

The Effect of Rebozo Technique on the Length of Time for Active Phase I Labor in the Noemuti Health Center Area in 2023

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ABSTRACT

There are still numerous problems in Indonesia, including prolonged labor that can murder mothers and infants. The rebozo technique is a physiological endeavor to prevent prolonged labor that can accelerate or shorten the active phase of labor. In 2023, the objective is to ascertain the impact of the rebozo technique on the duration of active phase I labor in the Noemuti Health Center Region. Research technique The research design is a Quasi-Experiment employing a One-Group Pretest-Posttest Design with a control. 30 respondents in the population, 15 in the experimental group and 15 in the control group as the cohort. The investigation lasted one month, from April 2022 to May 2023. The rebozo technique intervention group had a rank value of 3.8 and a standard deviation of 2.0, and the p value was greater than 0.005, so it can be concluded that there was a significant difference between the intervention group and the control group. With a p value of 0.003 0.005, mothers who were intervened by the rebozo technique were able to reduce labor time to 6 hours and reduce pain. The conclusion The rebozo technique should be communicated to mothers and families at term gestation regarding the intervention of the rebozo technique if done regularly, it is hoped that when the mother enters the inpartu period, it can accelerate the opening of the cervix and the decrease in the fetal head in laboring mothers during the active phase I, thereby shortening the duration of labor.

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1. INTRODUCTION

Childbirth is the process by which the baby, placenta and amniotic membranes leave the uterus in the mother giving birth. Normal delivery occurs at term gestational age or after 37 weeks or more without complications. Usually during labor, contractions can affect it so that it can cause a pain response in each individual[1]. Where pain is an unpleasant condition for mothers in labor due to physical stimulation or from nerve fibers in the body to the brain and followed by physical and emotional reactions[2]. The Maternal Mortality Rate (MMR) is an important indicator in determining the degree of public health[3]. According to data from the Indonesian Demographic Health Survey (IDHS) in 2015, the maternal mortality rate was 305/100,000 live births. This figure is still relatively higher when compared to ASEAN countries[4]. According to the North Sumatra Provincial Health Office in 2015 the MMR in North Sumatra was 175/100,000 live births[5]. To reduce MMR, efforts related to pregnancy, birth and postpartum are needed[6].

Factors causing the Maternal Mortality Rate (MMR) can be caused by 2 factors, namely direct causes and indirect causes[7][8]. Direct causes include bleeding, eclampsia, prolonged labor, abortion complications, and infection[9][10]. While indirect causes include the status of women in the family, the presence of children, socio-cultural, educational, socio-economic, and geographical areas[11]. The Infant Mortality Rate (IMR) in Indonesia is 32 deaths per 1000 live births. The causes of infant death in Indonesia are 29% low birth weight (LBW), 27% asphyxia, birth trauma, neonatal tetanus, other infections, and congenital abnormalities.[12].

The number of maternal deaths in NTT Province has decreased by 10 cases in 2 years, namely 181 cases in 2021, down to 171 cases in 2022. The districts with the highest number of maternal deaths that have always appeared in the last 2 years are South Central Timor, Kupang, East Manggarai, Manggarai, Southwest Sumba and East Sumba. While the number of infant deaths in NTT is still increasing, there has been an increase of 184 cases, namely 955 cases of infant death in 2021, increasing to 1,139 cases in 2022. The main causes of infant mortality are due to asphyxia (27%), low birth weight (18%), congenital abnormalities (8%), Pneumonia (7%), other disorders (6%), social, cultural and economic problems of the community (34%). Districts with the highest number of infant deaths (always occurring in the last five (5) years): South Central Timor, Manggarai, West Manggarai, Kupang, Sikka,.

Energy or his factors include the strength of the mother and contractions[13]. Fetal factors include large fetal head, facial presentation, persistent malposition[14]. Factors of the birth canal include a small pelvis due to malnutrition, pelvic tumors[15], a viral infection of the stomach or uterus. In Indonesia, the rebozo technique has been introduced by the hypnobirthing and prenatal gantlebirth development team[16][17]. In relation to data coverage at the Noemuti Health Center, this study aims to determine the effect of the rebozo technique on the duration of labor in the active phase I in the Noemuti Health Center Region in 2023, Data includes direct and indirect causal factors of MMR and IMR, with a focus on the impact of the rebozo technique on the duration of labor in the active phase I.

2. METHODS

The research design is Quasi Experiment with One Group Pretest-Posttest Design approach with control. In this design before treatment is given, the sample is first given a pretest (initial test) and after the experiment the sample is given a posttest (final test) Population 30 respondents, a sample of 15 respondents in the experimental group and 15 in the control group. By using a pretest-posttest approach in an experimental design, this study aims to collect relevant and accurate data regarding the effectiveness of the rebozo technique on laboring mothers in the region.

The population consisted of all mothers giving birth in the Noemuti Health Center area, with a total population of 30 respondents. The sample consisted of 15 respondents in the control group (laboring mothers without rebozo technique) and 15 respondents in the intervention group (laboring mothers with rebozo technique). This study was conducted in the Noemuti Health Center area. The study was conducted for 1 month, from April 2022 to May 2023 in the Noemuti Health Center Area.

3. RESULTS AND DISCUSSION

Results

Based on the Quasi Experiment with the One Group Pretest-Posttest Design approach with control on a sample consisting of 15 respondents in the control group, namely laboring mothers who did not do the rebozo technique and 15 respondents became the intervention group, namely laboring mothers who received rebozo technique treatment, the distribution results were obtained before and after the rebozo technique was performed. Can be seen in table 1 below.

Table 1. Frequency distribution before and after being given the rebozo technique

Before being given rebozo	Frequency	Percentage (%)
Normal < 6 hours	10	33,3
Abnormal > 6 hours	20	66,7
Amount	30	100.0
After being given rebozo		
Normal < 6 hours	21	70.0
Abnormal > 6 hours	9	30.0
Amount	30	100.0

Table 1 it is known that before being given the rebozo technique intervention, 10 women (33.3%) gave birth <6 hours, while 20 women (66.7%) were not normal, namely mothers who gave birth >6 hours. The next result is related to the length of the labor process passed by respondents before the

application of the rebozo technique and the control group, this is intended to determine a significant impact on the length of labor time and pain levels in laboring women in the active phase I.

Table 2. Description of the duration of the first stage of labor in the group before the rebozo technique treatment and the control group

Length of time of delivery	intervention group		control group		Total	
	F	%	f	%	F	%
Normal < 6 hours	6	40.0	4	26,7	10	33.3%
Abnormal > 6 hours	9	60.0	11	73,3	20	66.7 %
Amount	15	100.0	15	100.0	30	100.0 %

Table 2 it is known that the duration of normal delivery for mothers < 6 hours in the intervention group is 6 people (40%) while in the control group the duration of normal delivery for mothers < 6 hours is 4 people (26.7%). In the intervention group, there were 9 mothers who delivered abnormally > 6 hours (60.0%), while the length of time of delivery in the control group of mothers who delivered abnormally > 6 hours totaled 11 persons (73.3%).

Table 3. The effect of giving the rebozo technique to the intervention group and the control group

Labor pain	technique	mean	sd	min-max	95% ci	sig.
control	before	3,8	2.0	1-8	-4.63– 6.89	0.724
	after	3,6	0.4			
intervention	before	3,8	2.0	0.3-1.5	0.003	
	after	2,8	0.9			

The table above shows that in the control group the average was before being given the rebozo technique 3.8 and after 3.6 with a standard deviation difference of 2.0, the minimum maternal pain scale is 1 and the maximum maternal pain scale is 8. The results of the analysis from the control group can be it was concluded that an average of 95% of the average maternal pain scale in the control group was -4.63 to 6.89. The results of the T-test analysis showed that the P value was 0.724 meaning that there was no significant difference between mothers before and after being given to the control group, with a p value > 0.005. Meanwhile, mothers in the intervention group averaged 3.8 and after 2.8 with a difference of 1.0 with a standard deviation of 0.9. With an average pain scale of 0.3 to 1, 5 there is a decrease, meaning that the mother who is given the rebozo technique can reduce the time to < 6 hours, meaning that there is a significant difference with a p value of 0.003 < 0.005. It can be concluded that the rebozo technique is very effective given to mothers in labor in the active phase I to reduce the length of labor and reduce pain in labor.

Discussion

When I Active Phase

Prolonged labour, which is one of the direct causes of maternal death, data from the International NGO on Indonesian Development (INFID) in 2013 showed that the incidence of prolonged labor in Indonesia was 5% of all causes of maternal death. Primigravida opening 1 cm every hour and multigravida 2 cm every hour. Normally the 1st stage of labor starts from the opening of the cervix and the contractions occur regularly and increase (frequency and strength) at least 2 times in 10 minutes 40 seconds until the cervix is fully dilated (10 cm). The first stage of labor consists of two phases, namely the latent phase and the active phase. The active phase, namely the frequency and duration of uterine contractions, will increase gradually in the opening of 4 cm until it reaches complete opening or 10 cm, there is a decrease in the lower part of the fetus[12], [18].

This rebozo technique also helps mothers to be more relaxed in facing labor without any medication. In this study, it was known that 10 mothers (33.3%) had births before the rebozo technique intervention, while 20 mothers (66.7%) had abnormal deliveries > 6 hours. There were 21 mothers (70%) who received the rebozo technique intervention for normal delivery < 6 hours, while those whose deliveries were not normal > 6 hours totaled 9 mothers (30%). Mothers before the rebozo technique

intervention in the intervention group amounted to more than 60% with abnormal labor > 6 hours, while in the control group it was 73.3%. For the intervention group, after being given the rebozo technique during the first active phase of labor, there were 15 people (100%), while the control group had an abnormal length of labor > 6 hours. According to the assumption of the researcher that provide maternal care by explaining and advising mothers for rebozo technique therapy with the aim of controlling, reducing, and eliminating pain in labor, especially the first stage, as well as helping to lower the head so that the length of time for labor will be faster [13], [19]. The rebozo technique can be interpreted as an extension of the midwife's hand in providing touch, caressing and comfort to the mother in labor so that the mother feels relaxed, comfortable and feels loved by the touch of a gentle caress that covers the abdomen or pelvis. Apart from reducing labor pain and helping the mother to relax more without help without any medication, this technique can also be used to provide space for the baby so that the baby can be in the optimal position for delivery.

The effectiveness before and after being given the rebozo technique on the duration of the 1st stage of labor and reducing pain

It is known that in the control group the average is before being given the rebozo technique 3.8 and after 3.6 with a standard deviation difference of 2.0, the minimum maternal pain scale is 1 and the maximum maternal pain scale is 8. The results of the analysis from the control group can be concluded that an average of 95% of the average maternal pain scale in the control group is -4.63 to 6.89. The results of the T-test analysis showed that the P value was 0.724 meaning that there was no significant difference between mothers before and after being given to the control group, with a p value > 0.005. Meanwhile, mothers in the intervention group averaged 3.8 and after 2.8 with a difference of 1.0 with a standard deviation of 0.9. With an average pain scale of 0.3 to 1, 5 there is a decrease, meaning that the mother who is given the rebozo technique can reduce the time to < 6 hours, meaning that there is a significant difference with a p value of $0.003 < 0.005$. It can be concluded that the rebozo technique is very effective given to mothers in labor in the active phase 1 to reduce the length of labor and reduce pain in labor.

[20] Shows that the rebozo technique is very effective given to mothers in active phase 1 in labor to speed up labor time. In a recent study [21], it was concluded that the RSTA and RSWLD techniques also have a positive effect on labor, one of which is to increase the feeling of comfort during labour. Meanwhile, in Iversen's study, there was the RSTA technique with RSWLD, which of the two techniques both provide patient comfort. Where the rebozo technique can anatomically suppress the lumbar to coccygeal area with striated or rebozo cloth, with the stimulus of this rebozo technique it can stretch the pelvic muscles and release endorphins in the blood, and help regulate contractions and restore balance in the labor process. The rebozo technique is a non-pharmacological therapy to accelerate the opening of the cervix for birthing mothers. In research proving the effectiveness of the rebozo technique for opening the cervix so as to accelerate the progress of labor. This study was conducted using the pre-experimental method which concluded that there were differences or discrepancies in the opening of the cervix in delivery mothers before and after the rebozo technique was carried out compared to the control group. In this study, the control group underwent pelvic rocking. The results of research by [14], [22] et al concluded that mothers in the first stage of labor who do pelvic rocking exercises can accelerate the progress of labor at the Ungaran Regional General Hospital (RSUD).

4. CONCLUSION

From the research conducted, it can be concluded that 1). In the previous group that was not intervened and was intervened with the rebozo technique, it had a rank value of 3.8, while with a standard deviation of 2.0, the p value was > 0.005, so it can be concluded that there was a significant difference in the mothers in the previous group who did not receive the rebozo technique intervention. 2). In the group after the mother who was intervened by the rebozo technique had an average value of 2.8 with a standard deviation of 0.9, there was a decrease from the control group, meaning that the mother who was intervened by the rebozo technique could reduce the length of labor to <6 hours and could reduce pain with a p value value $0.003 < 0.005$ indicates that there is a significant difference

between mothers who were given the rebozo technique and mothers who did not receive the rebozo technique. Based on the results of the Quasi Experiment with the One Group Pretest-Posttest Design approach with a control, it can be concluded that the rebozo technique has a significant impact on the length of labor time and pain levels in laboring women in the active phase I stage. The analysis showed that after the administration of the rebozo technique, there was a significant decrease in the length of labor time and pain level in the intervention group, while there was no significant change in the control group. This suggests that the rebozo technique can be effectively used as an intervention to reduce labor duration and pain in laboring women.

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