The Effectiveness Of Lavender Aromatherapy And Deep Relaxation Techniques To Reduce Labor Anxiety To Mothers In Membership During The Latent Phase I At Pmb K Bogor City In 2022

Eliska Emalia, Siti Syamsiah, Febry Mutiariami Dahlan

National University, Jl. Harsono RM No. 1 Ragunan, South Jakarta 12550, Indonesia

ARTICLE INFO

Keywords: Lavender Aromatherapy, Stage I Latent Phase, Anxiety, Deep Breathing Relaxation Techniques.

ABSTRACT

The incidence of anxiety in pregnant women in facing childbirth in Indonesia in 2019 was 28.7%. Meanwhile, in 2020 there was an increase of 48.7%. The purpose of this study was to determine the effectiveness of lavender aromatherapy and deep breathing relaxation techniques to reduce anxiety in dealing with labor in latent phase I mothers in PMB K Bogor City in 2022. The research design used in this study was pretest-posttest with control group design. The sample of this study was some maternity mothers who visited PMB K in the period April to July 2022, as many as 30 people. The research instrument in this study used the SAP diffuser and deep breathing relaxation techniques, as well as the HARS (Hamilton Anxiety Rating Scale) questionnaire. The statistical test of this study used the Independent Sample T Test. The results of the Independent Sample T Test statistical test showed a p value of 0.001 0.05, meaning that there was an effect before and after being given lavender aromatherapy and deep breathing relaxation techniques to reduce anxiety in facing labor in the intervention group of the first stage of latent phase at PMB K Bogor City in 2022. The conclusion is that there is an effect before and after being given lavender aromatherapy and deep breathing relaxation techniques to reduce anxiety facing labor in the latent phase I intervention group at PMB K Bogor City in 2022. Suggestions for maternity mothers who experience anxiety in dealing with latent phase I labor are expected can use lavender aromatherapy and deep breathing techniques as alternative therapies to reduce anxiety.

1. Introduction

According to the World Health Organization (WHO) in 2019, the world has a high risk of moderate anxiety in pregnant women around 8%-10%, increasing to 12% when approaching childbirth, while in 2020 there is an increase in pregnant women in facing childbirth, which is 15 percent. 6% and post-partum mothers by 19.8% (WHO, 2020).

The incidence of anxiety in pregnant women in facing childbirth in Indonesia in 2019 was 28.7% (Dewi et al, 2021). Meanwhile, in 2020 there was an increase of 48.7% (Pane et al, 2021). Based on the results of the maternal perinatal audit of the Ministry of Health of the Republic of Indonesia in 2019, 28.7% of all pregnant women experienced anxiety, where the mother's psychology was one of several factors that contributed to the occurrence of prolonged labor, where prolonged labor was one of the causes of the high MMR in Indonesia. Murdayah et al, 2021).

Mothers who experience anxiety when they are about to give birth on the island of Java are 52.3% (Saputri et al, 2021), while in West Java Province mothers who experience signs of psychiatric disorders in the form of anxiety in facing childbirth are 27% (Liawati and Ima, 2020).

The causes of maternal anxiety in the face of childbirth, include worries and fears of pain
and physical dangers that will be obtained from the birth process, the emergence of unpleasant feelings about an event that may be repeated in the future (Anggraeni and Lubis, 2022). The fear of facing a condition is the same as the experience of having experienced failure during the previous delivery process (Muntaz and Akram, 2020).

The impact that will occur if the mother facing labor experiences prolonged anxiety, including weakened contractions during labor which causes prolonged labor (Donelli et al, 2019), a greater risk of miscarriage (abortion), delays in fetal growth in the womb and can be born premature or born with a preterm fetus if it occurs in the second and third trimesters of pregnancy, and can weaken the baby's immune system when he is six months old (Asnuriyati and Fajri, 2020).

Efforts that can overcome anxiety in pregnant women are pharmacological therapy (analgesic drugs, sedatives and anti-depressants) and non-pharmacological therapy (healthy nutrition patterns, exercise, adequate sleep, avoiding smoking, avoiding stress, and relaxation therapy). Non-pharmacological therapy is preferred by the community, where one type of aromatherapy that has a relaxing effect and is safe for pregnant women is lavender essential oil and deep breathing relaxation techniques.

Based on a preliminary study conducted on 6 mothers giving birth at PMB Kusmiyati, it was found that 2 people (33.3%) said they were afraid of not being able to withstand the pain during contractions, anxious because the mother was giving birth for the first time, characterized by easy emotions, anxiety, feelings of inadequacy. calm, 3 people (50%) said they were afraid of not being able to give birth normally, anxious in facing the delivery process because they were still traumatized by the previous delivery process, and 1 other person (17%) said they were afraid of problems for themselves and their baby, anxious if they were given birth. live alone, easily offended. Based on the data obtained on average, pregnant women experience anxiety during the delivery process. In line with this, in society the paradigm of childbirth still considers childbirth to be a life and death gamble.

Based on the description above, the authors are interested in conducting research on The purpose of this study was to determine the effectiveness of lavender aromatherapy and deep breathing relaxation techniques to reduce anxiety in dealing with labor in mothers in the first stage of latent phase of labor at PMB K Bogor City in 2022. The purpose of this research is to find out the effectiveness of lavender aromatherapy and deep breathing relaxation techniques to reduce anxiety in dealing with labor in mothers in the first stage of latent phase of labor at PMB K Bogor City in 2022.

2. Method

The design of this research is in the form of pretest-posttest with control group design. This research was conducted from April to July 2021 in PMB K Bogor City. The population in this study were mothers who visited PMB K in the period April to July 2022 as many as 107 people. Inclusion criteria, namely Mothers who gave birth in the first stage of the latent phase who visited in the period from April to July at PMB K Bogor City in 2022. Willing to be a respondent, cooperative, Not illiterate

Exclusion criteria, namely Mother in active phase of labor, Mother who has a cold or other respiratory problems. The sample in this study were 30 people. The sampling technique used was purposive sampling. Research tools in data collection are the use of a diffuser SAP and deep breathing relaxation techniques, as well as the HARS (Hamilton Anxiety Rating Scale) questionnaire.

Bivariate data analysis used the Independent Sample T Test with a significance level of 95% confidence level with a significance limit of = 0.05. If the p value 0.05, it indicates a significant relationship between the dependent variable and the independent variable. On the other hand, if the p value 0.05, it shows that there is no significant relationship between the dependent variable and the independent variable (Notoatmodjo, 2018).
3. Results and Discussion

3.1 Univariate Analysis

Table 1
Frequency distribution of each variable.

<table>
<thead>
<tr>
<th>Worry</th>
<th>Treatment Group</th>
<th>Control Group</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean</td>
<td>Std. Deviation</td>
<td>mean</td>
</tr>
<tr>
<td>Pre test</td>
<td>25.60</td>
<td>2.971</td>
<td>26.20</td>
</tr>
<tr>
<td>Post test</td>
<td>18.07</td>
<td>3.173</td>
<td>24.47</td>
</tr>
</tbody>
</table>

Based on table 1, shows that in the treatment group, the average anxiety before being given lavender aromatherapy and deep breathing relaxation techniques was 25.60 with a standard deviation of 2.971. While the average anxiety after being given lavender aromatherapy and deep breathing relaxation techniques was 18.07 with a standard deviation of 3.173. While in the control group, the average anxiety of the first examination was 26.20 with a standard deviation of 1.821. While the average anxiety of the second examination is 24.47 with a standard deviation of 2.031.

Table 2
The Effectiveness of Lavender Aromatherapy and Deep Breathing Relaxation Techniques to Reduce Anxiety Facing Childbirth in Latent Phase I Maternity Mothers at PMB K Bogor City in 2022

<table>
<thead>
<tr>
<th>Worry</th>
<th>N</th>
<th>Treatment Group</th>
<th>Control Group</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>mean</td>
<td>Std. Deviation</td>
<td>mean</td>
</tr>
<tr>
<td>Pre test</td>
<td>15</td>
<td>25.60</td>
<td>2.971</td>
<td>26.20</td>
</tr>
<tr>
<td>Post test</td>
<td>15</td>
<td>18.07</td>
<td>3.173</td>
<td>24.47</td>
</tr>
</tbody>
</table>

Based on table 2 shows that the results of the Independent Sample T Test statistical test showed a p value of 0.001 < 0.05, meaning that there is the effect of before and after being given lavender aromatherapy and deep breathing relaxation techniques to reduce anxiety facing childbirth in the treatment group of the latent phase I at PMB K Bogor City in 2022. While the control group showed the value of p value of 0.20 > 0.05, it means that there is no effect of the first and second examinations in the control group in reducing anxiety facing the latent phase of the first stage of labor at PMB K Bogor City in 2022.

3.2 Discussion

a. Anxiety Facing Childbirth in Maternity Mothers in the First Stage of Latent Phase Before and After being given Lavender Aromatherapy and Deep Breathing Relaxation Techniques in the Treatment Group at PMB K Bogor City in 2022

Based on the results of the study, it showed that the average anxiety before being given lavender aromatherapy and deep breathing relaxation techniques was 25.60 with a standard deviation of 2.971 where the minimum value was 17 and the maximum value was 29. While the average anxiety after being given lavender aromatherapy and techniques deep breath relaxation is 18.07 with a standard deviation of 3.173 where the minimum value is 14 and the maximum value is 24.

Based on the results of research by Alfikrie et al (2020), it shows that there is a significant difference in the average anxiety score before and after deep breathing relaxation exercises (p = 0.000 < 0.05) with a difference of 6.21 (> 2). This shows clinically breathing relaxation exercises in reducing patient anxiety.

Based on the results of research by Cahyati et al (2018), showing that the anxiety scale before giving deep breathing relaxation techniques with lavender aromatherapy showed that of 21 respondents, more than half (52.4%) experienced mild anxiety. While the anxiety scale after giving the deep breathing relaxation technique with lavender aromatherapy showed that of the 21 respondents, almost half of the respondents (95.2%) did not experience anxiety.

According to the theory of Setiadi et al (2019), aromatherapy has several molecules that are released into the air as water vapor. When water vapor containing these chemical components is inhaled, it will be absorbed by the body through the nose and lungs which then enter the bloodstream. Simultaneously when inhaled, the water vapor will travel immediately to the limbic system of the brain which is responsible for the system integration and expression of feelings, learning, memory, emotional, and physical stimulation. Lavender essential oil is very effective and
beneficial when inhaled or used externally, because the sense of smell is closely related to human emotions. When the aroma of lavender essential oil is inhaled, the body will respond psychologically.

According to the researcher’s assumption, that after being given deep breathing relaxation techniques and lavender aromatherapy, the mother’s anxiety decreased in anxiety scores and the mother became more comfortable. After the intervention of deep breathing relaxation techniques and lavender aromatherapy were given, it was able to reduce the respondent’s anxiety to mild anxiety with a minimum score (14-17).

b. Anxiety Facing Childbirth in Maternal Maternity Stage I Latent Phase First and Second Examination in the Control Group at PMB K Bogor City in 2022

Based on the results of the study, it shows that the average anxiety of the first examination is 26.20 with a standard deviation of 1.821 where the minimum value is 22 and the maximum value is 29. While the average second examination anxiety is 24.47 with a standard deviation of 2.031 where the a minimum of 22 and a maximum value of 28.

Based on the results of research by Mulyati et al (2021), indicating that the anxiety of pregnant women TM III who received breath relaxation, the results of the t value were 11.756 with an average anxiety before getting breath relaxation that was 51.60 while the average who had been given breath relaxation was 37.27. The results of statistical tests using the Paired T-Test obtained a Sig (2-tailed) value of 0.000 at 5% alpha, namely 0.000 <0.05, which means that there is an effect of breath relaxation on reducing anxiety in third trimester pregnant women at BPM Mira Laura, Bogor City.

Based on the results of research by Roniati et al (2021), it showed that in the control group the average maternal anxiety at the first examination was 20.91 with a standard deviation of 14.09 with a minimum value of 30 and a maximum of 65. The difference in the mean value was 6.82 the average value between the first examination and the second examination of the treatment group and the control group.

According to the theory of Cahyati et al (2018), efforts that can overcome anxiety in pregnant women are pharmacological therapy (analgesic drugs, sedatives and anti-depressants) and non-pharmacological therapy (healthy nutrition patterns, exercise, adequate sleep, avoiding smoking, avoiding stress, and relaxation therapy). Non-pharmacological therapy is preferred by the community, where one type of aromatherapy that has a relaxing effect and is safe for pregnant women is lavender essential oil and deep breathing relaxation techniques.

According to the researcher’s assumptions, one of the efforts that can be made to reduce anxiety in latent maternity is to perform deep breathing relaxation techniques by adjusting the breathing pattern to relax muscle tension that can cause pain, which is given for a maximum of 10 minutes at the time of contraction.

c. The Effect of Before and After Giving Lavender Aromatherapy and Deep Breathing Relaxation Techniques to Reduce Anxiety Facing Labor in the Intervention Group of Lavender Phase I in PMB K, Bogor City in 2022

Based on the results of the study, it showed that the results of the Independent Sample T Test statistical test showed a p value of 0.001 0.05, meaning that there was an effect before and after being given lavender aromatherapy and deep breathing relaxation techniques to reduce anxiety facing labor in the intervention group of the first stage of the latent phase. at PMB K Bogor City in 2022.

Based on the results of research by Cahyati et al (2018), it shows that the average result of the anxiety scale on the pretest is 44.86. While on the posttest 31.48. The mean difference between the pretest and the posttest is 13.381. With a p-value of 0.000 (<α=0.05), it means that deep breathing relaxation techniques with lavender aromatherapy can affect the anxiety of pregnant women in the third trimester at BPM Hj. Anna Rohanah Am.Keb.

Based on the results of research by Roniati et al (2021), it shows that the average difference before respondents are treated and after being treated using lavender aromatherapy is 9.06. From the results of the Mann-Whitney statistical test, the p-value is 0.008 (Sig) <0.05, so it can be said that there is a significant effect of giving lavender aromatherapy on reducing anxiety in maternity mothers.

According to Wahyuningsih’s (2019) theory, that the scent captured by the nasal receptors will provide further information to the part of the brain that controls emotions and memory,
besides that information is also given to the hypothalamus which is a regulator of the body's internal systems, including the sexuality system, body temperature, and body temperature reaction to stress.

The tension and anxiety experienced by individuals occurs because of the contraction or shortening of skeletal muscle fibers and the work of the sympathetic nervous system. By doing deep breathing relaxation techniques, relaxation will try to activate the work of the parasympathetic nerves. The parasympathetic nerves function to control the heart rate, so they can relax tense nerves and the body becomes relaxed and comfortable (Syahida and Mirani, 2021).

According to the researcher's assumption, proper deep breathing relaxation techniques and lavender aromatherapy can calm both emotionally and mentally. Breathing at a regular rhythm will calm and relax all muscles and body tissues. In addition, lavender aromatherapy also affects emotions, moods, so that it can relieve pain and will relieve tension, stress, and anxiety.

d. The Effect of the First and Second Examinations on the Control Group in Reducing Anxiety Facing Latent Phase I Labor at PMB K Bogor City in 2022.

Based on the results of the study, it showed that the results of the Independent Sample T Test statistical test showed a p value of 0.20 > 0.05, meaning that there was no effect of the first and second examinations in the control group in reducing anxiety facing the latent phase of the first stage of labor in PMB K City. Bogor in 2022.

Based on the results of research by Mulyati et al (2021), it shows that the average anxiety of pregnant women before being given breath relaxation is 51.60 and the standard deviation is 3.719. The anxiety score of pregnant women before being given breath relaxation is 47 and the highest score is 61. From the interval estimation results, it can be concluded that 95% is believed that the average anxiety of pregnant women before being given breath relaxation is between 49.54 to 53.66. While the average anxiety of pregnant women after being given breath relaxation is 37.27 and the standard deviation is 2.685. The anxiety score of pregnant women after being given breath relaxation is 33 and the highest score is 43. From the interval estimation results it can be concluded that 95% is believed that the average anxiety of pregnant women after being given breath relaxation is between 35.78 to 38.75.

Based on the results of research by Roniati et al (2021), it shows that the average difference before respondents are treated and after being treated using lavender aromatherapy is 9.06. From the results of the Mann-Whitney statistical test, the p-value of 0.008 (Sig) <0.05, so it can be said that there is a significant effect of giving lavender aromatherapy on reducing anxiety in maternity mothers.

According to Setiadi's theory (2019), aromatherapy can affect the limbic system in the brain which is the center of emotion, mood or mood, and memory to produce endorphins and encephalon neurohormones, which act as pain relievers and serotonin which has the effect of relieving tension or stress and anxiety, facing childbirth.

Deep breathing relaxation is a technique to relax muscle tension that can make the patient feel calm and can eliminate the psychological impact of stress on the patient. Deep breathing relaxation is a form of deep nursing care in which nurses teach clients how to take deep breaths, slow breaths (hold inspiration maximally) and how to exhale slowly (Yuliyati and Prasetyorini, 2022).

According to the assumption of the researcher, that there should be an intervention for deep breathing relaxation and lavender aromatherapy that can reduce muscle tension and also reduce anxiety so that the body relaxes. there when the condition is relaxed, the blood flow will spread evenly, so that blood circulation becomes smooth. Physically relaxed conditions will also bring psychologically relaxed conditions, so that it can reduce anxiety and depression.

4. Conclusion

Based on the results of research and discussion, it can be concluded that there are the effectiveness of lavender aromatherapy and deep breathing relaxation techniques to reduce anxiety in dealing with labor in first-stage maternity mothers Latent phase in PMB K Bogor City in 2022.
References


Cahyati, N., Saridewi, W., Nurhidayah, A., (2021), Deep Breathing Technique Using Lavender Aroma Therapy in Overcoming Anxiety in Third Trimester Pregnant Women, Proceedings of the National Scientific Meeting of Research & Community Service (PINLITAMAS 1), 1(1)

Dewi, ADC, Nurbaiti, M., Surahmat, R., et al, (2021), Anxiety in Pregnant Women during the Covid-19 Pandemic at Ibnu Sutowo Hospital Baturaja, SMART Journal of Nursing STIKes Karya Husada Semarang, 8(1)

Diana, S., Mail., E., Rufaida, Z., (2019), Textbook of Maternity and Newborn Midwifery Care, CV. Oase Group, Surakarta

Donelli, D., Antonelli, M., Bellinazzi, C., et al, Effects of lavender on anxiety: A systematic review and meta-analysis, Phytomedicine, 65

Fitriahadi, E., Utami, I., (2020), Childbirth Care & Management of Labor Pain, 'Aisyiyah University Yogyakarta, Yogyakarta


Mumtaz, S., Akram, B., (2020), Management of anxiety among pregnant women with serious medical conditions: A multicentre study, Department of Psychology, University of Gujrat, Pakistan. 7(11)

Murdahay, Lillis, DN, (2021), Factors Associated with Anxiety in Maternal Maternity, JAMBURA Journal of Health Sciences and Research, 3(1)


Pardede, J., Simanjuntak, GV, Manalu, NH, (2020), Effectiveness of Deep Breath Relaxation and Lavender Aromatherapy against Preoperotive Patient Anxiety, Diversity and Equality in Health and Care, 17(4)

Rahayu, TB, (2021), The Effectiveness of Giving Aromatherapy Against Anxiety Levels in Third Trimester Pregnant Women, Scientific Cakrawala Journal, 1(4)

Roniat, R., Sari, WIPE, Esmianti, F., (2021), Effect of Lavender Aromatherapy on Maternal Anxiety in the First Stage of Active Phase, JMSWH: Journal of Midwifery Science and Women's Health, 2(1)

Saputri, ME, Lubis, R., Pamela, DN, (2021), The Effect of Relaxation Therapy with Aromatherapy on Community Anxiety during the Covid-19 Pandemic in Cikaret Village, West Java in 2020, STRADA Scientific Journal of Health, 10(1)

Sugiyono, (2019), Quantitative, Qualitative, and R&D Educational Research Methods, CV. Alphabet, Bandung


Sumarti, (2022), Literature Study: The Effectiveness of Giving Lavender Aromatherapy to Reduce Anxiety in Third Trimester Pregnant Women in Preparation for Childbirth, Thesis, Muhammadiyyah University Mataram

Syahida, A., Mirani, N., (2021), Analysis of Breathing Relaxation on Anxiety in Third Trimester Pregnant Women, JKM (Journal of Midwifery Malahayati, 7(4)

Verawaty, K., Widiastuti, SH, (2020), The Effect of Deep Breathing Relaxation Techniques on Anxiety Levels of Second Semester Students in Facing Semester Final Exams at the Nursing Academy of PGI Cikini Hospital, Cikini Nursing Journal, 1(1)

Wati, DR, Fatmawati, I., (2020), The Effectiveness of Giving Aromatherapy to Reduce Anxiety Levels for Third Trimester Pregnant Women in Preparation for Childbirth, Prima Wiyata Health, 1(2)

WHO, (2020), Maternal Mental Health and Child Health and Development in Low and Middle Income Countries, Geneva, Switzerland

Widyantari, NP, (2021), The Effect of Lavender Aromatherapy Relaxation Technique on Reducing Anxiety in Preoperative Sectio Caesarea Patients in the Operating Room of RSU X Nusadua, Thesis, Bina Usada School of Health, Bali