Effect of Applying Rebozo Techniques on Pain Intensity and Anxiety among Primiparous Women during the Active Phase of Labor.

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Abstract

Women experience traumatic pain during normal delivery, as well anxiety and discomfort are intimately associated with it. Rebozo technique is one of the non-pharmacological pain relieve measures which give the mother a larger pelvic space so that the baby could descend the pelvis more easily and the birth process could proceed more quickly. **Aim**: This study aimed to evaluate the effect of applying Rebozo techniques on pain intensity and anxiety among primiparous women during the active phase of labor. **Design:** A quasi experimental study design was utilized. **Study sample:** A purposive sample of 124 primiparous women was divided randomly into two groups assigned to either intervention or control group, each group contained sixty two woman. **Tools of data collection:** Four tools were used; a structured interview schedule, Visual Analogue Scale, Beck Anxiety Inventory and Satisfaction Likert scale. **Results:** The present study findings showed that in the 1st, 2nd & 3rd hour of the active phase of labor after applying rebozo techniques, there were highly statistically significant decrease in labor pain, anxiety and high satisfaction level regarding the application of rebozo techniques in favor of the intervention group (p= 0.001). **Conclusion:** Rebozo techniques are non-pharmacological effective measures for reducing labor pain, anxiety level and enhancing satisfaction level among primiparous women during labor. **Recommendations**: Integrating Rebozo techniques as a non-pharmacological pain relieve measure in nursing care protocol for women in labor to reduce pain, anxiety and enhance maternal satisfaction during labor.

Keywords: Active phase of labor, Anxiety, Labor pain, Rebozo techniques, Satisfaction.

Introduction:

Labor is a process in which the mother expels products of conception from intrauterine to the outside. The active and latent phases of labor constitute the first stage of labor. The latent phase starts with regular contractions and followed by 3 cm cervical dilatation. The active phase comes after the latent phase and is completed by cervical dilatation to become 10 cm **(Varney, 2017).**

Pregnant women experience discomfort in the first stage, which indicates the start of labor. However, the pain could occasionally cause discomfort and anxiety for pregnant women. Worrying during labor may cause a decrease in uterine contractions, resulting in a prolonged period for cervical dilatation. The mother's pushing, fetal factors, delivery canal factors and maternal psychological factors like the level of anxiety and fear encountered during labor could all be contribute to elongated cervical dilatation. The first stage will extend as a consequence of a protracted cervical dilatation, which is known as the prolonged 1st stage **(Admin & Meta Rosdiana, 2019).**

When delivery takes duration longer than anticipated, the mother could lose the energy and experience ineffective uterine contractions over time, which could further impede the process of labor. Intrapartum and postpartum haemorrhage can be caused by insufficient uterine contraction. Psychological variables such as mothers' perceptions of pain and anxiety during labor are additional factors that influence the length of childbirth **(Prawirohardjo, 2014)**.

World Health Organization (WHO) recommends the use of non-pharmacological methods for pain relief (NPMPR), which are "clearly useful conduct that should be encouraged" to increase pain tolerance and to decrease the stress and anxiety of women during labor **(WHO, 2018)**. These methods act to promote relaxation of the pregnant women, increasing the bond between them and their companion, reducing the unnecessary use and

risk of drugs and their side effects **(Sousa, Santos & Andrade, 2019).**

The main advantage for using NPMPR is the reinforcement and respect of parturient women's autonomy, allowing them to have the main role during labor and birth. For these reasons, during the prenatal follow-up, an adequate preparation is recommended, with the involvement and participation of the laboring women and their companion, in order to ensure that the experience of labor and delivery could be safer and less painful **(Czech, Fuchs , Fuchs, Lorek, Tobolska-Lorek, Drosdzol-Cop et al, 2018)**.

A variety of non-pharmacological techniques can be used to alleviate labor pains and anxiety. Rebozo Technique is one of them. This technique originated from Latin America. A Rebozo is a type of long cloth (shawl). In Indonesia, this is known as a Jarik gendong. Scarves are made of soft materials that are gently put on the mother's skin. It is also strong enough to withstand a weight of up to 225 kg. Ways of Rebozo techniques include belly support, double hip squeeze, sifting, hip shake and while pushing **(Iversen, Midtgaard, Ekelin & Hegaard, 2017).** Rebozo Techniques are one of the alternatives that can be used by health care personnel, as these techniques are simple to use and accepted by the client, resulting in a positive psychological and clinical outcomes. So, applying Rebozo Techniques for reducing labor pain and anxiety among primiparous women during the active phase of labor was discussed in this study.

Significance of the study:

According to World Health Organization, 810 women die each day as a result of pregnancy-related or delivery complications. In 2017, nearly 295,000 women lost their lives during pregnancy or childbirth. In 2017, the Maternal Mortality Rate (MMR) in developing countries was 462 per 100,000 live births, while it was 11 per 100,000 live births in high-income nations. Every day, over 800 women died as a result of preventable pregnancy and childbirth complications. 99 percent of maternal deaths occur in developing countries **(WHO, 2019)**. In 2018, MMR increased by 111 per 1,000 live births **(Dinkes Prov. Bengkulu, 2019)**. Egypt's total maternal mortality rate is 32.6/100.000 **(Kassebaum, Villa, Coggeshall, Shackelford, Steiner, Heuton et al, 2014)**.

Labor is characterized as a normal process, but the pain experienced at this time is very subjective and complex for each woman. It is seen as a very particular experience from person to person. This moment is attended by obstetrical nurses and other health care personnel who work with the purpose of reducing stressors and promoting the preparation for childbirth itself, through orientation and application of the strategies that provide safety and comfort for the parturients **(Mafetoni & Shimo, 2014).**

The mother may become exhausted if the labor is prolonged, which may affect labor progress. Both pharmacological and non-pharmacological approaches could be used to treat the prolonged first stage. Utilization of Rebozo technique is one of the non-pharmacological methods which aids in giving the mother a broader pelvic cavity so that the fetus may more easily descend the pelvis and the birth process could go faster **(Double symbol & Siburian, 2021).** Furthermore, there is a little research in Egypt on applying Rebozo techniques during labor. So, this study was implemented to evaluate the effect of applying Rebozo techniques on pain intensity and anxiety among primiparous women during the active phase of labor.

Aim of the study:

This study aimed to evaluate the effect of applying Rebozo techniques on pain intensity and anxiety among primiparous women during the active phase of labor.

Hypotheses of the study:

Hypothesis I: Primiparous women who practice Rebozo techniques experience lesser pain and anxiety levels during the active phase of labor than those who don't.

Hypothesis II: Primiparous women who practice Rebozo techniques exhibit higher satisfaction level during the active phase of labor than those who don't.

Subjects and Method

Study design:

A quasi-experimental research design was used in this study.

Study setting:

This study was carried out at Labor and Delivery Unit in Mansoura University Hospital, Egypt. This unit contains an examination room, a large room with six beds, a room for pre-eclamptic patients, an ultrasound room and a post-partum room. Each month, around 80 women deliver in this unit on three emergency days/ week (Sunday-Tuesday and Thursday).

Sample type: A purposive sample was used.

Study subjects: One hundred and twenty-four primiparous women were recruited from the previously mentioned setting to participate in this study according to the following:

Inclusion criteria included :

- Women aged 20-35 years old.
- Single living fetus.
- Fetal head presentation.
- Active phase of labor (cervical dilatation = 4 cm).

Exclusion criteria included :

Laboring women with either obstetric, medical or psychological disorders.

Sample size calculation:

Based on the study of **(Purwanti et al., 2020)** who investigated the influence of Rebozo techniques implementation on pain intensity and anxiety level of mother during active phase. The sample size was calculated using the following formula at level of significance 5%, and power of study 80% : $n = \frac{2(Z\alpha/2 + Z\beta)^2 \times p\,(1-p)}{(d)^2}$ Where,

$Z_{\alpha/2}$ =1.96, Z_{β} = 0.84.

p = pooled proportion from previous study

d = expected difference in proportion of events

Therefore, $n = \frac{2(1.96 + 0.84)^2 \times 0.53\,(1-0.53)}{(0.251)^2} = 61.9$.

So, the sample size required was 62 per group.

Data collection tools:

Four tools were used; A Structured interview schedule, Visual Analogue Scale (VAS), Beck Anxiety Inventory (BAI) and Satisfaction Likert Scale.

Tool I: A Structured interview schedule:

After extensive review of national and international related literatures, researchers developed this tool. It included two parts:

Part One: Covered basic demographic data as age, educational level, occupation, residence and monthly income.

Part Two: Consisted of obstetric history such as gestational age, gravidity and number of abortions.

Tool II: Visual Analogue Scale (VAS):

This tool was adopted from **Boonstra et al, (2008)** to measure the severity of pain. The scale has two ends "no pain" on the left end (0 cm) and "worst pain" on the right end (10 cm). Scores are based on self-reported symptoms recorded with a single handwritten mark put at one position along the length of a 10-cm line symbolizing a continuum between the two ends.

Scoring system:

According to the responder's score as (0)= no pain, (1-3) =mild pain, (4-6) =moderate pain, (7-9) = very severe pain and (10) =worst pain.

Tool III : Beck Anxiety Inventory (BAI) :

This tool was adopted from **Beck et al., (1988)** and contained 21 self-reported items that assessed anxiety symptoms, such as feeling numbness, heat waves, pain and cramping in the legs, an inability to relax, doubt, worry, and expectation of the worse ….etc. Women were asked to rate each object on a Likert-type scale with a range of 0 (not at all) to 3 (severe), using a 4-point scale. Total scores from (0 to 63), mild anxiety (0-20 scores), moderate anxiety (21- 41 scores) & (42-63 scores) indicates severe anxiety.

Tool IV : Satisfaction Likert Scale :

This tool was adopted from **Likert, (1932)** to evaluate laboring women satisfaction

regarding the use of Rebozo techniques. It include a one –dimentional, 5 points likert scale and has a score of (1- 5) in which (5) refers to very satisfied, (4) refers to satisfied, (3) uncertain, (2) unsatisfied and (1) very unsatisfied.

Validity of the tools:

Validity of the tools was tested by three experts in the speciality of Woman's Health and Midwifery Nursing to affirm that the included questions were simple and had the expected meaning. No modifications were done.

Reliability of the tools:

Reliability for the internal consistency of the Visual Analogue Scale was assessed statistically with Pearson Correlation, it was 0.89. While, Beck Anxiety Inventory was tested with Cronbach's alpha equal 0.81, and for satisfaction Likert Scale it was 0.84, so the study's tools were highly reliable.

Ethical considerations:

Before conducting this study, the researchers obtained an ethical consent from the Research Ethics Committee, Faculty of Nursing, Mansoura University, Egypt. In addition, an official approval from the director of Mansoura University Hospital was obtained, after explaining the study's aim and method, each primiparous women provided an oral consent. All participants were reassured regarding the confidentiality of the gathered information and the ability to withdraw from the study at any time.

Pilot study :

It was conducted on 10 % (13 primiparous women) from the total study sample in order to test the objectivity, applicability of the study tools and to estimate the time needed to fill in the study tools. These primiparous were excluded from the total study sample.

Research process:

The current study was conducted from the beginning of December 2022 to the end of April 2023. The researchers attended the previously mentioned setting three days /week (Sunday, Tuesday & Thursday) from 9 a.m. to 2 p.m. to complete the calculated sample size. This study was conducted through three phases; preparatory, implementation and outcomes evaluation.

Preparatory phase:

After massive reviewing of the literature using the available periodicals, books and internet resources to get acquainted with the various aspects of the study problem, the data collection tools were prepared. The aim of the study was clarified to each woman after confirming the eligibility for participation also, oral consent was taken from them.

Implementation phase:

Control group

- The researchers asked women about their demographic data as age, level of education, residence & monthly income. Also, their obstetric history was assessed, as a pretest.
- The control group received only the routine hospital care prescribed by their obstetricians during the active phase of the 1st stage of labor.
- The primiparous women's labor pain and anxiety levels were assessed at the start of the active phase when the cervical dilatation was 4 cm (pretest).

Intervention group:

- Each woman included was interviewed, greeted separetely and informed about the aim of the study. Also, the researchers obtained the consent of the women and ensure their right to withdraw from the study at any time. During this interview tool I (parts 1 and 2) was assessed, also labor pain and anxiety levels were assessed by using tool II & III as a pretest.
- Besides the routine care of the 1st labor stage, the participants of this group were asked to apply Rebozo techniques with the help of the researchers.
- Rebozo techniques were performed for each woman when contractions began (one technique on each contraction either hip shake, sifting or double hip shake) for 5 minutes and stopped after contractions finished (at the 1st, 2nd & 3rd hour in the active phase of labor) as the following:

- **The first technique titled Hip Shake;** in which the woman is placed on two arms and legs. Drape Rebozo (the researchers used the hospital sheet or linen as a Rebozo) across the buttocks and hips. Pull down on the ends toward the floor and then "shake" the woman's hips by moving the researcher hands forward and back. as in **figure1.**
- **The second technique was Sifting;** the woman is placed on two arms and legs. The researcher stand behind her and spread the rebozo over the belly and slightly pull up. Begin gently rocking, or sifting, back and forth as in **figure 2.**
- **The third technique was Double Hip Squeeze;** Researchers put Rebozo under the belly, around the hips, and pulled in opposite directions (pulled strap in left hand to the right side and vice versa), also the researchers added a twist to keep it tight and add more counter pressure on the back as in **figure 3.**

Figure 1

Figure 2

Figure3

Available at https:// (modernalternativemama.com) 5 Ways to Use a Rebozo During Labor. Accessed on 1/11/2022 at 6 p.m.

Outcomes evaluation:

Three outcomes were assessed in this phase.

- Labor pain was the first outcome. It was assessed using Visual Analogue scale then primiparous anxiety level was assessed using the Beck Anxiety Inventory (BAI) scale. Both were assessed in the control and intervention groups after the application of Rebozo techniques and at one, two, and three hours after the intervention as a post test.
- Primiparous women's satisfaction regarding Rebozo techniques was the third outcome for only the intervention group. Since the hospital policy allow vaginal delivery mothers to discharge after two hours postpartum; the mother's satisfaction was assessed on that time by the one dimensional 5-points Likert scale.

Limitation of the study

There was lacking of the necessary national and international references so, the researchers had difficulties in discussing the research topic.

Statistical analysis:

Data was analyzed using "IBM SPSS Statistics Version 23 for Windows Package Programme". Mean and standard deviation was used to describe numerical measures, whereas number and percentage was used to express categorical measures. Chi-square tests for categorical variables and the t-test for numerical measurements were both used to compare variables of the studied groups. A p-value is significant at ≤ 0.05 **(Infanger and Schmidt-Trucksäss, 2019).**

Results:

Table (1) : Shows the mean age of the intervention group (26.42 ± 3.98) compared to (26.08 ± 3.99) in the control group. No statistically significant differences were found between both groups in relation to demographic data ($p > 0.05$).

Table (2): Shows no statistically differences were found in obstetric history between the both groups with ($p > 0.05$).

Table (3): Clarifies no significant differences regarding pain intensity between the two groups at the beginning of the active phase with ($p > 0.05$). While the intervention group experienced a highly statistically

significant decrease in labor pain compared to the control group after the 1st , 2nd and 3rd hour in the active phase with (p = 0.001).

Table (4): Exhibits no significant differences regarding women's anxiety level between the both groups at the beginning of the active phase with (p > 0.05). While, after the 1st , 2nd and 3rd hour during the active phase. A highly statistically significant decrease was found in the anxiety level in favor of the intervention group compared to the control group with (p= 0.001).

Figure 1: Presents that 42% of women who practiced Rebozo techniques were strongly satisfied, 31% were satisfied, while only 5 % were strongly unsatisfied with these techniques.

Table (1): Demographic data of the studied groups.

Demographic data	Intervention group (n = 62)	Control group (n = 62)	Significance Test
	No %	No %	
Age in (years)			
20 - < 25	27 (43.6%)	30 (48.4%)	X^2 = 0.318
25 - < 30	16 (25.8%)	14 (22.6%)	p= 0.853
30 – 35	19 (30.6%)	18 (29.0 %)	
Mean ± SD	26.42 ± 3.98	26.08 ± 3.99	t= 0.87 p= 0.637
Educational level			
Unable to read/ write	10 (16.1%)	9 (14.5%)	X^2 = 1.34
Middle education	43 (69.4%)	39 (62.9%)	p= 0.513
High education	9 (14.5%)	14 (22.6%)	
Occupation			
Housewife	13 (21 %)	17 (27.4%)	X^2 = 0.70
Working	49 (79.0 %)	45 (72.6%)	p= 0.40
Residence			
Rural	51 (82.3%)	50 (80.6%)	X^2 = 0.05
Urban	11 (17.7%)	12 (19.4%)	p= 0.817
Monthly Income			
Enough	33 (53.2%)	30 (48.4%)	X^2 = 0.29
Not Enough	29 (46.8%)	32 (51.6%)	p= 0.59

X^2: chi-square test, t: Student t test.

Table (2): Obstetric history of the studied groups

Obstetric history	Intervention group (n = 62)		Control group (n = 62)		Significance Test
	No	%	No	%	
Gravidity					
One	24	38.7	25	40.32	X^2 = 0.36
Two	21	33.9	18	29.03	p= 0.83
Three and more	17	27.4	19	30.65	
Number of abortions					
Non	30	48.4	33	53.23	X^2 = 0.59
Once	22	35.5	18	29.03	p= 0.74
Twice and more	10	16.1	11	17.74	
Gestational age Mean ± SD	37.48 ± 1.81		37.85 ± 1.05		t= 0.86 p= 0.17

X^2: chi-square test, t: Student t test.

Table (3): Mean differences between the studied groups regarding pain intensity during the active phase of labor

VAS (pain)	Intervention group (n= 62)		Control group (n= 62)		T- test	P- value
	Mean	SD	Mean	SD		
Beginning of active phase	4.10	1.08	4.16	1.01	0.34	0.73
After 1st hr.	4.56	0.76	5.61	0.84	7.30	0.001**
After 2nd hr.	5.21	0.48	7.47	0.80	18.95	0.001**
After 3rd hr.	6.47	1.42	9.03	0.72	12.65	0.001**

***Highly Statistical Significance at a (P-value ≤ 0.001).*

Table (4): Mean differences between the studied groups regarding anxiety during the active phase of labor

BAI (Anxiety)	Intervention group (n = 62)		Control group (n = 62)		T- test	P- value
	Mean	SD	Mean	SD		
Beginning of active phase	23.15	3.01	22.27	3.39	1.51	0.13
After 1st hr.	25.38	3.21	29.31	1.90	8.27	0.001**
After 2nd hr.	28.27	2.13	35.39	2.29	17.90	0.001**
After 3rd hr.	33.66	2.06	40.84	3.72	13.28	0.001**

***High statistical significance at a P-value (≤ 0.001).*

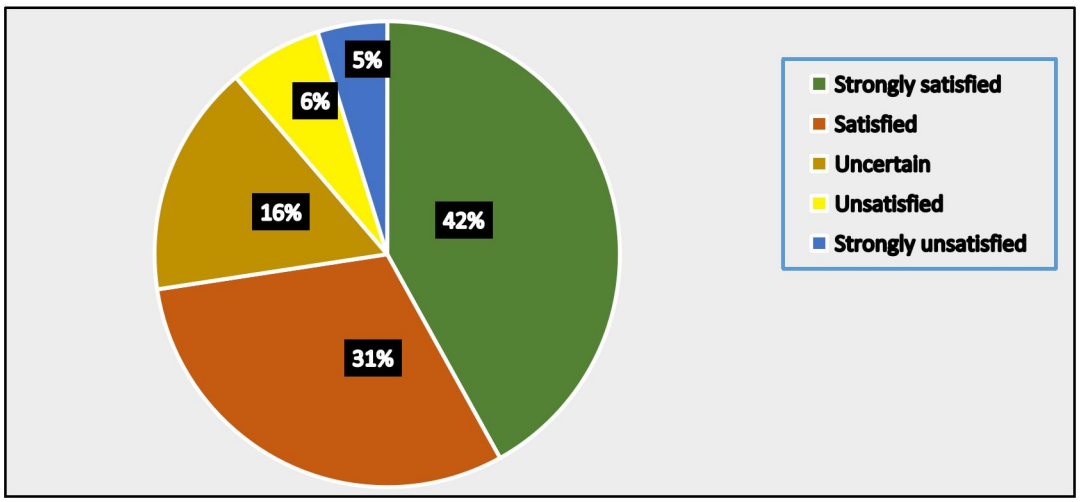

Figure (1): Primiparous women's satisfaction level regarding Rebozo techniques among the intervention group.

Discussion:

The current study aimed to evaluate the effect of applying Rebozo techniques on pain intensity and anxiety among primiparous women during the active phase of labor. Findings of this study reported that highly statistically significant differences were found between both groups, whereas the intervention group experienced decreased levels of labor pain and anxiety during each time point (1st, 2nd, and 3rd hour during the active phase). Furthermore, primiparous women included in the intervention group reported higher levels of satisfaction. As a result, the current study's hypotheses " primiparous women who practice Rebozo techniques experience lesser pain intensity, anxiety level and higher satisfaction level during the active phase of labor than those who don't" were reinforced".

Findings of the current study revealed that primiparous women who practiced Rebozo techniques experienced lower pain intensity in each time point as the intervention group suffered less pain than the control group at (1^{st}, 2^{nd} & 3^{rd} hour) of the active phase of labor. It was obvious that labor pain wasn't completely eliminated which indicated progress of labor and the fetus was getting closer, but the researcher interpreted reduction in labor pain intensity between both groups in favor of the intervention group due to Rebozo techniques that had positive effect on relieving round ligaments pain, easing discomfort in the pelvis and providing comfort during contractions.

In agreement with the current study findings, done by **Purwanti (2020)** who studied the impact of using rebozo techniques on pain and anxiety of a mother giving birth during the first phase of labor, the study finding reported that the average value before and after the technique was 1.36, with a significance level of 0.000 < 0.005, indicating that there was positive impact on the mother's pain level after applying rebozo techniques.

Furthermore, **Damayanti & Fatimah (2021)** investigated how Rebozo techniques affected labor progress and pain relief. They reported a significantly faster of labor progress in the intervention group due to the rebozo intervention, also this technique had positive impact on pain intensity as well. Another similar study done by **Sales et al. (2020)** entitled " Rebozo method for managing women during the pregnancy-puerperal cycle: An integrated review". They reported that the rebozo technique is secure, efficient, promote relaxation, relief and may be utilized throughout pregnancy, as well as during labor and postpartum.

Moreovere, four reasons explained efficacy of Rebozo techniques. The first is the rebozo movement which aims to provide stretching in the thighs, legs, back and spine and lessen discomfort during labor and after delivery **(Double symbol & Siburian, 2021)**. The second is that the appropriate twist which encourage the production of oxytocin that make the mother's birth easier **(Amelia, 2017).** The third is that such technique could help to promote relaxation without the use of any medications **(Purwanti, 2020)**. The fourth is that this method was utilized to provide space for the baby which enhance expulsion of the fetus and faster delivery **(Nadina, 2018; Iversen et al., 2017).**

Results of the current study reported that after applying Rebozo techniques for the intervention group, there was highly significant reduction in anxiety level at each time point of the active phase of labor (1^{st} , 2^{nd} & 3^{rd} hour). Researchers interpreted this as Rebozo techniques reduced intensity of labor pain, which in turn promotes comfort and relaxation and reduces parturients' anxiety. This finding is consistent with **Purwanti, (2020)** who reported that the average value of anxiety before and after = 7.41 with a significant difference indicating that Rebozo technique has positive effect on mother's anxiety level during labour active phase.

Else, **Mander, (2012)** reported that in addition to reducing labor pain, the Rebozo method also has a relaxing effect that makes childbirth process more comfortable and anxiety could be managed as a consequence. Also, **Febby, (2019)** stated that the mother feels more comfortable with this movement as the appropriate twist will induce a hug-like sensation in the mother and cause release of the oxytocin, which could facilitate delivery process quick, painless and increase feelings of comfort among mothers.

The current study also evaluated the satisfaction level of the primiparous women regarding Rebozo techniques for reducing labor pain. The finding showed that, nearly three quarters of the intervention group were satisfied and strongly satisfied regarding the application of Rebozo techniques in promoting relaxation, reducing labor pain and anxiety levels. The researchers interpreted this finding after applying Rebozo Techniques, as the primiparous women felt less labor pain and less anxiety level, which in turn improve their satisfaction level regarding these techniques. Such finding agree with a descriptive cross-sectional study in a Peri-Urban, South Africa done by **Musonda & Mabathoana, (2022)** regarding laboring women's satisfaction with non-pharmacological pain management. They

reported that more than half of women were satisfied with NPMPRs.

Furthermore, **American College of Obstetricians and Gynecologists, (2019)** reported that the non-pharmacologic support strategies that can be used during labor as freedom of movement, position changes, hydrotherapy, rebozo techniques, massage, hydration, nutrition and breath work …..etc, could be utilized throughout labor to assist the natural, physiological, hormonal process of labor. Also, these techniques improve the woman's in labor comfort, labor progress, reduce the need for medical interventions, lower the primary cesarean birth rate, increasing satisfaction with the birthing process, maximizing healthy maternal and fetal outcomes without having any negative effects.

Also, **Czech et al. (2018)** investigated the effectiveness and comparability of pharmacological and non-pharmacological techniques of labor pain treatment. They reported that the attention given throughout the delivery process as well as the degree of pain experienced affect positively on the satisfaction level of childbirth process. While, The current result contradicts with the study done by **Rantala et al., (2022)** who examined women's perception of non-pharmacological pain management techniques used during birth and pain assessment: a cross-sectional research. They concluded that women were satisfied with the pharmaceutical pain relief techniques while, they weren't satisfied with the non-pharmacological techniques

The current study findings highlighted the effectiveness of Rebozo techniques as a cheap, non-pharmacological pain relief measure with no adverse effects that maternity nurses can be used in their nursing strategies to lessen labor pain intensity, maternal suffering during labor, encourage relaxation, lower levels of anxiety and improve women's satisfaction level.

Conclusion :

The current study findings concluded that, Rebozo techniques were an effective pain relief methods, help in decreasing anxiety level and improving satisfaction level of women during labour process.

Recommendations:

Findings incite the following recommendations:

- Integrating Rebozo techniques as a non-pharmacological pain relieve measures in nursing care protocol for women in labor to reduce pain, anxiety and enhance maternal satisfaction.
- In-service training programs for maternity nurses regarding Rebozo techniques in different health settings.

Further studies

- Reapplication of the same study on a large sample to generalize the study findings.
- Utilization of other non- pharmacological pain relieve methods to determine the most effective one.

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Conflict of Interest :

No conflict of interest was found.

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