INTERNATIONAL JOURNAL OF HEALTH SCIENCE

The Effect of Giving Aromatherapy of Roseson Reducing Pain Intensity Delivery In The 1st Time it PMB Umi Salamah In 2022

Umi Salamah[1], Masluroh[2]

[1,2] Midwifery Study Program, Abdi Nusantara College of Health Sciences, Jakarta
Jl. Swadaya No.7, RT.001/RW.014, Jatibening, Kec. Pd. Gede,
Kota Bekasi, Jawa Barat 17412
E-mail: umisalahacb@gmail.com

ABSTRACT

The maternal mortality rate (MMR) in Indonesia related to pregnancy, childbirth and the puerperium is still high, although on the other hand there has been a decrease from 359 per 100,000 live births (KH) in the 2016 Indonesian Demographic and Health Survey (IDHS) to 273 per 100,000 KH in 2018.The purpose of this study was to determine the effect of giving rose aromatherapy to reducing the intensity of labor pain in the first stage of labor at PMB Umi in 2022 The research method used is a quasi-experimental method with a one group pretest-posttest design approach. Univariate and bivariate research analysis using paired sample t-test statistical tests. The results of the analysis show that the t-test value is 6.08 and the p-value is 0.000 $<\alpha$ 0.05, which means that there has been a significant reduction in pain intensity in the first stage of labor before and after being given rose aromatherapy. And the results of the analysis of the paired sample test before and after giving rose aromatherapy, with a t-test value of 15.96, Sig. (2-tailed)/ p-value = 0.000 < α 0.05. It can be concluded that there is a significant influence between giving rose aromatherapy to reducing the intensity of labor pain in the 1st stage of labor at PMB Umi Salamah in 2022. Health workers can use aromatherapy as an alternative way of dealing with labor pain in the first stage of labor, providing adequate information to mothers about the delivery process so that mothers have proper preparation.

Keywords: Maternity Pain, Intensity of Labor Pain, Aromatherapy of Roses

INTRODUCTION

The World Health Organization (WHO) in 2018 reported that as many as 60 million (28.57%) women experienced pain as a result of pregnancy and childbirth. Maternal deaths that occur in the world are mostly caused by postpartum hemorrhage

(39%), preeclampsia/eclampsia (23%), infection (17%), prolonged labor (11%), abortion (9%), embolism (5%) and others (40%).

The Maternal Mortality Rate (MMR) in Indonesia related to pregnancy, childbirth and the puerperium is still high, although on the other hand there has been a decrease from 359 per 100,000 live births (KH) in the 2016 Indonesian Demographic and Health Survey (IDHS) to 273 per 100,000 KH in 2018. Maternal deaths in Indonesia are caused by post partum bleeding (33%), eclampsia (17%), infections of the birth canal (13%) and other causes (42%) (RI Ministry of Health, 2019).

The World Health Organization (WHO) in 2018 reported that as many as 60 million (28.57%) women experienced pain as a result of pregnancy and childbirth. Maternal deaths that occur in the world are mostly caused by postpartum hemorrhage (39%), preeclampsia/eclampsia (23%), infection (17%), prolonged labor (11%), abortion (9%), embolism (5%) and others (40%).

The Maternal Mortality Rate (MMR) in Indonesia related to pregnancy, childbirth and the puerperium is still high, although on the other hand there has been a decrease from 359 per 100,000 live births (KH) in the 2016 Indonesian Demographic and Health Survey (IDHS) to 273 per 100,000 KH in 2018. Maternal deaths in Indonesia are caused by post partum bleeding (33%), eclampsia (17%), infections of the birth canal (13%) and other causes (42%) (RI Ministry of Health, 2019).

In an effort to prevent maternal death, midwifery services need to be improved, especially during pregnancy and childbirth, and one of them is overcoming pain during labor. This is because pain that occurs during labor can affect the mother's condition in the form of fatigue, fear, worry and cause stress. The worse impact is the weakening of uterine contractions, and prolonged labor can even cause death of the mother or fetus (Dewi, 2017).

According to Usmini's research (2022) it is known that there is an effect of giving rose aromatherapy to reducing the intensity of labor pain. So that at PMB Umi Salamah a preliminary study was carried out on 10 mothers giving birth, where it was found that 8 people (80%) experienced pain problems during labor.

RESEARCH METHODS

This study used a quasi-experimental method with a one group pretest-posttest design approach. This research design has only one experimental group and no control group. The effectiveness of the treatment was assessed by comparing the posttest and pretest values (Sugiyono, 2014). This research will be carried out at PMB Umi Salamah Kp. Telukgarut RT/RW 005/002 Setiajaya Village, Branchbungin District, Bekasi Regency in September - November 2022. In this study the sample used was the population of mothers in the first stage of labor at PMB Umi Salamah, there were 41 respondents. Data analysis used normality test, parametric test, namely paired sample t-test in SPSS.

RESEARCH RESULT
1. **Normality Test**

Table 1.
Normality Test Using Skewness and Kurtosis

	Control Group			Intervention Group		
	Statistic	Std. Error	Hasil	Statistic	Std. Error	Hasil
Skewness	0.133	0.369	0.360	0,841	0.369	2.279
Kurtosis	-0.395	0.724	-0.546	-0.687	0.724	-0.949

Based on the table above, the data in this study are normally distributed because the skewness and kurtosis values are not more than 3 (±3), so the statistical test used in this study is a parametric test, namely the paired t-test.

2. **Univariate Analysis**

Table 2.
Frequency Distribution of Pain Intensity of Maternity Before Giving Rose Aromatherapy
at PBM Umi Salamah in 2022

Pain intensity	Sum	Persentase
1-3 : mild pain	6	14.6
4-6: moderate pain	6	14.6
7-9: severe pain	29	70.7
Pain intensity	**41**	**100**

Based on the table above, the intensity of pain for women in labor before being given aromatherapy of roses was seen by 6 mothers with mild pain intensity (14.6%), 6 mothers with moderate pain intensity (14.6%) and mothers with severe pain intensity. 29 people (70.7%).

Table 3.
Frequency Distribution of Intensity of Pain in Maternity After Giving Aromatherapy
Rose Flowers at PBM Umi Salamah in 2022

Pain intensity	Sum	Persentase
1-3 : mild pain	16	39.0
4-6: moderate pain	18	43.9
7-9: severe pain	7	17.1
Pain intensity	**41**	**100**

Frequency distribution of pain intensity in labor mothers after being given rose aromatherapy can be seen from the table above that there are 16 mothers with mild pain intensity (39.0%), mothers with moderate pain intensity there are 18 people (43.9%) and mothers with severe pain intensity there were 7 people (17.1%).

3. **Bivariate Analysis**

Tabel 4.
The Effect Before And After Administration Of Rose Aromatherapy On The Intensity Of Labor Pain
In The 1st Stage At PMB Umi Salamah In 2022

Variabel	Pre-test		Post-test		t-test	Sig. (2-tailed)
	M	SD	M	SD		
Labor Pain Intensity Provisiona Of Rose Flower Aroma Therapy	2,56	0,743	1,78	0,725	6,08	0,000
Pemberian Aroma Terapi Bunga Mawar	7,07	1,356	4,34	1,477	15,96	0,000

M = Mean; SD = Standard Deviation

Based on the results of the analysis above, it is known that the t-test value is 6.08 and the p-value is $0.000 < \alpha\ 0.05$, which means that there has been a significant decrease in pain intensity in the first stage of labor before and after being given rose aromatherapy. And the results of the analysis of the paired sample test before and after giving rose aromatherapy, with a t-test value of 15.96, Sig. (2-tailed)/ p-value = $0.000 < \alpha\ 0.05$. It can be concluded that there is a significant influence between giving rose aromatherapy to reducing the intensity of labor pain in the 1st stage of labor at PMB Umi Salamah in 2022, thus the null hypothesis (H0) is rejected and the alternative hypothesis (Ha) is accepted

DISCUSSION

a. **Intensity of Labor Pain in The 1st Stage Before and After Giving Rose Aromatherapy at PMB Umi Salamah**

Pain during labor is a physiological condition that is generally experienced by almost all birthing mothers. Labor pain is a subjective experience caused by uterine muscle ischemia, pulling and traction on the uterine ligaments, traction on the ovaries, fallopian tubes and distention of the lower uterine, pelvic floor muscles and perineum (Manuaba, 2017).

The results showed that the pain intensity of women in labor before being given rose aroma therapy was seen by 6 mothers with mild pain intensity (14.6%), 6 mothers with moderate pain intensity (14.6%) and mothers with severe pain intensity. 29 people (70.7%). Meanwhile, the intensity of pain in labor mothers after being given rose aromatherapy can be seen from the table above that there were 16 mothers with mild pain intensity (39.0%), mothers with moderate pain intensity there were 18 people (43.9%) and mothers with severe pain intensity there were 7 people (17.1%).

This labor pain is caused by a stretch in the lower uterine segment. The intensity of pain is proportional to the strength of the contractions and the pressure that occurs, the

pain increases when the cervix is fully dilated due to the baby's pressure on the pelvic structures followed by stretching and tearing of the birth canal. One of the effects caused by labor pain is psychological effects such as anxiety and stress where if the mother is unable to overcome the anxiety she is experiencing, the pain she feels will also increase (Sholehah, 2020).

b. **The Effect Before and After Administration of Rose Aroma Therapy on The Intensity of Labor Pain in The 1st Stage of Labor at PMB Umi Salamah**

One of the plants that has a function as aromatherapy is roses. Some of the chemicals contained in essential oils of roses include citral, citronellol, geraniol, linalol, nerol, eugenol, phenylethyl, alcohol, farnesol, nonil, and aldehydes. When the aromatherapy of rose essential oil is inhaled, the volatile molecules will carry the aromatic elements contained therein such as geraniol and linalool to the apex of the nose where the cilia emerge from the receptor cells. If the molecules stick to the hairs, an electro-chemical message will be transmitted through the olfactory tract into the limbic system. This will stimulate memory and emotional response. The hypothalamus which acts as a regulator raises messages that must be conveyed to the brain. The message received is then converted into action in the form of electrochemical compounds which cause feelings of calm and relaxation and can improve blood flow (Sharma, 2019).

The results of the study showed that there had been a significant decrease in pain intensity in the first stage of labor before and after being given rose aromatherapy. And there is a significant influence between giving rose aromatherapy to reducing the intensity of labor pain in the 1st stage at PMB Umi Salamah in 2022

The results of this study are in accordance with research (Harahap, 2020) The aromatherapy of roses affects the intensity of labor pain in the first stage of the active phase by proving that there is a difference in the average pain intensity of women in labor as measured by the behavioral observation sheet and the Bourbanis scale. In line with the results of the study (Titi Romini, 2020), the results of the paired t-test statistical test obtained a t-test value of 15.355 and a Sig. (2-tailed) = 0.000 <α 0.05 means that there is a significant effect of giving rose aromatherapy to reducing the intensity of labor pain in the first active phase of labor at the Indah Medika Clinic, Bekasi Regency in 2020.

The results of this study are also supported by the results of research (Sholehah, 2020) that there is an effect of rose essential oil aromatherapy on reducing the intensity of labor pain during the first active phase. intensity of labor pain during latent phase. Research (As et al., 2022) The results of statistical tests showed that the T Paired test value was 3.666 and the P value was 0.003, which means that there was an influence on the scale of labor pain before and after being given rose aromatherapy to mothers giving birth at the Independent Practice of Midwives Jawiriyah S.ST Punge Blang Cut Meuraxa District, Banda Aceh City in 2022.

Appropriate and soothing aromatherapy can reduce pain or pain during labor. One type of aromatherapy that is safe to use for pregnancy and childbirth is rose aromatherapy (Balkam, 2015). Roses are anti-depressant so they can calm the soul (Sujiyatini, 2015). Rose aromatherapy by inhalation will affect emotional reactions to pain through

manipulation of the limbic system which is regulated to produce feelings of relaxation, pleasure and calm (Wahyuni, 2016). Buckle (2014) added that relaxation has shown a change in the client's perception of pain. Rose oil contains Nerol which has a pleasant smell, so it is commonly used as a therapeutic odorant oil which can provide a calming effect, reduce depression, stress, tension, relax nerves and reduce pain. Apart from the nerol content, rose oil also contains citral, eugenol, geraniol, citronellol, farnesol, linalool, and phenylethyl alcohol.

The researcher's assumption that there was a decrease in the intensity of the active phase 1 labor pain in respondents occurred because during the research all respondents really liked the aromatherapy scent of rose essential oil given by the researcher through inhalation using an electric diffuser provided at the research clinic, so when inhaling the smell Respondents became calm, not anxious and could reduce labor pain. Inhalation of rose aromatherapy was carried out when the respondent started to enter the 4-10 cm opening for approximately 60-120 minutes. At the time of the study, the respondents were very cooperative and did not complain about the smell of aromatherapy spreading in the delivery room and the respondents continuously inhaled the aroma of rose aromatherapy. A decrease in the intensity of labor pain during the first active phase begins to be seen at 6-10 cm dilatation

CONCLUSION

Based on the results of the study, there was a significant reduction in pain intensity in the first stage of labor before and after being given rose aromatherapy.The results of the analysis of paired sample tests before and after giving rose aromatherapy, with a t-test value of 15.96, Sig. (2-tailed)/ p-value = 0.000 < α 0.05. This means that there is a significant influence between giving rose aromatherapy to reducing the intensity of labor pain in the 1st stage at PMB Umi Salamah in 2022.

SUGGESTION

Health workers can use aromatherapy as an alternative way of dealing with labor pain in the first stage of labor, providing adequate information to mothers about the delivery process so that mothers have proper preparations.

REFERENCES

1. Antia. (2019). *Modul Praktikum Terapi Komplementer*. Bekasi: Universitas Esa Unggul.
2. Bobak, I.M. (2014), Buku Ajar Keperawatan Maternitas Ed.4. Jakarta: EGC. 33-36
3. Dinas Kesehatan Provinsi Jawa Barat. (2021). *Profil Kesehatan Dinas Kesehatan Provinsi Jawa Barat 2019*. Bandung: Dinas Kesehatan Provinsi Jawa Barat.
4. Dinas Kesehatan Kabupaten Bekasi. (2019). Profil Kesehatan Kabupaten Bekasi Tahun 2019, Bekasi, Jawa Barat.
5. Farrer, H. (2015). Perawatan Maternitas, 2nd ed. Jakarta: EGC.
6. Handayani. (2018). Perbandingan Pengaruh Aromaterapi Mawar dan Massage Effleurage Terhadap Nyeri Persalinan Kala I Fase Aktif. *Jurnal Bidan "Midwife Journal," 4*(02), 66–72.
7. Judha, P. (2015). Teori Pengukuran Nyeri dan Nyeri Persalinan, Nuha Medika,

Yogyakarta, 35- 37.

8. Kemenkes R.I. (2019). Infodatin, Pusat Data dan Informasi, Kementerian Kesehatan RI, Jakarta, 87-89.

9. Kementerian Kesehatan RI. (2021). *Kemenkes. Profil Kesehatan Indonesia 2020*. Jakarta: Kementerian Kesehatan RI.

10. Lestari, A. M. (2020). *Pengaruh Pemberian Aromaterapi Mawar Terhadap Nyeri Persalinan Kala I di RSUD Sekayu tahun 2020*. Poltekes Palembang.

11. Mehta, P.P. (2014), Article Details Phytochemical and Pharmacological Aspects of Sandalwood, Complementary Therapies in Clinical Practice, 2014, 24 (3), 45-49. Mochtar, R., 2015, Sinopsis Obstetri Fisiolgi Patologi, Jakarta: EGC. 54-58.

12. Notoatmodjo, S. (2014). Metodologi Penelitian Kesehatan, Edisi Revisi, Rineka Cipta, Jakarta, 46-52.

13. Poerwadi. (2018). *Aromaterapi Sahabat Calon Ibu*. Jakarta: Dian Rakyat.

14. Potter dan Perry. (2015). Buku Ajar Fundamental Keperawatan Konsep, Proses, dan Praktik, Ed.4, EGC, Jakarta, 76-78.

15. Pramita, D. R. P., Rahmawati, R. S. N., & Antono, S. D. (2017). Perbedaan Intensitas Nyeri Tehnik Pemberian Kompres Air Hangat Dan Aroma Terapi Mawar Pada Ibu Bersalin Kala I Fase Aktif. *Jurnal Ilmu Kesehatan*, *6*(1), 90. https://doi.org/10.32831/jik.v6i1.159

16. Prawirohardjo. (2018). Ilmu Kebidanan. Yogyakarta: Yayasan Bina Pustaka. 46-48.

17. Prawirohardjo, S. (2015). Ilmu Kebidanan, 5th Ed. Jakarta: Yayasan Bina Pustaka Sarwono Prawirohardjo. 58-60.

18. Ridho, A. (2015). Keharuman Bunga Mawar Digunakan Untuk Menenangkan Pikiran Sebagai Aroma Terapi. Jakarta: Dian Rakyat. 33-35.

19. Sari, R., Maternity, D., & Rosmiyati, R. (2020). Pengaruh Pemberian Aroma Terapi Bunga Mawar terhadap Tingkat Nyeri. *Holistik Jurnal Kesehatan*, *14*(2), 271–275. https://doi.org/10.33024/hjk.v14i2.1820

20. Uysal, M. (2016). Investigating The Effect of Rose Essential Oil in Patients With Primary Dysmnorrhea, Complementary Therapies in Clinical Practice. 9 (4):

21. Varney. (2014). Buku Ajar Asuhan Kebidanan, Volume 1 Edisi 4. Jakarta: EGC. 38-39.

22. WHO. (2018). Trends in Maternal Mortality: 2010 to 2018, Estimates by WHO, UNICEF, UNFPA, The World Bank and the United Nations Population Division, II(7), 34-36.