# Knowledge of Labor Support Regarding Counter Pressure Massage for Pregnant Mothers in Mothers in the Third Trimester at UPTD Puskesmas Tongauna Utara, Konawe Regency

# Murti Wuryani<sup>1</sup>

<sup>1</sup> Universitas Negeri Semarang, Central Java, Indonesia Corresponding author: murtiinara@gmail.com

ABSTRACT: Labor pain is a physiological condition that is generally experienced by almost all mothers during childbirth. Childbirth pain, if not addressed, can affect the mother's condition, leading to fatigue, feelings of fear, worry, and stress. Stress can lead to weakened uterine contractions, resulting in prolonged labor. One of the efforts made is through counter pressure massage. Counter pressure massage involves a firm, steady push by placing a fist on the lower back area when the mother is experiencing contractions. Therefore, the researchers are interested in studying the Knowledge of Labor Companions about Counter Pressure Massage for Pregnant Women in their Third Trimester at the UPTD Puskesmas Tongauna Utara in Konawe Regency. To determine the knowledge of labor companions about counter pressure massage for pregnant women in their third trimester at the UPTD Puskesmas Tongauna Utara. Using a quantitative research type with a descriptive design and employing a cross-sectional approach. The sample in this study consists of all labor companions of pregnant women in their third trimester at the UPTD Puskesmas Tongauna Utara from February to May, totaling 33 pregnant women. Out of 33 respondents based on their level of knowledge, 20 respondents (60.6%) had low knowledge, 10 respondents (30.3%) had sufficient knowledge, and 3 respondents (9.1%) had good knowledge. Regarding knowledge about massage counter pressure, 3 respondents (9.1%) were aware of or had heard about massage counter pressure, while 30 respondents (90.9%) were unaware of or had never heard about massage counter pressure. The majority of birth companions had low knowledge about massage counter pressure, totaling 20 respondents (60.6%).

**Keywords:** Massage Counter Pressure; Pregnant Women

# INTRODUCTION

The third trimester of pregnancy begins at 28 weeks of gestation and lasts until 40 weeks. Pregnant women tend to appear worried at this stage of pregnancy, due to the discomforts experienced during the third trimester, both physically and psychologically. This discomfort can affect childbirth and the postpartum period. Physical discomforts experienced include back pain, difficulty breathing, sleep disturbances, frequent urination, abdominal contractions, and swollen ankles. On the other hand, the psychological changes that occur because the mother feels anxious, fearing that her baby is not normal, and the mother is afraid of facing the labor process (Siti et al., 2023).

Childbirth is a process of delivering the products of conception (baby and placenta) naturally, which begins with adequate contractions in the uterus, along with the dilation and thinning of the cervix. The process of childbirth occurs in four stages: stage I, stage II, stage III, and stage IV. Most mothers begin to feel pain or labor discomfort during stage I, active phase. In this phase, mothers experience intense pain as the uterus

Proceedings of International Conference on Health Science, Practice, and Education

contracts more frequently to expel the conception result. The uterus will become stronger with the increasing frequency, intensity, and duration of contractions (Supliyani, 2019).

Labor pain is a physiological condition that is generally experienced by almost all mothers during childbirth. Childbirth pain, if not addressed, can affect the mother's condition, leading to fatigue, feelings of fear, worry, and stress. Stress can lead to weakened uterine contractions, resulting in prolonged labor. Prolonged labor can cause the mother to have a negative childbirth experience, leading to birth trauma that may result in postpartum blues. Therefore, it is crucial for the birth attendant to meet the mother's needs for safety and comfort. To achieve this, it is necessary to implement pain management efforts during labor using non-pharmacological techniques (Anita, 2017).

One of the efforts being made is through counter pressure massage. Counter pressure massage is an intervention that is relatively easy to perform by healthcare providers or family members to help mothers reduce the level of labor pain. Counter pressure massage is performed by applying pressure with a fist or the base of the palm to the sacrum area during contractions and can be done while sitting, standing, or lying on one's side. Counter pressure massage during labor can function as an epidural analgesic that reduces pain and stress, and can provide comfort to the laboring mother, as well as offer pharmacological comfort (Sari, 2020).

The results of research (Febriyanti et al., 2021) state that counter pressure massage is very effective in reducing labor pain. Where before the counter pressure action was carried out, all respondents experienced very severe pain, as many as 15 people (100%). This means that labor pain in the first active phase has a severe or unbearable pain scale. However, after the counter pressure massage was carried out, the results were quite good. There were 2 (13.7%) respondents who said the pain was on a scale of 7 - 8 and 13 respondents (86.7%) on a scale of 3 - 6. This shows there was a decrease in pain after the intervention, where on a pain scale of 9 - 10 before the intervention 15 respondents (100%) and after the counter pressure intervention it was 0%.

Based on data obtained from the UPTD Puskesmas Tongauna Utara from February to May, there were 33 pregnant women in their third trimester. A preliminary study conducted through interviews with 7 labor companions of these third-trimester pregnant women revealed that 2 women were accompanied by their husbands (20%), 3 women were accompanied by family members (30%), and 2 women were accompanied by both their husbands and family (20%). They stated that they were not aware of counter pressure massage as it was the first time they had heard of it. Meanwhile, observations showed that 3 women accompanied by their husbands and family (30%) were aware of ways to reduce labor pain, such as gentle rubbing and back massage, but the actions had not been performed correctly according to counter pressure massage techniques.

Therefore, the researcher is interested in studying the Knowledge of Labor Companions about Massage Counter Pressure for Pregnant Women in the Third Trimester at the UPTD Puskesmas Tongauna Utara.

# **METHOD**

This research was conducted from February to May at the UPTD Puskesmas Tongauna Utara. This research uses a quantitative type of study with a descriptive design. This research uses a cross-sectional design. The independent variable in this study is knowledge, and the dependent variable is massage counter pressure. The population in this study consists of 33 birth companions (from February to May 2024) with a sample size of 33 respondents using the total sampling technique. The data collection technique used a questionnaire distributed to the birth companions (husbands and family members) of pregnant women in their third trimester. Data processing in this research uses Statistical Product and Service Solutions (SPSS), and the data analysis employed in processing the results is univariate analysis. According to (Sugiono, 2021), univariate analysis is the analysis of existing variables descriptively by calculating the distribution and percentage of each variable.

# RESULT

Based on the research conducted at the UPTD Puskesmas Tongauna Utara regarding the Knowledge of Labor Companions about Massage Counter Pressure for Pregnant Women in their Third Trimester at UPTD Puskesmas Tongauna Utara, the following results were obtained:

# 1. Frequency Distribution

### a. Knowlegde

The results of the data processing on the frequency distribution of the knowledge of labor companions (husbands and family) regarding massage counter pressure can be seen in the table below:

**Table 1.** Frequency Distribution of Birth Companions Based on Knowledge at the Tongauna Utara Health Center, Konawe Regency

N o	Knowlegde	Amount	%
1	Well	3	9,1
2	Enough	10	30,3
3	Less	20	60,6
	Amount	33	100

Source: Primary Data

Based on the table above, it shows that out of 33 respondents, 30 respondents (90.9%) are unaware of or have never heard of massage counter pressure. A small portion of respondents are familiar with or have heard of massage counter pressure, with only 3 respondents (9.1%) knowing or having heard about it.

### b. Massage Counter Pressure

The results of the data processing on the frequency distribution of knowledge regarding labor companions (husbands and family) of pregnant women in their third trimester can be seen in the table below:

**Table 2**. Frequency Distribution of Labor Companions Based on Massage Counter Pressure for Pregnant Women in Their Third Trimester at the UPTD Puskesmas Tongauna Utara, Konawe Regency.

No	Massage Counter Pressure	Amount	%
1	Know/head heard	3	9,1
2	Don't know/never heard of it	30	90,9
	Amount	33	100

Source: Primary Data

Based on the table above, it shows that out of 33 respondents, 30 respondents (90.9%) do not know/have never heard of massage counter pressure. There is a small portion of respondents who are aware/have heard of massage counter pressure, with only 3 respondents (9.1%) knowing/having heard of it.

### 2. Cross Distribution

**Table 3.** Frequency Distribution Based on the Knowledge Category of Labor Companions about Massage Counter Pressure for Pregnant Women in the Third Trimester at UPTD Puskesmas Tongauna Utara, Konawe Regency

		Massage Counter Pressure					
No	Knowledge	Not knowing / never having heard.		Knowing / have heard of		Amount	
		n	%	n	%	n	%
1	Well	0	0,0	3	9,1	3	9,1
2	Enough	10	30,3	0	0,0	10	30,3
3	Less	20	60,6	0	0,0	20	60,6
	Jumlah	30	90.9	3	9.1	33	100

Source: Primary Data

Based on Table 3 above, it was found that 3 respondents who are aware of or have heard about massage counter pressure have a good level of knowledge. Meanwhile, among the 30 respondents who are unaware of or have never heard about massage counter pressure, 10 respondents have a sufficient level of knowledge, while 20 respondents have a poor level of knowledge.

### **DISCUSSION**

Based on the research results outlined above, in this subsection the researcher will attempt to discuss further based on the variables studied.

# 1. Massage Counter Pressure

Berdasarkan tabel 2, menunjukkan bahwa dari 33 responden, sebanyak 30 responden (90,9%) tidak mengetahui/tidak pernah mendengar tentang *massage counter pressure*, terdapat sebagian kecil responden yang mengetahui/pernah mendengar tentang *massage counter pressure* dan hanya 3 responden (9,1%) yang mengetahui/pernah mendengar tentang *massage counter pressure*.

Based on Table 2, it shows that out of 33 respondents, 30 respondents (90.9%) are unaware of or have never heard of massage counter pressure. There is a small portion of respondents who are aware of or have heard of massage counter pressure, with only 3 respondents (9.1%) knowing or having heard about it.

Counter pressure massage is one technique that can be used to reduce labor pain. Counter pressure massage involves a steady, strong push applied to a point in the lower back during contractions, using a fist, the base of the palm, or a sturdy object, which can be performed by a labor companion, a birth attendant, or a healthcare provider (Suksesty et al., 2024).

The pressure of massage counter pressure can be applied with straight or small circular movements. This massage technique is very effective in relieving the pain of uterine contractions that radiate to the abdomen, back, legs, and arms. This counter pressure technique is applied to the lumbar area where the sensory nerves of the uterus and cervix travel alongside the sympathetic nerves of the uterus, entering the spinal cord through the thoracic nerves 10, 11, 12, and extending to lumbar 1 (Sa'diyah, 2020).

The counter pressure massage method has no side effects or disadvantages for patients and can be performed by midwives, nurses, or husbands during labor. The theoretical basis of massage counter pressure is the gate control theory, which explains that there are two types of nerve fibers: small-diameter and large-diameter fibers, each serving different functions. The pain impulses carried by small-diameter nerves cause the gate control in the spinal cord to open, allowing the impulses to be transmitted to the cerebral cortex, resulting in the sensation of pain. However, these pain impulses can be blocked by providing stimulation to large-diameter nerves, which causes the gate control to close. Stimulation in the form of input to the large-diameter nerves, which are abundant in the skin, should be applied at the onset of pain or before hand (Sari, 2020).

The results of this study are in line with previous research (Sri Apriyani, 2021), titled "Description of Pregnant Women's Knowledge about Counter Pressure Massage in Overcoming Labor Pain at the Polindes of Desa Baru." The findings indicate that the majority of pregnant women have insufficient knowledge, with 8 individuals (57.14%) having low knowledge, 5 individuals (35.72%) having adequate knowledge, and 1 individual (7.14%) having good knowledge. The lack of knowledge among pregnant women is influenced by factors such as age, education, and experience (Sri Apriyani, 2021).

### 2. Knowledge

Based on Table 1, it shows that out of 33 respondents, the majority of labor companions (husbands and family members) of pregnant women in their third trimester at the UPTD Puskesmas Tongauna Utara have limited knowledge about counter pressure massage, with 20 respondents (60.6%) having poor knowledge, 10 respondents (30.3%) having adequate knowledge, and a small number of respondents having good knowledge, totaling 3 respondents (9.1%).

Many respondents have limited knowledge because some of them are companions of first-time pregnant women, and therefore lack experience in managing pain during labor. The respondents have not yet received any information regarding massage counter pressure. According to (Notoadmodjo, 2012), there are several factors that influence a person's knowledge, including education, information/mass media, occupation, environment, age experience, social factors, culture, and economy.

The lack of knowledge among respondents is also due to the fact that most birth attendants are unaware that the counter pressure massage technique is performed by applying pressure with a fist, the base of the palm, or a hard object. According to (Karuniawati, 2020), massage counter pressure is a method for reducing labor pain that involves applying a steady, strong pressure on a point in the lower back during contractions, using a fist, the base of the palm, or a hard object such as a tennis ball or a baseball, which can be performed by a birth companion, a birth attendant, or a healthcare provider. The pressure applied can be done with a straight motion or a small circular motion (Sri Apriyani, 2021).

According to (Diniyati & Cisarua, 2022), knowledge is an important factor in determining a person's behavior, as knowledge can lead to changes in societal perceptions. Knowledge about massage counter pressure can be acquired not only through formal education but also through informal education. Formal education plays an important role in enhancing a person's knowledge.

To enhance the knowledge of birth companions (husbands and family) about counter pressure massage, it can be done through counseling and direct practice conducted by healthcare professionals or by updating the latest information through mass media such as the internet, books, leaflets, and others as an effort to prepare for childbirth. As we know, the development of information through mass media has been very rapid. The latest information can be easily obtained through mass media such as the

Proceedings of International Conference on Health Science, Practice, and Education

internet. There are many blogs that provide health information about counter pressure massage that can be accessed by anyone, anytime, and anywhere (Sri Apriyani, 2021).

The results of this study are in line with previous research (Safitri Yulia, 2015), titled "Knowledge of Pregnant Women about Counter Pressure Massage Techniques in Managing Pain During the First Stage of Normal Labor in Paluh Manan Village, Hamparan Perak District, Deli Serdang Regency." It was found that knowledge based on age showed that the majority had insufficient knowledge in the age group of 24-29 years, with 6 individuals (85.72%). Based on education, the majority had insufficient knowledge among those who graduated from elementary school, totaling 10 individuals (90.90%). Based on occupation, the majority had insufficient knowledge among housewives, totaling 15 individuals (100%). Based on parity, the multigravida group had 8 individuals (66.67%).

# CONCLUSION

Based on the results of the research conducted, the following conclusions can be drawn:

- 1. Out of 33 respondents, the majority had insufficient knowledge, with 20 respondents (60.6%) having low knowledge, 10 respondents (30.3%) having adequate knowledge, and a small number of birth companions (husbands and family) having good knowledge, totaling 3 respondents (9.1%).
- 2. Among the 33 respondents, the majority were unaware of or had never heard of massage counter pressure, with 30 respondents (90.9%) falling into this category, while only a small number of respondents, totaling 3 (9.1%), were aware of or had heard of massage counter pressure.

### **CONFLICT OF INTEREST**

In this study, the researcher used a transparent methodology so that other researchers can replicate the study or test it again.

# **ACKNOWLEDGMENT**

We would like to express our gratitude to the Head of the Tongauna Utara Health Center for providing the opportunity and support for me to conduct this research. I also extend my thanks to the pregnant women and their companions who have willingly contributed to this study.

# **REFERENCES**

- Anita, W. (2017). Techniques of Pain Reduction in the Normal Labor Process: Systematic Review. *Jurnal Endurance*, 2(3), 362. https://doi.org/10.22216/jen.v2i3.2357
- Diniyati, L. S., & Cisarua, A. K. A. (2022). Karakteristik counter pressure massage pada Ibu bersalin kala I fase aktif untuk mengurangi nyeri persalinan di RSUD . Cimacan Kabupaten Cianjur Tahun 2022. *Jurnal Ilmiah Penelitian, volume 6*, 66–73.

- Febriyanti, M., Dewi, Aas., & Gede Agus Wahyu Darwati, L. (2021). Pengaruh Massage Counterpressure terhadap Penurunan Intensitas Nyeri Kala I Fase Aktif di Wilayah Kerja Puskesmas Kintamani VI. *Jurnal Genta Kebidanan*, 12(1), 26–30. http://ejournal.politeknikkesehatankartinibali.ac.id/index.php/JGK
- Karuniawati, B. (2020). Efektivitas Massage Endorphin dan Counter Massage Terhadap Intensitas Nyeri Persalinan Kala I. *Jik Jurnal Ilmu Kesehatan*, *4*(1), 27. https://doi.org/10.33757/jik.v4i1.256
- Notoadmodjo, S. (2012). Promosi Kesehatan & Prilaku Kesehatan. In *Jakarta: EGC*.
- Sa'diyah, U. (2020). Efektifitas Effleurage Massage Dan Teknik Counterpressure Terhadap Tingkat Nyeri Ibu Bersalin Kala I Fase Aktif. *Prosiding Seminar Nasional*, 148.
- Safitri Yulia. (2015). Pengetahuan Ibu Hamil Tentang Tekhnik Massage Counter Pressure Dalam Mengatasi Nyeri Pada Kala L Persalinan Normal Di Desa Paluh Manankecamatan Hamparan Perak Kab. Deli Serdang. *Jurnal Kebidanan Flora*, 8(1), 11–21.
- Sari, M. R. (2020). Effect of Deep Backmassage on the Level of Labor Pain When 1 Active Phase in Normal Maternity Mothers in Gajahmada Tembilahan Health Center. *Proceeding International Conference Syedza SaintikalON MANAGEMENT (SeSICNiMPH) I, I,* 232–237.
- Siti, Lia, Desi, Hesti, & Sehmawati. (2023). Buku Ajar Buku Ajar Asuhan Kebidana Pada Kehamilan. In *Kmedika*.
- Sri Apriyani. (2021). Gambaran Pengetahuan Ibu Hamil Tentang Massage Counter Presure dalam mengatasi nyeri persalinan.
- Sugiono. (2021). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. https://palcomtech.ac.id/resensi-buku-metode-penelitian-kuantitatif-kualitatif-dan-rd/
- Suksesty, C. E., Lestari, M., & Lestari, P. D. (2024). Counter Pressure Dalam Mengurangi Nyeri Persalinan: Literature Review. *Jurnal IMJ: Indonesia Midwifery Journal*, 7(2).
- Supliyani, E. (2019). Pengaruh Masase Punggung Terhadap Intensitas Nyeri Persalinan Kala 1 Di Kota Bogor. *Jurnal Bidan*, *3*(01), 22–29.