

Music Therapy to Enhance Quality of Life in a Patient with Cancer in Palliative Care: A Case Study

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Abstract

The purpose of this study was to investigate the use of music therapy to enhance quality of life in a patient with cancer in palliative care. The experimental case study was utilized in this study to collect data through a series of observation and interviews. In this study, there were three participants who were the patient, the caregiver, and the nurse. The initial assessment was provided before the first music therapy session phase. The music therapy sessions consisted of five sessions within three weeks with the patient and the caregiver. Music therapy interventions included live music, singing and playing instruments, song choice, lyric analysis, and reminiscence. The interviews were provided at the end of the week with the caregiver and the nurse separately which aimed to investigate the changes of patient's quality of life after participating in music therapy services. The results of this were presented in the qualitative case analysis and inductive analysis. The results of this study determined that the patient's quality of life was enhanced especially in emotion, environment, physical comfort, and all satisfaction domains. In addition, music therapy also helped the caregiver to accept the situation and use music to reminisce the patient. Meanwhile, the medical staff also benefited the use of music therapy in hospital.

Keywords: Music Therapy, Palliative Care Patient, Patient With Cancer, Quality Of Life

ดนตรีบำบัดเพื่อส่งเสริมคุณภาพชีวิตของผู้ป่วยโรคมะเร็ง ในการดูแลแบบประคับประคอง: การวิจัยกรณีศึกษา

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บทคัดย่อ

การวิจัยในครั้งนี้มีวัตถุประสงค์เพื่อศึกษาผลของการบำบัดในการส่งเสริมคุณภาพชีวิตของผู้ป่วยโรคมะเร็งในการดูแลแบบประคับประคอง โดยใช้ระเบียบวิธีวิจัยแบบผสมผสานระหว่างการวิจัยกึ่งทดลอง และการวิจัยกรณีศึกษา (Experimental case study) ผู้เข้าร่วมวิจัยประกอบด้วย 3 ท่าน ได้แก่ ผู้ป่วย ผู้ดูแล และพยาบาล ขั้นตอนในการวิจัยประกอบไปด้วย ขั้นตอนประเมินเบื้องต้น ซึ่งเป็นการศึกษาข้อมูลพื้นฐานและประเมินผู้ป่วยก่อนการเข้ารับดนตรีบำบัด ขั้นตอนต่อไปคือการให้ดนตรีบำบัด รวมทั้งหมด 5 ครั้ง ในระยะเวลา 3 สัปดาห์ การให้ดนตรีบำบัดในครั้งนี้มีผู้ดูแลร่วมทำกิจกรรมดนตรีบำบัดกับผู้ป่วย กิจกรรมดนตรีบำบัดประกอบไปด้วย การใช้ดนตรีสด การร้องเพลงและเล่นเครื่องดนตรี การเลือกเพลง การวิเคราะห์เนื้อเพลง และการรำลึกความหลังผ่านบทเพลง นอกจากนี้มีการเก็บรวบรวมข้อมูลโดยการสัมภาษณ์ผู้ดูแลและพยาบาลสัปดาห์ละครั้งเพื่อศึกษาความคิดเห็นเกี่ยวกับการเปลี่ยนแปลงคุณภาพชีวิตของผู้ป่วยหลังจากการเข้ารับดนตรีบำบัดในแต่ละครั้ง การวิเคราะห์ข้อมูลในงานวิจัยนี้ใช้การวิเคราะห์กรณีศึกษาเชิงคุณภาพและการวิเคราะห์แบบอุปนัย

ผลการวิจัยครั้งนี้พบว่า ผู้ป่วยมีคุณภาพชีวิตที่ดีขึ้นโดยเฉพาะอย่างยิ่งในด้านอารมณ์ ด้านสภาพแวดล้อม ด้านร่างกาย และความพึงพอใจโดยรวม จากการเห็นตรงกันในบทสัมภาษณ์ของทั้งผู้ดูแลและพยาบาล รวมไปถึงสังเกตการณ์ของผู้วิจัย นอกจากนี้ดนตรีบำบัดยังช่วยให้ผู้ดูแลเตรียมใจรับกับสถานการณ์ที่จะเกิดขึ้นได้และใช้เพลงเพื่อเป็นสิ่งระลึกถึงผู้ป่วยเมื่อยามจากไป ทั้งนี้ดนตรีบำบัดยังช่วยเสริมการทำงานของบุคลากรทางการแพทย์อีกด้วย ซึ่งการวิจัยครั้งนี้สนับสนุนว่าดนตรีบำบัดนั้นช่วยเพิ่มคุณภาพชีวิตให้ผู้ป่วยโรคมะเร็งในการดูแลแบบประคับประคอง

คำสำคัญ: ดนตรีบำบัด, การดูแลแบบประคับประคอง, ผู้ป่วยโรคมะเร็ง, คุณภาพชีวิต

Background and Significance of the Study

Cancer is one of the causes of death in many countries including Thailand. The tendency has increased eight times from 1967 (Bureau of Policy and Strategy, 2011; 2015). Bureau of Policy and Strategy, Ministry of Public Health (2016) declared that cancer still is the main cause of death in Thai people in 2015. The mortality rate is 112.8 per 100,000 populations. The top five cancer types are Liver cancer, Lung cancer, Leukaemia, Breast cancer, and Cervix cancer. In 2015, 73,938 Thai people died because of the cancer (Bureau of Policy and Strategy, 2016).

The term “cancer” is synonymous with the term “tumor” which is historically referred to as carcinomas, or “crab-like” infiltrating tumors, or sarcomas, or “fleshy tumors,” derived from the Greek terms, *karkinos* chosen by Hippocrates (460-370 B.C.), for “crab” and “flesh,” respectively. The term “tumor” was origin from Latin word that means “swelling” that is similar to its physical manifestation that increased interstitial fluid pressure and increased cellular and stromal mass per volume, compared to normal tissue (Sausville, & Longo, 2015). There are several types of the cancer, for example; breast cancer, Leukemias, skin cancer, lung cancer, bone cancer, brain tumor, lymphoma, Hodgkin disease, Sarcoma, etc. The most frequent medical treatments include surgery, radiotherapy or radiation therapy, and chemotherapy or pharmacotherapy (Miller, & O’Callaghan, 2010).

Patients with cancer, especially in the terminal stage, may experience several physical symptoms which lead to other issues include psychosocial and spiritual issues (Hilliard, 2005).

In order to cure the cancer cells and relieve the symptoms, patients with terminal stage cancer need special treatments and different goals from general patients. However, patients who are considered appropriate for palliative care would be referred by physicians. Palliative care is not only philosophy of care with a highly structure system to provide care in order to relieve and prevent the suffering, but also a method to enhance the quality of life in both patients and family or care givers (National Consensus Project, 2016; World Health Organization, 2016) while hospice is the philosophy of care which provide the care and attempts not to cure any illness.

The primary goal of palliative care is to relieve suffering and improve the quality of life of patients with terminal illness and their families (Cohen, 2002; Melin-Johansson, Ödling, Axelsson, & Danielson, 2008; Nilmanat et al., 2010; NCP, 2016; WHO, 2016). However, the quality of life has different meanings depending on people’s aspects of life that include social, mental, psychological, spiritual, financial, and physiological well-being (Hilliard, 2005). The interdisciplinary team is used in palliative care system that includes people from different professions such as physicians, nurses, social workers, counselors and pastorals, caregivers, pharmacists, volunteers, peers and family, and other therapists (physical, massage, art, music therapists, etc.) There are several interventions to provide in palliative care, music therapists play an important role by providing the effective intervention to meet patients’ individual goals and also helping the other professions to discover other dimensions of patients’ need (Walker, & Adamek, 2008) during music therapy services

with the comprehensive skills in observation, report, documenting, and providing effective treatment (Walker, & Adamek, 2008). Music therapy should be included routinely in hospice and palliative care program because of its effectiveness in enhancing the quality of life for patients with terminal illness (Hilliard, 2005a).

Music therapy is the professional use of music and musical elements which is provided by qualified music therapists through research-based music interventions and techniques to enhance, maintain, or restore people's need in the areas of physical, emotional, social, cognitive, communication, spiritual needs, and quality of life according to cultural, social, religious contexts and bound by code of ethics (World Federation of Music Therapy, 2011; Australian Music Therapy Association, 2012; Canadian Association for Music Therapy, 2014; American Music Therapy Association, 2016). Music therapy has the abilities to help patients meet their goals, to discover other dimensions of patients' need, and to see the patients' interaction between body, mind, and soul through appropriate music therapy interventions. Music therapy may address the goals of palliative care patients include physical, psychosocial aims which are to improve emotional, social, communication and spiritual needs as well as the quality of life (O'Callaghan, 1996, 1997; Krout, 2001, 2003; Hilliard, 2003; Clements-Cortés, 2004; Groen, 2007; Wlodarczyk, 2007; Horne-Thompson, & Grocke, 2008). Besides the patients' need, music therapy can also help caregivers (Magill, 2009; Choi, 2010) and staff (O'Callaghan, & Magill, 2009). The music therapy interventions, activities and techniques of

those previous studies that have been used in this population are singing, playing and listening to music, musical life review, song choice, lyric analysis, song writing, improvisation, and relaxation.

There were countless of studies that support the effects of music therapy in palliative care patients with terminal cancer. For example; Hilliard (2001) studied the use of music therapy in palliative care patients and families to cope with grief and loss, anxiety and pain, disorientation and dementia, lack of meaning and hopelessness. This design had four case studies and supported that music therapy can help palliative care patients and families to meet the multidimensional needs. Magill (2001) addressed suffering issues which aimed to improve comfort, peace of mind, and quality of life through vocal techniques, listening, and music instrumental techniques. This study supported that music therapy was helpful to decrease suffering in advance cancer. Hilliard (2002) studied the effects of music therapy in hospice patients diagnosed with terminal cancer. The therapy focused on quality of life and length of life. Eighty participants from Big Bend Hospice, Florida, who were diagnosed with terminal cancer and duration of living prognostication was six months or less. The result showed that there were significant differences between control and experimental groups in quality of life. This investigation supports that music therapy improved the quality of life in hospice patients diagnosed with terminal cancer. Moreover, in Nakayama, Kikuta, and Takeda's study (2009), ten inpatients in hospice care from Caress Mark Hospice, Nikko Kinen Hospital,

Hokkaido, Japan, were participated in this study and received the 40-minute weekly live sessions. The stress and anxiety were measured by salivary cortisol level. The results found that music therapy decreased stress and anxiety and improved patients' quality of life in persons with terminal cancer.

However, there was no report to support that music therapy was effectively used in Thai palliative care patients and provided by trained music therapists. Music therapists and other medical professions may benefit the music interventions, activities, and also as a guideline to work in palliative care interdisciplinary team in Thailand.

Research Purpose and Questions

The purpose of this study was to investigate the use of music therapy to enhance quality of life in a patient with cancer in palliative care. The research question is "How can music therapy improve quality of life of a palliative care patient with terminal cancer?"

Method

Research Design

This study used the experimental case study design to investigate the use of music therapy to enhance the quality of life in palliative care patients with cancer to collect data through a series of observation, interviews, and patient self-reports. Case study design is a strategy of inquiry which a researcher investigates a program, event, activity, process, or individuals in depth, the time and activity of the cases are bounded, and variety of data collection procedures will be used in a sustained period of time (Stake,

as cited in Cresswell, 2014). Combined with experimental research in music therapy which researchers control and determine the conditions and interest factors precisely, including the specific treatment techniques, who will receive the treatment, how they will administrate, and when will it happen (Wheeler, 2005). The participants in this study were one patient, one caregiver, and one nurse. Music therapy sessions were provided at Ratchaphiphat hospital, Bangkok, Thailand and the patient's house. The patient's quality of life would measure with WHOQOL-BREF-THAI which was the Thai version of WHOQOL-BREF, the quality of life indicator. The researcher as a music therapist who complete music therapy program in master degree from Mahidol University was responsible to provide music therapy interventions to enhance the quality of life.

Music Interventions

This study used the cognitive-behavioral music therapy approach combined with a humanistic and person-center approach, which developed in hospice music therapy program by Dr. Hilliard, as a main approach. This approach is the design that helps patients to replace undesirable, irrational thinking with healthier cognitive patterns. This approach is not to dig into patients' past or investigate the feeling or emotion inside, but focus on present time and work toward handling of problem with satisfactory way and hold opportunities for positive growth (Gfeller, & Davis, 2008).

As said in Hilliard (2005), the music interventions of cognitive-behavioral music therapy approach were helped the clients in

specific problems and also helped them to express their emotion while respecting their identities. There are some benefits of each music intervention as follows: Song choice is the list of songs or genre of musical styles that is the patient's preference. Song list may come from songs that the patient listed before, or the patient's preference songs with meaningful lyrics. In addition, song choice is normally used to improve the patient in making decision, and to respect the patient's personal choice (Hilliard, 2005); *Reminiscence* can be prompted by music and music is also used as a life reviewer, the patient may have some songs or some kind of music which can be related to some experience in the past and aid to memory sharing moments (Krout, 2003; Hilliard, 2005); *Singing* is the simplest of music activity, because singing is the natural sound created by human organ and does not require any equipment. Singing intervention could be implemented in several ways as follows: singing with accompaniment, singing together with family and music therapist, vocal improvisation. These singing activities are the way to communicate between the patient, the music therapist, and family, and expressing the emotions of patient with terminal illness (Walker, & Adamek, 2008); *ISO-Principle* is one of a general principle of music therapy which originated from the term "Iso-moodic" by Ira Altshuler (1948, as cited in Michel & Pinson, 2005) the psychiatrist. The term ISO was from Greek word "isos" which means "equal." This principle means to match the music in equal with an individual's mood or behavior. Music should match an individual's current mood or behavior in the beginning and then use

the music to reach and change the individual; *Music listening*, patient may not be in the mood to sing or unable to sing in that time, live music listening may be facilitated through the song list of patient's preference. Passive music intervention, such as music listening, may help the patient to relax and regulate the mood (Hilliard, 2005) and also provide distraction from pain (Walker, & Adamek, 2008); *Song analysis*, after singing or listening to music, patient may be asked to analyze the song or lyrics. The benefit of song analysis is to have the opportunity on counselling, to know what the patient thinks, as well as to help the patient express emotions (Krout, 2003); *Instrument playing* is another way to get patient and family together in music therapy session, especially when the family has wide range of ages. Patient and family may be encouraged to play several instruments together with their own choice of music or to improvise on instruments. This will lead the patient and family to work together making them even more close to each other (Hilliard, 2005).

The music interventions which mentioned above were used throughout this study. Live music was utilized because of the flexibility to change and the music activities were easier to adjust. In this study, songs and music activities were provided based on the patient's preference and familiarity which assessed by the researcher.

Procedures

1) Initial assessment phase was implemented before the first session to collect the background information of the patient for making music therapy session plans. The goals

of the initial session were to assess the patient's music preference, his ability of singing and playing musical instruments, his level of engagement, and to build the rapport between the music therapist, the patient and the caregiver. After that, the researcher would make session plans based on the information for appropriate music therapy interventions to enhance the patient's quality of life.

2) Music therapy phase, Music therapist would provide ten music therapy sessions, twice per week to the patient. Each session was within forty minutes and planned by using the data from the initial assessment. A video camera was set in the room and used to record all through the sessions. The caregiver and the nurse were invited to have an interview once in every week, since the first week of music therapy session to the final week. And the researcher would readjust the session plan for the next session.

3) Data analysis, the sources of this study were gathered from the music therapist's observation from video recordings using the method of case study data analysis and audio recordings of the interviews of the caregiver and the nurse using the inductive analysis method.

Qualitative Protocols

The interview protocol was used to assess patient's preference in music and to find the information about the change of the patient's quality of life. The researcher interviewed the caregiver and the nurses for initial assessment and this information was used as a guideline to create the song list. Other than that, interview protocol was used to gather the information about patient's quality of life and

other matters that occurred during this study from the relevant persons' perspectives with audio recording. The interview took place in the private room once a week after music therapy sessions. Example of questions: "In the past week, do you think the patient was happy or not, and why?", "What do you think about the patient's social or relationship between the patient and others?", "Do you think that the patient has physical comfort, and what is the cause?", "What do you think about the patient's overall satisfaction?"

The observation protocol was implemented to collect a set of observable behaviors that indicated the quality of life such as smiling, crying, laughing, verbally express of his feeling, etc. Observation protocol was done through the review of video recording of every session and collected the data in observation form in private room at the Department of Music Therapy, College of Music, Mahidol University, to protect the patient's confidentiality. The observation form was adapted from Hilliard (2005) consists of physical, emotional, environment, social, and all satisfaction domains.

IRB Approval

This study was approved by the human subject committee for research ethics (social sciences) of Mahidol University, Thailand and the committee for research ethics, Medical Service Department, Bangkok, Thailand, for conducted the research in Ratchaphiphat Hospital.

Data analysis

Case study data analysis was used to describe the music therapist's observation

which explained in-depth of what occurred during the music therapy sessions. This analysis provides reliable and valid findings for qualitative data analysis through a systematic set of procedures (Thomas, 2006). The purpose of using this analysis was to provide the connection between research objectives and findings from raw data.

Inductive analysis was used to analyze the improvement of the patient's quality of life from the interviews of the caregiver and the nurse. This section was reported in themes from the categories of the quality of life of the World Health Organization and the other theme was made by the findings of the study. However, self-report data of WHOQOL-BREF-THAI, the quality of life indicator, was later removed from the data collection and data analysis due to limitation of the patient in completing the form himself.

Results

In this study, there were three patients who matched the criteria. One refused to participate, one died before signing a consent form, and the last one decided to participate in this study with the doctor's agreement and signed the consent form. This patient had low quality of life which was 53 points measured with WHOQOL-BREF-THAI before the study. The patient is a 42-year-old man and native Thai who diagnosed as having terminal stage of cancer. The patient's preference of music was Thai songs with Look-toong style (Look-toong is Thai country style that combined Thai and western instruments) especially in the dialect of southern Thai. The caregiver is Thai female,

the patient's mother, and full-time taking care of the patient. And, the nurse is Thai female who was assigned to take responsibility in this case while she was on duty. She was familiar with the patient and the caregiver since he was admitted to the male inpatient medicine ward. Three days after they signed the consent form and the initial assessment, the researcher began the first music therapy session. These sessions would be described in the researcher's perspective as the music therapist.

The first music therapy session was at the patient's bedside, the same bed as in the initial process, at palliative care unit, male medicine ward, Ratchaphiphat Hospital. I started to build rapport by greeting the patient, introduced myself again, ask him about his feeling, and told him that I bring some songs for him. Then, I started to play some songs that match his age. Also, I used the information about the artists that are well-known to him from the initial assessment as well. With his current condition, headache and sleepy, I had to change session plan from active music which included song selection and singing to passive music with ISO-principle. Passive music allowed the patient not to interact with the music therapist so much, but the patient was still able to respond to music. In this session, I used songs with different tempos consist of Soodjai, Sao-technique, Ka-roo-na-fung-hai-job, and Yaam. I also used form music in looping the song to make a peaceful moment for the patient to sleep. I noticed that using live music was very handy in changing the tempo to match the patient's current mood. Also, the guitar was a very capable instrument in this situation. At the end

of this session, I noticed that the patient had more comfort and relax on sleeping which was showed on his face and posture compared with the beginning of the session.

The second session was facilitated at the same place with the caregiver. The caregiver was able to provide some information about the patient's preference in music. I noticed that the caregiver helped me so much to stimulate the patient. Because of the patient's condition combined with the pain relieve medication, the patient was distracted and felt sleepy all the session. However, the patient did not fully rest because of the environment which was sometimes noisy, turbulent, and loud. In this session, I used slow tempo songs mostly and with the same tempo or "steady beat." It created a better atmosphere to make the patient rest well. Also, live music listening was a flexible intervention because it could change the tempo and volume of each song into the same type and to match the patient's mood. I noticed that the patient engaged in music as it showed when he reacted to the wrong chord that I accidentally played. After the chord progression was in the right way, the patient began to sleep again. In addition, I also noticed that music therapy session changed the atmosphere to be more likely to rest for not only the patient but also every patient there. The list of songs in this session included Pak-sai-ta, Ta-lay-jai, Sood-jai, Geb-ta-wan, and Saad-tah.

The third session was held at the Hospital. The patient's bed was moved inward to the innermost balcony of the medicine ward. There was a construction outside the building which made some noise all the time.

Unfortunately, the patient's bed was close to the window. The patient looked well as it showed when I met him at the beginning of the session. He wanted to participate more in the session so he asked the caregiver to bring him up. In this session, I used live music singing and listening, music playing, song choice, and lyric analysis. I mostly used the fast tempo song to match the patient's behaviors and moods. Many songs that the patient or the caregiver engaged were songs that they were familiar with consist of Tong-me-suk-wun, Ta-lae-jai, Mong, Na-nok-sa-pok-pai, and Pak-sai-ta. We played and sang the music together as a group. I noticed that the patient engaged the session and also responded to me. The timbre of the shaker combined with the fast tempo made us more joyful. Even there was some distraction outside, the patient still engaged. The caregiver did well in supporting the patient by holding the song book and adjusted his bed for him, and also encouraged him to engage the session. Both of them looked well in this session through the caregiver's smile and the patient's engagement and he fallen asleep at the end of the session. The patient and the caregiver seemed to be happier in the session.

The fourth session was held at the patient's bed in the same medicine ward. This session the patient did not much respond to me. He was half conscious throughout the session which might be caused by the medication. The patient woke up occasionally. The caregiver and the nurse participated in this session. The caregiver was happy to see me. In this session, I used song choice, live music, music listening and singing, lyric analysis, and

remembrance activities. Songs in this session were fast and slow tempo songs included Ruk-kam-klong, Kang-kuen-deun-ngai, Sook-gunter-rao, Krai-nor, and Dok-mai-hai-koon. I noticed that lyric analysis and reminiscence using the lyrics of the songs led the caregiver to express her feelings. The caregiver began to talk about how she patronized, nurtured, and supported the patient and his children too. After that, she started to relieve her distress, burden, and worry about the patient. In addition, patients around the patient had a better emotion; one of them sang with us, and others were listening quietly or sleep. Other than that, the caregiver began to select the songs for the patient which somehow is meaningful for them.

The last session took place at the patient's house which is in a local village and not too far from the hospital. Some of the patient's family members participated in the session. Many songs were selected to courage the patient and his family included Duen-pen, Dok-mai-hai-koon, Rang-wun-dae-kon-chang-fun, Ka-men-lai-kwai, and Tong-me-suk-wun. There was one song which the caregiver requested, Tong-me-suk-wun, this song's lyric was touching her as she related it to her situation which mentioned in the recognition theme in the interview finding part. This session helped them to release their thought.

However, the patient passed away on a day before the next session in his house. I went to his funeral in the temple near his house. Everyone was there. I stepped in the funeral with the greeting of the patient's younger brother but the caregiver was not there. The brother said that she was okay and he thanked me for

making the last good moment of the patient and family. One week after the funeral, I had the last interview with the caregiver.

Interview Findings

Five themes are from the quality of life categories in WHOQOL-BREF which comprises physical, emotion, environment, social, and all satisfaction. Another one is recognition which is from the last interview of the caregiver. Some quotes from the interviews with the caregiver and the nurse represent the evidence of each theme.

1) Theme: Physical Comfort

"The only problem is pain from cancer that made him suffer." (The nurse)

"After he participated in the music therapy session, it looks like the patient can manage the pain. He looks calm and did not agonize like the other patients." (The nurse)

The nurse had been observing the patient since he was admitted to this hospital. She noticed that the patient suffered from the pain caused by his condition. Morphine was used to relieve the pain, but sometimes Morphine was not enough for him. However, the nurse witnessed that after the patient participated in the music therapy session, he was, somehow, able to manage his pain better than other patients who did not participate as it showed by his calm and less suffering.

2) Theme: Emotional

"Music was very powerful that helped them in emotional part... I want this session to be more often because, after each music therapy session, not only the patient looks more lively, but also everyone there." (The nurse)

“He listened to the song. He likes it. He always loves music, even he can’t sing he still likes music. Normally, he will sing along with us, but he sings very badly (laugh) I could sing better than him.” (The caregiver)

The nurse witnessed that music therapy could help the patient in emotional part. The patient had good emotion after the music therapy session. He looked more lively than normal. The caregiver said that she noticed the patient listening to the music and responding to it. She also added that normally he may sing together. The difference was the caregiver noticed its effect when the patient was in the music therapy session and the nurse noticed it after the music therapy session. Emotion problem of the patient was affected by the pain of his current condition, colon cancer. However, music therapy helped the patient to be more lively, happy, and to have better emotion as the nurse mentioned.

3) Theme: Environmental

“It helped nurses in working too because we faced difficult situations every day, we are also stressed. Music therapy can help not only patients, but also it helps relieve stress for nurses, staffs, caregivers, and their families. It made the atmosphere more relaxed and lively. It’s good to have musical sound than only speaking noises. (The nurse)

“Actually, he likes to stay at home more than in hospital. However, in hospital there are music therapy sessions which make him happy.” (The caregiver)

The nurse gave information that music therapy did not only improve the patient’s quality of life, but also other patients, nurses,

caregivers, and their families. Around the patient, there were many other patients who faced other problems, as the nurse said, music therapy created the better environment for them too. The nurse also gave information about music therapy that it was able to help medical staffs relieve their stress. The caregiver gave information that the patient preferred to stay at home rather than at hospital because the environment at hospital was surrounded by patients and that decreased the patient’s quality of life, however, music therapy sessions in the hospital made the patient felt opposite way. Music therapy played an important role in this part to make the better environment which affects the patient’s quality of life and also other patients and medical staffs.

4) Theme: Social

“... He was humorous, funny, and jolly. However, his health condition makes him sometimes have problems in social skills.” (The nurse)

“After the last music therapy session, he looks more lively. When we have visitors, he remembers them and they make some conversation with him.” (The caregiver)

The nurse gave information that the patient’s condition made him suffer and that affected his social skills. Sometimes, he was isolated or displayed a tantrum which was not his typical personality. The caregiver noticed that after the patient participated in the music therapy sessions, he seems to be more lively. Because of that, it influenced him to disclose himself to others, as it showed when the patient was able to call visitors’ name and made some conversation with them without being frustrated

to them.

5) Theme: All satisfaction

“After he participated in the music therapy sessions, he looks happier ... and he looks more relaxed.” (The nurse)

“His quality of life is better than before. ...today he is better than yesterday because there is music here.” (The caregiver)

“His quality of life is better. It looks like he is satisfied with it so much.” (The caregiver)

In the same question of “What do you think after the patient participated in the music therapy sessions?,” the nurse and the caregiver consider that the patient was satisfied with the sessions. The nurse saw that after he joined the music therapy sessions, he was happy and relaxed. While the caregiver thought that his quality of life was improved and he was satisfied in participation.

6) Theme: Recognition

“Do you remember that time we sang Tong-me-suk-wun? I was very impressed. I thought that someday he would leave me. It was in my mind, then my tears dropped. I thought about the song. I cried while I was cooking and I sang this song. I miss him. [Then she cried]” (The caregiver)

“The song Tong-me-suk-wun made me think about him. I was cooking and cried and sang this song. If someone sees me, they will think I am crazy (she took some time). I told him, ‘son, someday you will leave me’.” (The caregiver)

The caregiver mentioned the song “Tong-me-suk-wun” twice in the last interview. This song appeared in the third session of music therapy which was chosen by the caregiver

herself. She recalled that this song was meant to her, because she related the lyrics of this song to her situation. The sentence “Tong-me-suk-wun” in Thai means “It will be someday.” The caregiver accepted the situation through the song that someday the patient will pass away. Even though, while she sang the song or only listened to the song, she still cried, but most of all, the patient will always be remembered.

According to the interviews of the caregiver and the nurse and also the music therapist’s observation, the positive outcomes are evident in the patient after participating in the music therapy sessions. These outcomes indicated that music therapy improved the patient’s quality of life. The results of this study indicate that music therapy enhanced the quality of life in the patient with cancer in palliative care especially in the emotional, environmental, physical comfort, and all satisfaction domains. Other than that, music therapy also helped the caregiver to accept the situation and she used the song as remembrance of the patient.

Discussion

Music Therapy Enhances the Quality of Life in Physical Comfort Domain

Terminal stage cancer made the worst pain to the patient. The palliative care team used the medication to relieve the patient’s pain and the pain was decreased. However, as the condition was getting more severe, the medication did not work every time. From the result of this study, music therapy can help the patient decrease the pain which relates to the gate control theory. In gate control theory

(Melzack, & Wall, 1965), feeling pain is the signal from thin diameter nerve fiber that was sent to spinal gate mechanism that stimulates the gate or opens the gate while large diameter nerve fiber can prevent transmission cell to send fewer signals or closes the gate. From this theory, music therapy uses the ability to distract the patient from pain to music, which closes the gate. Whenever, the patient still engages in music, the pain was distracted and decreased. This works very well in pain relieve system because the patient tends to manage the pain better. As well as the result of Krout's study that music therapy increased patients' pain control, physical comfort, and relaxation (Krout, 2001). This also supports the study of Magill that said "Music therapy is a precious resource for decreasing suffering in advanced cancer" (Magill, 2001).

Moreover, Stegemöller's study (2014) showed that "music therapy has the unique ability to promote neuroplasticity through the increase of dopamine production, the synchrony of neural firing, and the production of a clear signal." The study supports that the music therapy could distract the patient from pain. Also, results of this study showed that music therapy services could help the palliative care interdisciplinary team to work in controlling pain of palliative care patients.

Music Therapy Enhances the Quality of Life in Emotional Domain

The patient in this study is one of the examples of person whose emotion was affected by cancer. The patient used to be friendly and funny as it was said by the nurse and the

caregiver. However, his condition, terminal cancer, made him physically suffer and that affected his emotion. He was sometimes frustrated or angry at people. The results of this study revealed that after the patient participated in music therapy session, his mood was better than before especially in the third session. Music redirected him from pain and helped the patient to calm down and regulate his mood. This result was related to Weber (1999) that said music redirected the clients from pain and calm down their mood. The important thing that helped the patient to redirect from pain was his music preference. The music therapist played the patient's preference music by using the ISO-principle. For instant, the music therapist matched the music with his mood by playing louder or softer according to the patient's mood, then calming it down and creating relaxation moment (Hilliard, 2005). Music helped the patient to express his feeling and his emotion and helped him to be more relaxed. In addition, Lane's study (1992) declared that music can increase or decrease blood pressure and heart rate that helps stimulate relaxation and reduce anxiety. This study supports Lane's study from the results that using slow tempo song made the patient's mood regulated and relaxed. Like the nurse said "Music has the power to help the patient in the emotional domain" because she saw that the patient looked more calm and seemed to forget about the pain for a moment. That relates with Clements-Cortés's study (2004), music therapy facilitated the expression of emotion and enhanced relaxation.

Music Therapy Enhances the Quality of Life in Environmental Domain

The result of this study showed that music can create the good atmosphere for the patient. The patient can appreciate the peaceful moment to sleep. In music therapy session, patients around the patient's bed also fell into sleep during the session. The important factor is the engagement in music. While everyone engaged in the music, the music therapist was using slow-tempo song to bring them to sleep. Like a lullaby, everyone who heard the song that was played by the music therapist fell asleep. The peaceful atmosphere also made the medical staffs relaxed and relieves their stress. The results of this study was relevant to "Music environmental therapy" by Aasgaard who said that music environmental therapy is the use of music in a systematic process to improve health in a particular environment inside or outside of institutions (Aasgaard, 1999).

Music Therapy Enhances the Quality of Life in All Satisfaction Domains

This study result revealed that music therapy enhanced the patient in the all satisfaction domains. This domain is the overall satisfaction which is subjective to each person. From the interviews of the caregiver and the nurse, and also the observation of the music therapist indicated in the same way. They gave the information that music therapy session can help the patient satisfied and enhanced his overall quality of life. The results were related to Magill's study (2009) which indicated that music therapy made the clients satisfied and improved the overall quality of life. That means music

therapy achieved the multidimensional needs of palliative care patients and their families related to Hilliard (2001).

Discoveries

1) Music Therapy Application

Before I started the very first session, it is obvious that I had to build a "rapport" with the patient and also the caregiver. Rapport is the most important for music therapists to make the client trust and be open to music therapists. Like Dimaio (2010) said "The more quickly rapport is established, the more quickly the therapist may address important issues..." I agreed with that because hospice and palliative care patients whom I worked with did not often stay long. So, the more quickly rapport is built, the more quality of life will be enhanced.

Live music is very useful for this population. The flexibility of live music makes the session easier to apply with palliative care patients. In addition, music therapists are able to use the ISO-principle through live music. That will make palliative care patients engage in music more than their current conditions. However, the caution of using live music is musical instrument. Music therapists have to be more careful with the number of instruments and its size that will not hamper the session.

Passive music is not a bad idea to have in session with terminal stage of cancer patients. Due to the patient's condition that he was unable to remain conscious for long, music listening activity that aimed to help the patient to rest more is another way out. Combined with song selection of the caregiver, it is more meaningful to them to have good moments

together. Song analysis was placed next to the selection of songs. This helped the caregiver to realize the situation which helped her in coping skill. Also, singing activity helped her to express her emotion (Clements-Cortés, 2004).

2) Music Therapy for Families, Caregivers and Supporting staffs

The result indicates that music therapy did not only enhance the patient's quality of life, but also helped others such as other patients, caregivers, and even medical staffs. Music created relaxation atmosphere to everyone who were there. The result showed on the quality of life in environmental and emotional domains that music therapy also helped the medical staffs who worked hard to relieve their stress. This result supports the study of O'Callaghan and Magill which worked with oncologic staffs. Their study shows that music therapy really helped the medical staffs in terms

of well-being, and improvement of mood and ability to take care of patients. Music therapy also created the atmosphere of humanness (O'Callaghan, & Magill, 2009).

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