

Music as a Means of Therapy for Elders

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Abstract

Music no longer blends in the public space as simply a construction of sounds through elaborations of melody, rhythm, and harmony that adorn public spaces, but is now also used as a means of therapy to influence the listeners' cognitive and emotional state. This study is meant to investigate the procedure of using music as a means of therapy and to examine the effect of music on elders' emotional state and mood disorders. A mixed method approach was used, with a sequential exploratory design. This study used purposive sampling. Qualitative data was analyzed with psychoanalysis technique, while quantitative data was by t-test. The results show that the procedure of using music as a means of therapy for elders consist of three stages, i.e assessment, treatment, and evaluation and termination. The effect of music on the emotional state of elders was determined by three main factors, namely social-cultural factor, familiarity, and habits. The hypothesis test upon elders' mood disorders revealed that music can reduce the quality of negative moods. A significant difference was found in the mean difference of the elders' mood disorders before and after therapy, with a significant decrease in score from 107.36 to 51.9.

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INTRODUCTION

Art is so close to human lives, the closeness with arts causes humans to express many of their life activities by using various media to convey aesthetical experience. Paint, canvas, statues, and light are characteristics of visual arts, whereas movements are a part of dancing, and sounds are the defining feature of music. Every branch of art uses various media as their character in many sizes and shapes with a certain purpose.

The close relationship between art and human lives could be found in many aspects of life. Art is used in dances, traditional games, organizing jobs, ritual ceremonies, marking the moments of birth, therapy (relaxation), weddings, funerals, harvest parties, inaugurations, articulating religious beliefs, traditional ceremonies, and many others.

The reformation of digital sound in the current era is a part of the advancement of technology and art which leads to a shift in music's function. Music no longer blends in the public space as simply a construction of sounds through elaborations of melody, rhythm, and harmony that adorn public spaces, but is now also used as a means of therapy to influence the listeners' cognitive and emotional state.

One example from the many shifts of music's role in the current era is how music is adopted as an amplifying stimulus within health science, particularly as a means of therapy to help overcome clients/patients' emotional issues. For instance, music helps people relax, as well as reduces anxiety, stress, and blood pressure (Yalch & Spangenberg, 1991:4). Music also helps increase the quality of life of patients who undergo medical treatment. The use of music in health science is also known as music therapy. Music therapy is a therapeutic activity which uses music as a means to improve, maintain, and develop mental, physical, and emotional health (Djohan, 2009:240).

The measurements upon emotional health, done by many previous researchers using psychosocial approaches, manipulate and control attributes such as age, social class,

gender, physiological condition, interaction, habits, etc. but different branches of science, other than psychology, also provide possible ways to gain empirical data like emotions through a scientific study.

Music, for example, is one type of non-psychological attributes that researchers used to measure the elders' psychological state which connects with their mood and emotional stability. The elders in this study are a group of people aged 60 to 95 years old and live in Wisma Lansia Harapan Asri (Harapan Asri Elderly Home), a residential nursing home under Mardiwijana Foundation.

Empirical data showed that most elders had emotional and mood problems, like short-tempered, easily offended, loner, anxiety, fear, crying, desperation, attention-seeking, loss of comfort, decline in will to live, hypertension, withdrawn from social activities, picky about friends.

The way elderly overcome their emotional and mood problems is by doing fun group activities, such as watching TV, reading the newspaper, taking walks, listening to the radio, buying snacks like bread, cigarette, or other snacks. An interesting phenomenon that the researchers discovered here was that another way elders use to get through psychological issues (emotional & mood) was by listening to music on their phones.

Elders often show musical behaviors during certain moments, for example, reciting musical phrases in fragments of melody and rhyme for several minutes, along with movements of hands, legs, or head that match up to the tune. Perhaps this behavior is an expression of relaxation or a survival instinct aimed to reduce emotional and mood disturbances.

Based on the previous elaboration, we were interested in investigating this problem through a scientific study with the main focus: (1) How is the procedure of using music as a means of therapy? (2) How does music affect

elders' emotional state? (3) What is the effect of music towards elderly mood disorders?.

METHODS

A mixed method was used in this study, with a sequential exploratory design through collection of qualitative data, qualitative data analysis, and later collection and analysis of quantitative data. The main priority of this study was qualitative

data. The findings from quantitative data were used to support analysis and interpretation of qualitative data (Tashakkori & Teddlie, 2010:204., Creswell, 2013:5). Study design was described in Figure 1.

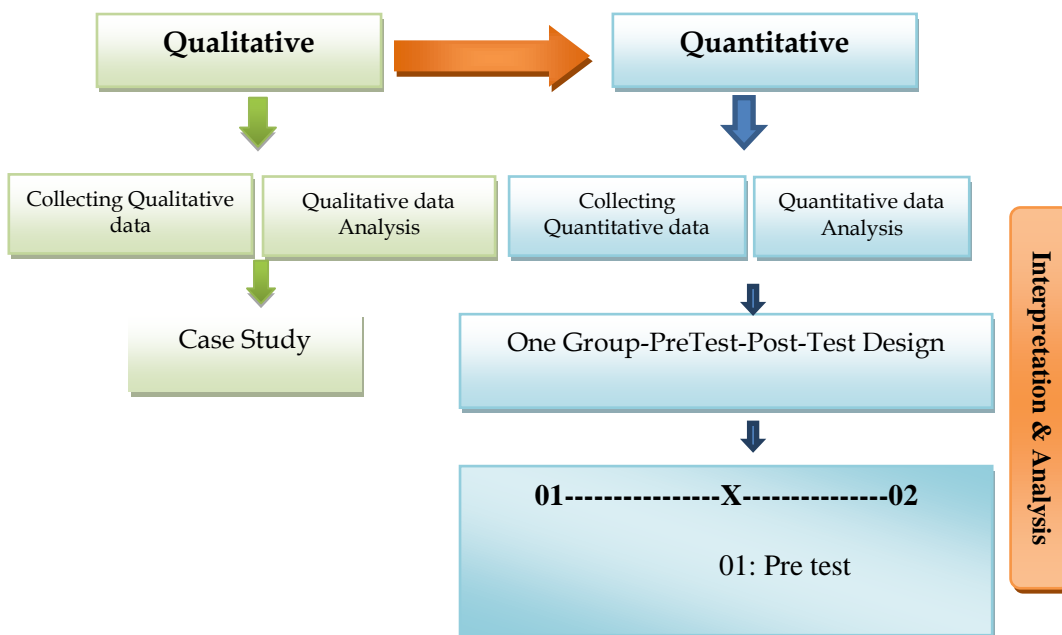


Figure 1. Mixed Method, Sequential Exploratory Design Creswell, Tashakkori & Teddlie

This study had 22 samples chosen by purposive sampling. The variables measured were mood and emotional disorders as the dependent variable, whereas the independent variable was playing music by VCD or MP3.

The data were collected by using observation, interviews, questionnaire, and documents and analyzed with two approaches, namely psychoanalysis for qualitative data analysis and statistical t-test for quantitative data.

RESULTS AND DISCUSSION

Music Therapy Procedure

This study found that there were three stages: assessment, treatment plan, evaluation and

termination. A model of music therapy procedure is described in Figure 2.

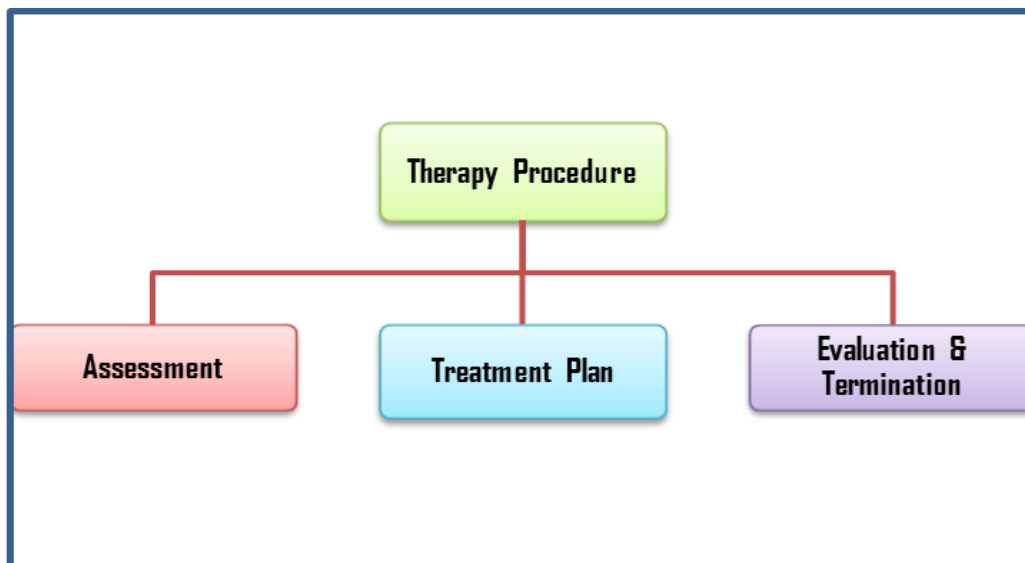


Figure 2. Music Therapy Procedure Model

1) Assessment

Assessment is conducting a preliminary study on the subject (client) by collecting information related to the subject (client). The assessment model used was anamnesis model (health monitoring list), that is recording information about the subject in the form of narrative written by doctors and nurses, by means of structured monitoring and observation on health, psychological, social, and religious dimensions.

The purpose of this step is to obtain a complete description on the subject's (client's) background, current situation, limitations, and possible potential that could still be developed. The assessment stage or the process to record

written information about the subject was done according to a guideline that consists of the subject's identity, motivation, personal hygiene, physical appearance, general health, psychosocial and religious condition.

2) Treatment Plan

Treatment plan stage is offering a concept and action model (music therapy model) that was conducted as a means to improve the subjects' will to live. The treatment plan was decided based on several considerations as follows: the type of music therapy, determining the target and purpose of therapy, the room and sound system setting, and the type of music used. Each aspect of the treatment plan is described in Table 1.

Table 1. Music Therapy Treatment Plan

No	Treatment Plan	Specific Treatment
1.	Determining the Type of Music Therapy	Passive/Active Model
2.	Determining the Target	Determining client
3.	Determining the Purpose of Therapy	The purpose of therapy based on the subject's needs
4.	Room Setting	Setting the room and seat placement
5.	Sound System Setting	Providing and Arranging sound system
6.	Determining the Type of Music	Subject's listening experience

3) Treatment Evaluation and Termination
The last step in the therapy procedure is treatment evaluation and termination. Evaluation includes recording all of the client's responses, development, and change during the

therapy; concluding the effect of the therapy; making recommendations based on the accomplishment of the purpose. Termination includes the limiting or ending the music therapy.

How Music Affects Elders' Emotions

Our results revealed that there is a connection between music and emotions. Music stimulus as a means of therapy affected the subjects' emotional state by altering their emotional situation from unpleasant into pleasant. This one change then influenced every other dimension of the subject's life. The way music specifically affects subject's emotional state could be explained in four emotional concepts as stated by Albert Ellis, James-Lange, Cornelius dan Cannon.

Firstly, the implication of Albert Ellis' concept of emotion as also shown in this study was that emotional responses which appear from listening to music are a combination of both cognitive and motoric spheres. Arising emotions contribute to cognitive and motoric domains, and vice versa (Albert Ellis in Surya, 2003: 83).

Findings on the contribution of cognitive domain toward emotions in this study comprised of mental and intellectual activities. Music therapy was particularly helpful in improving memory, knowledge, comprehension, and analysis. Motoric domain was affected in that music therapy could help control emotions, as well as cause changes in emotions and feelings.

Another connection between music and emotions found in this study was the idea of experiences science, a concept of emotion by James-Lange. The emotions that arose due to the music stimulus received by the subject, went through cognitive process in the brain, and later caused a reaction or behavior (bodily response) that fit the current situation and experience when a similar physiological expression occur (James-Lange, 1922:11).

The results on emotions that emerge in this study were also in line with Cornelius' emotion theory. Music as a stimulus could affect, form, and alter the subjects' feelings and

mood. Fourth, the emotions that occur due to listening to music were a form of applied functions consistent with the two-factored emotion theory as stated by Cannon. Surfacing emotions were an integrated process of subjective experiences and physiological reactions (Kalat, 2002:128-129).

The relationship between music and emotions as found in this study is also along with the concept of musical responses that was proposed by Juslin, Sloboda, and Meyer. It is stated that emotions are generally classified into pleasant (positive emotions) and unpleasant (negative emotions). When listening to music provides comfort, happiness, joy, and new pleasures, it means that the subjects' emotional level falls within the pleasant side (positive emotions). On the contrary, if music causes discomfort and not joy nor pleasure, thus the emotions are considered as unpleasant (negative emotions) (Sloboda & Juslin, 2001:342-344).

The connection of music and mood revealed in this study is in agreement with the concept of emotions stated by Djaali and Tomb. When listening to music leads to new pleasures, it implies a change in mood or alteration in feelings that causes a positive quality, thus relatively reducing emotional bursts such as tension, loneliness, anxiety, depression, hypertension, aggressiveness, and short temper (Djaali, 2009:37, Tomb, 2004:10).

In particular, the link between music and emotions in relation to mood changes is a concrete form of mood, in accordance to Halgin & Whitbourne (2010:4). They find that music can help lessen mood disturbances in bipolar disorder. Bipolarity is a disorder in which a person has drastic mood changes from maniac to depression or from hypertimic moods to hypotimic moods. In order to gain a comprehensive understanding on how music and emotions are connected, the following is a

comparative analysis on the results of this study with previous findings from relevant studies.

First of all, our results had differences and similarities with the effects found from the music therapy model that Samita, et al (2003:1) used. The similarities were that both studies found significant differences between control and intervention groups. After getting music therapy, subjects of the intervention group were revealed to have lower diastolic and systolic blood pressure. Samita, et al also found that music therapy had an effect on the regularity of heart beat and breathing. In this study, however, further effects of music therapy were found on the subjects' quality of life and will to live.

Second, our results support Ezenwa's study in which music was discovered to be able to make subjects relax and help them treat blood pressure problems. Making them relax means that music can reduce anxiety, tension, sadness; form and change behaviors, as well as increase quality of life (Ezenwa, 2009:89-97).

Thirdly, our findings were consistent with Desai & Vyas' results, despite using a different treatment model. While Desai & Vyas combined yoga and music therapy to treat hypertension, our study combined music therapy with elderly aerobics for the same problem. Our study revealed that the combination not only helped improve hypertension but also had a larger impact on the subjects' physiological condition (Falguni Desai & Ona Vyas, 2009:3-7).

Fourth, the study results are in line with Standley, Mulyawati, and Erawati's findings. The collaboration of music as a means of therapy and elderly aerobics brought a positive impact, in which elders became relaxed, comfortable, and happy. This study also supports the results from Hadi, Purbawinoto, and Kartinah's study where certain types of music that the subjects enjoyed gave them a new sense of pleasure that help them cease psychological issues such as depression, stress, or hypertension (Mulyawati & Erawati, 2013:87-93, Standly J.M, 1991:1-5).

This study showed how music altered emotions and mood, which later influenced both

of the subjects' psychological and physiological states. This effect was determined by three main factors:

1) Social-cultural factors

The type of music played was music that blended in with the social-cultural context, music that was a part of the time or period within the subjects' past lives (their youth). Every culture has a contextually and structurally distinct type of music, because it is regulated by norms and rules relevant to the culture and time. Therefore, the subjects' listening skills upon hearing that specific type of music were acoustic sound skills, in which the sound or noises were interpreted by social-cultural terminologies. (Dibben, dalam Djohan, 2010:61-62).

2) Familiarity

The emotional and mood changes observed from the subjects were also caused by the familiarity of the music played. For the subjects, familiar meant that the music was close to home and it provided a new sense of pleasure upon listening. Berlyn stated that music was close and pleasant if it could give an enjoyable feeling by listening to it. (Juslin & Sloboda;2001:82).

3) Habit

The emotional and mood changes that occurred in the subjects may be owing to their past habits of listening to music during their youth. This habit developed into an interest or hobby.

Moreover, the results of our study were in accordance with what Merriam declared: one out of ten functions of music was a form of entertainment, thus making its listeners happy and comfortable (Djohan:2010:27).

The Effect of Music on Mood

Mood disturbances measured in this study include all emotional responses, such as actions, words, mood or sense of comfort, which occurred as reactions to the situation. The experiment revealed that the mean of pre-test results (control) was 107,36; whereas the mean of the post-test results (experiment) was 51,9. Outcomes from average values and t-test showed that subjects had higher instances of mood disturbances pre-treatment in comparison with

post-treatment. This difference occurred for several factors.

First, a new idea and commitment that provided an extra activity for the subjects. Additional activities offered include making a special class to vent out complaints and worry; holding routine meetings on certain days; improving communications and sharing to increase motivations, faith and beliefs; scheduling more entertainment and recreative activities.

Second, the counseling, guidance, and pastorage held by active Brothers. This guidance was aimed to minimize subjects' free time so they would not be in a prolonged time of solitude that could potentially provoke negative emotions (depression, anxiety, fear, anger). Moreover, counseling and pastorage were also intended to overcome subjects' problems related to their will to live. Comparison of mean and t values of the effect of music on moods is shown in Table 2.

Table 2. Comparison of Mean and t Values of the Effect of Music on Mood

No	Measured Variable	Mean difference		t	t _{critical}
		Control	Experiment		
1.	Mood Disturbances	62.227	51.95	27.9	2,080

A significant difference was found between pre-test and post-test results on mood disturbances and music therapy variables, proven by the mean values and how the calculated t value was larger than the critical t value. Music therapy in this study includes all of the subjects' responses in regards of their emotional state upon listening to certain types of music that fit their listening experience. The results of the t-test showed that the average post test (experiment) results (138,91) was larger than the average pre-test (control results (107,36).

In terms of emotions, there were several opinions obtained from the questionnaire that showed positive responses of comfort upon listening to music. The responses include "it's a nice song", "it's not boring", "it's not noisy", "it's fun", "it's entertaining", "the singer's voice is nice", "it flows nicely", "it fits my taste", "the music's nice".

This difference was a result of quite a few new programs, arranged together by researchers and the caretakers of the residential home. These programs were providing the house with two units of polytron active speakers and three units of wireless microphones which were stationed in the therapy room as means of entertainment and relaxation. The purpose of accommodating the old age home with two units of polytron active speakers was to provide entertainment and

relaxation for subjects at certain times when they are free. The music was played everyday at 7.30AM, according to the elders' situation and condition.

The speakers were also used for morning aerobics which are regularly held on Monday, as well as to help physiotherapy on Mondays, Wednesdays, and Fridays. On Thursdays, the subjects were asked to join singing activities in the therapy room. The songs were about faith, belief, and religious life. The singing activity was led by a trustworthy party.

CONCLUSIONS

The procedure of music therapy consists of three stages. The first stage is assessment, i.e. collecting information related to the elders' needs. Next, treatment plan, which is the music therapy treatment model designed to solve the elders' problems. Lastly, evaluation and termination stage in order to evaluate and determine further actions from the treatment model. The effect of music towards elders' emotions is determined by three main factors: social-culture, familiarity, and habit. Hypothesis test results on mood disturbances and hypertension variables revealed that music could reduce elders' negative mood and blood pressure

problems. A significant difference was observed from the mean difference obtained on mood disturbances where it fell from 107,36 pre-treatment to 51,9 post-therapy.

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