



The Effect of the Massage Method on Labor Pain in the First Active Phase in Maternity Mothers at the Sally Maternity Clinic

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Article Info

Article history:

Received 12 Feb, 2026

Revised 29 Mar, 2026

Accepted 20 Apr, 2026

Keywords:

Massage method, labor pain, phase I, active phase

ABSTRACT

Childbirth is a process of opening and thinning the cervix and uterine contractions occur, causing pain in the delivery process. Labor pain management can be applied non-pharmacologically, one of which is massage that aims to release endorphin compounds so as to reduce pain, reduce anxiety and meaningfully shorten labor time. The purpose of this study is to identify the effect of the massage method on labor pain during the first active phase. The research design used in this study is a quasy-experiment which is two group pretest-posttest. The number of samples in this study was 38 people, of which 19 were intervention groups and 19 control groups, with simple random sampling techniques. The data analysis used was t-dependent and t-independent tests. The results of the study obtained the characteristics of the intervention group respondents, most of the respondents aged 24-29 years (42.1%), parity >2 children) as many as 8 people (42.1%), and the level of education was high school as many as 14 people (73.7%). Meanwhile, in the control group, most respondents aged 24-29 years were 7 people (36.8%), parity >2 children were 9 people (47.4%), and high school education level was 18 people (94.7%). The pain intensity in the intervention group before the intervention group averaged 7.26 and after the average was 4.74, while in the control group before the intervention group averaged 7.00 and after the average was 6.16. The results of the t-dependent test of pain intensity before and after the massage in the intervention group were obtained a value of $P=0.000$ and in the control group before and after the massage was obtained. The results of the independent t-test can be concluded that there is a significant difference after the mass method is carried out in the intervention group, namely the value of $P=0.001$. From the results of this study, it is known that there is an effect of the massage method on reducing the intensity of labor pain during the first active phase in inpartu mothers. Therefore, it is recommended that midwives apply the massage method as an intervention to reduce pain in the care of normal mothers.

INTRODUCTION

A healthy Indonesia is a description of Indonesia's condition in the future, namely a society, nation, and country characterized by its population living in an environment with healthy living behaviors, having the ability to reach quality health services fairly and equitably, and achieving the highest degree of health in all areas of the Unitary State of the Republic of Indonesia. Improving a fair and equitable degree of health requires a responsive and effective attitude in carrying out an action to provide comfort and avoid risks that will occur such as the risk of pregnancy and childbirth. Childbirth is a physiological thing for all women in the world, even though most mothers feel tense, scared and painful facing the childbirth process.

Childbirth is a process of opening and thinning the cervix and uterine contractions occur, causing pain in the delivery process. The study conducted by Niven and Gijsbers (1984) aimed to see the comparison of the intensity of labor pain with other pains obtained the result that labor pain exceeded other pain syndromes such as, 88% of 73 leg pain sufferers received pharmacological interventions, 76% of the samples ($n=200$) experienced back pain during pregnancy with a peak incidence at 24-28 weeks gestational age that interfered with the normal activities of the mother, then pain must be given an intervention in pain control methods for the comfort and relief of the sufferer (Mander R., 2023, p. 140).

Pain is a natural process in childbirth. If not treated properly, it will cause other problems, namely increased anxiety due to lack of knowledge and no experience in primigravida mothers when facing childbirth so that the production of adrenaline hormone increases and results in vasoconstriction which causes the mother's blood flow to the fetus to decrease. The fetus will experience hypoxia while the mother will experience a long labor and can increase systolic and diastolic pressure.

The WHO Department of Making Pregnancy Safer (MPS) basically emphasizes the provision of skilled maternal and neonatal health services to significantly reduce infant mortality and maternal mortality by 2035 through early detection, antenatal care, good management of childbirth and postpartum (WHO, 2010, ¶ 1). In primitive societies, childbirth is longer and painful, while in advanced societies, 7-14% give birth without pain and most (90%) childbirth is accompanied by pain (Prawirohardjo, S., 2015).

Labor pain management can be applied non-pharmacologically and pharmacologically. The approach is non-pharmacological without the use of drugs such as relaxation, massage, acupressure, acupuncture, hot or cold compresses and aromatherapy, while pharmacologically through the use of drugs. Non-pharmacological pain management is safer, simpler and does not cause adverse effects and refers to the mother's loving care compared to pharmacological methods which have the potential to have adverse effects.

The body has natural pain relievers, namely endorphins. Endorphins can be obtained by massaging (Nolan, 2023). Massage is applying hand pressure to soft tissues without causing movement or a change in joint position to relieve pain. Only 19.3% of women get massage for pain relief and only 5% of midwives report using this method for women individually. This inconsistency is in contrast to the administration of drugs such as petidin, which was reported 37.8% by midwives (Mander, R., 2023, p. 163).

In childbirth, massage helps mothers to be more relaxed and comfortable during childbirth. Mothers who are massaged for 20 minutes every hour during the delivery stage carried out by health workers, the patient's family or the patient herself will be more pain-free, because the massage stimulates the body to release endorphin compounds. Many parts of the body of the maternal mother can be massaged, such as the head, neck, back and legs. When massaging, the masseuse must pay attention to the mother's response whether the pressure applied is appropriate (Meiliasari, M., and Danuatmaja, B., 2019, p. 67).

METHOD

The design of a quasi-experimental study is two groups pretest-posttest, namely the control group and intervention to identify the effect of the massage method on labor pain during the active phase I in inparting mothers before and after the massage. The sampling technique uses a simple random sampling approach, namely simple random sampling. The sample was assigned as many as 55 respondents which were divided into 2 groups, namely the control and intervention groups. However, after the February-April 2025 research was carried out, 38 respondents were obtained in accordance with the criteria, namely 19 people in the control group and 19 people in the intervention group.

RESULTS

From the results of the t-dependent and t-independent statistical tests, it was concluded that there was a significant effect on the reduction of labor pain during the first active phase before and after the mass method was carried out in the intervention group and the control group.

A study said that mothers who are massaged for 20 minutes every hour during the delivery stage will be more pain-free. This is because massage stimulates the body to release endorphin compounds that can relieve pain naturally so that it is more comfortable (Meiliasari, M., & Danuatmaja, B., 2024). According to Simkin (1989), it is recommended during childbirth that massage is done continuously, because the pain tends to increase if the massage is stopped. This happens because the nervous system becomes accustomed to the stimulus and the sense organs stop responding to the pain (Jones, K., & Henderson, C., 2015).

From the description above, the research hypothesis can be answered that the massage method has an effect on reducing pain intensity in the first phase of labor in the active phase and there is a difference in the reduction in pain intensity felt before and after massage in the intervention and control groups as well as significant differences after massage in the two groups.

CONCLUSION

The results of the t-dependent statistical test of the intervention group with a value of $p=0.000$ and the control group with a value of $p=0.007$, while the t-independent was obtained with a p value of 0.001 , so it can be concluded that there is a significant influence of the massage method on the reduction of labor pain in inparted mothers during the first active phase.

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