed his mood more in a positive direction than in the first two sessions.

Another song was "The Rose" by Bette Midler (1979). The song was also meaningful to them, as they had hoped to sing the song at their wedding. However, it did not happen as their Pastor did not allow it to use for the ceremony due to some phrases in the lyrics. While the wife and the music therapist were singing the song, the patient quietly listened. At one point the patient commented, "That is the line why we could not sing this song! Why didn't he let us sing this song?" As the music therapist repeated it by reading the lyric and it came to the last line of the song, the patient opened his mouth and shared how he felt about that, and he became tearful. His wife who was sitting close to him and listening gently hugged her loved one who had tears on his eyes. The song greatly helped the patient open his heart and brought back the memory associated with the song, which have been an emotion that he had hidden and could not express for a while.

In session 5, after not having enough sleep and having a headache, the patient had a difficult time engaging in the activity and often fell asleep during the music therapy session. However, the wife chose another meaningful song that was sung at their wedding. While the wife sang "Great is Thy Faithfulness," the patient slightly moved his mouth along with her, although he was half conscious. The combination of the voice of his loved one and the meaningful song strongly and positively influenced the patient at his bed side, despite having a difficult time.

Improvisation and mandala. Improvisation was one of the patient's most enjoyed activities that were used in the interventions and also on which produced the most active participation, although it was used only a couple of times through the whole six music therapy sessions. In the improvised music, he expressed his emotions by playing the drum, which he chose quickly when the music therapist asked him to choose an instrument.

In the first experience, the patient initiated tapping his drum, and his wife joined in him by playing an egg shaker along with his beat. The beat dramatically changed between slow and fast with different dynamics as he tapped and scratched. The patient explained after the music ended that he expressed quietness with the scratch sound and loudness with the tapping sound. The patient stated that he experienced randomness while his wife said she felt intense during the music. Even the first time they played, the patient, the wife and the music therapist carefully listened intently to each other's sounds. Later, the patient shared that he experienced the feeling of "working together" in the music.

In the next improvisation, the patient remained with his drum while his wife chose the keyboard, and the music therapist chose to play the guitar. In this experience, the wife was more the lead in the music as she played and repeated the melody in D-minor within its pentatonic scale. During this time the patient was quietly repeating one beat on his drum. After the music ended, the music therapist asked the following three questions: 1) "What adjective would be appropriate for the music?" 2) "What color they felt in the music?" and 3) "What emotion they felt in the music?" The patient stated that the music was intense and he felt it was orange that was divided into red and yellow as the music

moved on, but he stated that he did not emotionally feel anything during the music. The phenomena the patient experienced is known as chromesthesia or synesthesia, which is when hearing music stimulates a visual sensation of color. On the other hand, his wife stated that she could not come up any adjective for the music that they produced, but she felt the colors gold and red that were close to the color the patient experienced. She expressed her emotion as happy during the music (see Table 5).

As the patient and his wife might be able to express more visually, the music therapist asked them to draw what they just experienced and felt in the improvised music. The music therapist provided them with a paper including a circle in the middle of the paper, which is known as a mandala. They did not need to think anything of what to draw together and did not need long to finish. As they drew together, the patient only drew within the circle making red, orange, and yellow random lines. His wife drew trees, leaves, shiny sky, and feathers only outside the circle (see Figure 4). She explained, "It was just a way to express the sensations the music evoked in me, such as the warm and bright colors and the feeling of the forest and the sun shining down on the leaves covering the ground." The patient's random lines give the impression of confusion that remained within such a limited space to move, while his wife surrounded him with such a warm and bright color image. She explained regarding this drawing after the patient passed away, "Now that picture means the world to me. Tim wasn't a very artistic person and now I have this drawing he helped me do and will always remember that."

Table 5. Summary of Improvisation in Session 1

Music Therapist (MT)	Patient (PT)	Spouse (SP)
• Encouraged PT to pick up a percussion instrument: tambourine, egg shaker, small size drum		
• Picked a tambourine	• Chose a drum quickly • Initiated playing the drum by tapping and scratching it. He stated later he expressed loudness and quietness	• Chose an egg shaker
• Asked adjectives would be appropriate for music just played	• Said "Randomness"	• Said "Intense"
• Asked for next improvisation • Chose guitar	• Chose a drum again	• Chose keyboard and played pentatonic scale as the MT put the colored tapes on F and B to not play • Started playing with a melody in Dm
• Asked adjectives, color, their emotions	• Adjective – intense, Color – orange (this orange became divided into yellow and red eventually) Emotion – None • Shared he felt PT, SP, and MT collaborated well to make the music	• Adjectives – None, Color – gold and red, Emotions – happy
• Asked PT and SP to draw a mandala together, and provided a paper that had an empty circle in the middle	• Only drew within the circle • Drew yellow and red colored random lines inside the circle	• Worked outside the circle • Drew trees, shiny sky, leaves, feathers (blue and red)

Figure 4. Mandala drawn by the patient and his wife

An image in this thesis is presented in color

Song writing, memories and distraction. Although the patient physically had a difficult time participating in each activity, both the patient and his wife collaborated to write their own song as a legacy. They willingly accepted this activity. The music therapist asked them to think of any topic and keyword for the song in session 1 to make the activity easier. At the next visit, they shared the topic and keyword that they had been discussing for the song writing. The word shared by the patient and his wife was "Halloween," and the patient continued that the keyword of this song was a guy named "Chuck." The wife stated, "When Tim first picked the topic for the song as Chuck with the memory of that Halloween party and our friend's costume I didn't think it could possibly make a good or interesting song. I just couldn't see it. As we worked on it and the lyrics fell together I began to see what he could see, this vision for getting that hilarity across. And again it was neat to see him in that creative process." This imaginary character was acted by one of their close friends on Halloween three years ago before the music therapy sessions began. They brought up such a positive image in the midst of their difficult times. However, it was a way for the patient to visualize his image in a creative way. In addition, this activity supported the wife not only in expressing her feelings but also to release her stress, when she shared with the therapist that at that time she did not have another outlet to express her feelings.

They already wrote half of the lyrics at that time, and expressed their emotions by smiling when they shared the lyrics they wrote. This shows how much they enjoyed working toward something fun and working together, and also how this imaginary character had remained a positive and meaningful memory to them.

The patient participated in this activity with suggesting and agreeing what the wife came up with on the lyrics and on the keyboard when she tried to make a melody. In the last session, the patient's condition was not conductive to do this activity as he had lost so much sleep and had a headache, but he was still willing to participate in song writing by deciding chord progressions for the melody written by the wife. The music therapist supported the patient with using the sampling equipment including several useful chords of F-Major played by piano, such as F-Major 7, D-minor 7, C-Major, Bb-Major 7, A-minor 7, G-minor 7, G-Major 7, etc. By pushing the pads on the sampling equipment, the patient was able to decide the chord progressions. Although this activity had not been finished within the whole six music therapy sessions, the wife agreed to finish the song writing as a memory of her loved one and a meaningful activity that they started working on together before the patient passed away. Later the music therapist visited the wife to continue the song writing. The song (see Figure 5) is the one completed by the wife after the collaboration with her husband.

Chuck

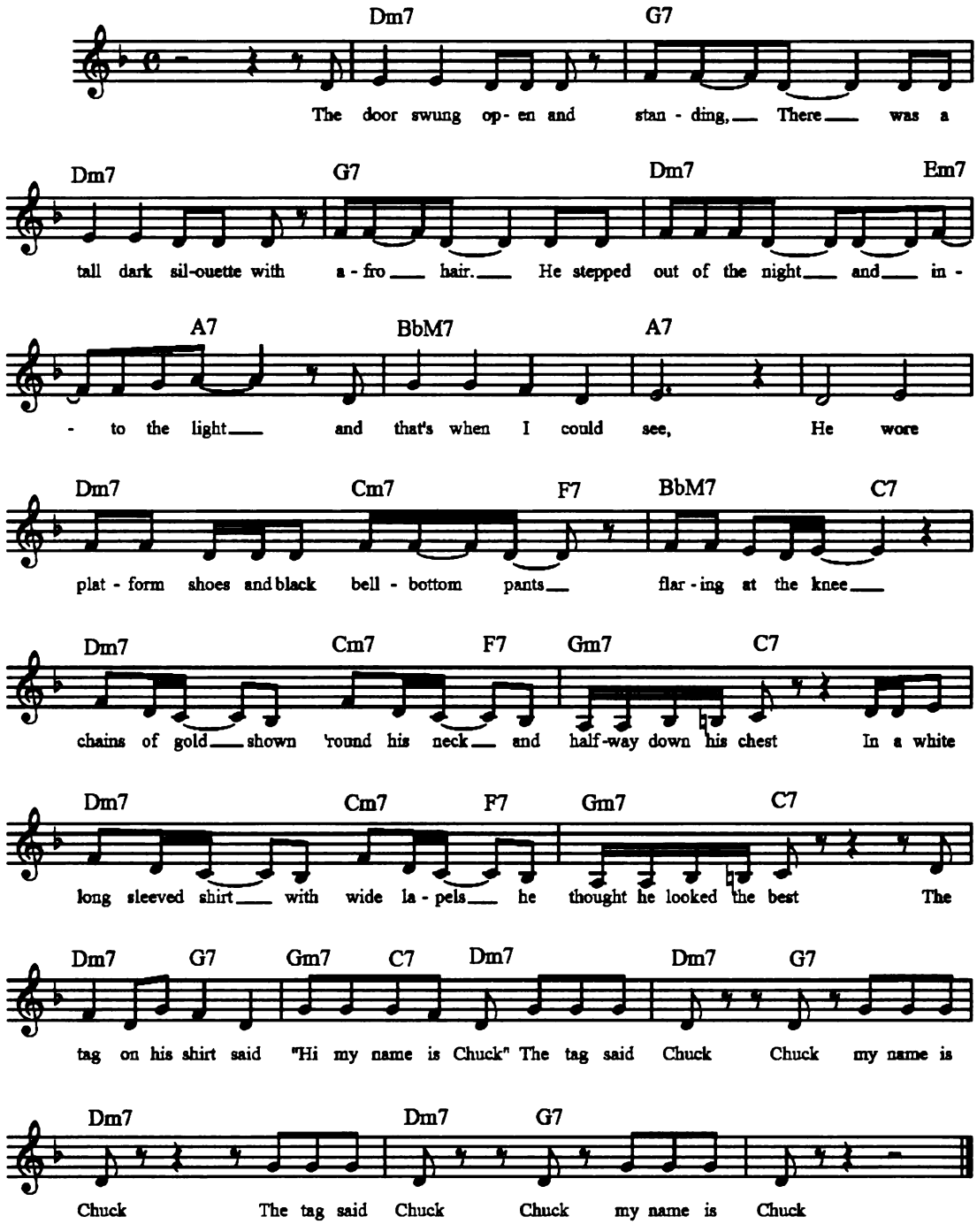

Figure 5. The sheet music and the first verse from the lyric of the song "Chuck"

CHAPTER SIX

Case Two: Betty and James

The clients

A 76 year old female patient diagnosed with lung cancer was referred to music therapy from a hospice organization. She was an independent person who was active in doing most of her daily routines, such as cleaning her room and cooking. She enjoyed meeting new people and doing new things. She stated that she sometimes had pain. However, her pain was controlled by medication that she took whenever she felt pain. Coughing also sometimes made her uncomfortable, although she was able to control it by taking cough drops.

The patient was referred to music therapy due to her past musical experience. It was thought that she could be passionate about the experience, so music therapy might help support her and help improve her quality of life at the end of her life. According to the patient's daughter, who visited the patient everyday, she had had been away from the music that she always enjoyed through her life. Although she used to play the organ and always enjoyed singing and listening to music, the only musical activity that she was usually able to participate in was singing during the service at her church, where she attended regularly. The patient was always eager to try new activities that the music therapy introduced, such as improvisation and writing lyrics using a fill-in-blank technique.

The patient's husband who was a full time caregiver also willingly participated in all the music therapy interventions, although he showed some hesitation to participate. He was friendly, supportive, and caring toward both his wife and the music therapist. He

displayed a positive attitude toward music therapy, as he knew that music had been a big part of his wife's life, so it had the potential to make her life richer at the end. He had had a hard time accepting the reality that his wife would be gone and physically separated from himself.

Despite his hesitation to initiate sharing, the caregiver was open to share when he was asked. He made jokes during the interventions, as he shared that he would like to see and offer support for whatever made his wife happy.

The assessment results for both the patient and her caregiver were as follows. The patient was able to control her pain with medication provided by her doctor. She also used music (e.g. listening to the radio) for her relaxation. Goals for the patient's physical needs were as follows: 1) Release muscle tension, 2) Learn music relaxation technique for when music therapy is not available, and 3) Decrease or be distracted from the feeling of pain. The caregiver was able to relax himself by talking with the patient, listening to radio, etc. He stated that he did not have distress as long as the patient looked fine, although he might feel distress and physical tension when he saw that the patient had a difficult time, such as expressing pain and coughing. Goals for the caregiver's physical needs were as follows: 1) Release muscle tension and 2) Learn music relaxation techniques for when music therapist is not present.

Although the patient occasionally experienced anxiety that made her depressed, she was able to control her anxiety with medication provided by her doctor, so she did not have any confusion during the music therapy intervention. Goals for her psychological needs were as follows: 1) Facilitate expression of feelings, 2) Decrease anxiety and

depression, 3) Maintain a feeling of well-being, 4) Facilitate expression to those parts of the individuals that are still vital and healthy, and 5) Be involved in decision making.

The caregiver stated that he did not have much anxiety, since the patient's anxiety was controlled. Plus he did not feel any emotional distress and anxiety as long as the patient did fine. However, he was hesitant in expressing his feeling. The goal for his psychological needs was to facilitate expression of feelings.

The patient stated that she was satisfied with relationships with her family and friends. However, she shared that she always wanted somebody to talk with other than her husband living with her. The caregiver needed meaningful times with the patient. Goals for their social needs were as follows: 1) Provide an opportunity for life review and reminiscence, 2) Facilitate conversation and discussion of any difficult, emotional, intimate issues when they exist, and 3) Facilitate more meaningful time together.

Both the patient and the caregiver had a strong Christian faith. Whereas the patient felt her life was a gift, she felt that she had less of a sense of meaning in her life than before the illness. Goals for their spiritual needs were as follows: 1) Facilitate expression of meaning of life, 2) Provide time for discussion of spiritual feelings and questions, and 3) Increase feeling of comfort and reassurance in religious belief

Quantitative data

Change across time on Quality of Life Questionnaire is shown in Figure 6. The mean on descriptive statistics showed that the patient's quality of life level improved over the time of the music therapy intervention ($p < .000$) (see Table 6). Repeated Measures ANOVA on Quality of Life Questionnaire were shown in Table 7. Pairwise Comparisons were run using the Least Significant Difference (LSD) test. This showed that there were

significant changes between measurement one and nine ($p < .023$), two and nine ($p < .023$), three and nine ($p < .022$), four and nine ($p < .013$), five and nine ($p < .013$), six and nine ($p < .013$), seven and nine ($p < .013$), and eight and nine ($p < .013$) (see Table 8).

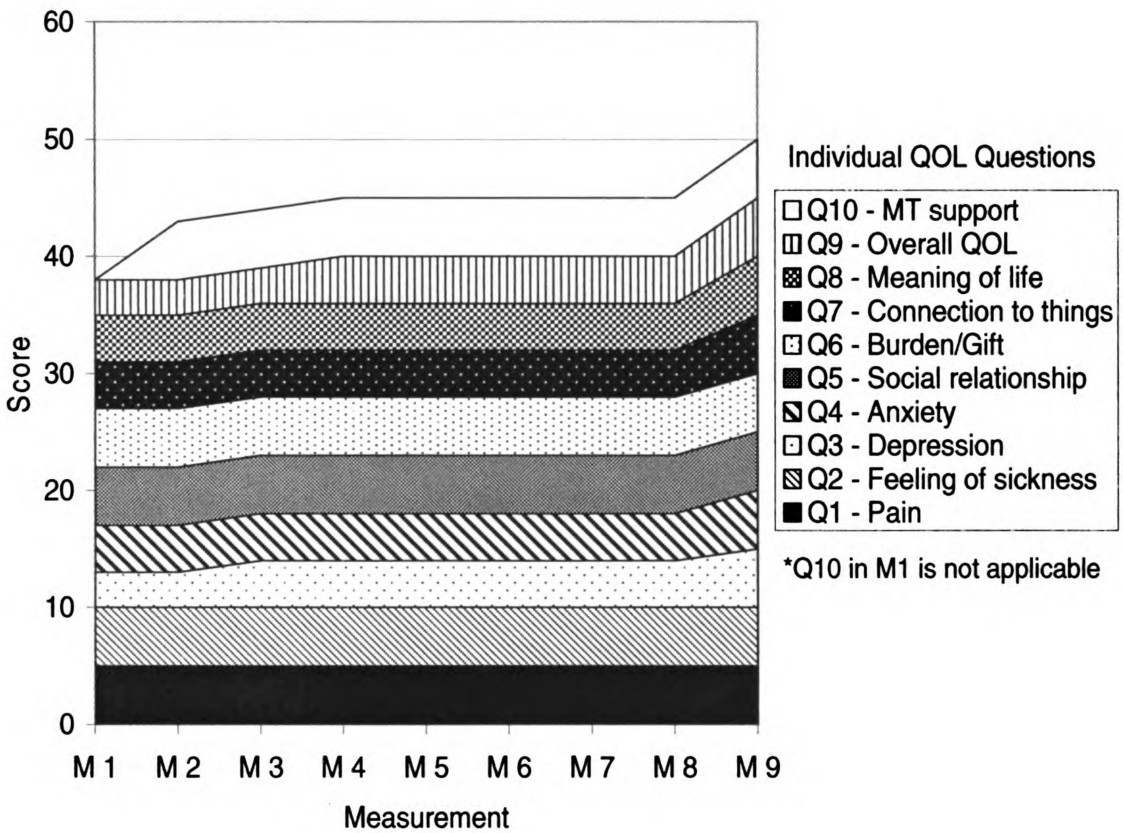

Figure 6. Change across time on Quality of Life Questionnaire

Table 6. Means and Standard Deviation on Quality of Life Questionnaire

	Mean	Std. Deviation
Measurement 1	4.2222	.83333
Measurement 2	4.2222	.83333
Measurement 3	4.3333	.70711
Measurement 4	4.4444	.52705
Measurement 5	4.4444	.52705
Measurement 6	4.4444	.52705
Measurement 7	4.4444	.52705
Measurement 8	4.4444	.52705
Measurement 9	5.0000	.00000

Table 7. Repeated Measures ANOVA: Quality of Life Questionnaire

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
factor1	Sphericity Assumed	3.778	8	.472	5.667	.000
Error (factor1)	Sphericity Assumed	5.333	64	.083		

Table 8. Quality of Life Comparisons

(I) factor1	(J) factor1	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
1	2	.000	.000		.000	.000
	3	-.111	.111	.347	-.367	.145
	4	-.222	.147	.169	-.561	.117
	5	-.222	.147	.169	-.561	.117
	6	-.222	.147	.169	-.561	.117
	7	-.222	.147	.169	-.561	.117
	8	-.222	.147	.169	-.561	.117
	9	-.778(*)	.278	.023	-1.418	-.137
2	1	.000	.000	.	.000	.000
	3	-.111	.111	.347	-.367	.145
	4	-.222	.147	.169	-.561	.117
	5	-.222	.147	.169	-.561	.117
	6	-.222	.147	.169	-.561	.117
	7	-.222	.147	.169	-.561	.117
	8	-.222	.147	.169	-.561	.117
	9	-.778(*)	.278	.023	-1.418	-.137

Table 8 (Continued)

3	1	.111	.111	.347	-.145	.367
	2	.111	.111	.347	-.145	.367
	4	-.111	.111	.347	-.367	.145
	5	-.111	.111	.347	-.367	.145
	6	-.111	.111	.347	-.367	.145
	7	-.111	.111	.347	-.367	.145
	8	-.111	.111	.347	-.367	.145
	9	-.667(*)	.236	.022	-1.210	-.123
4	1	.222	.147	.169	-.117	.561
	2	.222	.147	.169	-.117	.561
	3	.111	.111	.347	-.145	.367
	5	.000	.000	.	.000	.000
	6	.000	.000	.	.000	.000
	7	.000	.000	.	.000	.000
	8	.000	.000	.	.000	.000
	9	-.556(*)	.176	.013	-.961	-.150

Table 8 (Continued)

5	1	.222	.147	.169	-.117	.561
	2	.222	.147	.169	-.117	.561
	3	.111	.111	.347	-.145	.367
	4	.000	.000	.	.000	.000
	6	.000	.000	.	.000	.000
	7	.000	.000	.	.000	.000
	8	.000	.000	.	.000	.000
	9	-.556(*)	.176	.013	-.961	-.150
6	1	.222	.147	.169	-.117	.561
	2	.222	.147	.169	-.117	.561
	3	.111	.111	.347	-.145	.367
	4	.000	.000	.	.000	.000
	5	.000	.000	.	.000	.000
	7	.000	.000	.	.000	.000
	8	.000	.000	.	.000	.000
	9	-.556(*)	.176	.013	-.961	-.150

Table 8 (Continued)

7	1	.222	.147	.169	-.117	.561
	2	.222	.147	.169	-.117	.561
	3	.111	.111	.347	-.145	.367
	4	.000	.000	.	.000	.000
	5	.000	.000	.	.000	.000
	6	.000	.000	.	.000	.000
	8	.000	.000	.	.000	.000
	9	-.556(*)	.176	.013	-.961	-.150
8	1	.222	.147	.169	-.117	.561
	2	.222	.147	.169	-.117	.561
	3	.111	.111	.347	-.145	.367
	4	.000	.000	.	.000	.000
	5	.000	.000	.	.000	.000
	6	.000	.000	.	.000	.000
	7	.000	.000	.	.000	.000
	9	-.556(*)	.176	.013	-.961	-.150

Table 8 (Continued)

9	1	.778(*)	.278	.023	.137	1.418
	2	.778(*)	.278	.023	.137	1.418
	3	.667(*)	.236	.022	.123	1.210
	4	.556(*)	.176	.013	.150	.961
	5	.556(*)	.176	.013	.150	.961
	6	.556(*)	.176	.013	.150	.961
	7	.556(*)	.176	.013	.150	.961
	8	.556(*)	.176	.013	.150	.961

Based on estimated marginal means

* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Change across time on various components of SCARED is shown in Figure 7, and SCARED total score is shown in Figure 8. Repeated measure ANOVA procedures reported that significance on SCARED score of the patient's husband. The mean on descriptive statistics showed the spouse's stress level decreased over the time of the music therapy intervention ($p < .000$) (see Table 9). Repeated Measures ANOVA on SCARED was shown in Table 10. Pairwise Comparisons were run using the Least Significant Difference (LSD) test. This showed that there were significant changes between measurement one and four ($p < .020$), one and five ($p < .015$), one and six ($p < .015$), one and seven ($p < .032$), one and eight ($p < .032$), one and nine ($p < .020$), three and seven ($p < .020$), three and eight ($p < .020$), three and nine ($p < .015$), and four and nine ($p < .038$) (see Table 11).

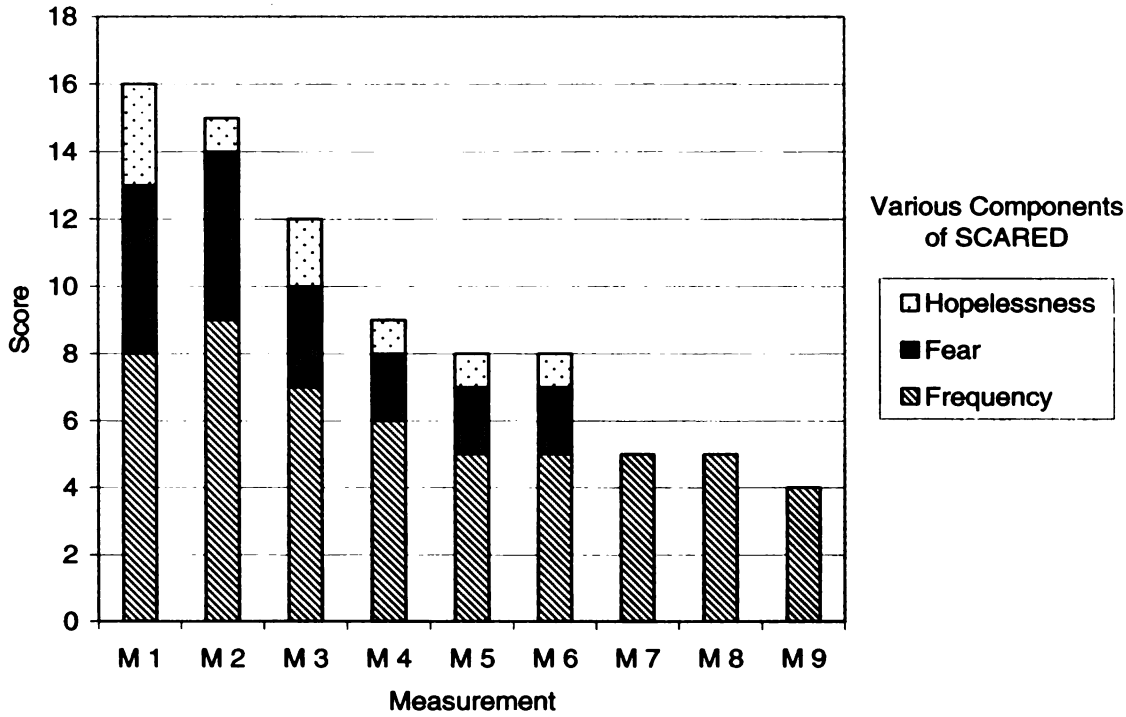

Figure 7. Change across time on various components of SCARED

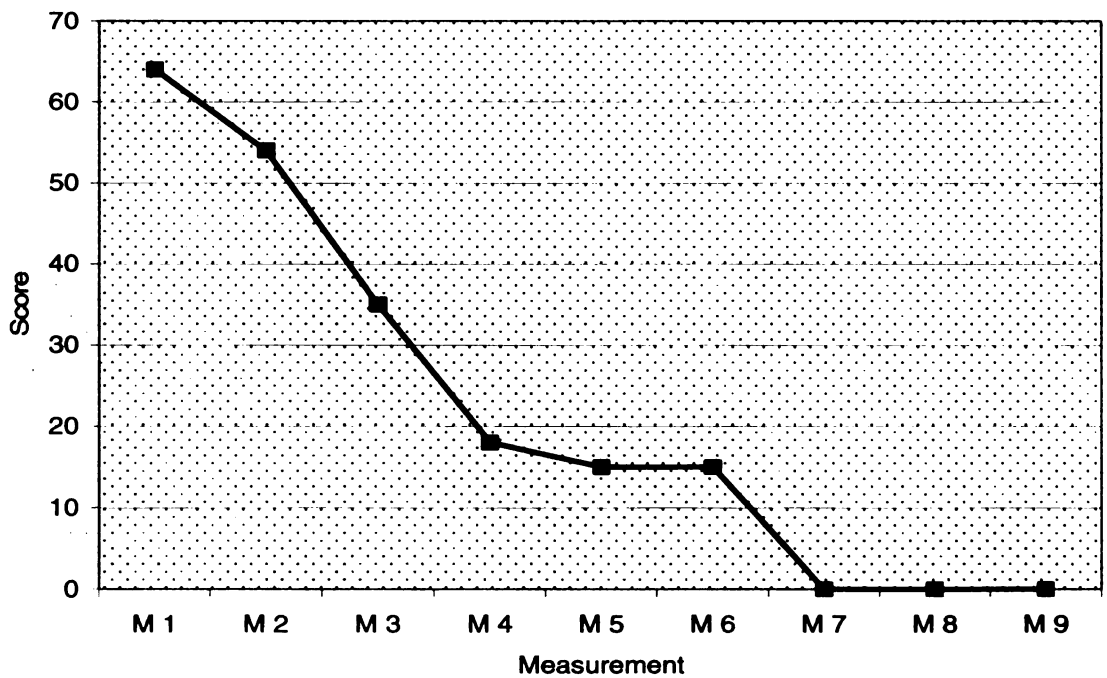

Figure 8. Change across time on SCARED total score

Table 9. Means and Standard Deviation on SCARED

	Mean	Std. Deviation
Measurement 1	5.3333	2.51661
Measurement 2	5.0000	4.00000
Measurement 3	4.0000	2.64575
Measurement 4	3.0000	2.64575
Measurement 5	2.6667	2.08167
Measurement 6	2.6667	2.08167
Measurement 7	1.6667	2.88675
Measurement 8	1.6667	2.88675
Measurement 9	1.3333	2.30940

Table 10. Repeated Measures ANOVA: SCARED

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
factor1	Sphericity Assumed	50.963	8	6.370	10.269	.000
Error (factor1)	Sphericity Assumed	9.926	16	.620		

Table 11. SCARED Comparisons

(I) factor1	(J) factor1	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
1	2	.333	.882	.742	-3.461	4.128
	3	1.333	.333	.057	-.101	2.768
	4	2.333(*)	.333	.020	.899	3.768
	5	2.667(*)	.333	.015	1.232	4.101
	6	2.667(*)	.333	.015	1.232	4.101
	7	3.667(*)	.667	.032	.798	6.535
	8	3.667(*)	.667	.032	.798	6.535
	9	4.000(*)	.577	.020	1.516	6.484
2	1	-.333	.882	.742	-4.128	3.461
	3	1.000	1.000	.423	-3.303	5.303
	4	2.000	1.000	.184	-2.303	6.303
	5	2.333	1.202	.192	-2.838	7.504
	6	2.333	1.202	.192	-2.838	7.504
	7	3.333	1.202	.109	-1.838	8.504
	8	3.333	1.202	.109	-1.838	8.504
	9	3.667	1.333	.111	-2.070	9.404

Table 11 (Continued)

3	1	-1.333	.333	.057	-2.768	.101
	2	-1.000	1.000	.423	-5.303	3.303
	4	1.000	.000	.	1.000	1.000
	5	1.333	.333	.057	-.101	2.768
	6	1.333	.333	.057	-.101	2.768
	7	2.333(*)	.333	.020	.899	3.768
	8	2.333(*)	.333	.020	.899	3.768
	9	2.667(*)	.333	.015	1.232	4.101
4	1	-2.333(*)	.333	.020	-3.768	-.899
	2	-2.000	1.000	.184	-6.303	2.303
	3	-1.000	.000	.	-1.000	-1.000
	5	.333	.333	.423	-1.101	1.768
	6	.333	.333	.423	-1.101	1.768
	7	1.333	.333	.057	-.101	2.768
	8	1.333	.333	.057	-.101	2.768
	9	1.667(*)	.333	.038	.232	3.101

Table 11 (Continued)

5	1	-2.667(*)	.333	.015	-4.101	-1.232
	2	-2.333	1.202	.192	-7.504	2.838
	3	-1.333	.333	.057	-2.768	.101
	4	-.333	.333	.423	-1.768	1.101
	6	.000	.000	.	.000	.000
	7	1.000	.577	.225	-1.484	3.484
	8	1.000	.577	.225	-1.484	3.484
	9	1.333	.333	.057	-.101	2.768
6	1	-2.667(*)	.333	.015	-4.101	-1.232
	2	-2.333	1.202	.192	-7.504	2.838
	3	-1.333	.333	.057	-2.768	.101
	4	-.333	.333	.423	-1.768	1.101
	5	.000	.000	.	.000	.000
	7	1.000	.577	.225	-1.484	3.484
	8	1.000	.577	.225	-1.484	3.484
	9	1.333	.333	.057	-.101	2.768

Table 11 (Continued)

7	1	-3.667(*)	.667	.032	-6.535	-.798
	2	-3.333	1.202	.109	-8.504	1.838
	3	-2.333(*)	.333	.020	-3.768	-.899
	4	-1.333	.333	.057	-2.768	.101
	5	-1.000	.577	.225	-3.484	1.484
	6	-1.000	.577	.225	-3.484	1.484
	8	.000	.000	.	.000	.000
	9	.333	.333	.423	-1.101	1.768
8	1	-3.667(*)	.667	.032	-6.535	-.798
	2	-3.333	1.202	.109	-8.504	1.838
	3	-2.333(*)	.333	.020	-3.768	-.899
	4	-1.333	.333	.057	-2.768	.101
	5	-1.000	.577	.225	-3.484	1.484
	6	-1.000	.577	.225	-3.484	1.484
	7	.000	.000	.	.000	.000
	9	.333	.333	.423	-1.101	1.768

Table 11 (Continued)

9	1	-4.000(*)	.577	.020	-6.484	-1.516
	2	-3.667	1.333	.111	-9.404	2.070
	3	-2.667(*)	.333	.015	-4.101	-1.232
	4	-1.667(*)	.333	.038	-3.101	-.232
	5	-1.333	.333	.057	-2.768	.101
	6	-1.333	.333	.057	-2.768	.101
	7	-.333	.333	.423	-1.768	1.101
	8	-.333	.333	.423	-1.768	1.101

Based on estimated marginal means

* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Qualitative data

Through the whole six music therapy sessions, the patient willingly participated in all activities that both the music therapist suggested and the patient preferred with singing along, improvisation, song writing (fill-in-blank), and playing instruments. The patient stated, "I like music! I like singing and used to play organ!" at the first visit, and she showed so much eagerness toward the music activities whenever the music therapist visited. Her husband was slightly hesitant to participate in the activities at the first music therapy session. However, the more the music therapist visited them, the more he enjoyed the activities and enjoyed watching his wife enjoying and the more the husband became open to share and express his true feeling about what was happening around him.

A lot of smiles and laughter were seen in session 1 through 4 while they sang songs, played instruments, and shared fun stories that they had experienced. This result may indicate that the patient and spouse simply enjoyed music therapy and how much music had been a big part of their lives.

Dancing as remembering good old days. In session 1, the patient was excited about telling the music therapist how much she enjoyed music and how it was such a big part of her life, as she shared that she had liked singing hymns at church and any other songs for fun, playing the organ, and listening to the radio since she was young. In addition, she shared that she used to dance with her husband. Although the husband often hesitated to dance with her, once they held hands as they moved along with the CD recordings that they chose to play, increased their eye contact, and expressed their emotions by smiling and laughing. This activity enhanced not only a fun experience but also served as a reminiscence of how they shared their experience of dancing when they were younger. Dancing brought them back to the good old days, and it improved quality of life for both of them.

Outside music therapy interventions. The music therapist recorded a tape that included several old time popular music, hymns, and so forth, for the couple. This tape was originally made as a relaxation induction for the patient when the music therapist was not available to distract her from her pain and discomfort. However, one of their children mentioned that the patient sang and danced along with the tape. The daughter showed her appreciation for music therapy as she was able to see her mother looking very happy, which had not been seen for a long time.

Singing-along and fill-in-blank to express happiness. The patient and spouse preferred a singing along activity in all sessions. She was always willing to participate in the activity not only with singing along, while she expressed her emotion by smiling and laughing but also with choosing songs to sing. When the music therapist asked the patient and spouse to choose songs from a songbook provided by the music therapist, she tended to pick up the songs that included the word "happy" or "happiness," or the songs that made them feel happy, such as "Happy Days Are Here Again" and "You Are My Sunshine."

"I Want to Be Happy" is one of the songs that the patient chose to sing many times. She said, "I'm in the mood for this song!" in session 3. In session 4, the spouse who was very quiet during the sessions said, "That's right!" with a big voice and smile when the music therapist read and repeated the lyric "I want to be happy, but I won't be happy till I make you happy, too," and the patient smiled at him. In session 6, the patient chose "Happy Days Are Here Again" and stated that she wanted to sing a song about happiness. After singing the song, the patient said, "I didn't smile very much before and after my surgery, but I do now so it makes my children happy." One of their children mentioned that the patient had had low spirits, and she was not as active as she used to be after she had surgery for her illness. However, music therapy and music itself brought such a joy back into her life. The reason why the patient chose those songs may be because she wanted to be happy and she hoped that happy days were there to her again.

The music therapist used fill-in-blank techniques to help them more express their emotions. When the spouse chose a song "Carolina in The Morning," the music therapist asked them to fill in the following blank with their own words, "If you had Aladdin's

lamp for only a day, what would you like to do and ask for?" The patient said, "I'd make a wish to have a good time with honey in a sunny day!" The spouse responded to her by saying, "I'd make a wish to make her happy," and they both laughed looked at each other. In session 4, while singing "You Are My Sunshine," the music therapist asked them to fill in the following blank as if this "You" was their spouse, "You are my sunshine, my only sunshine. You make me happy when?" The patient said to the spouse, "When you are with me and when you love me!" The spouse responded to her, "You make me happy all the time!" This activity helped them not only verbally express their feelings but also recognize and confirm how they felt about each other. "Happy" or "happiness" was a big keyword that both the patient and spouse repeated in all sessions.

What happened at this point was important in positively affecting both the patient and her husband. The patient was able to positively express her feelings through singing her preferred songs and smiling and laughing, and her husband smiled back to her as he was happy about what was happening in front of him while he watched the patient looking happy. This positive influence also went back to the patient again and provided her with even more positive experience.

Happy ending with family in improvised music and life. Improvisation also provided for both the patient and her husband such an effective environment to express their emotions and thoughts. In session 2, they experienced the first improvisation activity. The music therapist provided them with no theme to express and asked them to play anything that they felt, so they had freedom to express whatever was on their minds. The patient and her husband started playing a random rhythm pattern with their instruments while they did not look at each other. It was as if they had no idea where they

were, so they wandered seeking what they needed to know. The patient explained that they experienced several different emotions in the improvised music. The random rhythm patterns included soft, quiet, mysterious, serious, exciting, and happy that order. When they expressed "exciting" and "happy" with a loud sound toward the end, they increased eye contact and the music suddenly stopped. The patient stated that it was a happy ending and her husband agreed with her opinion. The patient also stated that this happy ending meant family to her and explained that the ending was accomplished with her husband's support (see Table 12).

Table 12. Summary of the First Improvisation in Session 2

Music Therapist (MT)	Patient (PT)	Spouse (SP)
• Asked PT and SP to pick up any instruments and play it	• Chose a tambourine • Played a big loud sound at the end and the music was suddenly stopped while making eye contact with SP	• Chose a hand drum • Played a big loud sound at the end, making eye contact with PT
• Asked how they felt in improvised music	• Experienced several different feelings in music, soft, quiet, mysterious, serious, exciting, and happy in order • Stated that she felt that the ending was like a big happy ending (smiling and laughing when making the ending) • *"The ending of music means family!"* • *"James was very supportive!"*	• Stated that he felt the same way as PT felt • Quietly listened to PT

In session 3, the music therapist provided the theme for them to play, "sadness" and "happiness." As they already had experienced improvisation once, it was not difficult for them to get into the place to express. They expressed "sadness" with a random rhythm pattern without making eye contact. They stated that the random rhythm meant sickness to the patient and seeing the patient who was sick to her husband. They did not look at each other when making the rhythm, as if the patient tried not to show her being sad and tried not to see her husband and how he might feel. The same thing might have happened to her husband as he made also different kind of random rhythm pattern from that of the patient without making eye contact (see Table 13).

Table 13. Summary of the Second Improvisation in Session 3

Music Therapist (MT)	Patient (PT)	Spouse (SP)
• Asked PT and SP to pick up any instruments	• Choose a tambourine	• Choose an egg shaker
• Encouraged to express "sadness" "happiness" in music and start with "sadness"	• Played random patterns, without making an eye contact with SP	• Played random patterns, without making an eye contact with PT
• Gave a verbal cue to switch from "sadness" to "happiness"	• Looked at SP and matched the pattern with SP's pattern	• Looked at PT and matched PT's pattern
• Asked PT and SP what the sadness expressed in music meant to PT and SP	• Answered "*Being sick.*"	• Answered "*Her (PT) being sick.*"
• Asked PT and SP what the happiness expressed in music meant to PT and SP	• Answered "*Family.*"	• Answered "*Her (PT) being happy.*"

In contrast, they expressed "happiness" with a matched rhythm pattern. When they were asked to make a "happiness" rhythm, they looked at each other, so they could adjust the pattern. The keyword "happy" and "family" were expressed again (see Table 12 and 13). Happiness meant family to the patient as having support by her husband and other family members, and meant watching the patient being happy to her husband. This opportunity for them to verbally express their feelings of how they felt about happiness brought them closer together. Normally the husband had a difficult time expressing his feelings to the patient.

Scary, sad, and support by family. Specific discussion of the experience of anxiety and sadness occurred in sessions 4 and 5. The patient and her husband quietly improvised a slow, random pattern. The patient stated that she had a scary experience in the improvised music, although she was able to escape from the experience at the end. The music therapist suggested her husband to match the rhythm with the patient's pattern while the patient played the exactly same pattern as the one previously played. The patient experienced her husband's support in the second improvisation as she stated that he saved her from the scary experience and guided her to not get lost. In this experience, the husband changed his instrument to match the rhythm pattern played by the patient, which might mean that he tried to find different way for the patient to not feel scared. His support in the music made a difference in the patient's experience in the improvisation (see Table 14).

Projecting life experience and emotion deep inside in music. The improvisation in session 5 was the point when the couple was able to even more deeply express their emotions. "Sadness" and "Happiness" were expressed separately in the previous

improvisation sessions. However, the patient and her husband were not only able to express their feelings that they experienced in the improvised music but also more able to connect or associate those experiences in music with experiences in their real life.

Table 14. Summary of the Third Improvisation in Session 4

Music Therapist (MT)	Patient (PT)	Spouse (SP)
• Encouraged to express their feelings in improvised music	• Played a slow, random, quiet sound with her drum and the sound became loud noise	• Played a relatively soft, inconsistent sound with his tambourine
• Asked to explain the sound that they played in improvised music	• *"I was walking on the road alone. Nobody was there. Someone or something was chasing me, so I was scared. I tried to run away from the thing that chased me. At the end, I was able to escape from there."*	
• Asked PT and SP to play exactly same rhythm that PT had just played and suggested SP to play with PT	• Chose the same drum	• Changed his instrument from a tambourine to an egg shaker and matched the pattern with PT's
• Asked to how they felt in the second improvised music	• Stated that she really felt that SP supported and saved her in the scary situation that she experienced in the previous improvisation • Also stated that SP came with her and led her to not get lost, so she did not feel scared at all in the second improvised music.	

"The sound at the bottom makes me sad, and I didn't want to stay there, so I went up, but still went down and up again. I sometimes go into a bad mood because of illness, but I don't want to give up fighting and give up on my health." This comment was made by the patient immediately after the patient and the music therapist improvised a random, dissonant melody going up and down on the keyboard, as the music therapist asked if they could express "illness" in music. She projected and analyzed the melody herself as precisely what she had been experiencing in her life. At that time, her husband listened to the patient's melody carefully and matched his drum with her sound. The patient mentioned that she felt his support in the music, so she was able to end the music with a happy ending again. She continued to say that she was able to fight with her illness with his support and encouragement and able to feel happiness in her real life. The "happiness" meant going to heaven, meeting God, and having no pain any more as well as being surrounded by her family, which she expressed in the other activities. While the patient shared her feeling, her husband looked down and quietly listened to her without smiles. The music therapist also asked him the same question (see Table 15).

Despite this positive comment made by her husband as he stated, "As long as she looks happy and alright, I'm happy and I'm not worried," his facial expression was the opposite and he became emotional. He had a difficult time accepting her illness and what was going to happen to her, although he was told by the hospice staff. After he said that he would accept whatever God was going to do for the patient, he had tears on his eyes and the patient quietly looked at him. The improvisation in this session strongly assisted both the patient and her husband to go deeper inside their feelings, open the feelings up,

and externalize them. It also enhanced communication between them as they verbally shared how they really felt.

In session 6, which was the last session, the music therapist asked only husband to express his feeling toward the patient's "illness." Different dynamics and patterns were played with his tambourine. He stated that he could not explain what it was. The patient slowly shared her thought on the music played by her husband, "The different dynamics in the music may be the dynamics of our lives. There is an excitement and sometimes not," and the husband agreed with her (see Table 16). While repeating the improvisation, the patient was asked to join in and the patient tired to communicate with her husband by playing her instrument. The music ended up with a loud sound, and the expression of both the patient and the husband matched each other. After the music ended the patient offered the following interpretation: "It was an excitement in life. The ending was being heaven with an excitement and we all have up and down in life but we also have a happy ending," which the patient already shared meant her going to heaven, meeting God, and having no pain any more. The specific difference from the previous improvisation was that her husband nodded his head while he listened to the patient. This might mean that he had moved toward more toward acceptance, after he had expressed his deep innermost feelings to his loved one.

Table 15. Summary of the Fourth Improvisation in Session 5

Music Therapist (MT)	Patient (PT)	Spouse (SP)
• Asked PT to play keyboard with MT and to express her "illness"	• Played a random, non-harmonized melody, and went up and down on the keyboard	• Chose a hand drum and followed PT's pattern, and matched his drum pattern with PT's pattern at the end
• Asked what the melody that PT played meant to her	• *"The sound at the bottom makes me sad, and I didn't want to stay there, so I went up, but still went down and up again. I sometimes go into a bad mood because of illness, but I don't want to give up fighting and on my health."*	
	• Shared that she felt it was as if SP tried to support her and encourage her from when she was fighting with her illness to when she was going to "happiness."	• Quietly listened to PT
• Asked what "happiness" that PT mentioned meant to her	• Stated that happiness at the end of music for her meant going to heaven, meeting God, having no pain as well as being surrounded by her family	• Responded, *"As long as she looks happy and alright, I'm happy and I'm not worried."*
	• Quietly looked at SP	• Stated that he had not accepted PT's illness and what was going to happen to her "yet" because what he saw right now was PT doing alright, but he said he would accept whatever God was going to happen to PT and him. After he shared that, he had tears on his eyes

Table 16. Summary of the Last Improvisation in Session 6

Music Therapist (MT)	Patient (PT)	Spouse (SP)
• Encouraged SP to express his feeling toward PT's illness in music		• Hesitated to play his tambourine, but slowly started shaking his tambourine and made some different dynamics in the music
• Asked SP what the sound meant to him	• Instead of SP, shared what she felt that he expressed. "*The different dynamics in the music may be the dynamics of our lives. There is an excitement and sometimes not.*"	• Stated that he could not explain what it was, but agreed with her sharing
• Asked PT to join in playing the drum that PT chose and to communicate with SP in music	• Made an eye contact with SP	• Made an eye contact with PT
	• Shared that she was trying to talk to SP with her instrument and to match SP's tambourine patterns	
	• Ended up with a loud sound	• Ended up with a loud sound
	• Explained, "*It was an excitement in life.*"	
	• "*The ending was being heaven with an excitement and we all have up and down in life but we also have a happy ending.*"	• Quietly listened to PT and nodded his head

CHAPTER SEVEN

Discussion and Conclusions

Cases One and Two in this research study were two completely separate cases. Due to the uniqueness of the two cases, individualized music therapy plans were based on careful assessment findings. Their needs and goals were crucial in providing the participants with the best possible care. During an initial assessment and for each music therapy session, the music therapist strove to provide and suggest the best possible music therapy interventions for the patients and their spouses. It was necessary for the music therapist to make plan adjustments on the spot, remain flexible and sensitive to patient needs and take into consideration each patient's age, gender, cultural background, religious beliefs, and the stage of the cancer. Individually preferred activities, such as singing favorite songs, listening to meaningful songs or music, playing musical instruments, etc., enhanced their reminiscence and brought them back to their "good old days" and facilitated more expression of their feelings. With these meaningful songs or music, the patients and their spouses were smiling and laughing as they expressed positive emotions. This provided meaningful interactions between the patients and their spouses, as was pointed out in several earlier studies (Bailey, 1984; Gilbert, 1977; Jackson, 1995; Martin, 1991).

Case One

Although the patient and his wife in Case One exhibited a number of positive responses through in the music therapy sessions, which was evident in the qualitative data, no significant differences were found on the patient's quality of life level and the spouse's stress level in the quantitative analysis. When the music therapist interviewed

the patient after the final music therapy intervention, he said that he enjoyed music therapy and thought that it helped distract from and decrease the sensation of pain during the sessions. Also, the patient neither agreed nor disagreed that music therapy helped improve his quality of life (Question 10 on Quality of Life Questionnaire) at measurement points eight and nine when he was having a difficult time engaging in music therapy, although he agreed that music helped improve his quality of life in measurement periods two through seven.

It is possible that both the patient and his wife, especially the patient, were not able for physical reasons caused by his disease to spend adequate time in music therapy to allow him and his wife to express what they needed to express. These limitations only allowed them to participate in one activity in each session and then only for 30 minutes. Also, the patient often fell asleep during music therapy as he was not able to have enough rest and sleep due to chronic headaches.

The patient's wife also expressed positive feelings about the music therapy during the interview at the end of the last session. She mentioned that she was an artistic person so that music was her outlet to express her feeling and release her stress through the song that they wrote, at a time when she had no other outlet to express her feelings. However, the wife's stress level did not significantly change, although visual inspection of the data may indicate that a trend of decreased stress was beginning to occur. Since this was at the end of the sessions, there is no way to determine if that trend would have continued had the sessions continued. It is tempting to speculate that with more time of participation in music therapy and even more variety in the music therapy interventions, that the

increased time with her husband may have produced significant change. In particular, more time in song writing may have made a difference.

Case Two

The couple in Case Two was able to participate in both their preferred activities and suggested activities in music therapy. They had more opportunities to enjoy fun activities to release their tension and stress, as well as to communicate through verbal discussion and through the music. These were two different opportunities for them to express what they were having to deal with. They became much more open toward the end, as compared with how they were in the first session. They both were able to express how they felt about the patient's illness through the music experiences and to share this not only with the music therapist but also with each other. Whereas the husband had had a difficult time to accept the reality happening to his wife, he gradually started expressing his feelings toward his wife and her illness with tears and sharing his thoughts. The patient's quality of life level significantly improved and her husband's stress level also significantly decreased, which occurred when they walked side by side in this process through the music therapy process. The patient also sensed that music therapy helped improve her quality of life, as the patient circled on "strongly agree" on question 10 of the Quality of Life Questionnaire regarding her perception that music therapy helped improve her quality of life every time the questionnaire was administered.

The patient realized and told her husband how much he was able to support her, and how much her family meant to her. After the patient shared her feeling in the music therapy sessions, her husband's stress level significantly decreased. Although the

husband was shy, this verbal appreciation to him and their family helped him get out from denial and move toward acceptance.

The husband's stress level significantly decreased after session 2 when the patient became more able to express her emotions with her smiles and laughter through the music experiences. The husband stated that he felt happy when he saw that his loved one looked happy. However, he was still not fully able to acknowledge the intense feeling he held inside. In the final week of the music therapy he was again able to feel a great deal of stress reduction. At that time both the patient and her husband became much more open about sharing what they were thinking and feeling. The patient expressed her appreciation to her husband for supporting her, and shared her thoughts about a "happy ending" when she would be going to heaven and meeting God, and have no pain, and be surrounded by her family. The husband was then more able to express his emotions about the patient's illness and the reality of what was going to happen to his loved one. This happened during the improvisation in session 5. Not only did he share how he felt, but he also became tearful. His acceptance of his wife's impending death occurred in session 6, which was the last session for them, and the patient's quality of life significantly improved after the session.

Enhancing and maintaining their spirituality through their music making was important for the couple in Case Two. The patient had a better understanding of the meaning of life, and her husband accepted the reality for her death through his spiritual belief that God was in charge of whatever was going to happen to them. Mutual effectiveness of music therapy for both the patient and her husband was demonstrated with this couple through the six music therapy sessions across three weeks.

Implications from two cases

Case Two suggests how music therapy can mutually influence quality of life in a terminally ill patient, while reducing the stress of the patient's spouse when they are going through a difficult time at the end of a life. It was shown that this was able to occur in the course of three weeks when the dying patient and the spouse had adequate time in music therapy with the professional music therapist to "work through" their feelings with verbal discussions and also through the music. On the other hand, the couple in Case One had more limited exposure to music therapy and the discussions around what they experienced in the music. This indicates that the importance of involving participants in music experiences facilitating and making it possible for them to uncover and express their feelings and thoughts concerning end of life that they are going through. In this study, song writing (fill-in-blank and writing one's own song), lyric discussion, and musical improvisation were effective in terms of facilitating the expression of feelings. In particular, improvisation was a highly effective way for the couple in Case Two to come together in their difficult time. As Decuir (1991) states, music therapy was more effective than verbal methods, as it is nonverbal making it possible for patients and their family members to more easily express their feelings in the enjoyable, non-threatening structure of music therapy.

Another finding was the importance of dealing with "unfinished business." Whereas the couple in Case Two touched "unfinished business" when the husband moved from "denial" to "acceptance" through the process of music therapy, the couple in Case One did not have ample time in music therapy to deal with their "unfinished business." For example, the patient in Case One, while able to express that he wished to

sing the song "The Rose" for their wedding, this wish was denied by the officiating clergy. However, if he had had more time in music therapy to work through his feelings, in addition to expressing and releasing them, he might have been able to complete his "unfinished business."

Leaving a legacy is also recommended for terminally ill patients and their family members. Jackson (1995) discusses in her study that the videotape of the patient's funeral concert remained a legacy by for the family to remember her. The couple in Case One started writing a song together for her funeral service They discussed a theme for the song, brainstormed what to write, and wrote down the lyrics. Although their song was not completed before the patient died, his wife shared her feelings about this activity when the music therapist interviewed her, "Now, that song is infamous with our group of friends. I played it and sang it New Year's Day at a party. Everyone loves it and thinks I should give it to some friends of ours who are a band to play it at their shows. But even if no one else ever hears it, our friends will always remember that moment and how much it meant to Tim. And I will always treasure it."

It is also important to focus on how much the participants were able to communicate outside the music therapy sessions, and how much these communications were being facilitated and enhanced by the experiences in music therapy. The couple in Case Two and their family members shared that they had opportunities to enjoy music not only during the music therapy sessions but also after the music therapist left. The family mentioned that the patient played organ as she was motivated to practice although she had not had touched the instrument for a long time, that she sang the songs sung after the music therapist left, listened to the tape of those songs provided by the music therapist,

and danced with her family members. As Bright (2002) and Hogan (1999) suggested, recorded music was effective in meeting their needs when the music therapist was not available. She enjoyed music and her quality of life was improved with it, and not just during the music therapy sessions. It is crucial that the understandings and skills from the music therapy sessions be generalized to the times when the music therapist is not around, since strategies of dealing with physical and emotional distress need to be available 24 hours a day to both the patient and the caregiver. The music therapist is responsible for making certain that these strategies carry over outside the music therapy sessions.

Recommendations for future research

In the present study, it was difficult obtaining an adequate number of participants for a quantitative study. One of the possible reasons is due to the difficulty of scheduling of both patients and their families for all six music therapy interventions and nine questionnaires for three weeks. For some candidates from a hospice organization, the schedule of this research design might overwhelm them due to participation in several interventions and filling out questionnaires several times. It is recommended that the number of visits for both patients and their families be lessened so patients and families would feel less overwhelmed. In addition, several questions on SCARED used in the present study for caregivers appeared to threaten caregivers or make them feel uncomfortable to answer, particularly at a time when the terminally ill patients and their family members were sensitive and fragile during difficult times. An example of the above was when a patient's caregiver requested to withdraw from the study as the result of difficult questions on SCARED. He stated that he felt those questions were intrusive and too intense. For the future research, the use of questionnaires with non-threatening

wording and phrases, which are sensitively and carefully chosen, is recommended. Both patients in Cases One and Two in this study were easily able to answer all the questions each time on all items for the Quality of Life questionnaire. More lengthy questionnaires were more difficult for patients to complete.

Conclusion

A small number of participants were available for this study, and quantitative data for analyses were limited. However, the results from both the quantitative and qualitative data sources and the implications from the data sources support the effectiveness of music therapy for both the quality of life of the terminally ill patient and the stress level of the spouse or caregiver. The findings of this study support the importance of music therapists not only providing the patient and family with meaningful experiences and quality communication strategies, but also opportunities for them to uncover and work through needs which they might not even be aware of. The data from the present study suggest that as that patient's quality of life improves, the caregiver's distress may be decreasing at the same time.

It is important for both terminally ill patients and their family members to be supported and for therapists to facilitate meaningful release for the patients and those who love them. These times and opportunities would make a difference in terms of providing both the patients and their family members with meaningful final moments together, as Robert E. Krout (2003) stated:

> It is important for the music therapist and other care team members to remember that the final days and hours of a patient's life are times for helping loved ones to visit and say goodbye in their own ways and styles. It is during these times that

> we as members of the hospice team can provide support and facilitate meaningful release for both the patients and those who love them. (p. 133)

This statement is a maxim for all music therapists who work with terminally ill patients and their family members or loved ones. In the final moments in the life of a terminally ill patient, music therapists often find that there are needs which can be met, what the family hopes to accomplish during that time, some things that the music therapists are able to do for them in those moments, and how music therapists can support both terminally ill patients and their family members by facilitating meaningful moments and communication with each other.

APPENDIX A

RESEARCH CONSENT FORM

TITLE OF RESEARCH: "The effectiveness of music therapy involving family members of terminally ill patients in hospice on quality of life of the patients and stress level of family members"

RESEARCHER: Ayumu Kitawaki
Music Therapy Graduate Student
School of Music
Michigan State University

SUPERVISOR: Frederick Curtis Tims, Ph.D., MT-BC
Professor and Chair of Music Therapy
School of Music
Michigan State University

You are being asked to participate in a research study designed to test the effectiveness of music therapy interventions involving family members of terminally ill patients in hospice on quality of life of the patient and stress levels of family members. The purposes of this study are: 1) to determine whether terminally ill patients who receive music therapy interventions with their family members show higher quality of life than before the three-week intervention, and 2) to determine whether the family members of terminally ill patients who are involved music therapy interventions demonstrate lower stress levels than before the three-week intervention.

If you decide to participate in this research study, the music therapy session will be held for you and your family or loved one. The maximum time period of every music therapy session will be between 30 minutes and one hour. The strategies used in the session will be flexible and adapted to individual situations as they arise. The music therapy sessions will be held twice a week, and you will be encouraged to complete a questionnaire regarding quality of life three times a week. You may take approximately ten minutes to complete the questionnaire. The weekly plan that you will be encouraged to participate in is as follows:

Day 1: Questionnaire
Day 2: Neither music therapy session nor questionnaire
Day 3: Music therapy session
Day 4: Questionnaire
Day 5: Neither music therapy session nor questionnaire
Day 6: Music therapy session
Day 7: Questionnaire

From this questionnaire, information regarding the relationship of music therapy to your quality of life and how music therapy may influence stress levels of your family member or loved one will be collected. This information will be used for my Master's thesis in the graduate music therapy program of Michigan State University.

There is no known harm associated with your participation in this research. However, you may experience some distress by talking and thinking about the stories of your life, which you do not feel comfortable sharing during the music therapy sessions. If this occurs, the researcher will not push you to share more about your stories. You can end your participation in this study anytime if you do not feel comfortable with the experience.

The foreseeable benefits of participating in this research are as follows: 1) You may accept or build the better relationships with your family member or loved one, 2) You may have more conversation with your family member or loved one, and 3) You may experience the beauty of music and how it may positively influence your quality of life with your family member or loved one. While it is possible that you may not notice personal benefit from your participation in this research, your participation may provide valuable information to the music therapy community about the effectiveness of music therapy for terminally ill patients and family.

Confidentiality will be respected. No information that discloses your identity will be released or published without your specific consent to the disclosure except as required by law. However, it is important to note that the original signed research consent (and the data which will follow) will be included in your record. This study will take place only for you and your family member or loved one. Nobody except you, your family member or loved one, and a music therapist will be present while the music therapy session is held and you answer the questionnaire regarding quality of life. The researcher will assign a code number to you, and only the researcher will be able to see your name. Data will be analyzed using the code number for identification. The consent form will be shredded at the completion of the study. The researcher will do his best to protect your confidentiality. Your privacy will be protected by the maximum extent allowable by law.

Written data will be stored in the locked cabinet in the researcher's office. Other data will be securely processed and stored in the researcher's computer at his home. Only the researcher will have access to the locked cabinet and the questionnaire forms that you complete. Only the researcher can access other data and documents in the researcher's computer with the password.

Your participation in this research is voluntary; you have the right to withdraw at any point of the research, for any reason, and without any prejudice, and the information collected and records and reports written will be turned over to you. You may choose not to participate at all, or you may refuse to participate in certain procedures or answer certain questions or discontinue your participation at any time without penalty or loss of benefits.

You are encouraged to ask any questions at any time regarding the nature of the research and the method that the researcher is using. Your suggestions and concerns are important to the researcher; please contact me at any time, Tel: (517)-337-0586, Email: kitawak1@msu.edu, Regular mail: 124 Cedar St. Apt #1, East Lansing, MI 48823. You may also contact Dr. Frederick Curtis Tims, the research supervisor, Tel: (517)-353-9122, Email: tims@msu.edu, Regular mail: 102 Music Building Michigan State University. Moreover, if you have any questions or concerns regarding your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may anonymously contact if you wish – Peter Vasilenko, Ph.D., Director of the Human Research Protection Program, by phone: (517)-355-2180, fax: (517)-432-4503, email address: irb@ores.msu.edu, or regular mail: 202 Olds Hall, East Lansing, MI 48824.

As a participant, I voluntarily agree to participate in this research:

Participant _____ Date _____

As a researcher, I agree to the terms:

Researcher _____ Date _____

APPENDIX B

Research Consent Form

TITLE OF RESEARCH: "The effectiveness of music therapy involving family members of terminally ill patients in hospice on quality of life of the patients and stress level of family members"

RESEARCHER: Ayumu Kitawaki
Music Therapy Graduate Student
School of Music
Michigan State University

SUPERVISOR: Frederick Curtis Tims, Ph.D., MT-BC
Professor and Chair of Music Therapy
School of Music
Michigan State University

You are being asked to participate in a research study designed to test the effectiveness of music therapy interventions involving family members of terminally ill patients in hospice on quality of life of the patient and stress levels of family members. The purposes of this study are: 1) to determine whether terminally ill patients who receive music therapy interventions with their family members show higher quality of life than before the three-week intervention, and 2) to determine whether the family members of terminally ill patients who are involved music therapy interventions demonstrate lower stress levels than before the three-week intervention.

If you decide to participate in this research study, the music therapy session will be held for you and your loved one. The maximum time period of every music therapy session will be between 30 minutes and one hour. The strategies used in the session will be flexible and adapted to individual situations as they arise. The music therapy sessions will be held twice a week, and you will be encouraged to complete a questionnaire regarding stress level three times a week. You may take approximately ten minutes to complete the questionnaire. The weekly plan that you will be encouraged to participate in is as follows:

Day 1: Questionnaire
Day 2: Neither music therapy session nor questionnaire
Day 3: Music therapy session
Day 4: Questionnaire
Day 5: Neither music therapy session nor questionnaire
Day 6: Music therapy session
Day 7: Questionnaire

From this questionnaire, information regarding the relationship of music therapy to your stress level and how music therapy may influence your loved one's quality of life will be collected. This information will be used for my Master's thesis in the graduate music therapy program of Michigan State University.

There is no known harm associated with your participation in this research. However, you may experience some distress by talking and thinking about the stories of your life, which you do not feel comfortable sharing during the music therapy sessions. If this occurs, the researcher will not push you to share more about your stories. You can end your participation in this study anytime if you do not feel comfortable with the experience.

The foreseeable benefits of participating in this research are as follows: 1) You may accept or build the better relationships with your loved one, 2) You may have more conversation with your loved one, and 3) You may experience the beauty of music and how it may positively influence your stress level with your loved one. While it is possible that you may not notice personal benefit from your participation in this research, your participation may provide valuable information to the music therapy community about the effectiveness of music therapy for terminally ill patients and family.

Confidentiality will be respected. No information that discloses your identity will be released or published without your specific consent to the disclosure except as required by law. However, it is important to note that the original signed research consent (and the data which will follow) will be included in your record. This study will take place only for you and your loved one. Nobody except you, your loved one, and a music therapist will be present while the music therapy session is held and you answer the questionnaire regarding stress level. The researcher will assign a code number to you, and only the researcher will be able to see your name. Data will be analyzed using the code number for identification. The consent form will be shredded at the completion of the study. The researcher will do his best to protect your confidentiality. Your privacy will be protected by the maximum extent allowable by law.

Written data will be stored in the locked cabinet in the researcher's office. Other data will be securely processed and stored in the researcher's computer at his home. Only the researcher will have access to the locked cabinet and the questionnaire forms that you complete. Only the researcher can access other data and documents in the researcher's computer with the password.

Your participation in this research is voluntary; you have the right to withdraw at any point of the research, for any reason, and without any prejudice, and the

information collected and records and reports written will be turned over to you. You may choose not to participate at all, or you may refuse to participate in certain procedures or answer certain questions or discontinue your participation at any time without penalty or loss of benefits.
You are encouraged to ask any questions at any time regarding the nature of the research and the method that the researcher is using. Your suggestions and concerns are important to the researcher; please contact me at any time, Tel: (517)-337-0586, Email: kitawak1@msu.edu, Regular mail: 124 Cedar St. Apt #1, East Lansing, MI 48823. You may also contact Dr. Frederick Curtis Tims, the research supervisor, Tel: (517)-353-9122, Email: tims@msu.edu, Regular mail: 102 Music Building Michigan State University. Moreover, if you have any questions or concerns regarding your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may anonymously contact if you wish – Peter Vasilenko, Ph.D., Director of the Human Research Protection Program, by phone: (517)-355-2180, fax: (517)-432-4503, email address: irb@ores.msu.edu, or regular mail: 202 Olds Hall, East Lansing, MI 48824.

As a participant, I voluntarily agree to participate in this research:

Participant _____ Date _____

As a researcher, I agree to the terms:

Researcher _____ Date _____

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