

Effectiveness Of Classical Music Therapy And The Use Of Lavender Aromatherapy On Anxiety During Childbirth In Maternity

Nur Sitiyaroh

Akademi Kebidanan Assyifa Tangerang, Indonesia

* Corresponding author:

Email: nursitiyaroh@gmail.com

Abstract.

Anxiety is a feeling of discomfort or excessive fear of a person. Anxiety during childbirth is an inconvenience for the mother giving birth so that there is a fear of her birth. Anxiety can be overcome with non-pharmacological therapies such as classical music and lavender aromatherapy. To determine the effectiveness of classical music therapy and the use of lavender aromatherapy on anxiety during childbirth in women giving birth at Belinda Clinic. This study was conducted in a quasi-experimental one group pre-test and post-test design with a quantitative approach. The sample of this research is the total population of 30 mothers giving birth at Belinda Clinic by accidental sampling. when the research was conducted September, October, November, and December 2019. The results of univariate analysis are the majority of anxiety levels before being given treatment, namely moderate anxiety levels totaling 16 people (53.33%) and after treatment, the majority of mild anxiety levels are 18 people (60%). The results of the bivariate analysis showed that there was a difference before and after the level of anxiety during childbirth using classical music therapy and the use of lavender aromatherapy with a p-value of 0.000 Conclusions and Suggestions: the health sector, especially midwives, to reduce anxiety levels in maternity mothers by using classical music therapy and the use of lavender aromatherapy.

Keywords: *Anxiety during childbirth, Combination of classical music therapy and the use of lavender aromatherapy.*

I. INTRODUCTION

Labor is a process by which a pregnant woman expels a fetus starting from inpartu until the delivery of the baby is continued until the birth of the placenta. Usually labor takes place within 12-14 hours (Kurniarum, 2016) The birthing process can cause mothers to feel anxious and afraid. The causes of anxiety in maternity include knowledge, age, parity, mother's physical condition, and family economic status (Engel, 2014). Anxiety is an uncomfortable feeling or feeling excessive fear of a person. Anxiety during childbirth is an inconvenience caused by the mother giving birth so that there is a feeling of fear of her birth. The cause of anxiety in childbirth is due to a decrease in blood circulation to the placenta which has an impact on the mother, a decrease in uterine contractions and a decrease in oxygen to the fetus will affect the length of the first stage of labor. Actions that can be taken by health workers to reduce anxiety in childbirth with complementary midwifery actions are music therapy, aroma therapy, laughter therapy, progressive muscle relaxation, meditation (Engel, 2014). In a study conducted by Asmara, (2017) said that there was a significant difference in the measurement of anxiety before and after classical music therapy was performed on high-risk pregnant women with $p < 0.05$, namely 0.13.

The research on lavender aromatherapy conducted by Setiati, (2019) stated that giving lavender aromatherapy was more effective than not being given lavender aromatherapy to reduce the anxiety of third trimester pregnant women in preparing for childbirth. Based on previous research that classical music therapy and the use of lavender aromatherapy can reduce anxiety, therefore, researchers are interested in conducting research on the effectiveness of classical music therapy and the use of lavender aromatherapy on anxiety during childbirth. Based on the initial survey the researchers conducted on 2 mothers giving birth, before the intervention gave classical music therapy and the use of lavender aromatherapy, the researchers assessed anxiety with the results of experiencing mild anxiety. then the intervention for 30 minutes got the results that the mother did not feel anxious. Based on the above background that classical music therapy and the use of lavender aromatherapy can reduce anxiety, therefore, researchers are interested in conducting research on the effectiveness of classical music therapy and the use of lavender aromatherapy on anxiety during childbirth in maternity mothers at Belinda Clinic.

II. METHODS

The research on lavender aromatherapy conducted by Setiati, (2019) stated that giving lavender aromatherapy was more effective than not being given lavender aromatherapy to reduce the anxiety of third trimester pregnant women in preparing for childbirth. Based on previous research that classical music therapy and the use of lavender aromatherapy can reduce anxiety, therefore, researchers are interested in conducting research on the effectiveness of classical music therapy and the use of lavender aromatherapy on anxiety during childbirth. Based on the initial survey the researchers conducted on 2 mothers giving birth, before the intervention gave classical music therapy and the use of lavender aromatherapy, the researchers assessed anxiety with the results of experiencing mild anxiety. then the intervention for 30 minutes got the results that the mother did not feel anxious. Based on the above background that classical music therapy and the use of lavender aromatherapy can reduce anxiety, therefore, researchers are interested in conducting research on the effectiveness of classical music therapy and the use of lavender aromatherapy on anxiety during childbirth in maternity mothers at Belinda Clinic. The design of this study used a quasi-experimental one group pretest-posttest design.

The purpose of this study was to determine the effectiveness of classical music therapy and the use of lavender aromatherapy on anxiety during childbirth in maternity mothers at Belinda Clinic. The research sample was all physiological maternity mothers from October to December 2019 with a total of 30 people who matched the inclusion criteria research criteria, namely willing to be respondents, primiparous women giving birth, mothers giving birth with head presentation. Exclusion criteria were mothers who gave birth by cesarean delivery. The sampling technique used is accidental. data collection using primary data by taking data directly on the respondents by researchers without data through intermediaries. In this study the dependent variable was anxiety during childbirth and the independent variables were classical music therapy and the use of lavender aromatherapy. At the beginning of the study, researchers conducted a pretest by assessing anxiety using the HARS questionnaire, then researchers intervened with music therapy and lavender aromatherapy music therapy for 30 minutes. After that, researchers conducted a posttest using the HARS questionnaire to measure maternal anxiety levels. Researchers used univariate data analysis to describe the frequency distribution of respondents, and bivariate data to determine the effectiveness of classical music therapy and the use of lavender aromatherapy on anxiety during childbirth in mothers.

III. RESULTS

Univariate Analysis In this method, we get an overview of the frequency distribution of mothers giving birth at the Belinda clinic.

Tabel 1. Distribution of Respondents' Anxiety Levels (Pretest) (N=30)

No	Anxiety Frequency Distribution	Total	Percentage (%)
1	Light	9	30%
2	Currently	16	53,33%
3	Heavy	5	16,67%
	Total	30	100

In Table 1 the distribution of the frequency of anxiety before treatment, the majority experienced moderate anxiety in childbirth with a total of 16 of 30 respondents (53.33%), experiencing mild anxiety as many as 9 of 30 respondents (30%) and experiencing severe anxiety as much as 5 of 30 respondents. 30 respondents (16.67%).

Tabel 2. Distribution of Respondents' Anxiety Levels (Post Test) (N=30)

No	Anxiety Frequency Distribution	Total	Percentage (%)
1	No Anxiety	4	13,33%
2	Light	18	60%
3	Currently	8	26,67%
	Total	30	100

In Table 2 the distribution of the frequency of anxiety after treatment, the majority experienced mild anxiety in childbirth, amounting to 18 of 30 respondents (60%) then experiencing moderate anxiety as many as 8 of 30 respondents (26.67%) and not experiencing anxiety as much as 4 of 30 respondents (13.33%).

Bivariate Analysis

Before conducting a different test (t test) to determine the effectiveness of classical music therapy and the use of lavender aromatherapy in maternity mothers, the researchers had to do a normality test.

Tabel 3. Normality Test Results of Maternal Anxiety Levels on Pre Test and Post Test Measurements on Giving Classical Music and Lavender Aromatherapy at Belinda Clinic

Group	Measurement	Shapiro-Wilk	Keterangan
Classical music therapy and lavender aromatherapy	Pre Test	0,065	Normal
	Post Test	0,057	Normal

The results of the normality test assessment obtained the results of the sign value of 0.065 (before) and 0.057 (after) then the Shapiro - Wilk value with $P\text{-value} > 0.05$, it can be concluded that the normality test is normally distributed. Bivariate analysis used with Paired sample T-Test analysis is a parametric test that can be used on two paired data. After the normality test was carried out, the researcher then conducted a t-test to find out whether there was a difference in anxiety before and after being given treatment

Tabel 4. The Effectiveness Of Giving Classical Music And Lavender Aroma Therapy To Anxiety In Maternal Maternity At Belinda Clinic

Group	Anxiety level	Frekuensi		Mean		Mean	SD	P value
		Pre test	Pos t test	Pre test	Postt est			
Classical music therapy and lavender aromatherapy	No Anxiety	0	4	4,9	2,67	2,23	0,181	0,000
	Light	9	18	0				
	Currently	16	8					
	Heavy	5	0					

In table 4 it can be seen the average results before and after treatment with the average value before 4.90 and the average value after 2.67 as well as the standard deviation value of 0.181 and the P-value of 0.000 which the result is $P\text{ value} < 0.05$ it can be concluded from the results of the bivariate analysis that there is a difference before and after treatment, namely by providing classical music therapy and the use of lavender aromatherapy on anxiety during childbirth in maternity mothers

IV. DISCUSSION

The results of the univariate analysis still found severe anxiety by mothers giving birth before classical music therapy and the use of lavender aromatherapy were carried out, totaling 5 people. According to researchers, anxiety is because mothers are afraid of bad things happening at the time of delivery due to fear of pain and labor pain. This research is in line with Morgan's 2005 theory in Engel 2014 which states that people who have a disease will experience anxiety more easily than healthy people. If the mother is experiencing pain and can't stand the pain of contractions during labor, the mother will increase anxiety in the labor process. The results of this study are in line with the opinion of Noor (2018) that there is an effect of music therapy on childbirth anxiety in primigravida pregnant women in the third quarter with a value of $z = -2.023$ and $p = 0.043$ ($p < 0.05$). This study is in line with Faradisi, (2012) who stated that there was a decrease in anxiety levels before and after intervention with classical music therapy. The changes showed the level of anxiety was moderate before the intervention and decreased the level of anxiety to be mild after the intervention. This study on the use of lavender aromatherapy is the same as Setiati's study, (2019) which stated that there was a decrease in anxiety in the group that was given lavender aromatherapy compared to those who did not receive lavender aromatherapy. Classical music therapy can reduce anxiety when a sound or sound source is received by the ear.

Then the sound source is converted into electrical impulses in the ear and then forwarded to the auditory nerve to the auditory cortex of the brain. Then the brain receives signals from the hypothalamus and forwards them to other parts of the brain. Then the amygdala functions to regulate a person's emotions and

behavior, with the sound of music can make the heart calm. (Natalia, 2013) Pregnant women who are facing a stressful delivery can be given classical music therapy so that they can change moods caused by stimulation of the hypothalamus and amygdala so that they secrete hormones that can cause a sense of calm, pleasure and comfort. (Natalia, 2013) According to Moekroni (2016), music can reduce anxiety if someone likes the music. Likewise for mothers in labor in reducing anxiety by listening to music they like so that it is effective in reducing anxiety levels. The use of lavender aromatherapy can reduce anxiety. The aroma of lavender flowers that are put on the diffuser emits aroma by being inhaled into the nose and then the cilia becomes electrical impulses that are transmitted to the brain. Thus, through inhalation, it can stimulate all brain channels, especially the limbic system and hypothalamus, which can increase alpha waves in the brain so that it helps the body to relax and feel comfortable. (Sari and Leonard, 2018). This is in line with the results of research by Kandace, et al (2017) who said that giving lavender aromatherapy can reduce anxiety levels in pregnant women in facing childbirth, because the function of lavender aromatherapy can provide a sense of calm and comfort so as to reduce anxiety. Lavender aromatherapy can reduce anxiety caused by the odor molecules found in essential oils have a positive effect on the central nervous system, which can inhibit the release of Adeno Corticotrophic Hormone (ACTH), which this hormone can cause anxiety in someone (Widiyono, 2013)

This study is also in line with Simkin's (2007) theory which states that anxiety is an uncomfortable feeling or feeling excessively afraid of a person. The cause of anxiety in childbirth is due to a decrease in blood circulation to the placenta which has an impact on the mother, a decrease in uterine contractions and a decrease in oxygen to the fetus will affect the length of the first stage of labor. Balqis (2018) said that giving lavender aromatherapy by diluting 0.1 ml of olive oil as much as 1 ml and then giving 3 drops of aromatherapy that had been diluted between lavender and olive oil on a tissue measuring 15 cm x 15 cm and then inhaled following the breath for a while. 5 minutes. There was a decrease in anxiety before being given lavender aromatherapy experiencing moderate anxiety as much as 60% and after being given lavender aromatherapy there was a moderate anxiety level of 56.7% Aromatherapy is a non-pharmacological treatment with liquid based ingredients from volatile plants which are often known as essential oils and aroma compounds that can affect a person's emotions and health. (Nurghiwiati, 2015). Dewi (2015) said the benefits of lavender flowers are for relaxation so as to reduce anxiety. Therefore, it is emphasized by the results of this study that there is a decrease in anxiety levels in maternity mothers before and after being given classical music therapy and the use of lavender aromatherapy.

V. CONCLUSION

Conclusion on research :

1. The distribution of the frequency of anxiety before treatment was found that the majority experienced moderate anxiety in maternity with a total of 16 of 30 respondents (53.33%), experienced mild anxiety as many as 9 out of 30 respondents (30%) and experienced severe anxiety as much as 5 out of 30 respondents (16.67%).
2. Distribution of the frequency of anxiety after treatment, the majority experienced mild anxiety in maternity mothers amounted to 18 of 30 respondents (60%) then experienced moderate anxiety as many as 8 of 30 respondents (26.67%) and did not experience anxiety as many as 4 of 30 respondents (13.33%).
3. The average results before and after treatment with the average value before 4.90 and the average value after 2.67 and the standard deviation value of 0.181 and the P-value of 0.000 whose results are P value <0.05 then it can be concluded from the results of the bivariate analysis that there was a difference before and after treatment, namely by providing classical music therapy and the use of lavender aromatherapy on anxiety during childbirth in maternity mothers.

VI. SUGGESTION

1. For Maternity Mothers

The results of the study are expected to be knowledge of pregnant women who face the labor process so that it can be used as an action to reduce anxiety during childbirth.

2. For Midwives

The results of this study can be applied to maternity mothers in reducing anxiety during childbirth with complementary midwifery measures, namely classical music therapy and lavender aromatherapy.

3. For students and libraries

As input and additional references on avoidance-based midwifery research, especially in the management of anxiety during childbirth.

4. For the next researcher

It is hoped that it can be a reference for further researchers in taking research on reducing anxiety during childbirth.

REFERENCE

- [1] Abdullah Noor. (2018). the effect of music therapy on childbirth anxiety in third trimester primigravida pregnant women at the main clinic of Fatimah Kudus
- [2] Asmara, M. S., Rahayu, H. E., & Wijayanti, K. (2017). The Effectiveness of Hypnotherapy and Classical Music Therapy Against Anxiety in High Risk Pregnant Women at the South Magelang Health Center in 2017. *Urecol*, 329–334. <https://journal.unimma.ac.id/index.php/urecol/article/view/1389>
- [3] Balqis, K.P. (2018). Effect of Lavender Aromatherapy on Maternal Anxiety Levels in BPM Palembang City.
- [4] Dewi, IGA. (2015) Lavender Aromatherapy as a Relaxation Media. Pharmacy, Faculty of Medicine, Udayana University. *Journal of Health*. Volume 2 Number 1. Pg. 21-53.
- [5] Engel. (2014). Definition of Anxiety. Paper Knowledge . Toward a Media History of Documents, 1, 1–21.
- [6] Faradisi, F. (2012). The Effectiveness of Murotal Therapy and Classical Music Therapy on Reducing Patient Anxiety Levels. *Scientific Journal of Health*, Volume 5(2), Number 2.
- [7] Hayati, F. (2018). Differences in Maternal Anxiety Levels in Public Health Centers with Independent Practice Midwives. *Baiturrahim Jambi Academic Journal*, 7(1), 85. <https://doi.org/10.36565/jab.v7i1.69>
- [8] Kurniarum, Ari. (2016). Maternity and Newborn Midwifery Care. Jakarta: Ministry of Health RI
- [9] Moekrony. (2016) The Effect of Giving Classical Music Therapy in Reducing Anxiety Levels of Pregnant Women Before Childbirth.
- [10] Nurgiwati, Endeh. (2015). Therapy Alternatives & Complementary In Nursing. Bogor: In Media
- [11] Rahmayati, E., & Handayani, R. S. (2017). Differences in the Effect of Psychoreligious Therapy with Classical Music Therapy on Anxiety in Pre Operative Patients in RSUD dr. H. Abdul Moeloek Lampung Province. *Journal of Health*, 8(2), 191. <https://doi.org/10.26630/jk.v8i2.472>.
- [12] Sari, D. K., & Pantiawati, I. (2013). Comparison of Massage Techniques and Music Therapy on Reducing Anxiety in Primipara Maternity Mothers in Brebes District in 2013. Prada Midwives: *Scientific Journal of Midwifery*, 4(01), 1–15. <http://ojs.akbidylpp.ac.id/index.php/Prada/article/view/33>
- [13] Setiati, N. W. (2019). The Effectiveness of Giving Lavender Aromatherapy to Reduce Anxiety in Third Trimester Pregnant Women in Preparation for Childbirth in the Independent Practice Midwife Nurussyifa, Buniseuri Ciamis District. *Journal of Health Bakti Tunas Husada: Journal of Nursing Sciences, Health Analysts and Pharmacy*, 19(1). <https://doi.org/10.36465/jkbth.v19i1.449>
- [14] Sianipar, Kandace et al. (2017). Effect Aromatherapy, Relaxation Progressive Muscles Against Decrease in Anxiety for Pregnant Women Ahead of Labor at BPMSimalungun. *Scientific journals PANNMED* Vol 12 No. 1. Accessed on 18 December 2018. <http://poltekkesMedan.ejournal.id/pannmed/article/view/55>.
- [15] Widiono. (2013). Inhaled Aromatherapy As Evidence Based Nursing in patients with CKD who are undergoing Hemodialysis to Reduce Worry. Master Student Medical Specialization Nursing Gadjar Mada University Surgery Yogyakarta. Accessed on May 22, 2019. <http://www.google.com/amp/s/docplayer.info/amp/29754791-Aromatherapy-inhalation-as-evidence-based-nursing-on-patient-ggk-going-hemodialysis-to-reduce-k>.