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The Impact Of Lavender Aromatherapy Techniques And Endorphin Massage On Anxiety During The First Active Phase

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Abstract. Stress and an overabundance of catecholamine hormones released during labor can cause smooth muscle and uterine ischemia, which heightens pain impulses. A light touch or therapeutic massage stimulating the body to release endorphin compounds can relieve pain and comfort. This type of massage is known as endorphin massage. Linalool, a compound found in lavender aromatherapy, has calming and muscle-relaxing properties. This research project aims to ascertain "The Effectiveness of Lavender Aromatherapy and Endorphin Massage on Anxiety of Labor Pain in the First Active Phase in the Working Area UPTD Puskesmas Sukahaji." This study used a quasi-experimental design with pre-and post-test methods and a control group design carried out in the working area of UPTD Puskesmas Sukahaji. Purposive sampling was used to obtain samples. Purposive sampling was used to collect samples from 120 individuals. The Wilcoxon and Kruskal Wallis tests were used in the data analysis. The Wilcoxon test in bivariate analysis produced a pvalue of less than 0.005 for every intervention group. The endorphin massage group's mean rank for the anxiety variable was 57.08; the control group's was 45.17; the lavender aromatherapy group's was 72.53; and the combination group's was 67.22. In conclusion, the anxiety associated with labor pain was impacted by endorphin massage, lavender aromatherapy, and the combination of the two. The best treatment for lowering anxiety was lavender aromatherapy, and the best way to lessen the severity of labor pain was to combine lavender aromatherapy with endorphin massage. Recommendation: It is believed that aromatherapy with lavender and endorphin massage can be used as alternative ways to reduce anxiety and the intensity of labor pain.

Keywords: Endorphin massage, lavender aromatherapy, anxiety, labor

INTRODUCTION

The number of mothers who die during pregnancy, childbirth, and the postpartum period is known as the maternal mortality rate, and it is used as a gauge for the health of women. Among the global Sustainable Development Goals (SDGs) is the maternal mortality rate (MMR), which must be lowered to 70 per 100,000 live births by 2030. In 2020, approximately 287,000 women died both during and after pregnancy and childbirth, according to the WHO. (WHO, 2023)

In Indonesia, 90.9% of births took place in medical facilities in 2021 (Kemenkes RI, 2022). In West Java, the percentage of deliveries in medical facilities in 2022 was

95.2%. 42,712 (26.24%) of the 162,743 pregnant women who received treatment had delivery-related complications (West Java Health Office, 2023). According to information from the Majalengka Regency Health Office, all pregnant women gave birth in medical facilities in 2022; however, complications affected 4,558 of these women, and 2,462 (54.01%) of them occurred during childbirth. Preeclampsia, infection, and bleeding are among the complications that were encountered. UPTD Sukahaji Health Center is among the top 5 facilities for pregnant women's complications. Of the 415 expectant mothers, 70 (16%) had difficult deliveries. According to the Majalengka Health Office (2023), there was a rise in the number of pregnant women experiencing complications during childbirth from the previous year, with 92 individuals (22.6%) reporting such issues as of October 2023.

Almost all women who are about to give birth experience the most extraordinary kind of pain: childbirth pain. Each person will experience labor pain at a different intensity because it is a subjective experience of physical sensations. Pregnant women often experience high levels of anxiety, which can be traumatic for mothers due to the shadow of pain they have experienced and will continue to experience during childbirth (Rejeki, 2020).

In general, there are both pharmaceutical and non-pharmacological ways to lessen pain during childbirth. Nevertheless, using drugs frequently results in adverse effects, and occasionally the strength of the intended effect is not achieved. Anti-pain medications cause side effects such as headaches, nausea, cramping in the muscles, ringing in the ears, and sleep disturbances. These medications also slow down labor and delivery because they lessen pain, whereas during labor, pain is what speeds up the birth process. Additionally, there is the effect of painkillers on the unborn child, specifically their interference with breathing (Dwienda, Et. Al, 2015).

Touch therapy or light massage administered prior to or during labor is one of the most successful nonpharmacological ways to manage labor pain. This is carried out because massage encourages the body to release endorphins, which have the ability to reduce pain and induce feelings of comfort. Endorphins are produced naturally when the body engages in certain activities, like meditation, deep breathing, and relaxation. Endorphins are the most effective pain relievers because they are hormones that the body naturally produces (Faizah, 2016).

Aromatherapy is another non-pharmacological means of management. It uses essential oils made from fragrant plants to alleviate health issues and smells that calm the brain during childbirth, and it is thought to lessen the severity of pain (Rejeki, 2020).

Linalool, linalyl acetate, and 1,8-cincole, found in lavender (Lavendula augustfolia) aromatherapy, can ease or lessen muscle tension in those who experience spontaneous muscle spasms. Among all the aromatherapies, lavender has the highest concentration of linalool. Linalool (18–48%), rose (3–11%), jasmine (8–2%), and rosemary (1.16%) are found in lavender aromatherapy (Pratiwi & Subarnas, 2020). The inhalation of volatile lavender molecules into the nasal cavity facilitates the release of endorphins and serotonin, which are neurochemical substances that stimulate the hypothalamus and relieve muscle tension, induce physiological changes in the body, mind, and soul, and have a calming effect (Balkam, 2014).

Massage with endorphins not only lessens pain intensity but also lessens anxiety. The outcomes of earlier studies that demonstrated changes in anxiety levels following endorphin massage provide evidence for this. Mothers who are primigravidas in stage 1 typically experience severe anxiety. The grant endorphin massage results in a reduction of anxiety. This is consistent with the advantages of endorphin massage, which include reducing pain during childbirth and overcoming anxiety (Arianti & Restipa, 2019).

Aromatherapy administration has been shown to alleviate labor anxiety as well. The difference in mean (rata-rata) posttest maternal anxiety between the intervention and control groups was calculated to be 3.94 based on prior research. Test outcomes: Independent T-Test Given the significance value of 0.001 < 0.05, it can be inferred that the intervention group for maternity at the South Tangerang City Hospital in 2021 experienced a difference in maternal anxiety following the administration of lavender aromatherapy (Mirazanah et al., 2021).

LITERATURE

Definition of Anxiety

Anxiety is a state of worry, apprehension, and terror that is accompanied by physiological changes and unclear cues (tachycardia, sweating, tremors, etc.) (Badrya, 2014). Anxiety is a term used to characterize adverse effects and physiological stimuli that originates from the Latin word anxious and the German word angst (Muyasaroh, 2020). In (Muyasaroh, 2020), the American Psychological Association (APA) defined anxiety as an emotional state that results from stress and is marked by tension-inducing thoughts,

feelings of tension, and a bodily reaction (such as a racing heartbeat or elevated blood pressure).

Classification of Anxiety Levels

Feelings of helplessness and uncertainty are closely linked to anxiety. Anxiety comes in four different forms (Suliswati, 2014). that is:

- a. Moderate Fear is connected to the stress that one encounters on a daily basis. People's senses are still being sharpened because they are still aware and perceptive in general. It can inspire people to learn, develop their ability to solve problems successfully and inspire creativity.
- b. Mild Severe Fear. The perception field is narrowed; the person is only focused on his own thoughts, and he can still act on other people's instructions.
- c. Extreme Fear. Individual perception is extremely limited. He is unable to think of anything else because his attention is fixed on minute details. The goal of the entire behavior is to lessen anxiety, and it involves a lot of commands and guidance to concentrate on other things.
- d. Extremely serious anxiety. People start to lose their composure. They cannot even follow commands because of the loss of control. An increase in motor activity, a decrease in social skills, distortion of perception, and a loss of reason make it difficult to carry out daily tasks. Disorganization of the personality is typically present along with it.

Anxiety Gauge

The Hamilton Anxiety Rating Scale (HARS) is a tool used to measure anxiety levels. Anxiety scores can be calculated using this scale. Based on how symptoms manifest in people who experience anxiety, the HARS scale is a tool for measuring anxiety. The HARS scale lists 14 symptoms that are common in people who suffer from anxiety. Five score levels, ranging from 0 (nothing present) to 4 (severe), are assigned to each observed item. Max Hamilton developed the HARS scale in 1959, which has since been the industry standard for measuring anxiety. It has been demonstrated that the HARS scale, with scores of 0.93 and 0.97, has high validity and reliability for measuring anxiety. This circumstance demonstrates that the measurement.

In order to assess anxiety, the Hamilton Anxiety Rating Scale (HARS) has 14 items, which include:

- a. Anxiety-related symptoms include irritability, fear of one's own thoughts, anxiety, and poor premonitions.
- b. Tension: a tense, sluggish person who cannot sleep soundly and is prone to crying, trembling, and restlessness.
- c. Fear of the dark, strangers, being alone, big animals, throngs of people, and traffic.
- d. Sleep disorders include difficulty falling asleep, nighttime awakenings, achy, listless wakefulness, frequent dreams, and nightmares.
- e. Intelligence disorders: trouble focusing, lousy memory.
- f. Depressive symptoms include sadness, waking up early in the morning, loss of interest, and mood swings throughout the day.
- g. Somatic symptoms: twitching, stiffness, muscle soreness, clenched teeth, shaky voice.
- h. Symptoms of the senses: bleak vision, pale or red face, weakness, prickling sensation.
- i. Cardiovascular symptoms: palpitations, tachycardia, chest pain, hardened pulse, weakness, and disappearing or stopping heart rate.
- j. Symptoms related to the respiratory system: chest tightness or pressure, a sense of suffocation, and frequent episodes of dyspnea.
- k. Symptoms related to the digestive system include trouble swallowing, wrapping around the abdomen, pain before and after eating, a burning sensation in the stomach, a feeling of fullness or bloatedness, nausea, vomiting, loose stools, constipation, and weight loss.
- 1. Urogenic symptoms, such as amenorrhea, menorrhagia, inability to hold pee, and frequent urination.
- m. Autonomic symptoms: headache, dizziness, dry mouth, red face, sweating easily, and standing hairs.
- n. The interviewee's behavior included trembling fingers, frowning, tense facial muscles, increased muscle tone, shortness of breath, rapid breathing, and restlessness. (Badrya, 2014)

One method of measuring anxiety is to categorize and assign a score. 0 = if there are no complaints or symptoms

- 1 = Mild symptoms (if at least one of the current complaints or symptoms is present)
- 2 = Moderate symptoms (if the indicators identify 50% of the complaints/symptoms).
- 3= Severe symptoms, defined as more than 50% of all complaints or symptoms present.
- 4 = Extremely severe symptoms (assuming every symptom is present) (Badrya, 2014)

Calculating the level of anxiety by adding the scores from items 1 through 14 and reporting the results:

Less than 14 indicates no anxiety.

- a. 14–20 is considered mild anxiety.
- b. Anxiety level of 21 to 27 is moderate.
- c. Severe anxiety (score 28–41).
- d. Extremely severe anxiety is scored 42–56. (Badrya, 2014)

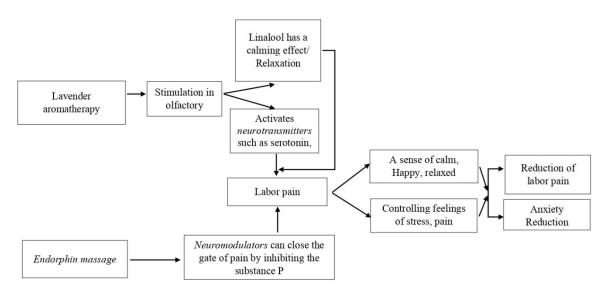


Figure 1 Thought Framework

METHOD

This is a quasi-experimental investigation with a pretest and posttest approach and a control bunch plan. Two bunches are arbitrarily chosen. Three bunches acted as the mediation gather, given the endorphin rub strategy, lavender fragrance-based treatment, and a combination of the endorphin knead strategy and lavender fragrance-based treatment. The other group acted as the control group, not given the mediation. Then, a pretest was conducted on both bunches, followed by intercession in each gathering. After that, a posttest was carried out on the two bunches. The frame of this plan can be depicted as follows:

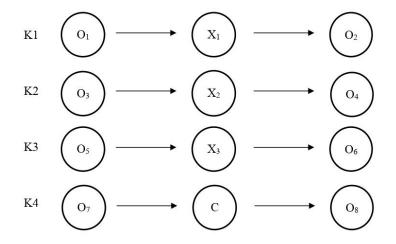


Figure 2 Research Design

Information:

01, 03, 05, 07:	Measure the	anxiety	level	and	intensity	of	labor	pain	before	the
	intervention is	given.								

O2, O4, O6, O8: Measurement of anxiety level and intensity of labor pain after the

intervention

K1: Intervention group *endorphin massage*K2: Lavender aromatherapy intervention group

K3: Combination intervention group endorphin massage and lavender

aromatherapy

K4: Control group

X1 Speaker endorphin massage to the maternity mother. The opening is 4-7

cm and inclined, sitting / according to the mother's comfort.

X2: Lavender aromatherapy intervention for 15 minutes to 4-7 cm opening

maternity with inhalation lavender aromatherapy using *broadcast*.

X3: Speaker *endorphin massage* To the maternity mother, the opening is 4-7

cm with an inclined position, sitting/according to the mother's comfort, combined with administering lavender aromatherapy by inhalation using

broadcast.

C: Standard care services for mothers in normal childbirth

DISCUSSION

Impact of endorphin knead strategy on uneasiness in pregnant ladies amid the primary dynamic stage.

Based on Table 1, maternal uneasiness within the gather with endorphin rub intercession was gotten sometime recently, with a mediation of 23.50, a least uneasiness score of 15, and a most excellent uneasiness score of 31. The middle after the intercession was 23.00, with a least uneasiness score of 15, a most excellent anxiety score of 27, and a p-value of 0.014. It appears that endorphin rub has an effect on uneasiness in pregnant

ladies amid the primary dynamic stage within the UPTD Sukahaji Wellbeing Center Working Region.

Table 1
Distribution of Difference Tests Between Before and After Administering
Endorphin Massage Methods, Lavender Aromatherapy, and a Combination of
Endorphin Massage and Lavender Aromatherapy Methods

Variable		X1	p	X2	p	X3	p	C	p
		(n=30)		(n=30)		(n=30		(n=30	
Emergency	Median	23,50		25,00		25,00		25,50	
(pre)	Min-	15-31		22-35		21-30		22-30	
	Max								
	SD	4,870	0,014	2,998	0,000	3,231	0,000	2,876	0,930
Emergency	Median	23,00	*	22,00	*	23,50	*	25,00	*
(post)	Min-	15-27		19-28		20-27		20-30	
	Max								
	SD	3,836		2,644		2,733		2,351	

Description: X1 : *Endorphin massage*; X2 : Lavender aromatherapy; X3 : Combination; C: Control; *UJi *Wilcoxon*

This study is in line with the research that states that the 34 respondents studied have a median of 20.50 and a min-max value of 7-27. In addition, the scale of respondents' anxiety after being given the intervention *Endorphin massage*, namely from 34 respondents, had a median of 11.50 and a min-max value of 4-19. Statistical test results *Wilcoxon* obtained a p-value of 0.000 (*p-value* <0.05), which means that there is an effect of the intervention *endorphin massage* on the anxiety of pregnant women in the third trimester (Juvita, 2020).

The results of this study are also under the research entitled "The Influence of Endorphine Massage Regarding the Anxiety Level of Primigravida Mothers in Period 1 in the Working Area of the Dadok Tunggal Hitam Health Center, Padang City," which stated that there was a change in the level of anxiety after being given endorphins *massage*. Based on the t-test that has been carried out, a significant score was obtained, a p-value of 0.003 (p<0.05), so the hypothesis in this study was accepted. This means that there is a significant level of anxiety before and after being given *massage endorphins*. (Arianti & Restipa, 2019).

Benefit *endorphin massage*, Namely overcoming anxiety and reducing pain during childbirth using non-pharmacological management. *Endorphine massage: It is a touch therapy or light massage given to pregnant women* during childbirth. The endorphin

massage technique helps provide a sense of calm and comfort when approaching labor and during the delivery process. *Endorphins are* substances in the body that benefit from a combination of endogenous and morphine, where substances are protein elements produced by the body's cells and human nerves. Hi, this causes touch *massage* can stimulate the body to release compounds *endorphin*, which is a pain reliever and provides a sense of comfort (Aprillia, 2011) in Arianti & Restipa (2019).

Researchers assume *that endorphin massage* can provide a sense of comfort so that anxiety decreases. The existence of good cooperation between husbands/companions and interaction with officers can make maternity mothers feel relaxed and comfortable facing childbirth. Maternity mothers feel more noticed by the gentle touch through *endorphin massage* so that it can increase confidence and reduce anxiety.

Effect of lavender aromatherapy on anxiety in pregnant women

Based on Table 1, it can be seen that maternal anxiety in the group with lavender aromatherapy intervention was obtained median before the intervention of 25.00 with a minimum anxiety score of 22 and a maximum anxiety score of 35. The median after the intervention was 22.00, with a minimum anxiety score of 19, a maximum anxiety score of 28, and a *p-value* of 0.000. This shows that there is an effect of lavender aromatherapy on anxiety in pregnant women during the first active phase. This research aligns with the study "The Effect of Lavender Aromatherapy on Maternal Anxiety" conducted at the South Tangerang City Hospital. The test results are different using a *paired sample t-test, which* has a significant value of 0.000 (< 0.05), meaning that there is a difference in maternal anxiety before and after lavender aromatherapy. (Mirazanah, Carolin & Dinengsih, 2021).

Aromatherapy is one of the alternative treatments that uses volatile plant liquid materials, known as essential oils and aromatic compounds, that can affect a person's psyche, emotions, cognitive function, and health. Lavender flowers used as aromatherapy contain linalool. Linalool is the main active ingredient that plays a role in anti-anxiety (relaxation) (Nurgiwiati, 2015).

Lavender essential oil's inhalation or absorption triggers changes in the limbic system, the brain's part associated with memory and emotions. It can stimulate the physiological response of the nerves and endocrine or immune systems, which affects heart rate, blood pressure, respiration, brainwave activity, and the release of various hormones throughout the body. Its effects on the brain can make it calm. (Andriani, 2023)

Researchers assume that the effect of lavender aromatherapy on maternal anxiety is caused by the beginning of the evaporation process of the aromatherapy, which is then inhaled by the maternity mother and absorbed by the body through the nose and lungs into the bloodstream. When the aroma of lavender essential oil is inhaled, the body will provide a psychological response where the body becomes comfortable, pain and tension are reduced, and anxiety in the face of childbirth is also reduced.

Effect of a combination of *endorphin massage* and lavender aromatherapy methods on anxiety in pregnant women during the first active phase

Based on Table 1, it can be seen that maternal anxiety in the intervention group, combining endorphin massage and lavender aromatherapy, was obtained with median anxiety before the intervention of 25.00, with a minimum anxiety score of 21 and a maximum anxiety of 30. and a median after the intervention of 23.50, with an anxiety score of at least 20 a maximum anxiety of 27, and a *P value* of 0.000. This shows that there is an effect of giving a combination of *endorphin massage* and lavender aromatherapy methods on anxiety in pregnant women during the first active phase in the UPTD Sukahaji Health Center Working Area.

This study is in line with the results of a study entitled "Effectiveness of Endorphine Mass and Lavender Aromatherapy on Anxiety in Postpartum Primipara Mothers," which stated anxiety before giving *endorphine massage* and lavender aromatherapy, which is a mean value of 66.50 and a median value of 69.50. The anxiety after being given had a mean value of 52.06 and a median value of 54.00. It is known that the *p-value* 0.000 (<0.05) indicates that there is a difference in anxiety before and after the administration of *endorphin massage* and lavender aromatherapy (Buanasari & Mayangsari, 2022).

Endorphin massage, in the form of a touch or gentle massage, done on the maternity mother, will cause a sense of relaxation and calmness; with the touch or massage, the tense, nervous system will become more relaxed, which makes it possible to reduce the anxiety felt by the mother so that the perception of pain can be further reduced. (Sanjay, Pujianto & Wasthu, 2014).

Lavender aromatherapy is widely used today, either during inhalation or with skin massage. Aromatherapy, used through inhalation or inhalation, will enter the limbic system or the inner structure of the brain; this system is the center of pain, joy, anger, fear,

depression, and other emotions. The sense of smell is crucial in our ability to survive and improve our quality of life. Smells can also provide a relaxing effect. (Widayani, 2016)Sugarman added that lavender aromatherapy has a refreshing aroma, which can relieve stress, reduce headaches and migraines, accelerate wound healing, and reduce pain levels. (Sagita, 2019).

Kristanti (2015) explained that lavender molecules and particles, when inhaled, enter through the nose, are received by nerve receptors as a good signal, and are interpreted as a pleasant smell. Finally, the sense of smell enters and affects the limbic system, which is the center of a person's emotions, so that the nerves and blood vessels of the feeling are more relaxed, and finally, the pain is reduced. (Widayani, 2016).

Based on the results of other researchers' research and the support of the theories that have been discussed, researchers argue that combining endorphin massage and lavender aromatherapy into one method that combines the touch or light massage and the fragrance smell of lavender aromatherapy will be more effective in reducing childbirth.

The most effective method for anxiety in pregnant women during the first active phase

Based on Table 2, the results of the differential test of anxiety variables using the Kruskal Wallis test showed a p-value of 0.011, meaning that there was a difference in the influence of the endorphin massage method, lavender aromatherapy and the combination of endorphin massage and lavender aromatherapy on anxiety.

Table 2
Intergroup Difference Test for *Endorphin Massage*, Lavender Aromatherapy, and Combination of *Endorphin Massage* and Lavender Aromatherapy Methods

,	Variable	Endorphin Massage (n= 30)	Lavender Aromatherapy (n= 30)	Combination (n=30)	Control (n=30)	p-value
Anxiety	Median	1,00	3,00	2	0	0,011*
	Min-Max SD	-8-7	0-11	0-5	-6-5	
		3,114	2,639	1,729	3,357	

^{*}Kruskal Wallis Test

Based on Table 2, it is known that the results of the differential test of anxiety variables using the Kruskal Wallis test showed a *p-value* of 0.011, meaning that there was a difference in the influence of the *endorphin massage* method, lavender aromatherapy, and the combination of *endorphin massage* method and lavender aromatherapy method on

anxiety. The results of the differential test of the variable of labor pain intensity using the Kruskal Wallis test showed *a p-value* of 0.000, meaning that there was a difference in the effect of the administration *of endorphin massage* methods, lavender aromatherapy and the combination *of endorphin massage* and lavender aromatherapy methods on the intensity of maternal pain.

Table 3
Intergroup Difference Test for *Endorphin Massage*, Lavender
Aromatherapy, and Combination of *Endorphin Massage* and Lavender
Aromatherapy Methods

Intervention Groups	n	Mean Rank	p value
Anxiety			
Endorphin Massage	30	57,08	0,011
Lavender Aromatherapy	30	72,53	
Combination of	30	67,22	
Endorphin Massage and			
Lavender Aromatherapy			
Control	30	45,17	
Total	120		

Based on Table 3, a Mean Rank test was carried out to determine the most effective method. The anxiety variable for the endorphin massage group was 57.08, lavender aromatherapy was 72.53, the combination of the endorphin massage and lavender aromatherapy method was 67.22, and the control was 45.17. The administration of lavender aromatherapy received the highest score, so it can be concluded that it is the most effective method for alleviating anxiety in pregnant women during the first active phase.

The main ingredient in lavender oil is linalool acetate, which can relax the working system of nerve veins and tense muscles. In addition, a few drops of lavender oil can help overcome insomnia, improve a person's mood, lower anxiety levels, increase alertness, and provide a relaxing effect. (Mirazanah, Carolin & Dinengsih, 2021)

The positive impact of aromatherapy on reducing anxiety levels is because lavender aromatherapy is administered directly (inhalation). The mechanism through smell is much faster than other routes in dealing with emotional problems such as stress and anxiety, including headaches, because the nose/smell has direct contact with the parts of the brain responsible for stimulating the formation of the effects caused by lavender aromatherapy. (Arwani, Sriningsih & Hartono, 2013).

Inhaled lavender aromatherapy will lower the essential molecules in the oil, causing them to move to the roof of the nose. On the roof of the nose, fine hairs (cilia) protrude from the receptor cells into the nasal passages. When the oil molecules lock on these hairs, an electromagnetic (implus) message is transmitted through the olfactory bulb and olfactory tract into the brain to calm or stimulate the nervous system and help normalize hormone secretion. The administration of lavender aromatherapy by inhalation is beneficial in providing calmness, relaxation, anxiety, and a sense of comfort, as well as reducing stress and labor pain in the first trimester. (Siska, 2014)

Inhaled lavender aromatherapy will lower the essential molecules in the oil, causing them to move to the roof of the nose. On the roof of the nose, fine hairs (cilia) protrude from the receptor cells into the nasal passages. When the oil molecules lock onto these feathers, an electromagnetic message (plus) is transmitted into the clinical system through the olfactory bulb and the olfactory tract. This process triggers a memory and emotional response through the hypothalamus, which acts as a transmitter and regulator, causing the message to be sent to other parts of the brain and other bodies. The message received will be converted into work so that there is a release of neurochemical substances that are euphoric, relaxant, sedative, or stimulant according to their needs so that it can reduce maternal anxiety. (Andriani, 2023)

CONCLUSION

- **1.** There is an effect of the *endorphin massage method* on anxiety in pregnant women during the first active phase in the Working Area of the UPTD Sukahaji Health Center.
- 2. There is an effect of lavender aromatherapy on anxiety in pregnant women during the first active phase in the UPTD Sukahaji Health Center Working Area.
- **3.** There was an effect of giving a combination of *endorphin massage* and lavender aromatherapy methods on anxiety in pregnant women during the first active phase in the UPTD Sukahaji Health Center Working Area.
- **4.** Lavender aromatherapy is most effective in reducing anxiety in pregnant women during the first active phase in the Working Area of UPTD Sukahaji Health Center.

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