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**Touch Therapy Or Light Massage That Stimulates The Body To Release Endorphine Compounds (Endorphine Massage) For Labor In Mothers In Active Phase Of In-Partu With Pain In The First And Second Periods**Amelia Darwis¹, Syahridayanti², Cici Pratiwi³, Sri Wahyuni⁴¹Midwifery Study Program, Kurnia Jaya Persada Health and Business Institute, Indonesia²Midwifery Study Program, Universitas Cokroaminoto Makassar, Indonesia³Nursing Study Program, Kamus Arunika College of Health Sciences⁴Midwifery Study Program, Sandi Karsa Polytechnic Makassar, Indonesia**Abstract**

The importance of Endorphin Massage lies in its ability to address various aspects of labor. The purpose of this study was to find the effect of endorphin massage on pain in the first and second stages of active labor in inpartu mothers at the Palopo Health Center. The method used was a Quasy Experiment with a Nonequivalent Control Group Design, which is a type of research that observes population data or samples only once at the same time. The population in this study were all mothers who gave birth normally and the sample in this study was some of the mothers who gave birth at the Palopo Health Center as many as 8 people, of which 4 people were given Endorphin massage and 4 people were not given Endorphine massage with this research sampling carried out in a way Purposive Sampling And use Independent test Sample Test. The results of the study showed that the difference in average pain intensity in the pre-test and post-test in pregnant women was 1.137 with a p-value of 0.000 (<0.05) meaning that there was a difference in average pain intensity before and after being given endorphin massage treatment for 3 consecutive days. The conclusion is that endorphin massage is not painful and prevents the sensation of pain from traveling to the central nervous system. Therefore, stimulation is carried out in a harmless way and is able to suppress pain.

Keyword: Touch Therapy, Body Trust, Endorphin Compounds (Endorphin Massage), Labor, Mother In Active Phase Of In-Part, Pain, First And Second Periods

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1. Introduction

Endorphins are known as substances that have many benefits. Some of them are regulating the production of growth and sex hormones, controlling pain and persistent pain, controlling feelings of stress, and improving the immune system. The emergence of endorphins in the body can be triggered through various activities, such as deep breathing and relaxation, spicy foods, or undergoing acupuncture, alternative medicine and meditation (Aprilia, 2010).

Endorphins are believed to be able to produce 4 keys for the body and mind, namely increasing the immune system or immunity, reducing pain, reducing stress, and slowing the aging process. Scientists have also found that beta-endorphins can activate NK (Natural Killer) cells in the human body and encourage the immune system to fight cancer cells. This endorphin massage technique is used to reduce feelings of discomfort and increase relaxation that triggers feelings of comfort through the surface of the skin (Aprilia, 2010).

Endorphin Massage is a technique that is gaining increasing attention in the world of maternity care. This technique focuses on using massage to stimulate the production of endorphins, natural hormones known for their ability to reduce pain and increase feelings of well-being. By applying Endorphin Massage effectively, health workers can help mothers in labor feel calmer and more in control during the labor process.

The importance of Endorphin Massage lies in its ability to address various aspects of labor. In research and clinical practice, this technique has been shown to be effective in reducing pain intensity and lowering anxiety levels. This massage works by influencing the central nervous system, which in turn can change the perception of pain and improve the mother's emotional well-being.

Integrating Endorphin Massage into maternity care provides not only physical but also psychological benefits. With this technique, mothers in labor can experience a greater sense of comfort, which helps them to better cope with the challenges of labor. The presence of this support is very important, because feelings of comfort can affect the mother's ability to actively participate in the labor process and make better decisions. An obstetrician, Constance Palinsky, was moved to use endorphins to reduce or lighten labor for a mother who will give birth to.





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Endorphin Massage was created, which is a light touch and massage technique, which can normalize heart rate and blood pressure, and increase the relaxed condition in the pregnant mother's body by triggering a feeling of comfort through the skin's surface. Proven by research results, this technique can increase the release of oxytocin, a labor hormone (Gavi. 2016).

Ways to increase endorphin hormones naturally include:

- a) Exercise regularly.
- b) Do yoga and meditation.
- c) Inhale aromatherapy.
- d) Eating dark chocolate.
- e) Have a massage session.
- f) Bask in the sun.

The instrument uses a numerical rating scale (NRS). The intervention group was given an endorphin massage for 20-30 minutes once a week for 4 weeks, while the control group was not given an endorphin massage either during or after the study.

The condition of pain continues because the pregnancy is getting bigger, the mother's posture changes as an adjustment to the increasingly heavy uterus, so it will also increase the degree of lordosis so that the mother often complains of back pain (Herawati, 2017). Other responses felt by the mother such as difficulty in mobility that inhibits activity and insomnia that causes fatigue and irritability (Robson & Jason, 2012).

According to Ratnasari, NMD, Ratna, W & Judha, M (2013) pain is an unpleasant sensory and emotional experience resulting from actual or potential tissue damage. Pain arises as a form of sensory response after receiving pain stimulation. The mechanism of pain is due to the release of pain mediators such as leukotrienes, prostaglandin E2, and histamine which will stimulate nociceptors (pain receptors) causing pain (Bahrudin, 2017).

Giving endorphin massage can also provide a relaxing and sleepy effect on mothers giving birth in the first active phase, this is in accordance with research conducted (Rohma & Rejeki, 2023).

2. Research Methods

This research method uses a quantitative experimental approach. The research





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design used in this study is “Nonequivalent Control Group Design”. This type of research uses two experimental groups with a comparison group, starting with an initial test (pretest). Sampling in this study was carried out using Purposive Sampling, a sampling technique that limits the population based on variables determined by the researcher in February 2023. The population in this study were all primigravida mothers who entered the active phase I and then mothers who met the criteria would be included as research subjects. The number of samples used was 8 people and would be divided into treatment groups.

3. Results And Discussion

a. Results

Table 1
Pain Intensity Pre-test and Post-test Kala I and II
Active Phase of Labor

| Painful Stage I and II Active Phase of Labor | N | Mean | SD | P Value |
|---|----|------|-------|------------|
| Pre-test | 17 | 6.08 | 1,605 | 0,000 |
| Post-test | 17 | 4.94 | 1,435 | |

Based on table 1 above, it is known that the difference in the average intensity of pain in the pre-test and post-test in pregnant women is 1.137 with a p-value of 0.000 (<0.05) meaning that there is a difference in the average intensity of back pain before and after being given endorphin massage treatment for 3 consecutive days. Thus, it can be concluded that endorphin massage therapy is effective in reducing the intensity of back pain in pregnant women in the work area of the health center in Palopo.

b. Discussion

The results of the study showed that Based on table 1 above, it is known that the difference in the average pain intensity in the pre-test and post-test in pregnant women is 1.137 with a p-value of 0.000 (<0.05) meaning that there is a difference in the average pain intensity before and after being given endorphin massage treatment for 3 consecutive days. Thus, it can be concluded that endorphin massage therapy is effective in reducing the intensity of back pain in pregnant women in the work area of the health center in Palopo.

According to research by Mafikasari and Kartikasari (2015), some efforts to





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prevent back pain in pregnant women are maintaining body weight, not wearing high heels, trying not to stand for long, a comfortable sleeping position assisted by a bolster, avoiding excessive bending, taking various sports classes and doing simple movements. The results of previous research by Istianti (2017) to reduce pain can use non-pharmacological methods such as distraction can reduce back pain by 5%, relaxation techniques by 5%, transcutaneous electrical nerve stimulation (TENS) by 20%, hypnosis by 10%, and endorphin massage can reduce back pain by 60% (Puspasari, 2019).

The results of this study are in line with those conducted by Endang, Nurasih and Rizki (2013), regarding the Effect of Combination of Zilgrei Method and Endorphin Massage on Primigravida Inpartu Mothers on the Duration of the First Stage, the P value (0.001) was obtained which was smaller than the value (α 0.05), so H_0 was rejected with an average duration of the active phase of the first stage being 213 minutes. The fastest duration of the active phase of the first stage was 58 minutes. From the results of the interval estimation, it was concluded that 95% believed that the average duration of the active phase of the first stage in primigravida inpartu mothers was between 178.12 and 248.59 minutes. This shows that there is an effect between the administration of the zilgrei method and endorphin massage to primigravida inpartu mothers on the intensity of labor pain in the active phase of the first stage. The results of Endang et al's research are the same as the results of research conducted by researchers that actions to make mothers feel calm, comfortable and relaxed and produce endorphin hormones that can stimulate the parasympathetic nerves to convey commands to the back of the brain so that oxytocin is secreted can shorten the duration of the active phase I in mothers in labor.

4. Conclusion

Based on results study Which done so can concluded as following:

- 1) The results of the study showed that Based on table 1 above, it is known that the difference in the average intensity of pain in the pre-test and post-test in pregnant women is 1.137 with a p-value of 0.000 (<0.05) meaning that there is a difference in the average intensity of back pain before and after being given endorphin massage





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treatment for 3 consecutive days. Thus, it can be concluded that endorphin massage therapy is effective in reducing the intensity of back pain in pregnant women in the work area of the health center in Palopo.

- 2) Physiological effects affect endorphin massage on blood circulation in the deepest part of the tissue and in the muscles, which is safe, easy, free of charge, without side effects, and can be done with the help of others. When the body massage releases endorphin compounds as a natural body pain reliever and also makes a feeling of comfort. This is supported by previous studies, namely the theory of pain states that endorphin massage is not painful, namely preventing the sensation of pain from traveling to the central nervous system. Therefore, stimulation is done in a way that is not harmful to enter and is able to suppress pain.

5. Compliance with ethical standards

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Disclosure of conflict of interest

This research collaboration is a positive thing for all researchers so that conflicts, problems and others are absolutely no problem for all writers.

Statement of informed consent

Every action we take as authors is a mutual agreement or consent.

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