
**THE EFFECT OF MUSIC THERAPY ON THE LEVEL OF ANXIETY IN PATIENTS
PRE-OPERATING UTERINE MYOMA IN PAVILION F II OF THE CITY HOSPITAL
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Keywords

Musical therapy, Anxiety, Nursing

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ABSTRACT

Introduction

Uterine myomas are the benign neoplasm origin from the uterine muscles and the binding tissue, the impact caused by uterine myomas is the one to the pregnancy and child-birth and, inversely, so the pregnancy and child-birth also influence the existing myoma. The uterine myoma treatment in general is the operative action namely hysterectomy, and myomectomy, the operative action frequently causes psychological effects in the form of anxiety, anxiety is the emotional response to something that is not yet clearly marked on the biological aspect, intellectual aspect and emotional aspect. The theory mentioned that music triggers the endophrine hormone, a hormone with a relaxing nature and the slow music can be relaxing by slowing the breathing and heart beat.

Method

The design used in this research was the pre experiment design with the one group pre test-post test design type in which the independent variable was musical therapy effect and the dependent variable was the anxiety level of the preoperative uterine myoma patients. This research used the non probability sampling method with the saturated sampling technique. It was analyzed using the Wilcoxon test with $p < 0.005$; sample taken was the entire myoma uterus pre operative patients at F II room of Dr. Ramelan Naval Hospital of Surabaya on April 20 – June 30 2010.

Result

In the results of this research obtained that before the musical therapy the average patients' anxiety level was in the moderate anxiety namely 5 patients (71%), after the musical therapy implementation the average patients' anxiety level was in the moderate anxiety of as many as 4 patients (57%) with $p \dots 0.257$ and value of $Z-1, 134a$ meaning that the musical therapy did not prove could decrease the anxiety level of the preoperative uterine myoma patients .

Conclusion

Viewing the results of this research, the musical therapy did not give the significant anxiety decreasing effect. Therefore, it is expected that it can open the discourse for the nurses to re-examine the musical therapy. .

Introduction

Uterine myoma is a benign neoplasm originating from the uterine muscle and connective tissue, so it is often called a myoma, fibroma, and fibroid (Ali Mansjoer: 2001). Uterine myoma is formed due to the process of increasing estrogen, in the uterus that has myoma, more estrogen receptors are found than in normal uterine muscle. Conditions that can increase estrogen levels, for example, menstruation, therefore this myoma is more common in women during their fertile period. Because it is influenced by the hormone estrogen, in children who have not menstruated, genetics can also be a factor in causing uterine myoma, hereditary factors are influenced by hormonal stimulation, foods rich in fat, and being overweight (Hestiantoro, 2009). Uterine myoma can be found in the uterine cervix and in the uterine corpus, uterine myoma is differentiated according to the place where the tumor arises, namely: submucosal myoma which is under the endometrium and protrudes into the uterine cavity, intramural myoma which is a myoma found in the uterine wall where the myometrial fibers can cause uterine enlargement, subserosal myoma when it grows outside the uterine wall so that it protrudes on the surface of the uterus, covered by serosa (Nursing tutorial, 2008).

Most cases of uterine fibroids are asymptomatic, so most sufferers are unaware of any abnormalities in their uterus. It is estimated that only 20%-50% cause clinical symptoms, especially excessive menstrual bleeding, infertility, recurrent abortions, and pain due to pressure (Djuwantono, 2004). Research in the United States conducted by Schwartz showed the incidence of uterine fibroids is

2-12.8 people per 1,000 women each year. Schwan showed the incidence of uterine fibroids is 2-3 times higher in black women compared to white women (Victory et-al, 2006). Research by Ran Ok et-al at the Saint Benedict Hospital Center in Korea found uterine fibroids in 17% of 4,784 gynecological surgical cases studied.

In Indonesia, uterine myomas are found in 2.39% - 11.70% of all gynecological patients treated (Joedosaputro, 2005). According to research conducted by Karel Tangkulung in Surabaya, the incidence of uterine myomas is 10.30% (Yaud H, 2005). Based on data from the medical records of Dr. In 2007, uterine myoma ranked fourth out of ten other gynecological diseases, namely 12.25% (Medical records of Dr. Ramelan AL Hospital Surabaya, 2009), in 2008 uterine myoma ranked third out of ten other gynecological diseases, namely 23.58% (Medical records of Dr. Ramelan AL Hospital Surabaya, 2009), while in 2009 (Quarter I and II) uterine myoma ranked third out of ten other gynecological diseases, namely 15.08% (Medical records of Dr. Ramelan AL Hospital Surabaya).

From the observation results conducted by researchers in August 2009, 3 out of 5 patients with pre-operative uterine myoma appeared anxious, assessment of patient anxiety was conducted through verbal and non-verbal observation of patients, verbal observation showed the anxiety experienced was conveyed directly by the patient to the researcher. On average, patients said they were afraid of the operative procedure that would be carried out, this statement was made before the patient was transferred to the operating room. In addition to verbal observation, pre-operative anxiety of uterine myoma

patients was supported by signs shown by patient behavior obtained from non-verbal observation, signs of anxiety were in the form of patients looking sad, frequently asking questions, complaining of not being

Research Materials and Methods

Pre-operative patients *with uterine myoma* in pavilion F II of Dr. Ramelan Hospital Surabaya are the population in this study using saturated sampling techniques. All members of the population were taken as samples. After that, anxiety measurements were carried out using the Hars and Zung scales with a questionnaire, then music therapy treatment was given, music therapy action assessment was carried out using an observation sheet for the music therapy implementation procedure. After administering music therapy, anxiety levels were measured again using the HARS and ZUNG scales using a questionnaire.

This research uses a *non-probability sampling method* with a *saturated sampling technique*, namely a sampling determination technique where all members of the population are used as samples (Setiadi, 2007).

Independent variable : the effect of music therapy is measured using a music therapy technique observation sheet, music therapy is based on implementation procedures. The implementation procedures are choosing a quiet place, playing music, adjusting the patient's position and breathing pattern, adjusting the music so that it is truly heard to the maximum, directing the patient to focus on the painful area, setting a comfortable method by the patient themselves, the ideal therapy time is 30 minutes to one hour, if time is limited it can be done for 10 minutes.

able to sleep. From the data obtained from verbal and non-verbal observations, researchers concluded that pre-operative patients experienced anxiety.

Dependent variable : anxiety was measured using a questionnaire. The questionnaire to measure the anxiety of pre-operative uterine myoma patients using the HARS scale is represented by 14 questions. Of the 14 questions, the assessment is 0 = none (no symptoms at all), 1 = mild (1 symptom from the available choices), 2 = moderate (half of the existing symptoms), 3 = severe (more than half of the existing symptoms), 4 = very severe (all symptoms are present) with a score of no symptoms = <6, mild symptoms = 6-14, moderate symptoms = 15-27, severe symptoms = >27. In addition to the HARS scale, researchers also used the *Zung Self Rating Anxiety Scale* represented by 20 questions. Of the 20 questions, the assessment criteria for questions no: 1, 2, 3, 4, 6, 7, 8, 10, 11, 12, 14, 15, 16, 18, 20 are given a score of 1 = Symptoms never / slightly felt, 2 = Sometimes symptoms are felt, 3 = Symptoms are often felt, 4 = Symptoms are always felt and for questions no. 5, 9, 13, 17 and 19 the scoring criteria are given 1 = Symptoms are always felt, 2 = Symptoms are often felt, 3 = Sometimes symptoms are often felt, 4 = Symptoms have been felt. The score for each question is then converted to the *Zung Self Anxiety Rating Scale anxiety index* to determine the level of anxiety: Zung Index <45 = No anxiety, Zung Index between 45-59 = Mild anxiety, Zung Index between 60-74 = Moderate anxiety, Zung Index >75 = Severe anxiety. The assessment stages for the anxiety variable between the HARS scale and the Zung scale are that the HARS scale scores are added up, then the Zung scale scores are

also added up, then the conclusions of both are entered into the data tabulation. If the HARS scale shows mild anxiety while the Zung scale shows severe anxiety, the researcher concludes that the respondent experiences severe anxiety from two types of anxiety scales

(HARS and Zung scales), the researcher takes the anxiety level on the highest scale.

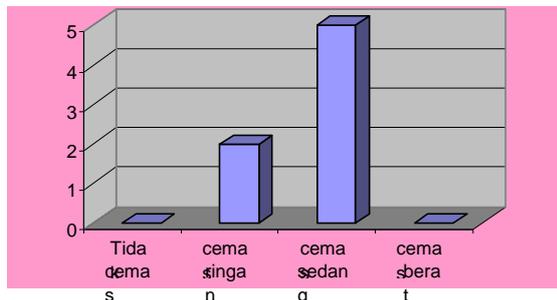
| No. | HARS Scale | Zung Scale | Information |
|-----|-----------------|------------------|-------------------|
| 1. | Mild anxiety | Moderate anxiety | Moderate anxiety. |
| 2. | Without Anxiety | Mild anxiety | Mild anxiety |
| 3. | Severe anxiety | Mild anxiety | Severe anxiety |

Table 1: Scale combination table HARS and ZUNG

Results

Special Data

Table 2. Pre-operative anxiety level of *uterine myoma patients* before music therapy



From the specific data on the anxiety level of pre-operative uterine myoma patients, it shows that on average the patients experience moderate anxiety and the rest experience mild anxiety. The data in bar chart 5.7 shows that the percentage of patient anxiety levels is 57% of patients who experience moderate anxiety and the rest who experience mild anxiety is 14%.

From this percentage, it shows an increase in anxiety in pre-operative *uterine myoma patients* in the F II pavilion of Dr. Ramelan Hospital, Surabaya, thus it can be seen that there is a reaction. emotional which is indicated by an increase in the level of anxiety in pre-operative *uterine myoma patients* , from field observations it

is known that anxiety arises due to the patient's perception of the operative action to be carried out, fear of the surgical procedure, side effects that may arise after the operation. This is as expressed by Anonymous (2001) that the definition of anxiety is an emotional reaction to the perception of danger, whether real or not. Anxiety arises from the background of the perception of something or someone's view of an event that has not yet occurred, the anxiety that occurs can be known from the patient directly through the patient's expression of the perceived perception and other manifestations shown by the patient such as, from measuring the level of anxiety using the HARS and ZUNG scale parameters, it can be seen that the manifestation of anxiety that occurs in pre-operative uterine myoma patients in this study includes patients expressing more frequent urination intensity compared to other times or when not in the pre-operative phase such as when the study was conducted, cold sweats, and from the perception of the operation mentioned, namely the perception of fear of surgery, side effects that may arise can also indicate that the patient is experiencing increased anxiety.

As stated by Sue (in Trismiati 2006 in the 2008 article) states that the manifestation of anxiety is manifested in four things, namely: Cognitive

manifestations that are manifested in a person's mind who often thinks about disasters or bad events that will happen, Motoric behavioral manifestations of a person's anxiety are manifested in erratic movements such as trembling, Somatic changes appear in a state of dry mouth, cold hands and feet, diarrhea, frequent urination, muscle tension, increased blood pressure and others, affective manifested in feelings of anxiety and excessive tension.

In addition to the triggering factor of changing the patient's perception of the surgical procedure, anxiety may be caused because the surgical procedure to be carried out by the patient is a procedure that is being carried out for the first time or in other words, it is the first experience for the patient. Of the 7 patients who were research patients, it was known that 6 patients said that the surgical procedure being carried out was for the first time. This is related to the patient's experience of the surgical procedure, because they have not had previous experience, the patient has limited knowledge about surgical procedures.

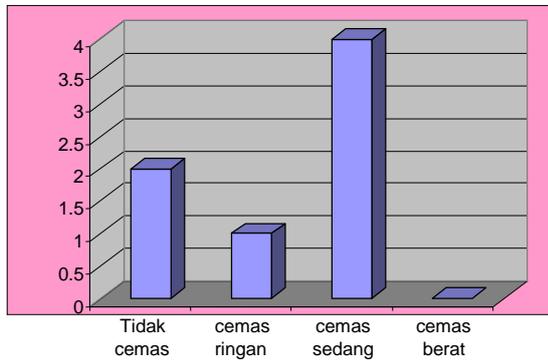
In terms of gender, all patients who were patients in this study were women who were generally more prone to experiencing changes in emotional reactions than men. This is shown from the perceptions that emerged. These changes in emotional reactions are also related to how patients view perceptions. When collecting data, it was known that patients tried to calm themselves down regarding the perceptions that emerged within themselves, which was shown by patients trying to surrender to the actions that occurred.

Of the 72% of patients aged over 35 years and the remaining 14% aged 26-30 and 31-35 years respectively from the data shows that on average patients are older than other patients more, of the 5 patients aged over 35 years 4 patients experienced moderate anxiety and 1 patient experienced

mild anxiety compared to younger patients patients aged > 35 years experienced higher anxiety this is different from the theory mentioned by Trismiati (2006 in the 2008 article) which states that at an older age a person has more experience so that their knowledge increases, because of the large amount of knowledge a person will be better prepared to face something, this difference occurs because anxiety is not only influenced by age factors but by several predisposing factors that cause increased anxiety as mentioned in the article (2008), the factors that influence anxiety are divided into two, namely: Internal and external factors. Internal factors are influenced by experience, according to Horney (in Trismiati 2006) sources of threats that can cause anxiety are more general, the cause of anxiety according to Horney can come from various events in life or can be located within a person, for example, someone who has experience in carrying out an action will be more able to adapt or the anxiety that arises will not be greater. Stimulus response, a person's ability to analyze stimuli or the amount of stimulation received will affect the anxiety that arises, in terms of age, the older a person is, the more experience he has so that his knowledge increases, because his knowledge is a lot, a person will be better prepared to face something, gender factors, related to anxiety in men and women (Myers, 1983 in the 2008 article) said that women are more anxious about incompetence than men, men are more affective, explorative, while women are more sensitive. Other studies show that men are more relaxed than women.

External factors consist of: Family support, having family support will make someone more prepared to face problems, environmental conditions can make someone stronger in facing problems, for example, a work environment or social environment that does not provide a negative image about the effects of a problems make a person stronger in facing problems.

Table 3. Level of anxiety in pre-operative uterine myoma patients after music therapy



Based on the bar chart 5.8, it was found that the level of anxiety experienced by patients after music therapy was changed. After music therapy, the average level of anxiety of patients became moderate anxiety, namely 57%, a small portion became no anxiety, and only 14% experienced mild anxiety. From these data, it can be seen that there was a change in the level of anxiety of the 7 patients who were patients in this study. 4 patients experienced a change in their anxiety levels, with 3 of them experiencing a decrease in their anxiety levels and the rest experiencing an increase in their anxiety levels from mild anxiety to moderate anxiety. The decrease in the level of anxiety that occurred in clients after therapy was given was a positive effect of the musical element which could provide a positive and adequate response, patients were able to respond to music as indicated by a decrease in their anxiety levels.

This is in accordance with what was expressed by Budi Anna Keliat (2005) that sensory stimulation activity therapy aims to stimulate all five senses (sensory) to provide an adequate response, one way to stimulate the sensory is by listening to music, besides that music therapy can reduce the level of anxiety that occurs because of the music factor used in this study, the music used is a type of *Mozart* which is slow with a regular rhythm, this type of music if listened to carefully and the

listener is also able to analyze by entering into the music will give rise to its own imagination in the listener, the listener will imagine entering into the relaxing music.

Mozart music is in accordance with the theory of musical effects put forward by Spawnthe Anthony (2003) which states that one of the benefits of music is the *Mozart effect*, which is a term for the effect that music can produce that can increase a person's intelligence, another effect of music is refreshing, when the mind is chaotic or saturated, by listening to music even for a moment, it is proven to calm and refresh the mind again, patients experience a decrease in anxiety levels with *Mozart music therapy* because this music can provide its own relaxing effect in reducing the patient's anxiety level, patients who experience a decrease in anxiety levels say that after hearing the music played for therapy, the patient feels more comfortable, although not significant, music can have a positive influence on the patient expressed by saying that his feelings were calmer.

This is as mentioned in the theory of the function of *Mozart's relaxation music* (in the 2008 article) that *Mozart's relaxation music* can have a calming effect on the mind. Apart from this calming effect, music can produce calming alpha waves, these waves can stimulate the limbic system of the brain tissue.

From the data obtained, it was shown that 1 patient experienced an increase in anxiety levels, the increase that occurred was in a patient who previously... In music therapy, anxiety can change from mild to moderate, increased anxiety can occur if the patient is less able to analyze the music used as therapy, one type of music may cause the patient to dislike the type of music being listened to, making them less able to analyze the music. Therefore, the choice of music type will affect the music therapy process by choosing the type of music that the patient

likes will be effective in reducing the patient's anxiety level. This is in accordance with the things that need to be considered in the implementation of existing music therapy (Asta, 2008), mentioning several things that must be considered in the implementation of music therapy, including: Try to make the client analyze the music, with the principle of enjoying the music, use the type of music according to the client's preferences, especially those with soft and regular rhythms. Try not to use rock and roll, disco, metal, and similar types of music. Because the music has a character that is contrary to the human heart rhythm.

Table 4 Cross table of anxiety levels of pre-operative *uterine myoma patients* before and after music therapy at Pavilion F II, Dr. Ramelan Hospital, Surabaya, April 20 to June 30, 2010

| Before music therapy | After Music Therapy | | | | | | Amount | | Z |
|----------------------|---------------------|------|--------------|------|------------------|------|--------|----|-----|
| | No worries | | Mild anxiety | | Moderate anxiety | | n | % | |
| | n | % | n | % | n | % | | | |
| Mild anxiety | 1 | 50.0 | 0 | 0 | 1 | 50.0 | 2 | 10 | - |
| Moderate anxiety | 1 | 20.0 | 1 | 20.0 | 3 | 60.0 | 5 | 10 | 1,1 |
| Total | 2 | 28.6 | 1 | 14.3 | 4 | 57.1 | 7 | 10 | 34 |

N= 7 P= 0.257 significance level 0.05

The Wilcoxon test in this study obtained a p-value of 0.257, meaning H0 was accepted and H1 was rejected. This indicates that music therapy has no effect on the anxiety levels of patients with *uterine myoma pre-operatively*.

Music therapy aims to help clients express their feelings, assist with physical rehabilitation, have a positive influence on mood and emotional conditions, improve memory, and provide a unique opportunity to interact and build emotional closeness (Djohan, 2006).

Discussion

In relation to therapy, different types of music require different users. For example, fast-tempo music can be used to increase motivation, and song selection is tailored to the client's needs. Supporting aspects in the implementation of music therapy are: Psychobiology of sound from a purely biological and anatomical perspective, we can hear because the ear can convert sound wave signals into nerve vibrations that send signals to the brain, which are then processed and differentiated into various types of sounds. The closeness of sound to human daily life then opens up opportunities to see sound from various other perspectives.

From a psychological perspective, for example, a person's understanding of sound is very dependent on how that person perceives what he or she hears, this perception is influenced by musical experience and socio-cultural experience.

These factors can influence the success of the therapy. The Wilcoxon test in this study showed that music therapy was not proven to reduce anxiety levels, when viewed from psychological factors related to how patients analyze or how patients perceive the music they hear, the length of time the therapy is given, the number of therapy sessions that may make patients less able to provide a good psychological response to music. The success of music therapy is largely determined by the role of sound and the client's perception of the sounds they hear. Therefore, a music therapist is required to first understand the role of sound in everyday life. In the therapy process, it is not only the type of music that will play a role in helping clients. Knowledge is needed about sound sources, the speed of sound propagation, the limits of hearing according to age, or also the client's understanding of sound color. Music and healing physiological responses, musical emotional responses, how to listen (Djohan, 2006).

From this, it can be said that apart from the music factor and how the patient examines the music used in music therapy, other factors that can influence the success of music therapy are therapist factors, the therapist's limited knowledge about the role of sound in everyday life, the speed of sound propagation according to age and others, which can make the music therapy provided less than optimal.

Psychobiological aspects of anxiety include: Neurobiological brain changes involved in the alarm phase that have an impact on the cardiovascular, gastrointestinal and respiratory systems, Neurotransmitters undergo changes in the brain, especially the limbic system, impacting stress, anxiety, and several anxiety-related disorders a) Gamma-aminobutyric acid (GABA) is an inhibitory neurotransmitter related to the relaxation response b) Serotonin is a complex neurotransmitter related to various aspects of brain function, a deficiency or imbalance of serotonin levels in the tonsils is considered significant in the occurrence of anxiety or anxiety-related disorders c) Neuronefrin which is responsible for stress and anxiety, biological differences in some individuals cause an overactive response, genetic research validates an increased susceptibility in families to anxiety-related disorders (Ann Isaacs, 2005

The body's physiological mechanisms for responding to music therapy involve negative emotional responses such as anger, anxiety, and depression, received by a part of the brain called the limbic system. The limbic

Conclusion

The average pre-operative uterine myoma patients in the F II pavilion of Dr. Ramelan Hospital, Surabaya experienced moderate anxiety before music therapy. The average pre-operative uterine myoma patients in the

system, consisting of the amygdala, thalamus, and hypothalamus, plays a crucial role and is directly connected to the autonomic system and other important brain regions. Because of the limbic system's direct connection to the autonomic system, negative emotional stimuli that directly enter and are received by the limbic system can cause various disorders such as heart problems, hypertension, and gastrointestinal disorders. It's no surprise that when someone is angry, their heart beats faster and harder, and their blood pressure can rise.

Recent neuroimaging studies have identified neural correlates of music processing and perception. Musical stimuli appear to activate specific pathways in several areas of the brain, such as the limbic system, which is associated with emotional behavior. Listening to music activates this limbic system, leading to relaxation (Yuda, 2008). This mechanism will not function optimally if a person lacks understanding of the emotional responses that arise. This is related to how patients analyze the music they hear and enjoy it in music therapy.

This is in accordance with what was expressed by Djohan (2006) one supporting aspect in music therapy is the musical emotional response, the musical emotional response is a problem that will always accompany a music therapy process, this factor influences how someone can like the music being played. When associated with music therapy, one of the cores of music therapy for clients is their emotional response. This means that the response given will show how far the influence is given and how much meaning is given from the changes that occur.

F II pavilion of Dr. Ramelan Hospital, Surabaya experienced moderate anxiety after music therapy. Based on the results of the Wilcoxon test, it was found that there was no effect of music therapy on reducing the anxiety level of pre-operative uterine

myoma patients in the F II pavilion of Dr. Ramelan Hospital, Surabaya.

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