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The use of herbal body compress and warm belt at the BL 23 meridian point in reducing pain intensity in first-stage labor

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ABSTRACT

Introduction: A preliminary survey at Bhakti Wira Tamtama Hospital Semarang found that the number of deliveries in 2018 was 3,312 deliveries, 2,280 normal deliveries, and 1,032 cesarean section deliveries. The effect of labor pain is prolonged. There were 198 cases of prolonged partus in 2018 (6%). **Objective:** The purpose of this study was to determine the effectiveness of the use of Herbal Body Compress and Warm Belts in dealing with labor pain in laboring women. **Methods:** The research design quasi-experiment used pre- and post-tests with the control group. The sampling technique used was accidental sampling with a total sample of 36 respondents divided into 2 intervention groups herbal body compress (n = 18) and warmbelt control group (n = 18). Measurement instrument of labor pain scale using numeric rating scale (NRS). Data analysis using wilcoxon and mann whitney statistical analysis tests with p-<0.05. **Result:** There is a difference in pain during the first stage in laboring women before and after in the Herbal Body Compress group (P-value = 0.000). There is a difference in labor pain before and after in the Warm Belt group (P-value = 0.001). **Conclusion:** There are differences before and after treatment, that herbal body compress is more effective in overcoming labor pain than warmbelt (p-value = 0.031) with a mean rank value of herbal body compress 22.19 and warmbelt 14.81. Herbal body compress is effective in reducing labor pain.

KEYWORD: warrm belt; herbal body compress; labor pain. first stage; meridian BL 23

INTRODUCTION

Labor begins when the uterus contracts and causes changes in the cervix (opening and thinning. The process of childbirth is a natural process that a mother will go through, where there is an expulsion of the results of conception in the form of a baby and placenta from the mother's womb (Astuti et al., 2020, 2021; Mujahidah, 2020). Labor pain is a complex and unique natural change (Anggraeni et al., 2021; Anuhgera et al., 2020). Labor pain occurs due to contractions in the uterine muscles that cause the opening of the mouth of the uterus, resulting in pain in the lumbar region, and abdomen and radiating to the thighs (Dewi et al., 2020; Susanti & Fadmiyanor, 2020). Labor pain physiologically begins to appear in the latent and active phases of labor, caused by uterine contractions that result in dilatation and thinning of the cervix. As the volume and frequency of uterine contractions increase, the pain becomes more intense (Anuhgera et al., 2020; Choirunissa et al., 2021).

Labor pain can have a negative impact on both the mother and the fetus (Susanti & Fadmiyanor, 2020). Controlling labor pain is important to give mothers a sense of comfort when going into labor because it is one of the maternal care which is the role and function of midwives. Pain control including the use of herbal body compress and warm belt (Hu et al., 2021; Ouma et al., 2024; Show et al., 2022).

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There are two approaches to reducing labor pain: pharmaceutical and nonpharmacological. Although pharmaceutical pain management is more successful than non-pharmacological approaches, it is also more expensive and may have adverse side effects. Meanwhile, non-pharmacological techniques are cheaper, easier to use, more efficient, and risk-free. Since they do not damage the mother or fetus, do not cause drug allergies, and do not cause delayed labor if significant pain relief is given, non-pharmacological management is very important. Warm compresses are one method that can be used to reduce labor pain (Astuti et al., 2020).(Astuti et al., 2021; Mujahidah, 2020; Munafiah et al., 2022)

A preliminary study conducted at Bhakti Wira Tamtama Hospital Semarang found that the number of mothers giving birth in January-June 2019 was 829 people. The number of mothers in labor in 2018 obtained the number of deliveries in 2018 as many as 3,312 deliveries, normal deliveries of as many as 2,280 people, and sections caesarian delivery as many as 1,032 people. The effect of labor pain is prolonged partus. There were 198 cases of prolonged partus in 2018 (6%). The intervention carried out by midwives when facing prolonged partus is to give induction. The prolonged labor that occurred in 195 mothers was influenced by several factors, including improper training techniques, CPD, and umbilical cord entanglement. Based on the results of interviews with 3 midwives, mothers who experienced labor pain were only taught breathing relaxation techniques and left tilt. Midwives have never been given warm compress treatment to overcome the labor pain experienced by mothers. This study aimed to determine the effectiveness of the use of Herbal Body Compress and Warm Belts in dealing with labor pain in laboring women.

METHODS

Design

This research is a quasy experiment research. The research design used Pre and Post-test with control group design.

Research Questions

How effective is the use of Herbal Body Compress and Warm Belts in dealing with labor pain in laboring women?

Sample and Settings

The type of sampling technique used was accidental sampling with a total sample of 36 respondents divided into 2 intervention groups herbal body compress (n = 18) and warmbelt control group (n = 18). Respondents in this study were mothers in the active phase with an opening of 4-8 cm (active phase acceleration and maximum deceleration). Given for 20 minutes.

Variable

independent variables in the form of herbal body compresses and warm belts while labor pain in laboring mothers is the dependent variable.

Instrument

Measurement of labor pain using numeric rating scale (NRS)

Data Collections

This research was conducted from 15 October 2019 to 10 December 2019 at Bhakti Wira Tamtama Hospital Semarang.

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Data Analysis
Data analysis using wilcoxon and mann whitney statistical analysis tests with p-<0.05

Ethical Consideration
The measurement of the scale used is VAS. This study has passed the ethical review test from the Ethics Committee of Stikes Karya Husada Semarang with Ethical Test Number 1101/KH.KEPK/KT/IX/2019.

RESULTS

Tabel 1 Characteristics of Respondents

Characteristics of Respondents	Frequencies	Percent (%)
Age		
20-35	26	72
>35	10	28
Education		
Junior High School	8	22
High School	22	61
Diploma III	6	17
Parity		
Primipara	20	55
Multipara	10	28
Grande multipara	6	17

Based on Table 1, it can be seen that the average age of respondents is 20-35, totaling 26. The average education of high school mothers is 22 respondents. The average respondent is a mother with primipara with a total of 20 respondents.

Table 2 Distribution of Pain Intensity during Active Phase I Labour

The variable	Herbal				*Warmbelt*			
	Before		After		Before		After	
	N	%	N	%	N	%	N	%
No pain	-	-	-	-	-	-	-	-
Mild pain	-	-	1	5,5%	-	-	5	28%
Moderate pain	-	-	8	44,5%	1	5,5%	13	72%
Severe pain	17	94,5%	9	50%	4	78%	-	-
Unbearable pain	1	5,5%	-	-	13	16,5%	-	-

Based on Table 2, it can be seen that the intensity of labor pain at stage I before the use of Herbal Boy Compress was severe pain 94.5% and moderate pain 5.5%, while the intensity of labor pain at stage I after the use of Herbal Boy Compress became mild pain 5.5%, moderate pain 44.5% and severe pain 50%. The intensity of labor pain at stage I before the use of Warmbelt was moderate pain at 5.5%, severe pain at as much as 78%, and unbearable pain 16.5%, while the pain intensity after the use of Warmbelt became mild pain 28% and moderate pain 72%.

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Table 3 Distribution of Pain Intensity in Active Phase I Labour before and after using Herbal Body Compress

The variable	N	Median±SD	Min	Max	p-value
Before Herbal Body Compres	18	9,00± 0,970	9	10	0,000
After Herbal Body Compres	18	6,50± 1,277	3	8	

Based on Table 3, pain intensity before using herbal body compress has an average value of 9.00, the lowest is 7 and the highest is 10. After using herbal body compress has an average value of 6.50 with the lowest value of 3 and the highest is 8. There is a difference in pain intensity before and after using herbal body compress with a p-value (0.000).

Table 4 Distribution of Pain Intensity in Active Phase I Labour before and after using Warm Belt

Vthe ariable	N	Median±SD	Min	Max	p-value
Before Warm Belt	18	8,50± 1,043	6	10	0,001
After Warm Belt	18	7,00± 0,924	6	9	

Based on table 4, the pain intensity before using the Warm Belt has an average value of 8.50, the lowest is 6 and the highest is 10. Using herbal body compress has an average value of 7.00 with the lowest value of 6 and the highest is 9. There is a difference in pain intensity before and after using a warm belt with a p-value (0.001).

Table 5 Distribution of the effectiveness of herbal body compress and warm belt on maternal pain intensity

Variabel	p-value
Herbal body compress Warm belt	0,001

Based on the results of bivariate statistical tests, the p-value is 0.020 (<0.05). So Ho is rejected and Ha is accepted, which means that there is an effectiveness of warmbelt and herbal body compress on the pain intensity of active phase I labouring mothers at Bhakti Wira Tamtama Hospital Semarang.

DISCUSSION

Labor pain is a contraction of the uterine muscles that causes the opening of the mouth of the uterus (cervix) so that pain arises in the waist, and abdominal area and radiates towards the thigh. Most laboring women experience pain during childbirth, but the intensity of this pain is different for each laboring woman (Massov et al., 2024; Ouma et al., 2024). This is often influenced by the mother's psychology during labor (fear and trying to fight labor) and whether or not there is support from people around her during labor (Ardekani et al., 2024; Choudhary et al., 2021; Mwakawanga et al., 2024).

Labor pain can reduce uterine contractions which can result in prolonged labour. Hence the need for pain control (Klomp et al., 2016). One of them is using non-pharmacological methods. Non-pharmacological methods are cheaper, simpler, effective, and without adverse effects. In addition, this method can increase satisfaction during labor because the mother can control her feelings and strength (Mwakawanga et al.,

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2022, 2024; Show et al., 2022). One of them uses herbal body compress and warm belt (Monazzami et al., 2021).

Herbal body compress has efficacy in overcoming labor pain the first time this is because the content of each of the cloves, fragrant pandanus, lemongrass, ginger, and tamarind turmeric has a natural antibacterial substance and has analgesic and anti-inflammatory abilities, eugenol, gingerol, ginger-dione, zingerone, and alkaloids, saponins, flavonoids, tannins, polyphenols, phenyl prostanoids that inhibit prostaglandins by inhibiting the enzyme cyclooxygenase, besides that ginger also contains oleoresin spicy, bitter properties that can reduce pain. (Didevar et al., 2022). The distinctive smell of Herbal Body Compress also provides an aromatherapy effect to laboring mothers. The aromatherapy effect of herbal body compress serves to relax the mind so that respondents do not focus too much on the pain that is being experienced (Astuti et al., 2020; Makombe et al., 2023; Monazzami et al., 2021).

The warm compress technique inserted into the belt or warm belt can cause a gate control effect from the temperature sensation inhibiting the sensation of pain in the brain, causing a sense of comfort causing endorphin secretion inhibiting the secretion of enkephalin, and the warm effect causes vasodilation of blood vessels so that softening the thickened scar tissue will reduce the pressure on the pain receptor endings (Astuti et al., 2020; Hu et al., 2021; Mwakawanga et al., 2022).

The points to be compressed are BL 23 (Shensu) located two fingers to the left and right of the GV meridian, at the level of the second lumbar border. Point GV 3 which is located between the third and fourth lumbar. GV point 4 which is located between the second and third lumbar. Compressing on these meridian points can bring a sense of relaxation to the body naturally and block pain receptors in the brain. When the meridian points are stimulated, there is a release of tension in the muscles, an increase in blood circulation, and an increase in the body's energy life force (qi) to help the healing process (Ma'rifah & Suryantini, 2024; Maisaroh et al., 2025; Malia, 2024).

Strengths and Limitations

The limitation of this study is that researchers have not used biomarker tests to determine whether there is a decrease in hormones in assessing labor pain reduction and confounding variables have not been tested.

Implications for Practice

It is hoped that future researchers can use biomarkers to ensure the effectiveness of this non-pharmacological labor pain management in reducing pain. confounding variables such as socioeconomic, spiritual and cultural, nutrition, length of rest and psychology can be associated with a decrease in pain in labor.

CONCLUSIONS

The results of this study herbal body compress and warm belts can be used to treat labor pain. There is a difference in pain intensity before and after being given herbal body compress treatment with a p-value of (0.000). There is a difference in pain intensity before and after being given warm belt treatment with a p-value of (0.001). There is an effectiveness of herbal body compress and warm belt with a p-value (0.001). Midwives are expected to be able to apply herbal body compresses and warm belts as a management of labor pain.

Conflict of Interest Statement

Tidak ada

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