

The Effect of Classic Music Therapy and Lavender Aromatherapy Candles on Anxiety Levels of Trimester III Pregnant Women

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Abstract—High levels of anxiety or depression during pregnancy can pose risks such as stunted fetal growth and premature birth. Music is believed to be used for relaxation, stress relief and anxiety reduction because music is an organized auditory stimulus consisting of melody, rhythm, harmony, shape and style. Aromatherapy is also a non-pharmacological treatment that uses essential oils and stimulates the olfactory system to reduce stress and create a sense of calm. The aim of this study was to determine the effect of classical music therapy and aromatherapy candles on the anxiety level of third trimester pregnant women. This research method is a pre-experimental quantitative type. The design used in this study was one group pretest posttest, the population in this study were third trimester pregnant women in the Karangan Health Center area. The sampling technique was simple random sampling of 44 third trimester pregnant women. Data were analyzed using the Wilcoxon test. The results showed that the level of anxiety before the intervention experienced by most of the respondents was moderate anxiety in the number of 21 respondents (47.7%) and the level of anxiety after the intervention was mostly with mild anxiety in the number of 20 respondents (45.5%). The results of the bivariate analysis showed that there was an effect of classical music therapy and lavender aromatherapy candles on reducing the anxiety level of third-trimester pregnant women with a result ($p=0.000$) smaller than (<0.05). The anxiety level score in the pre-test measurement is higher than the post-test measurement, indicated by the mean value in the pretest (23.57) higher than the posttest (19.16) which means there is a decrease in the anxiety level score in the respondents before and after intervention.

Keywords: Music; Aromatherapy; Anxiety; Pregnant Women

1. INTRODUCTION

Pregnancy for a woman is the most joyful yet anxiety-inducing moment. This happiness arises from the prospect of bearing offspring as a form of perfecting a woman's role (Nurwahyuni Nasir, 2015). However, on the flip side, feelings of fear and apprehension also accompany the pregnancy process, as women face potential risks and uncertainties regarding their health and safety (Nurwahyuni Nasir, 2015). Being a crisis period for a woman, pregnancy brings about changes in self-concept and preparation for her new role as a parent (Yuni, 2015). The third trimester of pregnancy is often considered a period of discomfort-filled waiting, especially when the baby is not born on time, causing anxiety and concern for the woman (Yuni, 2015). Unfortunately, pregnancy doesn't always go smoothly, and various health risks can threaten both the mother and the fetus. Data from the Ministry of Health (Kemenkes) records an increase in maternal mortality rates in Indonesia, primarily due to various conditions such as Covid-19, bleeding, hypertension, heart disease, infections, metabolic disorders, and others (Kemenkes, 2021).

One crucial aspect to consider during pregnancy is the level of anxiety experienced by pregnant mothers. Data from Siallagan (2018) shows that around 355,873 third-trimester pregnant mothers in Java Island feel anxious about childbirth. In the preliminary study conducted through an initial survey involving 10 pregnant women at the Karangan health center, it was found that 6 out of these women experienced anxiety. Subsequently, they were provided with music therapy and candle aromatherapy before childbirth. As a result, among the 10 women who were experiencing anxiety prior to childbirth, there was a reduction in anxiety, leaving only 3 individuals who still felt anxious after receiving therapy at the Karangan health center. The administration of appropriate interventions to alleviate the anxiety experienced by pregnant women can have both physical and mental implications for both the mother and the fetus.

This high level of anxiety can negatively impact the physical and mental health of both the mother and the fetus, including the risk of Low Birth Weight (LBW), premature birth, and chromosomal miscarriage (Sianipar, 2017). According to Ibanez et al. (2016), their research explains that high levels of anxiety or depression during pregnancy can lead to risks such as fetal growth restriction and premature birth. Children born to mothers who experienced anxiety during pregnancy may face emotional problems, symptoms of Attention Deficit Hyperactivity Disorder (ADHD), behavioral disorders, and an increased risk of autism (Glover, 2014). Therefore, it is essential to take action to reduce anxiety in pregnant women. The findings from this preliminary study emphasize the critical importance of addressing maternal anxiety during pregnancy. Not only does it affect the well-being of the expectant mother, but it also has far-reaching consequences for the developing fetus and the child's future. The potential risks of low birth weight, premature birth, and emotional disorders highlight the urgency of implementing effective interventions to alleviate anxiety in pregnant women. Furthermore, it is imperative for healthcare providers to offer support and therapies, such as music and aromatherapy, to help expectant mothers manage their anxiety and ensure healthier outcomes for both mother and child. Additional research and comprehensive interventions in prenatal care are warranted to further explore and address this pressing issue.

Efforts to reduce anxiety experienced by pregnant women can be approached through pharmacological and non-pharmacological methods. Pharmacological methods involve the use of antidepressant medication. However, antidepressant drugs can cause side effects for both the mother and the baby if used continuously. According to a 2016 study by Alan S. Brown, MD, MPH, a professor of psychiatry at Columbia University Medical Center, children born to pregnant mothers who were depressed and took antidepressant medication are at risk of speech disorders. On the other hand, non-pharmacological methods offer a safer approach and do not require the use of medications to reduce anxiety (Andarwulan, 2021). Non-pharmacological therapies encompass relaxation techniques, hypnotherapy, guided imagery, biofeedback, psychoprophylaxis, therapeutic touch, hydrotherapy, and distraction techniques. Distraction technique involves redirecting one's attention to other stimuli, thereby reducing vigilance towards pain. Using music as a distraction technique is effective in diverting one's attention from excessive anxiety. In the medical field, music therapy is also referred to as complementary medicine (Moekroni, 2016).

Music is an integral part of cross-cultural and religious rituals, capable of soothing the soul, serving as a means to focus on spiritual awareness, and elevating individuals to a peaceful, serene state of self-awareness. Music also reduces pain, depression, agitation, and aggression while enhancing relaxation and fostering a positive mood (Moekroni, 2016). Music can stimulate β -endorphin, a neuropeptide composed of amino acids produced by the pituitary gland, resulting from the cleavage of Proopiomelanocortin (POMC). POMC is a large protein that breaks down into smaller proteins like β -endorphin. In the peripheral nervous system, β -endorphin produces analgesic effects by binding to opioid receptors, especially type μ receptors. This binding inhibits the release of tachykinins, especially substance P, a key protein involved in pain transmission (Andarwulan, 2021).

Within the peripheral nervous system, opioid- μ receptors are found along both the peripheral nerves and the central nervous system (CNS). β -Endorphin also binds to opioid- μ receptors, resulting in interactions at presynaptic nerve terminals and inhibiting substance peptide, producing analgesic effects by inhibiting the release of Gamma Butyric Acid (GABA), an inhibitory neurotransmitter. In the central nervous system, opioid receptors are predominantly produced in the descending neurotransmitter pathways that control pain, including the amygdala, mesencephalic reticular formation, periaqueductal gray matter (PAG), and rostral medulla (Moekroni, 2016). Music is believed to be a tool for relaxation, stress reduction, and anxiety relief because it provides organized auditory stimulation composed of melody, rhythm, harmony, structure, and style. One way to reduce anxiety is by listening to classical music. Classical music is known to enhance concentration, memory, and social perception. It can boost creativity, build self-confidence, develop social skills, improve motor skills, perception, and psychomotor development. Music can also serve as therapy for various needs, such as a substitute for antidepressant medication for those facing surgery in hospitals.

Aromatherapy is a part of alternative medicine that uses volatile plant materials, known as essential oils, and other aromatic compounds that influence a person's mood, emotions, cognitive function, and overall health (Nurgiwati, 2015). Aromatherapy is a therapeutic practice that utilizes essential oils to improve a person's physical and psychological well-being. Each essential oil has unique pharmacological effects, such as antibacterial, antiviral, diuretic, vasodilatory, calming, and adrenal-stimulating properties. The chemical composition of lavender essential oil includes components like linalyl acetate (40.76%), linalool (24.60%), cis- β -Ocimene (4.85%), β -caryophyllene (4.40%), lavandulyl acetate (3.83%), trans β -Ocimene (3.64%), terpinen-4-ol (3.57%), 1,8 cineole (0.71%), lavandulol (0.71%), and camphor (0.30%) (Lansida, 2017).

Essential oil extracted from lavender flowers serves as aromatherapy with relaxation effects, anti-neurodepressive properties, and sedative qualities for individuals experiencing insomnia. It also has mood-enhancing effects, reduces anxiety levels, and increases alertness. Polyphenolic compounds found in lavender flowers have the potential to act as antioxidants, inhibiting the activity of free radicals. Lavender is known for its anti-inflammatory, antiviral, anticancer, and heart-related disease properties, with the most abundant components being linalyl acetate and linalool, which contribute to its relaxation effects (Pusat Studi Biofarmaka, 2014). According to Suriyati in 2019, aromatherapy is a form of treatment that utilizes essential oils to stimulate the sense of smell, reducing stress and creating a sense of calm. One of the types of aromatherapy used to treat anxiety is Lavender (*Lavandula officianalis*). Linalool and linalyl acetate in lavender can have calming effects and help reduce stress and anxiety (Kianpour, 2016). On the other hand, aromatherapy using essential oils like lavender has been proven to provide relaxation and anti-neurodepressive effects beneficial for those experiencing insomnia, as well as enhancing mood, lowering anxiety levels, and increasing alertness (Suriyati, 2019).

Considering the potential benefits of music and aromatherapy in reducing pregnant women's anxiety, this study aims to explore the influence of classical music and aromatherapy candles on the anxiety levels of third-trimester pregnant women. The use of lavender essential oil in aromatherapy showcases its versatile benefits in promoting emotional well-being and reducing anxiety-related symptoms. The calming and sedative properties of lavender, primarily attributed to linalool and linalyl acetate, make it a popular choice for individuals seeking relaxation and stress relief. As research continues to reveal the potential of essential oils, including lavender, in complementary and alternative medicine, their role in promoting mental health and overall wellness is becoming increasingly recognized. Integrating aromatherapy into holistic approaches for managing anxiety is a promising avenue for both mental health practitioners and individuals seeking natural remedies. Further exploration of the precise mechanisms underlying the therapeutic effects of lavender essential oil can provide valuable insights into its application in anxiety management and psychological well-being.

2. RESEARCH METHODS

This research employs a pre-experimental quantitative research method. The design utilized in this study is a one-group pretest-posttest design, where there is no control (comparison) group; however, an initial observation (pretest) has been conducted in this research. The population of this study consists of the total number of pregnant patients in the third trimester (TM III), amounting to 52 in January 2023. The sample is obtained through simple random sampling, totaling 44 respondents. The research is conducted within the timeframe from January to March 2023, and it takes place in the area of Karanganyan Community Health Center (Puskesmas). The research variables encompass two groups, namely independent variables and dependent variables. The independent variables encompass classical music therapy and lavender aromatherapy candle therapy, while the dependent variable is the anxiety level of third-trimester pregnant women.

In this study, instruments utilized for data collection include several measurement tools, namely the Hamilton Anxiety Rating Scale (HARS) observation sheet, the classical music therapy Standard Operating Procedure (SOP), and the lavender aromatherapy candle therapy SOP. The HARS observation sheet serves as a scale to measure anxiety based on symptom occurrence in individuals experiencing anxiety. The HARS scale comprises 14 symptoms observed in individuals with anxiety, and each observed item is assessed using a Likert scale ranging from 0 (no symptoms) to 4 (severe symptoms). Moreover, the classical music therapy SOP and the lavender aromatherapy candle therapy SOP are utilized as guidelines in implementing classical music therapy and lavender aromatherapy on third-trimester pregnant women who are the subjects of the research.

For data analysis, computerized analysis is carried out using the SPSS program. The distribution of data from anxiety scores before and after intervention is analyzed. To ascertain the difference between two paired variables, i.e., the anxiety level of pregnant women before and after classical music therapy intervention, bivariate analysis is employed. Given that the data in this study are not normally distributed, a non-parametric statistical test, the Wilcoxon test, is utilized with a significance level (α) of 0.05.

3. RESULT AND DISCUSSION

Table 1. Frequency Distribution of Respondents Based on Age at Karanganyan Community Health Center in 2023.

Variable	Category	Frequency	Percent (%)
Age	<20 years and >35 years	20	45,5
	20-35 years	24	54,5
Occupation	Employed	14	31,8
	Unemployed	30	68,2
Education	Elementary Education	29	65,9
	Higher Education	15	34,1
Total		44	100

Source: Primary Data

Based on Table 1, it was found that more than half of the respondents were aged between 20-35 years, totaling 24 (54.5%). The majority of respondents were unemployed, accounting for 30 (68.2%), and the majority of respondents had basic education, amounting to 29 (65.9%).

The results of this study found that respondents experienced various levels of anxiety during the third trimester of pregnancy. In the pre-intervention observation, the majority of respondents experienced moderate anxiety, with 21 individuals (47.7%), while 14 individuals (31.8%) experienced mild anxiety, and a minority experienced severe anxiety, totaling 8 individuals (18.2%). This is in line with Maghfiroh's research (2015), which indicates that pregnant women experience anxiety at various levels influenced by several factors (Maghfiroh, 2015). Anxiety is a condition in which a person experiences discomfort due to uncertainty about future events, leading to unpleasant and challenging responses (Miarso, 2018). The research results indicate that more than half of pregnant women fall into the high-risk age category, with 24 (54.5%) in this group. High-risk pregnancy occurs when a woman becomes pregnant and gives birth under the age of 20 and above 35 because these age ranges are considered high-risk for pregnancy, and older mothers are at a higher risk of giving birth to babies with birth defects. To reduce the risk during childbirth, it is advisable for women under 20 and over 35 to take measures to avoid pregnancy, and if pregnancy occurs at these ages, it is important to monitor the pregnancy to prevent undesired outcomes for both the mother and the fetus.

The research findings also show that the majority of women have a basic education level, with 29 respondents (65.9%). A person's education level determines how easily they can absorb and understand information about the childbirth process they receive. However, as the pregnancy progresses, a pregnant woman can prepare herself psychologically for childbirth, reducing her anxiety (Evi Rinata, 2018). Higher education tends to result in greater knowledge and intellectual maturity. Individuals with higher education are more likely to focus on their own and their

family's health. According to Hawari (2016), a person's education level affects their thinking process and ability to quickly grasp new information. Yainanik (2017) stated that education level is related to anxiety, as higher education leads to better knowledge in a particular area, reducing anxiety in pregnant women.

The research states that the majority of mothers fall into the category of not working, with 30 respondents (68.2%). Pregnant women with jobs tend to be more active and interact with others more, increasing their knowledge about their pregnancy and contributing to family income to meet the needs during and after childbirth. This explains that pregnant women with jobs are less likely to experience anxiety compared to unemployed pregnant women. Research by Rahmitha in the Tamalanrea Makassar Health Center found that unemployed pregnant women tend to have more anxiety compared to those with jobs. Working can divert the anxiety experienced by pregnant women because busy activities consume their time, causing pregnant women to focus on their work (Rahmitha, 2017). This aligns with the findings of Budiyarti & Makiah's research (2018), where primigravida pregnant women in the third trimester who were unemployed (housewives) mostly experienced mild and moderate anxiety compared to pregnant women with jobs. Unemployed pregnant women have more free time, which allows them to focus on things that make them anxious, but they may have limited opportunities to interact with others, resulting in restricted access to new information to address their concerns.

The demographic data presented in Table 1 provides valuable insights into the characteristics of the study participants. Understanding these demographic factors is crucial in contextualizing the findings related to anxiety levels during the third trimester of pregnancy. It is essential to explore how age, employment status, and education level can potentially influence the experience of anxiety in expectant mothers. Firstly, the data indicates that more than half of the respondents fell within the 20-35 age range, accounting for 54.5% of the participants. This age group is considered high-risk for pregnancy, and it aligns with the findings of the research. It is important to delve deeper into the specific factors within this age range that may contribute to heightened anxiety during pregnancy. Further investigation can explore whether societal pressures, financial considerations, or personal expectations play a role in shaping anxiety levels among pregnant women in this age bracket. Secondly, the majority of respondents were unemployed, comprising 68.2% of the sample. This demographic characteristic presents a significant area for exploration. The research highlights that employed pregnant women tend to be more active, socially engaged, and financially contributing to their families, potentially resulting in lower anxiety levels. To gain a deeper understanding, future research could investigate the relationship between employment status, social interaction, and anxiety during pregnancy. This could provide insights into the potential benefits of support systems and community engagement for expectant mothers who are not working. Thirdly, the data indicates that the majority of respondents had a basic education level, amounting to 65.9%. This finding underscores the role of education in shaping an individual's understanding of the childbirth process and their ability to prepare psychologically for it. To further explore this aspect, future research could investigate the specific ways in which education levels impact anxiety during pregnancy. This might involve assessing whether higher education leads to better awareness of pregnancy-related information and whether it empowers pregnant women to manage their anxiety effectively.

In summary, the demographic characteristics of the study participants offer a rich foundation for exploring the relationship between these factors and anxiety during the third trimester of pregnancy. Delving deeper into the nuances of age, employment status, and education level can provide a more comprehensive understanding of the sources and manifestations of anxiety in expectant mothers. Such insights can inform targeted interventions and support strategies to enhance the well-being of pregnant women during this critical phase of their lives.

Table 2. Frequency Distribution of Respondents' Anxiety Before and After Intervention at Karanganyan Community Health Center in the Year 2023

Variable	Category	Frequency	Percent (%)
Anxiety Before Intervention	No anxiety	1	2,3
	Mild anxiety	14	31,8
	Moderate anxiety	21	47,7
	Severe anxiety	8	18,2
Anxiety After Intervention	No anxiety	3	6,8
	Mild anxiety	20	45,5
	Moderate anxiety	16	36,4
	Severe anxiety	5	11,3
Total		44	100

Source: Primary Data

Based on Table 2, it is observed that the majority of respondents experienced moderate anxiety before being given classical music therapy and lavender aromatherapy candle therapy, totaling 21 respondents (47.7%). Conversely, the majority of respondents experienced mild anxiety after receiving classical music therapy and lavender aromatherapy candle therapy, totaling 20 respondents (45.5%).

This suggests that anxiety levels among pregnant women in the third trimester were relatively high. However, after the intervention, there was a substantial decrease in the number of respondents with moderate anxiety, which dropped to 11.3%. Conversely, the proportion of respondents experiencing mild anxiety increased to 45.5%. This shift indicates the potential effectiveness of classical music therapy and lavender aromatherapy candle therapy in reducing anxiety levels among pregnant women, as it appears to have positively impacted the majority of participants, diminishing their anxiety from moderate to mild levels. These findings underscore the potential benefits of integrating such complementary therapies into prenatal care programs to promote the mental well-being of pregnant women and reduce anxiety during the third trimester.

In conclusion, the data from Table 2 demonstrate a noticeable change in the anxiety levels of pregnant women following the intervention of classical music therapy and lavender aromatherapy candle therapy. The shift from a majority experiencing moderate anxiety to a majority experiencing mild anxiety suggests that these interventions have the potential to be valuable additions to prenatal care practices, offering a holistic approach to address anxiety in pregnant women during the third trimester. Further research and clinical trials may be necessary to validate and refine the effectiveness of these therapies, but the initial results are promising and highlight the importance of addressing mental health during pregnancy to ensure the well-being of both the mother and the developing fetus.

Based on Table 2, it is evident that a significant proportion of the respondents had been grappling with moderate anxiety levels prior to the administration of classical music therapy and lavender aromatherapy candle therapy, constituting 47.7% of the participants. Conversely, a notable shift occurred post-intervention, with the majority of respondents reporting mild anxiety, accounting for 45.5% of the total. These findings indicate that anxiety levels among pregnant women in the third trimester were indeed relatively high. However, the intervention led to a substantial reduction in the number of respondents experiencing moderate anxiety, which decreased to 11.3%. Simultaneously, the proportion of respondents with mild anxiety increased to 45.5%. This shift strongly suggests the potential effectiveness of classical music therapy and lavender aromatherapy candle therapy in alleviating anxiety levels among pregnant women. It has had a positive impact on the majority of participants, transitioning their anxiety from a moderate to mild level.

These results emphasize the potential benefits of incorporating complementary therapies like classical music and lavender aromatherapy candles into prenatal care programs. Such integrative approaches can play a pivotal role in enhancing the mental well-being of pregnant women, especially during the challenging third trimester when anxiety levels tend to be elevated. While the initial findings are encouraging, it is imperative to conduct further research and clinical trials to validate and refine the effectiveness of these therapies. This would provide a stronger basis for their inclusion in standard prenatal care practices, ultimately contributing to the overall health and emotional stability of both expectant mothers and their developing fetuses. The study underscores the significance of addressing mental health during pregnancy and highlights the potential of these holistic interventions in promoting a healthier and less anxious journey to motherhood.

Table 3. The Influence of Classical Music Therapy and Lavender Aromatherapy Candle Therapy on Anxiety Levels in Third-Trimester Pregnant Women

Intervention	N	Mean	SD	Min-Max	Z	P
Pretest Anxiety Scores	44	23.57	6.511	12-40		
Posttest Anxiety Scores	44	19.16	4.979	8-40	-5.726 ^b	0,000

Source: Wilcoxon Sign Rank Test Statistical Test

Table 3 illustrates the difference in mean anxiety scores of respondents between pretest and posttest. The pretest results show a mean anxiety score of 23.57, while after the intervention with classical music therapy and lavender aromatherapy candle therapy, there is a reduction in anxiety scores in the posttest with a mean score of 19.16. Therefore, it can be concluded that there is a significant difference in anxiety levels before and after the administration of classical music therapy and lavender aromatherapy candle therapy. The Wilcoxon test analysis results indicate a significance value of 0.000 ($p < 0.05$), indicating that classical music therapy and lavender aromatherapy candle therapy significantly influence the reduction of anxiety levels in third-trimester pregnant women.

The results of the statistical analysis on anxiety levels before and after the administration of classical music therapy and lavender aromatherapy candle therapy to the respondents indicate a significant difference in anxiety levels between before and after the classical music therapy with a p-value of 0.000 or ($p < 0.05$). This also demonstrates that the statistical test results are lower than the level of significance. This finding is consistent with research conducted by Asmara et al. (2017), which showed a significant difference between before and after exposure to classical music ($p = 0.005$). Anxiety is a response to specific threatening situations and is a normal part of development and life changes. When facing childbirth, experiencing anxiety is quite common, as it represents a new experience and a challenging period for a woman (Ulfa, 2017).

Classical music therapy can reduce anxiety in pregnant women because it is an effective technique for redirecting one's attention away from excessive worry. Classical music can help individuals relax, reduce stress, create feelings of safety and well-being, release sadness, induce happiness, and alleviate pain (Analia & Moekroni, 2016). Based on the research conducted by Suharnah et al., it is found that overall, primigravida experienced a decrease in anxiety levels, ranging from not anxious to mild and moderate anxiety.

This is supported by research conducted by Meiharti et al. (2018) with a total of 27 respondents, where before receiving classical music therapy, 13 individuals (48%) had mild anxiety, 12 individuals (45%) had moderate anxiety, and 2 individuals (7%) had severe anxiety. After receiving classical music therapy, 4 individuals (15%) were not anxious, 13 individuals (48%) had mild anxiety, and 10 individuals (37%) had moderate anxiety. According to Wardani et al. (2018), anxiety is an excessive and unclear worry that causes emotional, cognitive, behavioral, and physical symptoms, and it is a response to internal and external stimuli. Hernanto (2016) also noted that the anxiety experienced by third-trimester pregnant women is a state of anxiety, as it is temporary and specific to the pregnancy period. Symptoms of state anxiety in pregnant women occur only during pregnancy and were not present before pregnancy.

In addition to classical music therapy, aromatherapy is another approach that can be employed to reduce anxiety. Aromatherapy releases certain molecules into the air as vapor. When inhaled, these chemical components are absorbed by the body through the nose and lungs, eventually entering the bloodstream. Simultaneously, as the vapor is inhaled, it quickly reaches the limbic system of the brain, which is responsible for integrating and expressing emotions, learning, memory, emotions, and physical responses. Lavender essential oil is highly effective and beneficial when inhaled or applied externally because the sense of smell is closely connected to human emotions. When the aroma of lavender essential oil is inhaled, the body responds psychologically (Setiati, Sugih, and Wijayanegara, 2019).

Lavender has a calming effect. The aroma of lavender can provide tranquility, balance, comfort, openness, and confidence. Additionally, lavender can reduce feelings of pressure, stress, pain, imbalanced emotions, hysteria, frustration, and panic. A study revealed that the psychological benefits of aromatherapy include reducing anxiety levels. Immunologically, aromatherapy can increase lymphocytes in peripheral blood vessels, enhance CD8 and CD16, which play a role in immunity. The use of aromatherapy has a soothing effect on the soul and can reduce stress (Kuriyama et al., 2015).

Based on the research findings, it can be assumed that anxiety levels can be managed through non-pharmacological methods, such as relaxation therapy like classical music therapy, without the need for pharmacological interventions or medication. This is supported by the research results, where before receiving classical music therapy and lavender aromatherapy candle therapy, the anxiety levels of the respondents were measured, and it was found that all respondents had mild, moderate, or severe anxiety. Subsequently, after pregnant women were given classical music therapy and lavender aromatherapy candle therapy, the anxiety levels decreased to no anxiety, mild anxiety, and moderate anxiety. This is because classical music can help individuals relax, reduce stress, create feelings of safety and well-being, release sadness, induce happiness, and alleviate pain.

The research findings presented in the previous sections shed light on the positive impact of classical music therapy and lavender aromatherapy candle therapy on reducing anxiety levels among pregnant women, particularly in the third trimester. These interventions provide valuable non-pharmacological alternatives for managing anxiety, ensuring the well-being of both expectant mothers and their developing fetuses. It is essential to delve deeper into the potential implications and applications of these therapies in prenatal care and maternal mental health.

One important aspect to explore further is the mechanism by which classical music therapy exerts its calming influence. Understanding how music can effectively redirect attention away from excessive worry and promote relaxation can lead to more targeted and tailored interventions. Additionally, research could delve into the specific types of classical music or musical elements that are most effective in reducing anxiety among pregnant women. This could help in developing personalized playlists or therapeutic approaches tailored to individual preferences and needs.

Furthermore, investigating the long-term effects of classical music therapy and aromatherapy on maternal mental health beyond the immediate post-intervention period is crucial. Longitudinal studies could provide insights into whether the anxiety reduction observed during pregnancy persists into the postpartum period and how it might impact the overall well-being of both mothers and their newborns.

Another avenue for research is exploring the potential combination of classical music therapy and aromatherapy as a complementary approach. Studying the synergistic effects of these therapies and how they interact to alleviate anxiety could offer a more comprehensive understanding of their effectiveness. Moreover, investigating the safety and feasibility of implementing such combined therapies in diverse healthcare settings would be valuable.

In conclusion, the promising results of this research open doors to various avenues of further investigation. By delving deeper into the mechanisms, long-term effects, and potential combinations of classical music therapy and aromatherapy, we can advance our understanding of their role in promoting maternal mental health during pregnancy. Ultimately, this research contributes to a holistic approach to prenatal care, emphasizing the importance of addressing mental health as an integral part of maternal well-being.

4. CONCLUSION

The findings of this study offer valuable insights into the effectiveness of non-pharmacological interventions, specifically classical music therapy and lavender aromatherapy candle therapy, in managing anxiety among third-trimester pregnant women. These insights open doors for further exploration and development of holistic approaches to maternal mental health. One avenue for future research is the exploration of the specific mechanisms through which classical music therapy and lavender aromatherapy candle therapy exert their anxiety-reducing effects. Investigating the physiological and psychological responses of pregnant women to these therapies can provide a deeper understanding of the underlying mechanisms. This knowledge can inform the refinement of therapeutic techniques and contribute to the development of evidence-based guidelines for their use in prenatal care.

Additionally, conducting long-term follow-up studies is essential to assess the sustainability of anxiety reduction post-intervention. Tracking the mental well-being of pregnant women who have undergone these therapies throughout their pregnancy and into the postpartum period can provide insights into the lasting impact of these interventions. It is important to ascertain whether the benefits observed during pregnancy continue to positively influence maternal mental health and the development of the newborn. Furthermore, research could explore the potential integration of these non-pharmacological therapies into standard prenatal care practices. Investigating the feasibility and acceptability of incorporating classical music therapy and aromatherapy into routine antenatal care can inform healthcare providers and policymakers about the practical implementation of these interventions. This integration could enhance the overall quality of prenatal care services and promote mental well-being among expectant mothers.

In conclusion, the study's outcomes underscore the potential of classical music therapy and lavender aromatherapy candle therapy as effective non-pharmacological alternatives for managing anxiety during pregnancy. The implications of these findings extend beyond this specific study and warrant further research and development in the field of maternal mental health. By delving into the mechanisms, long-term effects, and integration possibilities of these therapies, we can advance our approach to supporting the mental well-being of pregnant women and, ultimately, ensure healthier pregnancies and birth experiences.

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