

MUSIC THERAPY ON ANXIETY IN THIRD TRIMESTER PREGNANT WOMEN

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REVIEW

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ABSTRACT

Introduction – Anxiety in pregnancy poses a bad risk to the fetus. Pregnancy anxiety puts the fetus at risk for problems like delayed fetal growth. These risks can affect the quality of maternal and infant health. The use of music as therapy can be used to help overcome anxiety, especially in pregnant women. This paper will try to find out the effectiveness of listening to music as therapy against anxiety in third-trimester pregnant women.

Methods – Literature obtained from Google Scholar, Elsevier, and Pubmed databases with a period of 2018 to 2023.

Results – Findings from kinds of literature on the use of music therapy in managing anxiety during pregnancy are very effective in lowering anxiety levels.

Discuss – Music is a non-pharmaceutical intervention that can be used as therapy. The therapeutic influence that music has on the body and mind helps balance out unpleasant feelings.

Conclusion – Using music as therapy during the third trimester has beneficial effects in reducing anxiety. Therefore, the use of music therapy is expected to be used as a nonpharmacological method to reduce anxiety in pregnancy.

Keywords: music, anxiety, pregnancy.

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INTRODUCTION

There are numerous physical and psychological changes in the woman throughout pregnancy, which is a natural process. In pregnancy, there are hormonal changes that can affect psychological conditions and can cause anxiety to depression. Anxiety is characterized by an emotional state that experiences tension or worry about something that is not certain to happen. In pregnancy, anxiety is a natural thing to experience in the trimester (TM) III.¹ Anxiety often occurs in the first trimester until before delivery. Anxiety in TM I is at the same level as ordinary anxiety, however, anxiety in TM II and TM III can be twice as much as anxiety during TM I.²

Anxiety and depression during pregnancy occur in 7-20% in developed countries and more than 20% in developing countries. In Indonesia, out of 373,000,000 pregnant women, 107,000,000 experienced anxiety in the face of childbirth (28.7%).³ The results found that 100% of pregnant women experienced anxiety with 53.3% moderate anxiety, 26.7% severe anxiety, and 20% mild anxiety.⁴ Severe anxiety if not getting the right treatment can lead to death in the mother.

According to the maternal death rate for 2018, it dropped from 390 to 305 per 100.000 live births. Even so, the MMR reduction target has not yet reached the MDG target.³

Knowledge about childbirth can affect the anxiety of pregnant women before delivery because mothers who have less knowledge will view the labor process as something scary. Anxiety in pregnancy, especially in TM III is triggered by feelings of fear, anxiety, tension, and the shadow of the labor process that is not easy until the baby's condition when giving birth later. Husband support such as care, mentoring during ANC and childbirth, transportation, motivation, and prayer are among the factors that can affect the mother's anxiety level.²

Generally, primigravida actively prepares for labor, however, they are often unable to deal with the anxiety of childbirth. Anxiety in pregnancy is a bad risk for the fetus conceived such as delayed fetal growth to abortion in TM I. When the mother experiences anxiety, the fetus will absorb the mother's cortisol and the fetus has a risk of developing allergies compared to babies with low cortisol mothers.⁴ TM III pregnant women who cannot overcome anxiety and fear before labor will release catecholamine hormones that can trigger stress in high

concentrations. This situation can trigger accelerated labor, increased labor pain, prolonged labor, and tension brought on by labor.⁵

Risks that could affect the standard of maternity and infant health should receive more attention from local health workers. Preventive efforts can be carried out by holding screening to find as early as possible disorders that can interfere with the health of mothers and children. Another effort is to provide therapy, both pharmacological and nonpharmacological therapies. Nonpharmacological therapies include massages, pregnancy exercises, yoga, diaphragmatic breathing, aromatherapy, and music therapy.⁶

Music therapy is an activity that uses music media as a medium of relaxation. One of the music therapies using sound instruments, such as gamelan, is believed to provide effective distractions to reduce stress, physiological pain, and anxiety.⁷ Music affects the work of autonomic nerves that regulate feelings and emotions, by listening to music muscle and nerve tension will subside so that the body relaxes and helps heal physical and psychological pain.⁸

METHOD

Research articles are obtained from electronic databases such as Google Scholar, Elsevier, and Pubmed with the keywords "music", "anxiety", and "third trimester". A total of 7 out of 158 related publications from 2018 to 2023, 150 of which are exclusion criteria because they are not relevant studies, systematic reviews, and meta-analyses.

RESULT

Six case studies with different treatments of anxiety in third-trimester pregnancy were included in this literature review. The first journal found average anxiety before the intervention of 29,13 and after classical music therapy lullaby turned to 10,83. The study states the effectiveness of music therapy, especially lullaby music against anxiety in pregnant women.

A second study found that the application of karungut music during pregnancy can reduce anxiety. The music can be used as an alternative way to increase pregnancy's health status by reducing anxiety levels. The analysis in that study showed that the kind of Karungut instrumental can decrease anxiety levels (OR= 3.33) after controlling other variables.

A third study found that the combination of classical music with lavender aromatherapy can reduce anxiety in pregnancy. There was a significant decrease in anxiety levels with $p = 0.001$ (<0.05) after the combination of classical music and lavender aromatherapy. The combination of the two has the same effect in creating an impression of balance, calm, comfort, trust, and openness, while also reducing pain, stress, and anxiety.

The fourth study confirmed that there was a change in anxiety levels after 40 minutes of music sessions during NST, music could make them more relaxed. The first study combined classical Mozart music with lemon aromatherapy, both combinations are claimed to reduce anxiety and prepare the psychology of mothers facing labor. The sixth study found that the combination of Kitaro and Murottal had a significant effect on decreasing anxiety levels in the third trimester.

DISCUSS

Pregnancy is an important period in a woman's life, which brings many changes in their life. Changes in physiology affect hormonal changes that have an impact on the psychological condition of pregnant women. Pregnant women become more sensitive, especially in dealing with emotions.⁹ Emotional manifestations that often occur are feelings of anxiety, tense, apprehensive, angry, uneasy, mentally disturbed, withdrawn, and tearful. Pregnancy is marked by intense physiological and psychological changes and increased vulnerability to anxiety.¹⁰

Anxiety is a normal human response when feeling cornered, but it becomes abnormal when it occurs continuously and becomes a mental health disorder. A pregnant woman who has a psychological disorder during pregnancy will increase the risk of being less favorable for the outcome of the pregnancy and the baby being born, including emotional problems, the possibility of hyperactivity, or cognitive development disorders in her baby.¹¹

Pregnancy anxiety is increasing along with the increase in gestational age, especially before delivery in the third trimester. Anxiety disorders are the most common prenatal mental health issues that women can suffer. Pregnant women frequently experience anxiety, which is linked to a higher risk of adverse consequences for both the mother and the unborn child. For numerous reasons, it is crucial to correctly identify pregnant women who exhibit severe anxiety symptoms. They warrant treatment.¹²

Many health professionals have influenced how to reduce anxiety levels without using pharmacological methods. Music is a non-pharmaceutical intervention that can be used as therapy. The therapeutic influence that music has on the body and mind helps balance out unpleasant feelings. A relaxed state can be achieved through music. Lately, interventions with music have seen an increase in the medical world.¹³ There is plenty of evidence that music can improve physical and cognitive abilities like stamina, focus, and also relaxation, and anxiety. Numerous medical studies have demonstrated the therapeutic benefits of using music to ease discomfort, stress, and anxiety.¹⁴

Music therapy has received a lot of attention as a noninvasive supplemental treatment option in obstetrics. Pregnant women have been shown to benefit from music as therapy in several ways, most notably by experiencing less anxiety throughout the third trimester. Maternal units frequently use music as their therapy, which has been shown to lower blood pressure, stress levels, and anxiety while stabilizing heart and respiration rates. Consequently, using music properly may help lower healthcare costs.¹⁵

Music was producing vibrations by 60 beats per minute, which were identical to those produced by brain waves, it can cause brain waves to swing. These tones can increase and promote the pituitary gland's beta-endorphin production. Analgesics that stop nerve cells from sending pain signals can be created by beta-endorphin. Mother will get calmer and happier as more beta-endorphin is released. Stress hormones have a calming effect on anxiety levels. In addition to lowering anxiety, the appropriate beat of the kind of music can assist women in managing their breathing, providing energy, and commands through the rhythm.¹⁶

The combination of music with aromatherapy has a significant effect in reducing anxiety levels. The brain is directly impacted

Table 1. Description of research results

Author, year	Heading	Method, sample	Instrument	Result
Suciati L, et al. (2020).	The effectiveness of Lullaby classical music therapy on anxiety in III trimester pregnancy.	Quasi experiment with one group pretest-posttest as many as 30 pregnant women at Mardi Waluyo Hospital.	Lullaby classical Music.	There is an effectiveness of Lullaby's music as therapy against anxiety in the third trimester. Test result in t obtained p-value 0.000
Riyanti and Legawati (2019).	Karungut Music Reduces Anxiety Of Adolescent Pregnant Mother.	Analytical study with quasi-experimental with a total of 60 respondents at Primary health care in Pujon, Kapuas.	Karungut music and SRAS/SAS.	Karungut music can reduce anxiety among pregnant women. It can be an alternative way to improve health status by reducing one of the risk factors that can disturb pregnancy.
Risqi Dewi Aisyah, S. Suparni, F. Fitriyani (2019).	Effect of Combination of Aroma Therapy Lavender and Classical Music Towards a Decrease in Anxiety Levels Moderate and Severe on Third Trimester Pregnant Women	quasi-experiment included 50 third trimester in pregnancy at Puskesmas in Pekalongan.	HRS-A questionnaire, lavender oil, and classical music	There is a significant difference in anxiety levels before and after intervention using aromatherapy combined with classical music (p= 0.001)
J. Garcia Gonzalez, M.I. Ventura Miranda, M. Requena Mullor, T. T. Parron Carreño, R. Alarcon Rodriguez (2018).	State-Trait Anxiety Levels during Pregnancy and Foetal Parameters Following Intervention with Music Therapy	Case study at Spanish Southeast Hospital.	Spielberger State-Trait Anxiety Inventory	Using music as an intervention could decrease elevated state-trait anxiety levels in third-trimester women.
Anita Liliana, Melania Wahyuningsi, Rina Puji Rahayu (2022).	The effect of Mozart's Classical music therapy and the provision of lemon aroma therapy (Citrus Limon) in reducing the level of anxiety of pregnant women	quasi-experiment with 32 people without a controlled group at Puskesmas in Tarakan city.	Mozart Music, Lemon Aromatherapy, and DASS Questionnaire 42	classical music combined with lemon oil as aromatherapy are effective in decreasing anxiety levels before delivery.
Rahayu Sumaningsih, Nurlailis Saadah, and Budi Joko Santosa (2019).	The Effects of Murottal and Classical Music Combination Toward Pregnant Women's Anxiety in the 3rd Trimester	Experimental study using pretest and posttest with sampling 40 persons (37-40 weeks) at Community Empowerment Agency of Magetan Regency.	HARS	Kitaro Murottal and instrumental music classic influence to reduce anxiety in third pregnancy women.

by the aroma of aromatherapy so well. Smell receptors in the nose will take in the scent, and impulses connected to emotion and mood will then be sent to the brain, where they will eventually reach the system that controls emotion, and mood, until the system that regulates heart rate and body temperature. Inhaling aromatherapy can increase alpha waves in the brain that create feelings of relaxation so that it can reduce psychological disorders including anxiety.¹⁷

Another research that uses classical music intervention is Mozart combined with aromatherapy, especially Citrus lemon. Pre-test statistical test findings in that study had a p-value of 0,705, while the post-test value was 0,152, that statistically the combination of the two had no difference in effectiveness in the intervention group of lemon aromatherapy and classical

music by Mozart. However, when both therapies were given, each had a significant effect on decreasing anxieties.¹⁸

In addition to classical music, there is also music or chanting that has religious value. One of them is the strains of the Qur'an called Murrotal. Some studies claim that by listening to the Qur'an some pregnant women suffer from anxiety.¹⁹ Study showed that most respondents experienced a decrease in anxiety with $p = 0.000$ ($p < \alpha$). (20). This is in line with research that by reading or listening to the Qur'an, will experience changes in electrical currents in muscles, heart rate, blood circulation, and cutaneous blood levels. The Qur'an can help reduce human suffering and stress, listening to the Qur'an can be used to promote good mental health and achieve more peace in Islamic medicine, the Qur'an is often used to improve health and heal people with stress and psychological disorders.^{20,21}

CONCLUSION

Using music as therapy during the third trimester has beneficial effects in reducing anxiety. Therefore, the use of music therapy is expected to be used as a nonpharmacological method to reduce anxiety in pregnancy. In addition, research by measuring anxiety levels related to anxiety-causing hormonal levels such as cortisol and adrenal or by assessing the decrease in anxiety through endorphins is needed to see the effectiveness of the intervention given.

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