Title	Writer
The Effect of Counterpressure Massage Techniques on Reducing Labor Pain in Inpartu Mothers in the First Active Phase at Rundeng Health Center, Rundeng District, Subulussalam City, Aceh Province in 2024	**Dina Safrida** e-mail:dinasafrida6@gmail.com **Yasrida Nadeak** e-mail:yasrida.nadeak@gmail.com Mitra Husada Health College

Abstract.
Labor according to WHO is labor that begins spontaneously, is low risk at the beginning of labor and remains so throughout the labor process, the baby is born spontaneously in the back of the head presentation at 37-42 weeks of gestation and after labor and after labor the mother and baby are in healthy condition. Labor can also be physiological and pathological. This study aims to determine the effect of counter pressure massage techniques in reducing labor pain in mothers in the first active phase of labor at the Rundeng Health Center, Subulussalam City. This study used a Quasi-experimental research method with a pretest and posttest control group design. The population in this study were all mothers in the first active phase of labor at the Rundeng Health Center, Subulussalam City, totaling 32 mothers. The sampling technique was total sampling. The conclusion of the study on the influence of massage techniques to reduce labor pain at the Rundeng Health Center in Subulussalam City, the level of labor pain before counter pressure massage was performed, all respondents experienced severe pain, the level of labor pain after counter pressure massage, the majority of respondents experienced moderate pain, there was an influence of giving massage techniques to reduce labor pain in mothers in labor in the first stage of the active phase.

Keywords: Counter pressure, Labor pain

I. INTRODUCTION

Labor according to WHO is a labor that begins spontaneously, is low risk at the beginning of labor and remains so throughout the labor process, the baby is born spontaneously in the presentation of the back of the head at a gestational age of 37-42 weeks complete and after labor and after labor the mother and baby are in healthy condition. Labor can also be physiological and pathological.

Delivery assistance is a delivery service process that begins in the first stage to the fourth stage of labor. The achievement of maternal health efforts is measured through the percentage indicator of deliveries assisted by trained health workers (Ministry of Health of the Republic of Indonesia 2015). In 2013 in Indonesia, there were 68.6% of mothers giving birth normally assisted by midwives. (Riskesdas 2019).

In Aceh Province, the coverage of childbirth assisted by health workers showed a tendency to slow down, namely from 86.73% increasing by only about 0.5% to 87.28% (Indonesian Ministry of Health 2014). Riskesdas 2013 said that the number of mothers giving birth assisted by doctors was as much as 18.5%. Caesarean section births in Indonesia in 2013 were 9.8%. There is a proportion of caesarean births from births according to Province, there is a proportion of DKI occupying the highest position with a total of

19.9%, while Southeast Sulawesi occupies the lowest position with a total of 3.3%, and in North Sumatra it is ranked 27th out of all provinces in Indonesia with a total of 12%.

Based on the Indonesian Health Democracy Survey (SDKI 2010), it was recorded that the number of Caesarean section deliveries nationally was approximately 15.3% of the total number of deliveries. In general in Indonesia, the number of caesarean deliveries in state hospitals is 25% of the total number of deliveries, while in private hospitals the number is very high at 30-80%.

In March 2012 at the 45 Kuningan Regional General Hospital, both government and private hospitals, there were 106 mothers who gave birth, about 75% of the 106 deliveries were carried out normally (pervaginam). The other 20% were carried out by Secio Caesarea, with an indication of 5%, the rest were carried out at the request of the mother herself due to Labor Pain.

From the results of a survey conducted at the Subulussalam City Hospital in 2022, it was found that a number of mothers gave birth by cesarean section in 2023, namely 424 (1.721%) out of 730 deliveries. There are indications of childbirth in government hospitals and private hospitals in the city of Subulussalam, that in government and private hospitals medical indications reached 69.3% and non-medical indications 29.1% in 2007. In 2012 in government and private hospitals for medical indications 30.7%, and non-medical 70.9%. From the data above, deliveries carried out by CS on the basis of non-indications are more than those on the basis of indications.

Factors that influence mothers to choose cesarean delivery without medical indications are based on husband and wife agreement 86.4%, knowledge 81.8%, social factors 72.7%, trust 54.5%, economic factors 36.4%, work 18.2%, and anxiety about labor pain 59.1%.

II. LITERATURE REVIEW

Basic Concepts of Childbirth
Definition of labor
Childbirth is a process of expelling the results of conception that can live from the uterus through the vagina to the outside world (Prawiro-Hardjo 2007). While normal childbirth is the process of expelling the fetus that occurs in a full-term pregnancy (37-42 weeks) born spontaneously with a posterior presentation of the head that takes place within 18 hours, without complications for the mother or fetus (Wiknjosastro in Prawihardjo, 2005, by Alih et al., in the book of midwifery care for childbirth 2014).
Stages of labor

Time I
In the first stage of labor, the labor process begins, which is marked by regular, adequate contractions, which cause changes in the cervix until it reaches full dilation.

Period II
Symptoms and signs of the second period, complete opening has occurred, the fetal head is visible through the vaginal opening, there is a feeling of wanting to push during contractions, there is pressure on the rectum or vagina, the perineum looks protruding, the vulva opens =, increased mucus and blood discharge. Starting from the opening

complete (10 cm) until the baby is born. This process usually lasts 2 hours in primi and 1 hour in multi.

Period III
The third period is the period after the baby is born and the process of removing the placenta takes place.

Period IV
Starting from the birth of the placenta until the first 2 hours postpartum Signs of labor (Alih, et al., 2010).

Before labor occurs, it is preceded by the following signs:
His is strong His strength is more frequent and regular with shorter contraction intervals.
Vaginal discharge of mucus mixed with blood.
Vaginal discharge of mucus mixed with blood can occur.
Water breaks

On internal examination, there is cervical opening, namely: cervical softening, cervical flattening and cervical opening.
Danger signs of labor

There are several life-threatening danger signs for mothers in labor, namely: shock during labor, bleeding during labor, headaches, visual disturbances, seizures or coma, high blood pressure, prolonged labor, fetal distress during labor, fever during labor, severe abdominal pain, difficulty breathing.
Factors that influence labor

Power
a. His or uterine contractions
His is the contraction of the uterine muscles during labor. Contraction is a basic property of smooth muscle and of course this occurs in the smooth muscle of the uterus, namely the myometrium. During labor, His must always be monitored. Some terms that need to be considered in assessing/monitoring His include:

Frequency
The number of beats in a certain time is usually calculated per 10 minutes.

Duration
Duration is the length of time each beat lasts, measured in seconds,
Relaxation period interval'.

Amplitude or intensity
Is the strength of his measured in mmhg. In practice, the strength of his can only be felt by palpation whether his activity is strong or still weak.
Mother's pushing power

After the cervix is fully dilated the important force in fetal expulsion is that produced by the increase in intra-abdominal pressure created by contraction of the abdominal muscles. This pushing force can only be successful when the first stage of dilation is complete and is most effective during uterine contractions. In addition, resistance forces may be produced by the pelvic floor muscles or ligament action.

Fetus and Placenta (Passenger)
The largest and hardest part of the fetus is the fetal head. The large position of the fetal head can affect the course of labor so that it can
, causing the life and life of the fetus to live perfectly, be disabled or eventually die. Usually, when the fetal head is born, the other parts easily follow later.

Birth Canal (Passage)
The pelvis is formed by two coxae (formed from the fusion of three bones: the pubic bone, the ischium bone, and the ilium bone) which each limit the side of the pelvic cavity. The coxae converge anteriorly to unite the two sides of the pubic symphysis, and posteriorly they are united by the sacrum through the sacroiliac joints. The shape of the pelvic cavity basically resembles a tabling, but the birth canal curves slightly forward at its caudal end, forming an angle of about 90º.

Psyche of mother giving birth
The psyche of the mother in labor is greatly influenced by the support of her husband and other family members to accompany the mother during labor and birth. Encourage them to play an active role in supporting and accompanying steps that may greatly help the mother's comfort. Respecting the mother's desire to be accompanied can help the mother's comfort.

Helper
A birth attendant is a health worker who has the legal authority to assist with childbirth, including doctors and midwives, and has the competence to assist with childbirth, handle emergencies and make referrals if necessary.
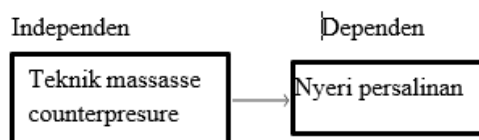
III. RESEARCH METHODS

Types and Design of Research

The type of research used is a quasi-experimental design with a pre-test and post-test control group design, the cause or risk variables and the effects or cases that occur in the research object are measured or collected simultaneously (at the same time) (Notoatmodjo, 2012)

Conceptual framework

The conceptual framework in this study has two variables, namely independent and dependent variables.

Operational Definition

No	Variables	Operational Definition	Measuring instrument	Measurement results	Scale
1	Massage Techniques	This technique is done by using the researcher's fist and is done on the mother's back. Which aims to reduce labor pain in the mother.	Observation Sheet	Before and after it is done	Ratio
2	Labor Pain	The pain experienced during labor is unique to each mother and can be influenced by several factors including culture, fear, anxiety, previous labor experiences, preparation for labor and support.	Observation Sheet	Labor Pain Scale 0-30	Ratio

Location and Time of Research
Research Location

The research was conducted at the Rundeng Health Center, Subulussalam City.

Research Time

The research period starts from April–June 2024.

Population and research sample
Population

The population in this study was all mothers in the first active phase of labor at the Rundeng Health Center in Subulussalam City, totaling 32 mothers.

Sample

A sample is a part of the number and characteristics possessed by the population. The total sampling technique is by taking cases or respondents who happen to exist or are available in a place according to the research context (Notomodjo 2016).

At the Rundeng Health Center in Subulussalam City, there were 32 mothers giving birth, so the sample used was all mothers giving birth in the first active phase, namely 32 samples.

IV. RESEARCH RESULTS AND DISCUSSION

Univariate Analysis
Respondent characteristics

The characteristics of respondents studied in this study include: age, number of children, religion, ethnicity, education, and occupation. To see the characteristics of respondents, see the following table.

Table 4.1.2.1 Frequency Distribution of Characteristics of First-Stage Inpartu Mothers at Rundeng Health Center, Rundeng District, Subulussalam City, Aceh Province in 2024

	F	%
AgeRespondent		
< 20 years	3	9.375
20-35 years	23	71,875
>35 years	6	18.75
Amount	**32**	**100**

Parity		
0	10	31.25
1	9	28,125
2	8	25
3	3	9,375
4	2	6.25
Amount	**32**	**100**
Respondent education		
Low (Elementary, Junior High)	5	15,625
Secondary (High School Equivalent)	26	81.25
High (D3, S1)	1	3.125
Amount	**32**	**100**
Respondent's Occupation		
Doesn't work	23	71,875
Work	9	28.125
Amount	**32**	**100**

Based on the table above, it can be seen that the age of mothers in the first stage of labor at the Darul Aman Health Center, East Aceh, is mostly 20-35 years old, as many as 23 people (71.875%) and less than <20 years old, as many as 3 people.
people (9.375%).

Based on parity, the majority of respondents who do not have children are 10 people (31.25%) and the minority of mothers who have four children are 2 people (6.25).
The majority of respondents had secondary education (high school or equivalent), namely 26 people (81.25%), and the minority had tertiary education, namely 1 person (3.125%).
The majority of respondents were unemployed, namely 23 people (71.875%) and the minority who were employed were 1 person (3.125%). %).

Table 4.1.2.2 Frequency Distribution of Respondents' Pain Levels Before Being Given Counterpain Massage at the Rundeng Health Center, Rundeng District, Subulussalam City, Aceh Province in 2024

Pain Level	F	%
Light	0	0
Currently	0	0
Heavy	32	100%
Total	**32**	**100**

From the table above, we can see that labor pain before counterpressure massage was 100% severe pain.

Bivariate Analysis
Table 4.1.3 Distribution of average pretest and posttest results on the effect of massage techniques to reduce labor pain in inpartu mothers.

Variable	Mean	Standard Deviation	Difference Mean	p.value Sd		N pre&post
Painful						
Before	25. 250	1.9	12.81	0.000	4.62418	32
After	12.	3.4				

From table 4.4 above, the average pain of respondents before counterpressure massage was 25.59 with a standard deviation of 1.948 and after counterpressure massage, the respondents' pain was 12.78 and the standard deviation was 3.405. There is a difference in value where there is a decrease before counterpressure massage and after counterpressure massage.
12.81 with a standard deviation of 4.62, the results of the statistical test can be seen from the p value = 0.000, so it is concluded that there is a significant influence between before and after counterpressure massage at the Rundeng Health Center, Subulussalam City.

Discussion
After the counterpressure massage was performed on 32 respondents, the majority of respondents experienced mild pain, namely 29 respondents (90.625%) and the minority of respondents experienced severe pain, namely

only 1 respondent (3.125%) who experienced severe pain. There was an influence of counterpressure massage techniques on reducing labor pain with an average of 12.78.

From the results of the t-test, the average pain of respondents before counterpressure massage was 25.59 with a standard deviation of 1.94 and after counterpressure massage, the respondent's pain was 12.78 and the standard deviation was 3.40. There was a difference in value where there was a decrease before counterpressure massage and after counterpressure massage of 12.812 with a standard deviation of 4.62, the results of the statistical test showed a p value = 0.000, so it was concluded that there was a significant influence between not having done counterpressure massage and after massage at the Rundeng Health Center, Subulussalam City. The results of this study are in line with the results of research conducted by Seri Pasongli, Maria Trang, Ellen Pasak, a study entitled the effectiveness of counterpressure in reducing the intensity of pain in the first stage of active phase of normal labor at the Manado Adventist Hospital in 2014, which showed that counterpressure massage is very effective in reducing labor pain.

Also, research conducted by Rahmi Handayani, entitled the effect of effluent massage on reducing the intensity of labor pain in the first active phase in primi at RSIA Bunda Arif Purwokerto in 2017, provided results that effluent massage was very influential in reducing labor pain.

Massage is a method that provides relief to many women during labor. Massage is one way that can be done in an effort to reduce pain during labor. Every woman has a different response to the type of massage or touch that is felt when given to them. Some women like a gentle touch, but some prefer hard pressure. Counterpressure massage is a massage that is done by applying continuous pressure during contractions on the patient's sacrum bone with the base or fist of one hand. Pressure in counterpressure massage can be given with straight or small circular movements. This technique is effective in relieving back pain due to childbirth. However, it should be realized that there are mothers who cannot be massaged, even touched when experiencing contractions, this is because the contractions are so strong that the mother is no longer able to receive any stimulation to the body.

Based on the results of research in the field, this pain is influenced by the meaning of pain felt by someone, pain perception, and pain reaction which is a person's response to pain such as fear, anxiety, restlessness, crying and screaming and can also be influenced by social conditions and location of the area. This pain can be overcome by the counterpesure massage method. Patients who receive this counterpesure massage will affect their psychology to feel calmer, more comfortable, relaxed, satisfied and will be closer to the health workers who serve them so that indirectly this can reduce the intensity of pain felt by the mother during the labor process.

V. CONCLUSIONS AND RECOMMENDATIONS
CONCLUSION
Based on the results of the analysis and discussion of the research results, conclusions can be drawn regarding the influence of massage techniques to reduce labor pain at the Rundeng Health Center, Subulussalam City.
1. The level of labor pain before counterpressure massage was carried out, all respondents experienced severe pain.
2. The level of labor pain after counterpressure massage, the majority of respondents experienced moderate pain.
3. There is an influence of giving massage techniques to reduce labor pain in mothers in the first stage of active phase labor.

SUGGESTION
After the research was conducted, there were several research suggestions to improve the quality of service as follows:

1.   As a health worker

In order to be able to carry out counter-massage for mothers who are about to give birth at the Rundeng Health Center in Subulussalam City.

2.   For campuses or institutions of STIKes Mitra Hsuada Medan
Can add sourcesor references to make it easier for students to carry out further research.

3.   For further researchers

In order to develop this research even better with different variables and more samples.

BIBLIOGRAPHY

Felina. Mutia, et al., 2015, The Effect of Warm and Cold Water Compresses on Reducing Pain in the First Active Phase of Physiological Labor in Primi Mothers, Padang.

Handayani, R, et al., 2018, The effect of Effleruge massage technique on reducing the intensity of active phase I labor pain in primipara, Purwokerto.

Judha, M, Sudarti, Fauziah.A, 2016, Theory of measuring pain and labor pain, Muha Medika, Yogyakarta.

Mander.M, 2016, Labor Pain, EGC Medical Book, Jakarta

Pasongoli, et al, 2016, Effectiveness counter pressure on reducing pain intensity during the first active phase of normal labor, Manado

Sri R. et al., 2019, Effectiveness of kneading and counterpressure techniques in reducing the intensity of pain in the first stage of active phase of normal labor, Jakarta

Yeyeh. A, et al., Midwifery Care for Childbirth, 2018, CV. Trans Info Media, Jakarta

Peny simkin, 2016, RuthAncetha, Labor Pain, Jakarta Indonesia

Anik Maryunani, 2018, Painful in Labor Technique And how to overcome it, CV Hana Media, Jakarta

Wiwin Erni, Eulis Anggia, 2013, Research Methodology (quantitative and qualitative) Fitramaya Publisher, Yogyakarta

Budiman Chandra, 2014, Health Research Methodology, Medical book publisher, Jakarta Profile Health Indonesia. 2015.

http//www.depkes.go.id/profil-kesehatanindonesia/profil-kesehatan-indonesia.Jakarta 2019.http//www.depkes.go.id/profil-kesehatan- indonesia/profilkesehatan-indonesia.Jakarta 2020.http//www.depkes.go.id/profil-kesehatan- indonesia/profilkesehatan-indonesia.Jakarta 2020.http//www.depkes.go.id/profile-health-of-North-Sumatera/profile-health-of-North-Sumatera..Jakarta