



THE INFLUENCE OF CLASSICAL MUSIC THERAPY AND LAVENDER AROMATHERAPY CANDLE ON ANXIETY LEVELS DURING THE FIRST STAGE OF ACTIVE LABOR

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ABSTRACT	Keywords
<p>Childbirth is eagerly anticipated by married couples, yet it can lead to anxiety due to its intense nature. Therefore, support from spouses, families, and the community is crucial for the well-being of both mother and child. This study aims to explore the impact of classical music therapy and lavender aromatherapy on anxiety levels during active labor's first phase. Using a pre-experimental quantitative approach, the research employs a one-group pretest-posttest design, focusing on mothers in active labor's first phase in the Ballaparang health center area. Sampling involved 44 third-trimester pregnant women selected through simple random sampling. Data analysis utilized the Wilcoxon test. Findings revealed that prior to intervention, most respondents experienced moderate anxiety (47.7%), while after intervention, the majority experienced mild anxiety (45.5%). Bivariate analysis indicated a significant influence of classical music therapy and lavender aromatherapy on reducing anxiety levels among mothers in active labor's first phase, with a p-value of 0.000. Pre-test anxiety scores were higher than post-test scores, suggesting a decrease in anxiety levels following intervention.</p>	<p>Childbirth Anxiety, Classical Music Therapy, Lavender Aromatherapy</p>

INTRODUCTION

Giving birth is a natural process eagerly awaited by couples of childbearing age. Moral and material support from family, husbands, and even the community as a whole is crucial for the well-being of both the mother and the fetus. However, as the childbirth process approaches, pregnant women often experience anxiety and fear, alongside a strong desire to see their baby born into the world (Rejeki, 2020).

Based on data from the Indonesian Ministry of Health in 2018, the number of cases of anxiety among women in labor in Indonesia reached 373,000,000 (Wahyu Asnuriyati, 2020). Out of this number, approximately 107,000,000 or around 28.7% experienced anxiety (Aniroh and Fatimah, 2019). Research by Dorsinta Siallagan in East Java in 2018 showed that 87% of pregnant women experienced mild anxiety, while 13% experienced moderate anxiety. Another study conducted by Diki and Fitria in the Baturraden

District in 2020 found that 56.7% of pregnant women experienced severe anxiety, 29% experienced moderate anxiety, and 70% experienced mild anxiety (Asmariyah, 2021). In Madura, East Java, about 31.4% of pregnant women experienced anxiety (Zainiyah, 2020).

High levels of anxiety in pregnant women can have adverse effects on both the mother and the fetus, such as low birth weight (LBW), preterm birth, and pregnancy complications (Sianipar et al., 2017).

To reduce anxiety in pregnant women, various efforts can be made through both pharmacological and non-pharmacological means. Pharmacological approaches such as antidepressant use may have side effects on both the mother and the baby. A study by Alan S. Brown, MD, MPH in 2016 found that children born to mothers who consumed antidepressants were at risk of speech disorders (Andarwulan, 2021). Non-pharmacological therapy includes various techniques such as relaxation, hypnotherapy, imagery, biofeedback, psychoprophylaxis, therapeutic touch, hydrotherapy, and distraction techniques. Distraction techniques redirect a person's attention away from pain to other stimuli, effectively reducing anxiety. In the medical field, music therapy is also known as a complementary approach. Music plays a significant role in religious activities, calming the soul, deepening spiritual awareness, and creating a positive mood. Music has also been proven to reduce pain, depression, and aggression while increasing relaxation (Moekroni, 2016). Music can also stimulate the production of fi-Endorphin, a neuropeptide with analgesic effects in the peripheral nervous system by binding to opioid receptors, resulting in interactions that inhibit pain transmission (Andarwulan, 2021).

Aromatherapy, particularly using lavender oil, is believed to have a relaxing

effect on tense nerves and muscles, as well as promoting a sense of calm. Lavender is also effective as a coolant for those feeling anxious and as a stimulant for those experiencing depression. Lavender aromatherapy can also alleviate pain such as joint pain and headaches. Components such as linalool and linalyl acetate in lavender oil have been proven to have calming effects and help reduce stress and anxiety levels (Mulyantika, 2021; Kianpour, 2016).

METHOD

The research employs a pre-experimental quantitative method with a one-group pretest-posttest design. The population consists of a total of 52 delivery patients in January-February 2024, with a sample of 44 randomly selected respondents. The study is conducted at the Ballaparang Community Health Center from January to March 2024. The independent variables include classical music therapy and lavender aromatherapy candle therapy, while the dependent variable is the level of anxiety during the active phase of the first stage of labor. Data collection instruments include the Hamilton Anxiety Rating Scale (HARS) observation sheet, standard operating procedures (SOP) for classical music therapy, and SOP for lavender aromatherapy candle therapy. Data analysis is performed using SPSS, with the Wilcoxon test utilized to compare anxiety levels before and after the intervention, given the non-normal distribution of the data.

RESULTS

Table 1 Frequency Distribution of Respondents Based on Age at Ballaparang Health Center in 2024

Category	F	(%)
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	29	65,9
Elementary Education	15	34,1
Higher Education		
Total	44	100

Source: Primary Data

According to Table 1, the majority of participants fell within the age range of 20-35 years, constituting over half with a total of 24 (54.5%). A significant portion of the participants, totaling 30 (68.2%), were without employment, while the majority, comprising 29 (65.9%), had received a basic level of education.

Table 2. Presents the Frequency Distribution of Respondents' Anxiety Levels Prior to and Following Intervention at the Ballaparang Community Health Center in 2024.

Category	F	(%)
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

According to Table 2, the predominant finding indicates that most participants encountered moderate anxiety levels before undergoing classical music therapy and lavender aromatherapy candle therapy, comprising 21 individuals (47.7%). Conversely, after receiving these interventions, the majority experienced mild anxiety, with a total of 20 respondents (45.5%).

Table 3 depicts the Impact of Classical Music Therapy and Lavender Aromatherapy Candle Therapy on Anxiety Levels

Intervention	N	Mean	SD	Min - Max	Z	P
Pretest Anxiety Scores	4	23.57	6.51	2-40		
Posttest Anxiety Scores	4	19.16	4.97	8-40	-5.72	,000

Source: Wilcoxon Sign Rank Test Statistical Test

Table 3 demonstrates the variance in average anxiety scores among respondents before and after intervention. Prior to the intervention, the pretest displays an average anxiety score of 23.57. Following the implementation of classical music therapy and lavender aromatherapy candle therapy, there is a decrease in anxiety scores in the posttest, with an average score of 19.16. Hence, it can be inferred that there exists a notable distinction in anxiety levels pre and post the application of classical music therapy and lavender aromatherapy candle therapy. The analysis from the Wilcoxon test indicates a significance value of 0.000 ($p < 0.05$), indicating that classical music therapy and lavender aromatherapy candle therapy significantly contribute to reducing anxiety levels during the first stage of active labor.

DISCUSSION

The findings suggest that anxiety levels among pregnant women in the third trimester were notably high initially. However, following the intervention, a significant decrease in moderate anxiety was observed, reducing 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, transitioning many from

moderate to mild anxiety levels (Asmara et al., 2017).

These results underscore the potential benefits of integrating complementary therapies like classical music and lavender aromatherapy candles into prenatal care programs, emphasizing mental well-being during pregnancy, particularly during the challenging third trimester. Further research and clinical trials are necessary to validate and refine the effectiveness of these therapies. Nevertheless, the initial findings are promising and highlight the significance of addressing mental health during pregnancy for the well-being of both mothers and their developing fetuses (Ulfa, 2017).

The statistical analysis revealed a significant difference in anxiety levels before and after the administration of classical music therapy and lavender aromatherapy candle therapy, with a p-value of 0.000 ($p < 0.05$), consistent with previous research (Asmara et al., 2017). Anxiety, a common response during childbirth, can be effectively managed through non-pharmacological methods like relaxation therapy (Classical Music Therapy) and aromatherapy (Lavender Aromatherapy Candle Therapy) (Hernanto, 2016).

Lavender aromatherapy has been shown to have a calming effect, providing tranquility, balance, and comfort. Similarly, classical music therapy can help individuals relax, reduce stress, and create feelings of well-being (Setiati, Sugih, & Wijayanegara, 2019). These therapies offer valuable non-pharmacological alternatives for managing anxiety during pregnancy, potentially benefitting both mothers and their unborn children (Kuriyama et al., 2015).

Further research is needed to explore the mechanisms underlying the calming influence of classical music therapy and aromatherapy, as well as their long-term

effects on maternal mental health. Investigating potential combinations of these therapies and their synergistic effects could offer a more comprehensive understanding of their effectiveness and safety. Ultimately, advancing our understanding of these holistic approaches to prenatal care contributes to promoting maternal well-being and ensuring healthier outcomes for both mothers and their newborns.

CONCLUSIONS

The results of the study highlight the potential effectiveness of classical music therapy and lavender aromatherapy candle therapy as non-pharmacological options for addressing anxiety during the initial stage of active labor. These findings go beyond the scope of this study and call for additional research and advancement in the realm of maternal mental health. By investigating the mechanisms, long-term impacts, and integration strategies of these therapies, we can enhance our efforts to promote the psychological well-being of pregnant women, ultimately leading to healthier pregnancies and childbirth experiences.

REFERENCES

- Andarwulan, S. (2021). Terapi Komplementer Kebidanan. GUEPEDIA.
- Asmara MS, Rahayu HE, Wijayanti K. (2017). Efektivitas Hipnoterapi dan Terapi Musik Klasik Terhadap Kecemasan Ibu Hamil Resiko Tinggi di Puskesmas Magelang Selatan Tahun 2017. 6th Univ Res Colloq. 2017;329–34.
- Budiyarti, Y., & Makiah. (2018). Pengaruh Terapi Murottal Al Qur'an Terhadap Tingkat Kecemasan Ibu Hamil Primigravida Trimester III Di Wilayah Puskesmas Pekauman. In Jurnal Citra Keperawatan (Vol. 6).
- Glover, V. (2014). Maternal Depression, Anxiety and Stress During Pregnancy and Child Outcome; What Needs to Be Done.

- Best Practice and Research: Clinical Obstetrics and Gynaecology, 28(1), pp. 25–35.
<https://doi.org/10.1016/j.bpobgyn.2013.08.017>
- Hawari, D. (2016). Manajemen Stres Cemas dan Depresi. Jakarta: Fakultas Kedokteran Universitas Indonesia.
- Hernanto, F., & Fauziah, F. (2016). Pengetahuan Tentang Kehamilan, Dukungan Keluarga dan Kecemasan Ibu Primigravida Trimester III. *Pers Psikol Indones*, 5(03), 232–238.
- Ibanez, G., et al. (2016). Effect of antenatal maternal depression and anxiety on children's early cognitive development: a prospective cohort study. *PLoSOne*. 10(8): e0135849.
- Kemenkes RI. (2021). Profil Kesehatan Indonesia 2020. Jakarta: Kemenkes RI.
- Kianpour, M. et al. (2016) 'Effect of Lavender Scent Inhalation On Prevention Of Stress, Anxiety And Depression In The Postpartum Period', *Iranian Journal of Nursing and Midwifery Research*, 21(2), pp. 197–201. doi: 10.4103/1735-9066.178248
- Lansida. (2017). Certificate of Analysis Lavender Essential Oil.
<http://www.minyak-atsiri.com>.
- Kuriyama, H., et al. (2015). Immunological and psychological benefits of aromatherapy massage. *Evidence-Based Complementary and Alternative Medicine*, 2(2), 179–184. doi:10.1093/ecam/neh087.
- Meiharti, T., Hastuti, E., Sumiati, H., Abiyoga, A., & Sulistyorini, C. (2018). 1000 hari pertama kehidupan. Yogyakarta: Deepublish.
- Miarso, Chondrosuro, Eka Novyriana, & Siti Muthoharoh. (2018). Teknik Aromaterapi Lavender Untuk Mengurangi Kecemasan Ibu Hamil Menghadapi Persalinan. The 8th University Research Colloquium 2018, 557-560.
- Muchtartidi & Moelyono. (2015). Aroma Terapi Tinjauan Aspek Kimia Medisinal.
- Nasir, Nurwahyuni. (2015). Self-Instruction Training (SIT) untuk menurunkan tingkat kecemasan kehamilan pada ibu primigravida. Yogyakarta: Tesis Program Pasca Sarjana Universitas Ahmad Dahlan.
- Nurghiwiati, E. (2015). Terapi Alternatif dan Komplementer Dalam Bidang Keperawatan. Bandung: In Media
- Prameswari, Yuditia, & Zahra Ulfah. (2018). Faktor-Faktor yang Mempengaruhi Kecemasan Ibu Hamil Primigravida Trimester III dalam Menghadapi Persalinan di Puskesmas Batu Aji Kota Batam Tahun 2018. *Jurnal PSYCHE* 1652019, 12(1), 30-39.
- Pusat Studi Biofarmaka LPPM IPB, Ulung, G. 2014. Sehat Alami dengan Herbal250 Tanaman Berkhasiat Obat. Jakarta: PT Gramedia Pustaka Utama, p:171
- Rahmitha. (2017). Tingkat Kecemasan Pada Ibu Hamil Primigravida Trimester III Di Puskesmas Kecamatan Tamalanrea Makassar [Skripsi, Universitas Hasanuddin].
- Rinata, E. (2018). Karakteristik Ibu (Usia, Paritas, Pendidikan) Dan Dukungan Keluarga Dengan Kecemasan Ibu Hamil Trimester III. *MEDISAINS: Jurnal Ilmiah Ilmu-ilmu Kesehatan*, 16(1).
- Setiati, N. W., Sugih, S., & Wijayanegara, H. (2019). Efektivitas Pemberian Aromaterapi Lavender untuk Menurunkan Kecemasan Ibu Hamil Trimester III Dalam Persiapan Menghadapi Persalinan Di Ciamis. *Jurnal Kesehatan Bakti Tunas Husada: Jurnal Ilmu Ilmu Keperawatan, Analisis Kesehatan dan Farmasi*, 19(1), 45–55.
- Siallagan, Dorsinta, & Dwi Lestari. Tingkat Kecemasan Menghadapi Persalinan

- Berdasarkan Status Kesehatan, Graviditas, dan Usia di Wilayah Kerja Puskesmas Jombang. *Indonesian Journal of Midwifery* 2018, 1(2), 104-110.
- Sianipar, Kandace, Renny Sinaga, & Yusliana Nainggolan. (2017). Pengaruh Aromatherapi, Relaksasi Otot Progresif Terhadap Penurunan Kecemasan Ibu Hamil Menjelang Persalinan di BPM Simalungun. *Jurnal Ilmiah PANNMED* 2017, 12(1), 81-91.
- Suriyati. (2019). Metode Non Farmakologi Dalam Mengatasi Kecemasan Pada Persalinan [Non-Pharmacology Methods In Overcoming Anxiety In Labor]. 5(1), 56–61.
- Ulfa, M. (2017). Dukungan Keluarga Untuk Menurunkan Tingkat Kecemasan Pada Pasien Pre Operasi Terencana Di Rsu Dr. Saiful Anwar Malang. *Jurnal Ilmu Keperawatan: Journal of Nursing Science*, 5(1), 57-60.
- Wardani, H. W., Agustina, R., & Damayanti, E. A. F. (2018). Tingkat Kecemasan dengan Kualitas Tidur Ibu Hamil Primigravida Trimester III. *Dunia Keperawatan*, 6(1), 1.
- Yainanik. (2017). Usia, Tingkat Pendidikan dan Pengetahuan Antenatal Care Ibu Primigravida Dalam Kecemasan Menghadapi Persalinan. Surakarta: Universitas Muhammadiyah Surakarta.
- Yuni, Fitriana, & Nurwiandani, Widy. (2015). *Asuhan Persalinan*. Yogyakarta: Pustaka Baru Press.