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Research Article

EFFECT OF BREATHING EXERCISE ON AFTERPAIN AMONG POSTNATAL MOTHERS- A LITERATURE REVIEW

Jayshree Vasava¹, Sapna Patel², and Anjali Tiwari³

¹Manikaka Topawala Institute of Nursing, CHARUSAT, Gujarat

²Assistant Professor, Manikaka Topawala Institute of Nursing, CHARUSAT, Gujarat

³Assistant Professor and HOD, Dept. Of Obstetrics & Gynaecological Nursing, Manikaka Topawala Institute of Nursing, CHARUSAT, Gujarat

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ABSTRACT

Introduction: postpartum afterpain is pain results from the spasmodic contraction of uterus after delivery of fetus which causing pain. It is this one of the minor ailments which leads to major discomfort to mother. there are some study shows that breathing exercise is effective in minimise pain level so, researcher wants to identify evidence that support breathing exercise useful for minimising afterpain.

Methodology: researcher refer different online resources of research studies like pubmed, MEDLINE (Medical Literature Analysis and Retrieval System Online), Research gate, ProQuest and CINHAL (Cummulative Index to Nursing and allied Health Nursing Litratrue). Researcher used following keywords like afterpain, breathing exercise, effectiveness, postpartum spasmodic pain,

Result: researcher identified one review of literature that supports breathing exercise is effective afterpain. other five studies supports that breathing exercise is effective in different type of pain like labour pain, low back pain. Review of literature related to afterpain shows that parity and breastfeeding influence on afterpain.

Conclusion: based on the literature review researcher conclude that only one study supports the problem statement. Based on the other study findings review of literature conclude that breathing exercise is effective in minimising afterpain level.

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INTRODUCTION

Nature wonderfully design women that she able to bear a living fetus inside her womb nourish it and give birth to newborn. Child birth is very pleasurable experience of women but it is painful too for mother. It brings lots body changes to women. specially reproductive undergone major changes like uterine wall become more thin due to enlarge and more vascular. In the post natal period all the reproductive organ are try to come back to normal previous normal physiologic structure.1 Already mother suffered pain in during labour and gave birth to newborn but after delivery of newborn mother suffer from minor alinments afterpain, perineal pain, constipation, haemorrhoids. Among this minor alinement common problem most of the mother face that is afterpain. Afterpain is pain results from the spasmodic contraction of uterus in order to stop major bleeding. It is more intense when mother give breastfeed to newborn, at time of breastfeeding oxytocin is released and contraction is more

pronounce. parity increases tonicity of the uterine muscle tonicity decreases which accelerate pain intensity. Pain intensity of contraction will be more in 24 hours of delivery and it should relived on 3rd day.

Need for the study

During the antenatal period and intranatal period mother is centre of care but after delivery newborn is center of care. In the postnatal period is less focused area compared to antenatal and intranatal period. So the management of minor aliment is less focused area. Every mother expected to have afterpain following delivery. Pain intensity, tolerance ability difference in every mother. Afterpains is one of minor ailments which cause leads discomfort to mother. Afterpain is mange by following indicators such as frequency, duration and intensity of uterine contractions, the women's emotional behaviour, her response to afterpain. if afterpain is persistence which leads to further discomfort like fatigue and insomnia.

*Corresponding author: Jayshree Vasava

Manikaka Topawala Institute of Nursing, CHARUSAT, Gujarat

Sr.no.	Year	Author	country	Objectives	Methodology	Major findings	Reference no.
1	2017	Dr. Niven R. Basyouni, Dr. Isis E. Gohar	Egypt	To assess effectiveness of breathing exercise on afterpain	<ul style="list-style-type: none"> • Study design: • quasi experimental • Population: • Postnatal women of Egypt • Sample size: • 80 • Sampling technique: • convenient sampling technique 	The women who are in control group has 3.65 pain score before receiving hospital care after receiving hospital care it was 4.16. In experimental group before intervention pain score was 3.28 and after intervention pain score was measured about 2.43. (t test= 5.7290, p value <0.0001).	2
2.	2016	Fawziya Mohammed Nattah, Wafa Abdul Karim Abbas	Iraq	To assessment of level of pain and its relation with breathing exercise in first stage of labour	<ul style="list-style-type: none"> • Study design: • Quasi experimental study • Population: • Primigravida mother of Iraq • Sample size: • 100 • Sampling technique: • random sampling technique 	level of pain the mother in experimental group have significantly a lower mean score (2.82) than those in control group (3.20)	3
3.	2011	Mahin Kamalifard, Mahnaz Shahnazi	Iran	to evaluate the efficacy of massage therapy and breathing technique on pain intensity and physiological response to labour pain	<ul style="list-style-type: none"> • Study design: • Quasi experimental • Population • Intranatal mother of Iran • Sample size: • 82 • Sampling technique: • Random sampling technique 	<p>Mean score of massage group 1 (M1) and massage group 2 (M2) are as follows:</p> <p>On 4 cm dilation M1- 6.15, M2- 7.47</p> <p>On 6 cm dilation M1- 8.73, M2- 6.37</p> <p>On 8 cm dilation- M1- 8, M2- 8.33</p> <p>Mean score of breathing group 1, Breathing group 2</p> <p>At 4 cm dilation- B1- 6.2, B2- 8.32</p> <p>At 6 cm dilation- B1- 8.4, B2- 6.27</p> <p>At 8 cm dilation B1- 7.71, B2- 8.77</p> <p>At 10 cm dilation B1- 8.84, B2- 6.3</p> <p>The mean in experimental group was 4.55 and in control group 7.55 with standard deviation of 1.234 and 0.944 respectively. The mean % of experimental group is 45.5% and in control group is 75.5%. paired t test value was 3.96 which are highly significant at P < 0.001.</p>	4
4.	2015	Akhaykumari Jhala	India	to assess effectiveness of Lamaze breathing on labour pain and anxiety towards labour outcome	<ul style="list-style-type: none"> • Study design: • Experimental research design • Population: • Primigravida mother first stage • Sample size: • 40 • Sampling technique: • Purposive sampling technique 	<p>70% of primigravida mothers having severe pain and 30% mother having moderate pain in control group and in experimental group there 65% having mild pain and 35% mother have moderate pain.</p>	5
5.	2015	Shirley Telles, Abhishek K. Bhardwaj	India	To assess pain and magnetic resonance imaging based structural spine change in low back pain patients after yoga practice included with breathing exercise	<ul style="list-style-type: none"> • Study design: • Randomized control trial • Population: • Patient with low back pain with MRI-proven degenerative intervertebral disc • Sample size: • 62 • Sampling technique: • Random sampling 	Result shows that yoga group has significant reduction in self reported pain and state of anxiety in before and after comparison at 12 weeks. Some patients showed changes in discs in the vertebrae at post intervention.	6

Literature related to afterpain

Sr no.	Year	Author	country	Objectives	Methodology	Major findings	Reference no.
1.	2016	Smitha P. Namboothiri	India	To assess nature and characteristics of afterpain.	<ul style="list-style-type: none"> • Study design: Prospective survey design • Population: Postnatal mother of india • Sample size: 50 • Sampling technique: Quota sampling technique 	mean scores of pain on the first three postpartum days among mothers after vaginal delivery were 2.84, 2.1 and 0.84 respectively and for mothers after caesarean section were 1.6, 1.66 and 0.74 respectively. The scores were greatest on the first postpartum day	7
2.	2016	Mahin Tafazoli, Maryam Khadem Ahmadabadi, Iran		To assesement of factor affecting afterpain in multiparous women	<ul style="list-style-type: none"> • Study design: descriptive design • Population: Postnatal mother of iran • Sample size: 210 • Sampling technique: Nonpropability convient technique 	P-value less than 0.05 were considered statistically significant. The mean score of afterpain severity was 55.1±16.7. There was a positive correlation between the number of pregnancies and the duration of breastfeeding with mean score of afterpain.	8
3.	2017	Soumya Raj K,		To assess the incidence of minor ailments of purperium and its related knowledge in mother	<ul style="list-style-type: none"> • Study design: Descriptive design • Population: Postnatal mother of India • Sample size: 100 • Sampling technique: sampling technique 	Data was analyzed through descriptive statistics. Result shows among postnatal mothers of 1-7 days, 67% of postnatal mothers having afterpain, 50% having perineal discomfort, 43% of postnatal mothers having constipation, and 67% having fatigue	9
4.	2015	Manjubala dash india		To assess effectiveness of selected nursing intervention on afterpain among postnatal mother which include Bladder emptying, Ambulation, Abdominal muscle exercise, lying	<ul style="list-style-type: none"> • Study design: Pre experimental • Population: Postnatal mother of india • Sample size: 50 • Sampling technique: Purposive sampling technique 	The pre-test mean level of pain shows 0.49±0.17 whereas the post-test pain level highlights 0.24±0.12 with the 't' value 5.09(p<0.05) showing statistically highly significant difference. There was no significant association (p>0.05 N.S) found between the posttest pain level with the demographic variables.	10

A woman with afterpain experiences cramps in the lower abdomen. The pain may be continuous and may extent to the lower back and legs. Research studies showed that about 35.2% had associated physical problems whereas 48.6% had both, physical as well as psychological along with this afterpain. Most of the physical problems encountered by postnatal mothers are abdominal pain (49.5%), backache (41.8%) and the commonest psychological problems are desire to remain alone (18.7%) and 17.6% of them are with depression.1

There are so many alternative and complementary methods for the relieving the pain. Among that breathing exercise is very effective in reducing pain perception and pain tolerance. It is easy to apply and simple secure method of pain reduction.

There are much evidence for that prove that breathing exercise is very effective in reducing labour pain during intranatal period. Postnatal afterpain is still neglected part of practice. There are less evidence which support that breathing exercise is effective in reducing afterpain. Researcher wants to conduct this study to assess effect of breathing exercise on afterpain.

Literature Narrative

Review of literature is very vital part of research study because it provide information to researcher that how much fact is known and remains. It helps to plan and guidance to study.

Review Methods

To provide narrative review of the research study focusing on effectiveness of breathing exercise on afterpain.

Search strategy

Researcher utilized various data base for the searching review of literature like Pubmed, MEDLINE (Medical Literature Analysis and Retrieval System Online), Research gate, ProQuest and CINHALL(Cumulative Index to Nursing and allied Health Nursing Literature) ,goggle scholar.

Key word used by researcher for searching review of literature are afterpain, postpartum afterpain, breathing exercise for pain, effectiveness , spasmodic uterine contraction.

Literature is divided in to two section

- ✓ Literature is related to breathing exercise on pain
- ✓ Literature related to afterpains
- ✓ Significant and use literature given in below table:

DISCUSSION ON FINDINGS FROM LITERATURE

In first research study titled A quasi experimental study to assess effectiveness of breathing exercise on afterpain findings suggested that in breathing exercise is effective in reducing afterpain. pain score in control group was before receiving hospital was significantly higher than the experimental group.

In the second study titled Assessment of level of pain and its relation with breathing exercise in first stage labour among primigravida mother at hilla teaching hospital. In this study in experimental group have significantly less pain than those in control group based on major findings which revealed that

breathing exercise is very effective to reduce pain.

The 3rd research study titled the efficacy of massage therapy and breathing technique on pain intensity and physiological response to labour pain. And major findings suggest that both massage therapy and breathing exercise is effective to relieve labour pain but breathing exercise is more effective during 10 cm dilation than massage therapy.

4th study titled A study to assess the effectiveness of Lamaze breathing on labor pain and anxiety towards labor outcome among primigravida mothers during labor shows that mean score of experimental is less than control group which revealed that experimental group has less pain compare to control group. In the 5th study titled to assess magnetic resonance imaging based structural spine change in low back pain patients after yoga practiced including breathing exercise. this study is showing that yoga practiced including breathing exercise has significant reduction on pain level of low back pain and some patient showed changes in discs in the vertebrae after intervention. 6th research study which related to afterpain titled to assess nature and characteristics of afterpain results revealed that according to researcher afterpain is high on first postpartum day and gradually it become decreased on second day and third day.

In the 7th study was conducted to find factor affecting afterpain. This study revealed that there is positive correlation between number of pregnancies and duration of breastfeeding.

In the 8th study was conducted to assess incidence of minor ailment and its knowledge in mother. This study shows that most common minor ailment is afterpain and fatigue almost every mother face this minor ailment then perineal discomfort, constipation face by postnatal mother but incidence of this minor ailments is less than compare to afterpain and fatigue.

In the 9th research study conducted to assess effectiveness of selected nursing intervention among postnatal mother and selected nursing are emptying bladder, ambulation, lying on abdomen and abdominal exercise and the study concluded that this selected intervention are effective to reduce afterpain of postnatal mother based on major findings of the study.

Discussion on limitation of review of literature

- ✓ Research study conducted on afterpain.
- ✓ Research study included on breathing exercise on level of pain.
- ✓ Research studies should be publish under authentic journal.

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