THE BENEFITS OF REBOZO TECHNIQUE AND SPLEEN 6 ACUPRESSURE ON THE DURATION OF LABOR IN MULTIPAROUS MOTHERS

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ABSTRACT

Labor is a process that ends with the birth of the placenta and baby starting with contractions in the latent and active phases. There are often complications in the process of childbirth, especially in relation to maternal strength, which has an impact on contractions causing prolonged partus. One of the efforts made by pharmacology and non-pharmacology with rebozo and acupressure spleen 6 is the Pakis Aji Health Center, the number of deliveries in August-October 2021 was 100, of which the most cases were long partus (15%). Analyze the effect of rebozo technique and acupressure spleen 6 on the length of labor during stage I in multiparous mothers at Pakis Aji Jepara Health Center. Quantitative research design with Quasi experimental approach. The population in the study were all multiparous mothers as many as 65 respondents and a sample of 60 maternity mothers at the Pakis Aji Jepara Health Center. It can be concluded that before and after the use of rebozo technique and acupressure spleen 6 can both increase a significant effect on the length of labor in multiparous mothers in the Pakis Aji Jepara Health Center, while the difference in the provision of rebozo techniques and acupressure spleen 6 has no effect on the length of labor during stage I in multiparous mothers at the Pakis Aji Jepara Health Center.

Keywords: Spleen 6 acupressure, length of labor, stage I, Multiparous, Rebozo

INTRODUCTION

Childbirth refers to the entire process as an infant makes its way from the womb down the birth canal to the outside world (Turkington et al., 2020). The phase in labor when the mother first feels contractions or the latent phase starts from the opening of labor one to four, while the active phase of opening begins at opening four until complete opening (Durrotun Munafiah, 2020). This process begins with true labor contractions characterized by progressive changes in the cervix until the birth of the placenta (Lailatul Khusnul Rizki, 2020). Labor pain is one of the unpleasant sensory and emotional experiences and is most often felt by mothers from the beginning of labor (Nehbandani, 2019).

Mortality and morbidity of pregnant women, maternity and postpartum women are still a big problem, especially in developing countries including Indonesia. As we all know that maternal mortality is a measure of health status in acountry (Lailatul Khusnul Rizki, 2020). Maternal mortality worldwide has decreased by around 44%, the target for 2016-2030 as one of the sustainable development goals is that the global maternal mortality rate is expected to be 70 per 100,000 live births (Statistic, 2018). Maternal mortality in 2020 according to World Health Statistics published by WHO, the maternal mortality rate in Indonesia is 177 per 100,000 live births, This is much higher when compared to Malaysia which is 29 per 100,000 live births, Thailand 37 per 100,000 live births, Vietnam 43 per 100,000 live births. The World Health Organization (WHO) notes that every day about 830 women die due to pregnancy and childbirth (Editorial Team). Indonesian health data in 2020, the Maternal Mortality Rate (MMR) in Indonesia reached 177 per 100,000 live births (Kemenkes RI, 2020). The fifth most common cause of maternal...
death in Indonesia is prolonged partus. The average incidence of prolonged partus in the world causes maternal mortality of 8% while in Indonesia it is (Kemenkes, 2019). The Maternal Mortality Rate in Central Java in 2019 reached 313 cases while in 2020 it reached 530 cases. The maternal mortality rate in Jepara Regency in 2019 was 11 cases while in 2020 it reached 15 cases of maternal death (DHO, 2020). The causes of maternal death in the world based on data from WHO in 2013 were preeclampsia 28%, bleeding 27%, eclampsia 14%, unsafe abortion 8%, infection 11%, labor complication 9% and embolism 14% (WHO, 2017). The number of labor pains that have been reported results that on average in Indonesia as many as 85-90% of pregnant women who will face labor experience severe labor pain and 7-15% are not accompanied by pain (Rosyidah, 2017). Inactive or non-progressive labor pain can result from the initiation of cervical activity and the occurrence of contractions that gradually intensify, leading to increasingly intense pain (Supliyani, 2017). Unmanageable labor pain in pregnant women can pose significant risks to both the mother and the fetus. It can lead to heightened metabolic activity in the mother's body, resulting in increased blood pressure, pulse rate, respiratory rhythm, and body temperature. These changes can have adverse effects on the gastrointestinal, urinary, and respiratory systems. (Rejeki, 2014).

Interventions to reduce labor pain can be done by pharmacological and non-pharmacological methods (Hajighasemali, 2018). In pharmacological methods, it can be done by administering anesthetic drugs that have been proven to inhibit and block pain stimulation, but have quite serious side effects including prolonging the labor phase, especially in the active phase and the mother can experience hypoxia, vomiting, hypotension, fever, urine retention and heart rhythm problems in the mother and fetus (Nehbandani, 2019). As for the management of non-pharmacological methods, one of them is by using the Rebozo technique and Spleen Acupressure 6. The Rebozo method is often administered to pregnant women who have reached 28 weeks of gestation and can also be utilized throughout the process of delivery. During the initial and active stages of labor, the Shake the Apple Tree Technique is frequently used to apply regulated movements to the hips of women in labor. This technique helps to gradually swing them from side to side. Elloitanza, Simbolon, and their colleagues state that practitioners who aid mothers in executing the Rebozo technique typically adopt a squatting or standing posture with a small inclination. (Simbolon GAH., 2021). Acupressure point for location is a non-pharmacological intervention to reduce pain and anxiety from the process of massage therapy at several special points developed in Ancient China with the aim that the mother's body can stimulate endorphin and opioid hormones which will have an impact on reducing pain due to pain from labor (Akbarzadeh, 2015). 4 Acupressure points that are usually used to reduce pain in labor are point L14 (between the first and second metacarpal bones on the distal part of the second fold) and SP6 (four fingers above the ankle) (Setyorini, 2018).

METHOD
This type of quantitative research design is Quasi experiment in two group posttest design. This research was conducted from August to October 2021 at the Pakis Aji Health Center, Jepara Regency. The population in this study were all mothers who gave birth at the Pakis Aji Jepara Health Center in August - October 2021 as many as 65 respondents. The sample in this study were 60 respondents with the inclusion criteria, namely mothers in labor during the physiologically active phase I, opening 4-10 cm, multiparous, not having comorbidities in pregnancy. Exclusion criteria are high-risk laboring mothers, and are being given analgesic therapy. The sampling technique used in the study was to use purposive sampling technique. 30 respondents received Rebozo therapy intervention and 30 respondents received Spleen 6 Acupressure therapy.

The research instruments consisted of partograph sheets, observation sheets, olive oil, Rebozo technique SOP and Spleen Acupressure 6. Univariate analysis uses central tendency consisting of mean, median, standard deviation, minimum and maximum values. Bivariate analysis uses the Kolmogorov Smirnov normality test and the results of the data are not normally distributed.
so the test used is Mann Whitney. This research has passed the ethics by the Health Research Ethics Committee of Karya Husada University Semarang with Number 1064/KH.KEPK/KT/VI/2021 dated June 29, 2021.

RESULTS
Univariate Analysis

1. Length of labor during the first stage of the rebozo technique
   Table 1: Length of labor in the first stage after Rebozo Technique was given

<table>
<thead>
<tr>
<th>Intervention</th>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>Std. Deviation</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rebozo</td>
<td>30</td>
<td>141</td>
<td>150</td>
<td>28,460</td>
<td>90</td>
<td>180</td>
</tr>
</tbody>
</table>

Analysis of table 1, it can be seen that the length of labor in the first stage after being given the rebozo technique is an average of 141 minutes (2 hours 35 minutes), median 150 minutes (2.5 hours) standard deviation 28.460, with a minimum length of labor of 90 (1.5 hours) minutes, maximum 180 minutes (3 hours).

2. Duration of labor in first stage Spleen Accupressure 6
   Table 2: Duration of labor in the first stage after Spleen Accupressure 6

<table>
<thead>
<tr>
<th>Intervention</th>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>Std. Deviation</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accupressure</td>
<td>30</td>
<td>147</td>
<td>150</td>
<td>22,136</td>
<td>120</td>
<td>180</td>
</tr>
<tr>
<td>Spleen 6</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

Table 2 analysis can be seen that the length of labor in the first stage after being given the spleen 6 acupressure technique has an average of 147 minutes (2 hours 45 minutes), median 150 minutes (2.5 hours) standard deviation 22.136, minimum labor length 120 minutes (2 hours), maximum 180 minutes (3 hours).

Bivariate Analysis

Effect of Rebozo Technique and Spleen 6 Accupressure on Duration of First Stage of Labor

Table 3: Effect of Rebozo Technique and Spleen 6 Accupressure on the Duration of First Period Labor I

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Mean Rank</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rebozo technique</td>
<td>9.95</td>
<td>0.657</td>
</tr>
<tr>
<td>Spleen acupressure 6</td>
<td>11.05</td>
<td></td>
</tr>
</tbody>
</table>

Analysis of table 3 Based on bivariate analysis using the Mann Whitney correlation test, the mean rank value obtained by the rebozo technique has a length of labor of 9.95 minutes while acupressure spleen 6 with a length of labor of 11.05 minutes, meaning that the length of labor of the rebozo technique is faster than acupressure spleen 6, with a p value of 0.657 > 0.05 so that Ho is accepted Ha is rejected, meaning that there is no effect after being given the rebozo technique and acupressure spleen 6 on the length of labor during stage I in Multiparous mothers at Pakis Aji Jepara Health Center.

DISCUSSION
Length of labor during the first stage of the rebozo technique

When the rebozo technique is carried out, the mother's position lies and hugs the gym ball by resting on both knees, and by wrapping a shawl around the respondent's stomach and buttocks. Basically, the rebozo technique is a practical alternative in dealing with the long descent of the fetal head and opening of the cervix in the process of labor, which aims to flex, relax the pelvic floor muscles so that the fetal head can enter and descend into the birth canal. Analysis based on the theory that rebozo has been popularly used in developed countries by health workers in performing labor assistance as a non-pharmacological method. The rebozo technique is a non-invasive, practical technique that is performed while the laboring mother is standing, lying down or with her knees and palms touching the floor. It involves the movement of the mother's hips being gently controlled from side to side using a specially woven scarf, and is performed by a midwife or birth attendant. The rebozo technique can also be done with a close person or birthing companion (Garcia, 2018). As for other methods used by previous laboring mothers,
it was carried out according to the instructions of the midwife in a squatting position, left side or walking during labor (Rusniati, 2017).

The respondent’s response after being given the intervention on the management of the rebozo technique, the respondent felt calm and relaxed, there were also mothers who felt uncomfortable when given this intervention because they were still adapting to the rebozo technique. This technique has never been taught to mothers before. This technique is still new to the research site. The benefits of doing the rebozo technique can flex the pelvic muscles which causes labor during stage I in multigravida mothers to be faster and mothers feel comfortable during labor.

The results of this study are supported by research from Rusniati et al., (2017) that in multigravida laboring mothers who use the rebozo technique with the length of labor in stage I as many as 18 respondents (51.4%) with the length of labor of 9 hours. While the length of labor in stage II was 29 people (82.9%) with the length of labor 61-100 minutes (Rusniati, 2017). The results of this study differ from previous research from Durotun, et al. 2020 The results of the study showed the effectiveness of giving the rebozo technique to the opening of the cervix and the decrease in the fetal head in laboring mothers during the active phase I. and the rebozo technique is very beneficial to the progress of labor (Durotun Munafiah, 2020).

Duration of labor in first stage Spleen Accupressure 6

The provision of Spleen 6 Accupressure performed on laboring mothers is still not optimal, this is due to the acceleration of labor for 30 minutes from the normal time which in its implementation the pressure applied by researchers and enumerators is still not strong enough, and the intensity of pressure on each respondent is different. Researchers also taught Spleen 6 Accupressure techniques to families while waiting for the labor process. Labor assistants were involved to provide support and encouragement to the mother and participate in performing Spleen 6 Accupressure as taught by the researcher. The implementation of this intervention which initially the respondent did not feel directly, but on internal examination experienced more frequent contractions, so that the opening in labor increased, and the duration of labor was faster than normal.

Accupressure is a form of massage therapy that is closely related to acupuncture. The techniques used in accupressure are taken from acupuncture. This therapy use digital manipulation instead of acupuncture needles, targeting the same specific spots as traditional acupuncture. (Hartono, 2012). According to the idea of accupressure, stimulating point SP 6 has a significant impact on the reproductive organs. Stimulating this location can enhance the accumulation of yin energy, which can initiate the task. Yin energy accupressure has been demonstrated to enhance the production of oxytocin, a hormone that can lead to an increase in uterine contractions. During labor, there is a hindrance in the meridians that results in a disruption of the meridian flow throughout the body. Stimulating point SP 6 helps alleviate obstructions and promote the smooth flow of meridians. At this stage, stimulation can also elicit the release of the hormone oxytocin from the pituitary gland, leading to heightened uterine contractions during labor. (Diyah Tepi Rahmawati, 2016).

This study provides an acceleration in the length of labor when this is because the administration of accupressure spleen 6 can be an induction of labor; this accupressure can stimulate the release of endorphins which are natural pain control by creating a stimulus that interferes with pain transmission to the brain to close the gate so as to inhibit the passage of pain stimuli to higher centers in the central nervous system. In addition to stimulating endorphins, accupressure is also believed to produce oxytocin so that it can accelerate labor and affect the progress of labor. Whereas in mothers who experience the process of labor during the first stage longer due to the birth mother has a long birth distance with her first child, the mother forgets the process of labor experienced previously, this causes the mother to feel anxious which has an impact on the process of opening labor during the first stage.

In line with previous research from Sa'adah, et al (2020), In this trial, the duration of the initial stage of labor was 180 minutes in the treatment group and 307 minutes in the control group. Measurements
were recorded from the active phase until full dilation. While the treated group had a higher maximum value for treatment compared to the untreated group, the minimum value for treatment was lower, specifically 60 minutes. This indicates that the treated group experienced a labor process that was 120 minutes faster than the untreated group. (Sa’adah Mujahidah, 2020).

Effect of Rebozo Technique and Spleen 6 Acupressure on Duration of First Stage of Labor

The effect on the length of labor in the first stage caused by this intervention is very small, so the results obtained are still not optimal, this is because the factors that affect labor include the age of the mother ranging from 21 years to 39 years. In addition, the parity of multiparous mothers with different numbers of births from 2 to 4. In addition, from the researcher in providing acupressure, the pressure felt by the mother was lacking so that the mother only focused on pain during the labor process, the rebozo technique performed by the mother made the mother uncomfortable because it had never been taught in the class of pregnant women. The effect produced by pressing on the spleen 6 acupressure is to correct unbalanced, blocked or deficient energy along the organs or meridians that pass through it and can stimulate the release of oxytocin from the pituitary gland, which directly stimulates uterine contractions.

Based on the results of the research findings in the field, according to the researcher, the age varies in mothers from 22 years to 39 years with the number of children born more than 2, causing changes in the provision of interventions from previous childbirth only recommended long breath and left tilt, while in labor now experiencing innovation to accelerate labor, in its implementation respondents who have never been taught before, feel awkward and uncomfortable, besides that even though initially uncomfortable contractions occur more often so that changes occur during labor. The provision of this intervention to respondents is expected to provide space in the pelvis so that when applied to laboring women in Stage I, experience flexible muscles and the pelvic cavity will relax so as to cause adequate contractions. Whereas in the implementation of spleen 6 acupressure on the respondent, a strong emphasis is made on the spleen 6 acupressure point. This is expected to have a better effect on increasing contractions in active laboring women. The implementation of spleen 6 acupressure massage on respondents experienced changes in contractions and the length of labor became faster than normal. When given this intervention, the respondent felt calm and seemed to only close her eyes when the contractions came. This allows the mother to experience a reduction in pain during contractions, so she does not show pain behavior. When examined by the midwife on her blood pressure, pulse and breathing were within normal limits so the mother was said to feel relaxed. The duration of labor in multiparas with a long birth spacing causes pain to be experienced longer so that the risk of experiencing fatigue will be greater which results in emotional responses in the form of anxiety, tension, fear and even panic. This shows that in primiparous long partuses and infant mortality have a greater risk. Given this, labor pain management needs to be considered for health workers, especially maternity nurses, to reduce the risk of maternal and infant mortality (Sulistyawati, 2012).

Analysis based on theory states that the pain response of each mother in labor is different. Uncontrolled labor pain can stimulate an increase in catecholamines which causes disturbances in uterine contractions so that uterine inertia occurs if not corrected, it will cause a long partus (Aprina, 2017).

Based on the theory of physiological manifestations of labor pain in the first stage, the most frequent are an increase in pulse and respiratory rate, dilated / dilated pupils, increased blood pressure, and muscle tension. Mothers in labor often strengthen the muscles of the bones during contractions and remain motionless (Maryunani, 2012).

The management that is usually carried out by midwives to overcome labor during stage I is by continuing to provide labor support, providing food and drink intake if there are no contractions and by providing massage on the back to increase comfort in laboring women.

The response of laboring mothers who were given rebozo techniques and acupressure spleen 6 there are those who respond like and comfortable and
there are also those who feel comfortable, discomfort is caused because the mother is not used to using this technique.

This study by providing interventions given to respondents accelerated the length of labor both in the rebozo technique and acupressure spleen 6, both interventions were more effective in the rebozo technique, this is because of the two interventions given there is a difference in the length of labor, although not too large, so the two groups of interventions are said to be equally effective in increasing the length of labor during the active phase I and the duration of labor in multigravida mothers. length of labor rebozo technique (90 minutes). In the technique of rebozo shake the apples and rebozo sifting while lying down apples are technically very safe and more relaxed when done according to the rebozo technique protocol, and in privacy the patient's clothes remain complete, the curtain or door of the room is closed, the ventilation of the room is quite good and economically the patient does not spend at all and in terms of time is also very short. However, considering that the respondents in this study were multigravida mothers, apart from the influence of this rebozo technique, it is possible that it could also be influenced by other factors such as parity, labor experience, and individual coping in dealing with previous childbirth. Likewise with the length of labor, where the length of labor in this study may be influenced by the physiological and psychological conditions of the patient such as the thickness of the cervical portion, power, hiss and patient anxiety.

Supported by the results of research from Yulidjan, et al (2020), the analysis of Dependent eSample T-Test on the length of labor shows a significant value of 2-tailed> 0.05, so there is no significant difference in the average length of labor between the intervention of the rebozo shake the apples technique and the rebozo sifting while lying down technique. This happened because the measurement of the duration of labor was only seen at the end after the intervention from the active phase I until the baby was born, while before the intervention there was no measurement of the duration of labor. So that from the intervention of the rebozo shake the apples technique and the rebozo sifting while lying down technique, the value of the duration of labor is slightly different, namely 154 minutes in the rebozo shake the apples and 139 minutes in the rebozo sifting while lying down technique. Where the duration is less than 360 minutes in the active phase I in multigravida, meaning that this rebozo technique can affect the length of labor. Usually the duration of labor in the active phase should ideally not exceed 10 hours, while in multigravida mothers the duration of labor in the active phase I is approximately 6-8 hours (Yulidjan Nurpratiwi, 2020).

Whereas in the research of Rusniati et al., (2017) During the active phase of labor, the duration of the labor process is eight hours. During the second stage of labor in a multigravida woman, the labor lasts for one hour. This is because the rebozo technique places a strong emphasis on the pelvic bones, which helps to relax the muscles that surround the pelvis. Additionally, the lumbar section will increase oxytocin receptors, which will cause the quality of uterine contractions to be adequate. As a result, the decrease in presentation will occur more quickly, which will have an effect on the acceleration of the labor process. In addition to this, it is also possible for it to be affected by the condition of the delivery canal. This is due to the fact that the birth canal in multigravida is softer than the birth canal in primigravida, which enables the length of labor to be shortened even further. (Rusniat, 2017).

In line with previous research, Rojlin Tigga and Rita Thapa's research examined the effectiveness of acupressure on labor pain and duration of labor in the first stage where the results of the length of labor in the treatment group were faster than the treatment group where Rojlin divided the length of labor into 3 categories, 7-10 hours there were 14 respondents in the treatment group, 10-13 hours were 16 respondents in the treatment group and 15 respondents in the control group and 13-16 hours were 15 respondents in the control group (Tingga R, 2016).

In contrast to the findings of Iversen et al. (2017), which found that the rebozo shake the apples and rebozo sifting while lying down techniques also have a good effect on labor, such as increasing the sense of comfort during labor, the rebozo techniques have been shown to have a positive influence on labor. In the same way that the
Iversen’s study was conducted, the rebozo shake the apples technique can be combined with the rebozo sifting while lying down technique. Both of these approaches, when combined, offer the patient a sense of comfort. Whereas this rebozo technique can anatomically press the lumbar region to the coxigis with striated cloth or rebozo, the stimulation of this rebozo technique can cause stretching of the pelvic muscles and release endorphins in the blood, as well as assist in the regulation of contractions and the restoration of balance during the labor process (Iversen, 2017).

CONCLUSION

This study contributes to a deeper and more nuanced understanding in the Pakis Aji Health Center area of Jepara district which has never been done until now. In addition, it provides an experience of non-invasive and non-pharmacological methods used during labor. Women’s experiences of Rebozo and Spleen 6 Acupressure techniques performed during labor are physical and psychological and improve pain management and have the potential to support the labor process as a harmless nonpharmacological method.

The intervention of Rebozo Technique and Acupressure Spleen 6 can be seen as a medium of cooperation between laboring mothers, husbands and midwives.

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