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THE EFFECT OF MUSIC THERAPY FOR PREGNANT WOMEN : A LITERATURE REVIEW

Aisyah*, Triana Sri Hardjanti

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

***Corresponding author's e-mail: ikerophi@gmail.com**

ABSTRACT

Background: *Psychological problems among pregnant women such as anxiety and depression potentially have an impact on the fetus and are associated with a risk of preeclampsia. One of therapy to decrease psychological problems during pregnancy is music therapy. The aim of this study was to identify and summarize the benefits of music therapy for decreased psychological problems among pregnant women.*
Methods: *This was a literature review using several documents obtained from some databases, including Science Direct, Pubmed, Proquest, Taylor and Francis, Garuda Ristekdikti and Google Scholar. The literature search was conducted using keywords "music therapy in pregnant women" and literature published from 2008 to 2019 were selected.*
Results: *Out of 263 published literature identified, only 10 were included in this literature review. The music therapy was observed with positive impacts on pregnant women. Music therapy serves as relaxation for pregnant women which helps reduce anxiety, depression, blood pressure, and psychological stress.*
Conclusion: *Music therapy has several benefits for pregnant women's health, particularly on reducing psychological problems and blood pressure.*

Keywords: *Music Therapy, Anxiety, Blood Pressure, Pregnant Women*

INTRODUCTION

Pregnancy is the process of meeting egg cells (ovum) and seminal cells (spermatozoa) and followed by fisiologis and psychological changes. [1] Pregnancy is a physiological and natural process that starts with the growth and development of the fetus in the womb and starts from conception to labor. [2] The health of a pregnant woman is a very important aspect and needs to be considered in the life cycle of a woman because during her pregnancy she can experience unexpected complications. Every pregnant woman will face risks that can threaten her life. Therefore, every pregnant woman needs care during her pregnancy [22]. The maternal mortality rate (AKI) is one indicator to see the health status of a country.

Data from the Ministry of Health shows that infant and maternal mortality during childbirth has decreased since 2015 until 2017. Based on data quoted from the official website of the Ministry of Health, the maternal mortality rate dropped from 4,999 cases in 2015 to 4,912 cases in 2016. While up to in 2017 there were 1,712 cases of maternal death during labor. [6] The main causes of maternal death are severe bleeding (mostly postpartum bleeding), infection (usually postnatal), high blood pressure during pregnancy (pre-eclampsia / eclampsia), prolonged / congested parts and unsafe abortion. [7]

Anxiety is a psychological element that describes the feeling, emotional state possessed by someone when facing reality or events in her life. Anxiety pregnant women will have an impact on the fetus. Many studies have shown that negative thoughts can have a negative impact on pregnant women and their fetus. [3] Schetter has stated that anxiety experienced during pregnancy can lead to various risk factors, namely premature birth and low birth weight experienced by infants. [23] Depression and anxiety in early pregnancy are associated with the risk of preeclampsia. Preeclampsia is a major complication in pregnancy, the etiology of this complication is largely unknown. [4]The impact of anxiety for infant is premature baby, disruption of growth factors such as insulin in cord blood, the impact of anxiety on the baby will continue into childhood both on physiological development and emotional / mental development such as the low of immune system. [5]

Complementary and alternative therapies are the most common choices for pregnant women who try to avoid the side effects associated with treatment. Use music therapy to reduce psychological stress during pregnancy. [8] Music therapy is a treatment intervention by using music based on clinical and evidence in achieving therapeutic relationships to meet physical, emotional, cognitive and social needs. [9]

The results of a study conducted by Supapis that listening music therapy can reduce anxiety and the value of blood pressure, both siatole and diatole. [10] Similarly, the research conducted by Yang et al., that listening to music can reduce anxiety levels in pregnant women. [11] Thepurpose of this study is to *review* some literature about effect music therapy for pregnant women. This is expected to be applied effectively to clinical services and is a recommendation for midwifery interventions in caring for pregnant women.

METHODS

The research articles reviewed from electronic databases including Science Direct and Pubmed, keywords used included “music therapy in pregnant women”. A total of 10 of the 263 publications ranged from 2008 to 2019, the exclusion criteria is 253 publications which is not a relevant study, a systematic review / meta analysis and not about a Randomized Controlled Trial design.

RESULTS

The study conducted by Chang showed that the intervention group experienced a significant reduction in PSS, S-STAI and EPDS after two weeks while the control group only experienced a significant reduction in PSS after two weeks later the ANCOVA Test revealed that changes in PSS, S-STAI and EPDS after two weeks significantly decreased in the experimental group compared to the control group. [8] The study conducted by Yang also showed that anxiety levels in pregnant women decreased and physiological responses increased significantly in the intervention group that was given music therapy while on the bedrest in hospital. [11]

Thestudy conducted by Chang and Yang which is not in line with the research conducted by Kafali Showed that the results in the pre test found NST scores from the anxiety of the intervention and control groups to find their respective values ($P > 0.05$) The results in the posttest were found for the average NST scores of the intervention group and the control group found respectively ($p < 0.001$). In the control group, NST produced a statistically significant increase in anxiety scores compared to the intervention group that listened to music resulting in a decrease in anxiety scores but not statistically significant. While the FHR score in the intervention group was significantly higher than the control group. Similarly, the number of fetal movements in the intervention group was significantly higher compared to the control group. [12]

Thestudy conducted by Liu showed that compared to the control group, the intervention group had significantly lower pain and anxiety in the latent phase of labor. However, no significant differences were found between the two groups during the active phase. [13] Other studies mentioned the psychosocial stress levels were significantly lower in the experimental group than in the control group. [14] The study conducted by Gonzalez with 409 sample numbers (204 intervention group, and 205

control group) explained that there were psychological and physiological changes after doing music therapy using relaxing music and instrumental types including guitars, violins, flutes and piano for 20-40 minutes in 2 weeks, which can reduce anxiety in pregnant women and improve labor so as to reduce the rate of labor with caesaria surgery. [15]

The study conducted by Jansson the results showed that the measurement of SD2 HRV increased significantly more in the music therapy group than in the control group during the therapy session. Moreover, the low frequency (LF) measurement of HRV decreases during the three-day therapy period. Self-reported stress does not change significantly after intervention. As for the level of anxiety at the beginning or pre-test both groups had high scores and significantly reduced after doing therapy for three days. [16]

Thestudy conducted by Cao the results showed that all of them were significantly lower after treatment in patients who received music therapy compared to patients with the control group. In addition, the quality of life score was higher in patients who received music therapy, and their Ang II serum levels were significantly lower than the control group. These results indicate that music therapy is an effective therapy in the treatment of hypertension, because it lowers blood pressure, reduces serum Ang II, reduces negative emotions, and improves quality of life. [17]

Thestudy conducted by Barocas showed significant results found between the music therapy group and the control group regarding stress levels in women hospitalized with high-risk pregnancies. [18] But it is different from the research conducted by Toker with 70 study samples (35 intervention groups and 35 control groups) found The difference between anxiety scores was not statistically significant ($p > 0.05$). On the other hand, the Newcastle Satisfaction score with the Nursing Scale of the experimental group was higher than the control group ($p < 0.01$). Finally, when considering the number of fetal movements, a significant increase was determined in the experimental group, while Music Therapy had a minimal effect on fetal heart rate and a decrease in blood pressure ($p < 0.05$. [19]

DISCUSSION

In helping to alleviate anxiety in patients , some interventions need to be done, one of which is to help immediately through collaboration to get treatmentand the most appropriate medicine for these patients. Non-Pharmacological therapy including complementary therapy is one of the most popular therapeutic alternatives nowadays, besides the low price, the side effects that are caused are also small. Various types of complementary therapies that have been practiced by a group of people. One of the classified complementary therapies is music therapy. Music therapy is a treatment option that effectively improves psychological health during pregnancy and listening to music every day during pregnancy produces many health benefits. [8]

Music therapy with classical music, folk music, symphonies by Beethoven, Schubert, and Tchaikovsky, as well as patient's favorite soft songs for 30 minutes can relax or be comfortable so as to reduce anxiety levels. [17] Music increases relaxation, reduces anxiety, stress and depression in women during pregnancy. [8] Crystal type music, natural sounds, classical music, lullabies, and symphony music for 30 minutes in 2 weeks can help pregnant women deal with stress, especially stress related to pregnancy. [20]

Music therapy for 30 minutes with a choice of music that is slow, relaxed and soothing with little variation in tempo or volume is very helpful for women who give birth especially in the early stages of labor, significantly effective in reducing pain and anxiety in the mother however the latent phase, pain and anxiety during the active phase did not differ significantly between the experimental group and the control group. [13] Some studies also report no significant effects or minimal effects for music therapy on anxiety. This is because in this study only listening to music for 30 minutes in one time and there was no comparison with other groups. [14]

The study conducted by Cao it was revealed that music therapy for 30-60 minutes can reduce anxiety levels seen from HAM-A and HAM-D scores (anxiety) in patients who received significantly proven music therapy compared with patients who did not receive music therapy ($P < 0.05$), but not only

did music therapy have a major influence on the success of conventional treatment for PIH patients. Both siastole and diastolic blood pressure levels that received conventional and music therapy treatments were significantly lower than those who only received conventional treatment (P <0.05). [17] The study is in line with the research conducted by Eylem and Nuran, which found that the average diastolic blood pressure was found to be similar between groups at first but after intervention with Turkish classical music therapy the value of diastolic blood pressure was found to decrease significantly in the period prenatal and postnatal, because the effects of therapeutic music affect the autonomic and central nervous system, which has a positive effect on physiological parameters. [19] Chlan also states that stimuli from music, especially rhythm and tempo, can be used to change the body's physiological response (heart rate, breathing, blood pressure. [21]Music changes the interaction of the thalamus and reticular activating system (RAS) and emotional effects, body muscle function and autonomic functions such as blood pressure, heart, and respiration. [8] But music therapy interventions were not found to have a significant effect on the anxiety of pregnant women with preeclampsia. Pregnant women with pre-eclampsia who are a high-risk group of pregnancies, this become an obstacle because it does not have enough cases in the clinic, so requiring a more comprehensive study with a larger sample (qualitative or quantitative studies) [19] with these findings has significant implications for health professionals who want to include non-pharmacological interventions that this safe into prenatal care. This intervention program can be sustainable and can designed and promoted to increase relaxation and bond between mother-fetus. [20]

CONCLUSION

Music therapy is useful in reducing anxiety in this case psychologically pregnant women in the pregnancy and childbirth and can reduce the value of blood pressure. So that music therapy is recommended as a comprehensive treatment that can be applied to pregnant women who have a risk or not.

CONFLICT OF INTEREST

There is no conflict of interest

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