

IDENTIFICATION OF LABOR PAIN IN MOTHERS IN THE ACTIVE PHASE OF FIRST LABOR

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ABSTRAK: NYERI PERSALINAN PADA IBU BERSALIN KALA 1 FASE AKTIF

Latar Belakang: Persalinan adalah proses alamiah yang akan dihadapi oleh setiap ibu hamil, di mana terjadi pengeluaran hasil konsepsi berupa bayi dan plasenta dari rahim ibu. Pada saat terjadi kontraksi, maka mulut rahim akan melebar sehingga mendorong bayi keluar. Tulang pubis menerima tekanan kuat dari rahim, yang menyebabkan nyeri pada persalinan. Banyak penyulit dan komplikasi yang menyebabkan kematian ibu dan bayi dapat dihindarkan jika persalinan dikelola dengan baik.

Tujuan: Penelitian ini bertujuan untuk mengidentifikasi nyeri persalinan pada ibu bersalin kala 1 fase aktif.

Metode: Metode penelitian ini adalah deskriptif. Penelitian akan dilaksanakan di Puskesmas wilayah kerja Kabupaten Lombok Barat, Nusa Tenggara Barat. Sampel dalam penelitian ini sebanyak 20 ibu bersalin kala 1. Data dikumpulkan menggunakan kuesioner, diolah secara univariat, dan disajikan dalam bentuk tabel distribusi frekuensi.

Hasil: Hasil menunjukkan sebagian besar usia pada kategori tidak beresiko yaitu 17 responden (85%) dan 3 responden (15%) pada usia beresiko, Sebagian besar paritas pada kategori primipara yaitu 14 responden (70%) dan 6 responden (30%) dengan multipara, serta sebagian besar ibu bersalin mengalami nyeri sedang pada persalinan kala I yaitu sebanyak 14 responden (70%), 4 responden (20%) dengan nyeri berat dan 2 responden (10%) dengan nyeri ringan.

Kesimpulan: Hasil menunjukkan bahwa sebagian besar ibu mengalami nyeri dalam persalinan kala I dengan skala nyeri sedang.

Saran: Tenaga kesehatan dapat memberikan pelayanan terbaik selama persalinan kala I, sehingga ibu dalam proses persalinannya lebih tenang, rileks dan tidak menimbulkan nyeri persalinan yang terlalu berlebihan.

Kata Kunci : Kala I Fase Aktif, Nyeri, dan Persalinan

ABSTRACT

Background: Childbirth is a natural process that every pregnant woman will face, where the results of conception in the form of a baby and placenta are released from the mother's womb. When contractions occur, the cervix will widen, pushing the baby out. The pubic bone receives strong pressure from the uterus, which causes pain during labor. Many complications that cause maternal and infant death can be avoided if labor is managed properly.

Objective: This study aims to identify labor pain in mothers giving birth in the first active phase.

Method: This research method is descriptive. The research will be conducted at the Health Center in the working area of West Lombok Regency, West Nusa Tenggara. The sample in this study was 20 mothers in the first stage of labor. Data were collected using a questionnaire, processed univariately, and presented in the form of a frequency distribution table.

Results: The results showed that most of the ages were in the non-risk category, namely 17 respondents (85%) and 3 respondents (15%) in the risk age, Most of the parity in the primipara category were 14 respondents (70%) and 6 respondents (30%) with multipara, and most of the mothers in labor experienced moderate pain in the first stage of labor, namely 14 respondents (70%), 4 respondents (20%) with severe pain and 2 respondents (10%) with mild pain.

Conclusion: The results show that most mothers experience problems in the first stage of labor, namely problems with labor pain with moderate pain.

Suggestion: Health workers can provide the best service during the first stage of labor, so that the mother is calmer, more relaxed during the labor process and does not experience excessive labor pain.

Keywords: Stage I Active Phase, Pain, and Labor

INTRODUCTION

Pregnancy is a period when a woman carries an embryo or fetus in her body. The gestation period starts from conception until the birth of the fetus. The duration of pregnancy from ovulation to delivery is approximately 280 days (40 weeks), and no more than 300 days (43 weeks) (Kuswanti, 2014). In general, childbirth occurs naturally but special monitoring is still needed because each mother has different health conditions, so that it can reduce the risk of maternal and fetal death during childbirth. In addition, complications can occur during pregnancy or childbirth due to errors in the assistant during childbirth (Sondakh, 2013). Generally, childbirth is not problematic, but each childbirth has a risk of complications (Lailiyana, 2019).

Pregnancy can cause physiological changes in the body, such as increased blood flow, heart rate, and breathing rate. If not treated immediately, this condition can worsen anxiety, tension, fear, and prolong the labor process. One of the causes is weakened contractions. This condition can cause Severe pain during labor can cause uterine muscle contractions, uteroplacental circulation, decreased blood flow, and uterine oxygen. This condition has the potential to cause uterine ischemia which increases the amount of pain and the risk of complications during pregnancy. causes uterine ischemia, which increases the amount of pain and the risk of complications during pregnancy (Noviyanti & Jasmi, 2022).

Labor pain is a physiological condition. This condition is an unpleasant feeling that occurs during the labor process. Labor pain begins to arise in the first stage of labor, the latent phase and the active phase. The longer the pain felt, the stronger it will be, the peak of pain occurs in the active phase, where the complete opening is up to 10 cm. The intensity of pain during labor will affect the psychological condition of the mother, the labor process and the well-being of the fetus (Choirunissa et al., 2021). Several studies have shown that in primitive societies, labor is longer and more painful, while in advanced societies 7-14% give birth without pain and most (90%) give birth with pain. The high perception of pain felt by mothers giving birth means that most of them do not focus on the birth of

their baby, instead they focus more on the labor pain they feel (Muriati et al., 2024).

Labor pain can cause stress that causes excessive release of hormones such as steroid hormones and catecholamines. These hormones can cause smooth muscle tension and vasoconstriction of blood vessels, which can result in decreased uterine contractions, reduced blood flow and oxygen to the uterus, and uterine ischemia which increases pain impulses. In the early stages of labor can be a difficult time for most mothers, especially mothers who are giving birth to their first child. Worry, fear and anxiety will play a role in the mother's feelings in the mother's ability and confidence to face labor (Afroh et al., 2012).

The labor process is usually accompanied by pain. Pain during labor can cause trauma to the mother. High levels of pain can cause anxiety, especially in primigravida mothers who do not have experience in dealing with pain. This anxiety often arises in communication about how to deal with labor pain. To reduce anxiety, the availability of medical personnel and the dissemination of information about the clinical process are very important. Dissemination of information about the clinical process is very important. helps mothers feel calmer and more confident in giving birth (Susanti & Utami, 2022).

In labor, pain is often a problem in terms of mild, moderate, severe and uncontrolled pain. Pain in labor is a manifestation of contractions (shortening of the uterine muscles). These contractions cause pain in the waist, abdominal area and spread to the thighs. Labor pain is a physiological condition. Labor pain begins to arise in the first stage of the latent phase and lasts until the active phase. In primigravida, the first stage of labor can last 20 hours, in multigravida it lasts 14 hours. The longer the pain felt, the stronger it will be, the peak of pain occurs in the active phase (Prawirohardjo, 2020).

The Indonesian Hospital Association data center explains that 15% of mothers giving birth in Indonesia experience labor complications, 21% of mothers feel severe pain, and 64% of mothers do not receive information about actions to take to reduce labor pain (Irawati et al., 2019). This

condition causes many people to choose other ways to deal with their injuries during the healing process, such as having a cesarean section without clear medical indications or using pain relievers such as epidural anesthesia to choose a different way to deal with their injuries during the labor process, such as having a cesarean section without clear medical indications or using pain relievers such as epidural anesthesia. However, this strategy can increase the risk of morbidity and mortality among mothers and children (Pasongli. et al., 2014).

Research on 2700 pregnant women undergoing labor, 15% experienced mild pain during labor, 35% experienced moderate pain during labor, 30% experienced severe pain during labor and 20% experienced very severe pain during labor (Cunningham. et al., 2014). Therefore, labor pain management needs to be carried out properly so as not to cause trauma or complications that interfere with the course of labor (Dewi. et al., 2020). The pain felt during labor can be overcome with pharmacological or non-pharmacological methods. However, pharmacological methods using analgesics and anesthetics are not recommended as the first choice to avoid side effects on the mother and fetus (Gau. et al., 2011).

Normal labor according to WHO is labor that begins spontaneously, is mild and low-risk in labor and remains so until the labor process is complete (Hamdiah. et al., 2020). The majority of women will feel pain throughout the journey. The intensity of labor pain is subjective, where each individual will experience different pain even though exposed to the same stimulus. In the first stage, the process begins with the first step, namely opening 1 and continues until opening ten. Full dilation can occur in multiparous mothers in less than 1 hour, but in primiparous mothers, the delivery process usually takes place in 24 hours. When entering the active phase, there will usually be contractions that occur every 10 minutes or can be less and more. The better the contractions felt and more often, the faster the labor process towards complete opening. Pain is subjective, of course, each mother will experience different levels of pain in each dilation process. The purpose of this study was to describe the level of labor pain that mothers feel (Irawati et al., 2019).

Based on the background above, the researcher is interested in identifying labor pain in mothers giving birth in the first active phase in the working area of the West Lombok Regency Health Center.

RESEARCH METHODS

The type of research used is quantitative with a descriptive research design. This study uses primary and secondary data analysis methods. This study identifies labor pain in mothers giving birth in the first active phase in the work area of the West Lombok Regency Health Center. The population is the entire object of the study being studied. Population can be interpreted as all elements in the study including objects and subjects that have certain characteristics and properties. The population in this study were all mothers giving birth who gave birth at the Health Center (Amin. et al., 2023). The sample is a portion taken from the entire object studied and is considered to represent the entire population. The sample is a portion or representative of the population to be studied (Amin. et al., 2023). The sample in this study amounted to 20 people, namely all mothers giving birth who gave birth in the work area of the West Lombok Health Center. This research was conducted in March - April 2025 in the work area of the West Lombok Health Center. The respondent criteria were fully conscious mothers, primigravida mothers, mothers in labor who were facing the first stage of labor (active phase), cervical dilation of more than 4, able to read and write, while the exclusion criteria were patients with eclampsia. The instrument used in this study was a questionnaire.

RESEARCH RESULTS

Based on research conducted in March - April 2025, in the West Lombok Health Center work area, the following results were obtained:

Table 1
Frequency Distribution Based on the Age of the Mother in the First Stage of Labor

Variable	N	%
Ages		
Risk	3	15
No Risk	17	85

Based on table 1, it shows that 17 respondents (85%) were at a non-risk age and 3 respondents (15%) were at a risk age.

Table 2
Frequency Distribution Based on Parity of Mothers Giving Birth in the First Stage

Variable	N	%
Parity		
Primiparous	14	70
Multiparous	6	30

Based on table 2, it shows that 14 respondents (70%) were primiparous and 6 respondents (30%) were multiparous.

Table 3
Frequency Distribution Based on the level of pain in mothers during the first stage of labor

Variabel	N	%
Pain level		
Mild Pain	2	10
Moderate pain	14	70
Severe pain	4	20

Based on table 3, it shows that 2 respondents (10%) had mild pain, 14 respondents (70%) had moderate pain, and 4 respondents (20%) had severe pain.

DISCUSSION

The results showed that most of the ages in the non-risk category were 17 respondents (85%) and 3 respondents (15%) at risk. Most of the parity in the primipara category were 14 respondents (70%) and 6 respondents (30%) with multipara, and most of the mothers experiencing moderate pain in the first stage of labor were 14 respondents (70%), 4 respondents (20%) with severe pain and 2 respondents (10%) with mild pain. The results showed that most mothers experienced problems in the first stage of labor, namely problems with labor pain with moderate pain.

The results of this study indicate that respondents have an average age that is not at risk. In accordance with the theory that states that the ideal age for reproduction is in the range of 20-35 years. This is because in that range the reproductive organs are ready to be fertilized and minimize the risk of complications during childbirth. Age greatly determines the health of the mother, the mother is said to be at high risk if the pregnant mother is under 20 years old and over 35 years old. Maternal age <20 years and > 30 years are risk factors for complications during childbirth (Afritayeni, 2017). Women who are pregnant at a high-risk age can cause complications for both the mother and the baby. Age is related to the mother's unpreparedness in reproduction, women under 20 years old are still in the growth and development stage, so their reproductive organs are not yet mature (Hariyani. et al., 2019). Younger mothers have more intense pain sensors than older mothers. Young age tends to be associated with unstable psychological conditions that trigger anxiety so that

the pain felt is even stronger. Age is also used as a factor in determining pain tolerance (Aisyiyah et al., 2024).

The results of Magfuroh (2012), study found that mothers who were at high risk felt 4 times more pain than mothers who were not at high risk. Mothers who were less than 20 years old felt more severe pain than those aged 25-35 years. This is in line with Ayu & Supliyani (2019), stating that the optimal reproductive age for a mother to become pregnant is 20-35 years old, because at that time the uterus is ready to receive pregnancy, mentally mature and able to take care of herself. Researchers argue that the age of a mother to be ready to become pregnant is 20-35 years old, because her reproductive organs have formed perfectly and at this age they are able to control emotions and control anxiety. According to Supliyani (2017), the biological maturity of a woman's reproductive organs is achieved at the age of 20. If a woman becomes pregnant at the age of 30 and over, the risk to the mother and baby will increase during pregnancy. Because starting at the age of 30, there is a decrease in the number and quality of egg cells in her ovaries. Adults will experience neurophysiological changes and may experience decreased perception of sensory stimuli and increased pain threshold (Taqwin, 2020).

The results of study Magfuroh (2012), found that the intensity of pain was 3.9 times greater in primiparous mothers compared to multiparous mothers. Labor pain is subjective and influenced by many factors. Pain is a physiological mechanism that aims to protect oneself. If someone feels pain, their behavior will change. Mothers who are about to give birth must be able to adapt to pain. Rikandi (2018), found a relationship between parity and the intensity of labor pain in the first active phase. Primiparous mothers showed increased anxiety and doubt in anticipating pain during labor.

Contractions also increase the metabolic rate, thus worsening the ischemic condition, which is an ideal condition for the release of chemicals that trigger pain. The presence of myometrium and cervical ischemia due to contractions. If blood flow to the tissue is blocked, the tissue becomes painful. It is suspected that one of the causes of pain in ischemic conditions is the accumulation of lactic acid which will stimulate the nerve endings of pain fibers. Contractions in the cervix and lower uterine segment cause fear which stimulates excessive activity of the sympathetic nervous system. There is dilation of the cervix and lower uterine segment. Much data supports the hypothesis that labor pain in the first stage is mainly caused by dilation of the

cervix and lower uterine segment (Lestari et al., 2020). The majority of pain in the first stage is reported with a severe pain scale of 78.3% (Priharyanti, 2015).

The cervix in multiparous women softens before the onset of labor, but not in the cervix of primiparous women which causes pain in primiparas to be generally more severe than multiparas. The intensity of uterine contractions felt in primiparas is also greater than in multiparas, especially at the end of the first stage and the beginning of the second stage of labor (Maryuni, 2020). An increase in the average score of behavioral indicators during labor pain can cause a decrease in the duration of the labor stage and the severity of pain (Darmawan & Wahyuni, 2015). Many studies have reported that labor pain in primiparas and multiparas is different, there is a significant relationship between parity and the level of pain in labor, there is a significant relationship between parity and the Intensity of Labor Pain in the First Stage of the Active Phase (Adam & Umboh, 2015).

The results of the study showed that at the cervical dilation phase of around 2 ± 3 cm, a large number of primiparous and multiparous mothers reported experiencing severe pain or severe pain. Pain measurements at various stages of cervical dilation showed that the most severe pain occurred when the cervix was dilated by around 2 ± 4 cm. As labor progresses, the intensity of pain tends to increase with further cervical dilation (Nainggolan & Harahap, 2024). Pain during labor is a physiological response of the body to discomfort due to the reception of pain impulses to the central nervous system and a psychological response that includes recognizing sensations, interpreting pain, and responding to the results of pain interpretation. This pain is greatly influenced by past experiences, anxiety, and emotional tension (Solehati et al., 2024).

Labor pain is the result of a pathological process that triggers a reaction of discomfort and distress in the sensory nerves. This pain can be classified based on its type, how it occurs, cause, and severity. In addition, sensory and emotional factors, as well as individual psychological factors also affect the level of pain felt during labor (Dartiwen, 2023). Fear of giving birth can have adverse effects, causing stress in individuals. During the labor process, this message is conveyed by receptors throughout the body. The body automatically releases stress hormones, namely catecholamines and adrenaline, in high concentrations. Physiologically, this can cause

uterine contractions to become more painful and uncomfortable. Conversely, if the labor experience is positive, natural, gentle, and minimizes trauma, the perception of labor pain can change. As a result, during labor, a calm, accepting, and resigned attitude allows the body to produce natural pain-relieving hormones, namely endorphins and oxytocin. The effect of endorphins is 200 times stronger than morphine. In a relaxed state, the uterus can naturally make rhythmic movements in harmony with the baby's movements while looking for a way out. As a result, the baby can find its way out calmly, and the perception of labor pain is reduced (Walter et al., 2021).

CONCLUSION

The results showed that most of the ages were in the non-risk category, namely 17 respondents (85%) and 3 respondents (15%) in the risk age. Most of the parity in the primipara category were 14 respondents (70%) and 6 respondents (30%) with multipara, and most of the mothers in labor experienced moderate pain in the first stage of labor, namely 14 respondents (70%), 4 respondents (20%) with severe pain and 2 respondents (10%) with mild pain. The results show that most mothers experience problems in the first stage of labor, namely problems with labor pain with moderate pain.

SUGESTION

Health workers can provide the best service during the first stage of labor, so that the mother is calmer, more relaxed during the labor process and does not experience excessive labor pain.

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