International Journal of Academic Research and Development
ISSN: 2455-4197; Impact Factor: RJIF 5.22
Received: 10-06-2019; Accepted: 13-07-2019
www.academicjournal.in
Volume 4; Issue 5; September 2019; Page No. 49-53

A study to assess the effectiveness of fundal massage on reduction of after pain among postnatal mothers in Thiruvallur government hospital

Jessy Rani[1], KR Priyanka[2]
[1] Assistant Professor, Saveetha College of Nursing, SIMATS, Chennai, India
[2] B.Sc. (Nursing) IVth year, Saveetha College of Nursing, SIMATS, Chennai, India

Abstract
After the mother gives birth, the mother goes through many emotional and physical changes. The mother probably feels alternately, cheerful joy and also experiences physical pain. Pain and fatigue are the most common problems reported by women in the early postpartum period. Pain can interfere with a woman's ability to care for herself and her infant. Cramping will be most intense for the first day or two after giving birth, but it should taper off around the third day.(Though it can take six weeks or longer for the uterus to return its normal size. the study was conducted to assess the level of after pain among postnatal mothers, to assess the level of after pain among postnatal mothers after administration of fundal massage and to associate the pre intervention and post intervention level of after pain among postnatal mothers with the demographic variables.

Method: A quasi experimental study was conducted to assess the effectiveness of fundal massage on reduction of after pain among postnatal mothers in Thiruvallur Government Hospital. Totally 60 samples were selected using convenient sampling technique in that 30 samples were in experimental group and 30 samples were in control group. The researcher developed a structured interview schedule to assess the demographic variables of the samples. The pre-test level of pain was assessed using numerical rating scale and then fundal massage is given to the postnatal mothers in the experimental group. Massage was given for 30sec and repeated for 5 times within 10 min in the morning and evening of the same day. Then the post-test level of pain is assessed. The pre-test and post-test level of pain was assessed in the control group without administration of any intervention to the mothers. The data were analysed by using descriptive and inferential statistics.

Result: The result revealed that t value for experimental group is t=16.1319 which is found to be significant at p>0.05.

Conclusion: Thus the fundal massage has a significant effect in reducing the after pain among postnatal mothers.

Keywords: After pain, Fundal massage, postnatal mothers

Introduction

Child birth includes different stages, and in every stage, the mother plays great role in experiencing the important events that occur throughout her journey. The stages are classified into three main aspects; Antenatal period, intranatal period and postnatal period. A postpartum period begins immediately after the birth of a child as the mothers body including hormone levels and uterus size, returns to a non-pregnant state [1].

After the mother delivers, the uterus contracts and relaxes at intervals, this leads to after pain which can be quite severe.

Cramping will be most intense for the first day or two after giving birth, but it should taper off around the third day. (Though it can take six weeks or longer for the uterus to return its normal size.

Breastfeeding can bring on after pain or make them more intense because the baby sucking triggers the release of the hormone oxytocin, which in turn causes contractions. The cramps brought on by breastfeeding help the uterus shrink to normal size more quickly, reducing the risk of postpartum anemia from blood loss.

Highlights from the World Health Organization 2013 guidelines (postnatal care for mothers and newborns).

Provide postnatal care in first 24 hours to all mothers and babies.

Ensure healthy women and their newborn stay at a health facility at least 24 hours and are not discharged early [2].

Uterine cramping or after pains, is more common in postnatal women and occurs most often during breastfeeding in the first postpartum days. Use of heating pads applied to the abdomen may relieve this discomfort Non-steroidal anti-inflammatory medications are more effective than acetaminophen. The data on opiods for the relief of uterine cramping are inconclusive (The American College of Obstetrics and Gynecologists (ACOG Committtee)

After birth pain causes more discomfort to the mother both physiologically and psychologically. Some of the nurses intervention plays a major role for pain relief during the postnatal period.

Touch and massage was a central component of care. Massage is a essential and vital part of holistic maternity care.

Fundal massage also called uterine massage, is a technique used to reduce bleeding and cramping of the uterus after childbirth. As the uterus returns to its non-pregnant size, its muscle contracts strongly which can cause pain. This can be reduced and make the mother to feel comfort by massaging the fundus after the delivery of the placenta.

Post-partum contractions (after pain) during the first 12 to 24 hours may be strong, gradually diminishing in intensity and frequently over the next few days.

Sam mcculloch (Nov 14) (2017), before woman become pregnant her uterus is about the size of a large pear. During pregnancy, it stretches to accommodate for growing baby. After the birth of the baby it needs to return to its pre pregnancy size. This shrinking down, process called involution. When the uterine contracts, the feeling may similar to the cramps that experience during menstrual period [3].

OB-GYN Dr. Amy Peters, (2018) of Saddleback Medical Centre in Laguna Hills, California agrees, that a uterine massage is really a euphemism, and is routinely performed postpartum to encourage the uterus to stay firm and reduce blood loss. It involves pushing firmly on the uterus and rubbing it to stimulate contractions [4].

Materials and methods

The research design was the quasi experimental study used to assess the effectiveness of fundal massage on reduction of after pain among postnatal mothers in Thiruvallur Government Hospital. The samples size was totally 60 samples selected using convenient sampling technique in that 30 samples were in experimental group and 30 samples were in control group. The development of tool was a structured interview schedule to assess the demographic variables of the samples such as age, education, religion, locality, dietary pattern, work pattern, income and obstetrical variables such as vaginal bleeding, baby weight, duration of labor, number of breast feeding per day, use of oxytocin, fundal height and obstetrical score. The pre-test level of pain is assessed using numerical rating scale and then fundal massage is given to the postnatal mothers in the experimental group. Massage given for the mothers in the experimental group for 30sec and repeated for 5 times within 10 min in the morning and evening of the same day. Then the post-test level of pain is assessed. The pre-test and post-test level of after pain in assessed in the control group without administration of any intervention to the mothers. The data were analysed by using descriptive and inferential statistics.

Results

The TABLE 1 reveals that out of 30 in experimental group 1(3.33%) belongs to the age group of below 20 years, 24(80%) belongs to the age of 20-25 years, 5(16.66%) belongs to the age group of 26-30 years. Regarding Education 7(23.33%) were completed their primary school, 13(43.33%) were completed high school, 9(30%) were completed their higher secondary, and 1(3.33%) were completed their graduation. Regarding religion 27(90%) were Hindu, 3(10%) Christian and 0(0%) Muslims. Regarding locality 30(100%) belongs to rural area and 0(0%) urban. Regarding dietary pattern 0(0%) vegetarian and 30(100%) were non-vegetarian. Regarding work pattern 7(23.33%) were doing sedentary work, 1(3.33%) were doing moderate work, 0(0%) heavy work, 22(73.33%) were unemployment. Regarding income 0(0%) were earning Rs.5000, 3 (10%) Rs.5000-10,000, 4(13.33%) Above Rs.10, 000 and 23(76.66%) nil. In obstetrical variables, Regarding Vaginal bleeding 0(0%) had Heavy and 30(100%) had moderate bleeding. Regarding baby weight 0(0%) less than 2.5kg, 19(63.33%) is about 2.6-3.0kg and 11(36.66%) is about 3.1-3.5kg. Regarding duration of labor 0(0%) 15hrs and 30(100%) mothers had the duration of about 11-15hrs. Regarding No. of breastfeeding per day 1(3.33%) feeds about 7-10 times, 27(90%) about 11-15times and 2(6.66%) about 16-20 times. Regarding use of oxytocin 30 (100%) mother got 2 ampules and 0(0%) no one got 1 ampules. Regarding fundal height 26(86.66%) at the level of umbilicus and for 4(13.33%) 2cm below the umbilicus. Regarding Obstetrical score 23(76.66%) were G1P0A0L0, 7(23.33%) were G2P1A0L1 and 0(0%) were G3P2A0L0.

30 in control group 2(6.66%) belongs below 20 years, 17(56.66%) belongs to 20-25years, 11 (36.66%) belongs to 26-30years. Regarding Education 4 (13.33%) were completed their primary school, 10 (33.33%) High school, 16(53.33%) higher secondary and 0 (0%) graduation. Regarding Religion 20(66.66%) were Hindu, 7(23.33%) Christian and 3(10%) were Muslims. Regarding Locality 30 (100%) belongs to rural area and 0(0%) belongs to urban. Regarding Dietary pattern 0(0%) were non-vegetarian and 30(100%) were non-vegetarian. Regarding work pattern 20(66.66%) were doing sedentary work, 0(0%) doing moderate work, 0(0%) doing heavy work and 10(33.33%) were unemployment. Regarding Income 0(0%) were earning Rs.5000, 17(56.66%) were earning Rs.5000-10,000, 3(10%) were earning above Rs.10, 000 and 10(33.33%) nil. In obstetrical variables, Regarding Vaginal bleeding 0(0%) had heavy and had the duration of about 15hrs and 27(90%) about 11-15hrs.Regarding No. of breastfeeding per day 0(0%0) feeds 7-10 times, 26(86.66%) 11-15 times and 4(13.33%) 16-20times. Regarding use of oxytocin 0(0%) 1 ampules and 30(100%) mothers got 2 ampules. Regarding Fundal Height 19(63.33%) at the level of umbilicus and 11(36.66%) 2cm below the umbilicus. Regarding Obstetrical score 21(70%) were G1P0AL0, 9(30%) G2P1A0L1 and 0(0%) G3P2A0L2.

The TABLE 2 reveals the pretest level of pain, out of 30 samples in experimental group 1(3.33%) had mild pain, 24(80%) had moderate pain and 5(16.66%) had severe pain. In control group out of 30 samples 7(23.33%) had mild pain, 18(60%) had moderate pain and 5(16.66%) had severe pain.

The TABLE 3 reveals that the pretest mean score of pain in experimental group was 5.3 and Standard deviation (SD) was 1.213. For control group the mean score was 5.233 and Standard deviation (SD) was 2.2020.

The TABLE 4 reveals the frequency and percentage distribution of post level pain. Out of 30 in experimental group 20(66.66%) had mild pain, 6(20%) had moderate pain and 4(13.33%) had severe pain. In control group out of 30, 1(3.33%) had mild pain, 12(24%) had moderate pain and 17(56.66%) had severe pain.

The TABLE 6 reveals that the calculated t value for the experimental group is t=16.1319 which is found to be significant at $p>0.05$ level and the t value for the control group is t=10.1812 which is found to be significant at $p>0.05$. So the uterine massage was effective on reduction of after birth pain among postnatal mothers.

Discussion

The TABLE 5 reveals the posttest mean score of experimental group was 0.4 and standard deviation (SD) was 6.2. Mean score of control group is 1.564 and standard deviation was 1.0634.

Elisabeth jangsten (2011), conducted a study to compare women experience of pain intensity when the third stage of labor was managed actively and expectantly and their experience of after pain. Women (n=1,802) were randomly

allocated to either active management or expectant management of the third stage of labor. After pain were scored as more intense the day after, compared with 2 hours after, childbirth in both groups. Multiparas scored more intense afterpains, compared with primiparas, irrespective of management (P<0.001) [5].

Priyakumari (2012), conducted a study to evaluate effectiveness of selected nursing intervention (fundal massage and alternative leg exercise) on reduction of after pain among multipara mothers in upgrated (PHC), Kundrathur at Chennai. The analysis of the study revealed that, the paired't' test value of 22.78, was very high significant at the levelof p<0.001. It indicates the effectiveness of selected nursing interventions such as fundal massage and alternative leg lifting exercise on reduction of after pains among multipara mothers [6].

Adejumo (2014), studied the Effects of uterine massage on number of postpartum haemorrhage cases at a level 2 hospital in the western cape, south Africa and assessed the fundal massage in the postpartum period as part of active management of the third stage of labor The effect of intervention did not result in a statistically significant decrease in occurrence of PPH (p=0.1039) [7].

Selda ildan (2014), studied the effect of uterine massage during early postpartum period on uterus involution and amount of lochia rubra and determined the effectiveness of uterine massage on uterus involution and lochia rubra in the first postpartum 24 hours after vaginal birth the findings were evaluated at the 24th hour. The total amount of lochia in 24 hours for the women in the experimental group was less than the total amount of lochia obtained in control group [8].

Mantha M. patel (2015), studied the active management of third stage of labour as per WHO guidelines: efficacy and complications and evaluated efficacy and complications of AMTSL as per WHO guidelines. A total of 100 low risk patients assigned randomly at obstetrics department, P.D.U. medical college, Rajkot. The result of the study is that Mean blood loss is 119ml. One case had blood loss > 500ml. Mean duration of third stage of labour is 5.16 minutes. Mean time taken by uterus to contract was 3.8 minutes [9].

Reda M (2018), studied the effect of uterine massage and active management during third stage of labor on reduction of postpartum haemorrhage among high risk women. The findings of the study show that majority of international group had normal uterine involution and 47.8% discharged at the same day due to the effect of uterine massage and active management of third stage of labor [10].

Stephanie Brown (2005) studied physical health problems after childbirth and maternal depression at six and seven month postpartum and investigated the relationship between maternal physical and emotional health problems six to nine months after childbirth [11].

Manjubala Dash (2015), studied the Effectiveness of selected nursing intervention (emptying the bladder, oil massage, and lying flat on abdomen) on after pain among postnatal mothers in the selected hospital in puducherry. The result shows that the postnatal mothers showed a highly significant decrease in the level of after-pain following nursing interventions (P, 0.001) [12].

Smitha P. (2016), studied the Nature and characteristics of after pain among postnatal mothers admitted in a tertiary care hospital in South India. The characteristics of pain was assessed using numerical pain rating scale every 24hrs in the first three postpartum days [13].

Poornima Ramaswamy (2014), studied the effectiveness of selected nursing measures (fundal massage and alternate leg exercise) on level of after birth pain among primipara mothers in Lowry memorial college, Bangalore India. The result of the study is that 86.6% of primipara mother had mild pain where as in control group 46.6% had moderate pain and 53.3% had severe pain. It reveals that uterine massage is effective in reduction of after pain [14].

Table 1: Frequency and percentage distribution of sample characteristics in experimental and control group

S.NO	Demographic variable	Experimental group		Control group	
		Frequency	Percentage	Frequency	Percentage
1.	Age				
	a. Below 20yrs	1	3.33%	2	6.66%
	b. 20-25yrs	24	80%	17	56.66%
	c. 26-30yrs	5	16.66%	11	36.66%
2.	Education				
	a. Primary school	7	23.33%	4	13.33%
	b. High school	13	43.33%	10	33.33%
	c. Higher secondary	9	30%	16	53.33%
	d. Graduate	1	3.33%	0	0%
3.	Religion				
	a. Hindu	27	90%	20	66.66%
	b. Christian	3	10%	7	23.33%
	c. Muslim	0	0%	3	10%
4.	Locality				
	a. Rural	30	100%	30	100%
	b. Urban	0	0%	0	0%
5.	Dietary pattern				
	a. Vegetarian	0	0%	0	0%
	b. Non-Vegetarian	30	100%	30	100%
6.	Work pattern				
	a. Sedentary	7	23.33%	20	66.66%
	b. Moderate	1	3.33%	0	0%
	c. Heavy	0	0%	0	0%
	d. Unemployment	22	73.33%	10	33.33%

7.	Income				
	a. 5000	0	0%	0	0%
	b. 5000-10,000	3	10%	17	56.66%
	c. Above 10,000	4	13.33%	3	10%
	d. Nil	23	76.66%	10	33.33%

Maternal variables

Table 2

S.NO	Demographic variable	Experimental group		Control group	
		Frequency	Percentage	Frequency	Percentage
1..	Vaginal bleeding				
	a. Heavy	0	0%	0	0%
	b. Moderate	30	100%	30	100%
2.	Baby weight				
	a. Less than 2.5kg	0	0%	0	0%
	b. 2.6-3.0kg	19	63.33%	2	6.66%
	c. 3.1-3.5kg	11	36.66%	28	93.33%
3.	Duration of labor				
	a. 15hrs	0	0%	3	10%
	b. 11-15hrs	30	100%	27	90%
4.	No. of breastfeeding				
	a. 7-10times	1	3.33%	0	0%
	b. 11-15times	27	90%	26	86.66%
	c. 16-20times	2	6.66%	4	13.33%
5.	Use of oxytocin				
	a. 1 ampule	0	0%	0	0%
	b. 2 ampule	30	100%	30	100%
6.	Fundal height				
	a. At the level of umbilicus	26	86.66%	19	63.33%
	b. 2cm below umbilicus	4	13.33%	11	36.66%
7.	Obstetrical Score				
	a. $G_1P_0A_0L_0$	23	76.66%	21	70%
	b. $G_2P_0A_0L_1$	7	23.33%	9	30%
	c. $G_3P_2A_0L_2$	0	0%	0	0%

Table 2: Frequency and percentage distribution of pretest level of pain in experimental and control group

Level of pain	Experimental group			Control group		
	Frequency	percentage	Standard deveiation	Frequency	Percentage	Standard deviation
Mild	1	3.33%		7	23.33%	
Moderate	24	80%		18	60%	
Severe	5	16.66%	1.213	5	16.66%	2.2.02

Table 3: Frequency and percentage distribution of post level pain in experimental and control group

Level Of pain	Experimental group			Control group		
	Frequency	Percentage	Standard deviation	Frequency	Percentage	Standard deviation
Mild	20	66.66%		1	3.33%	1.063
Moderate	6	20%		12	24%	
Severe	4	13.33%	6.2	17	56.66%	

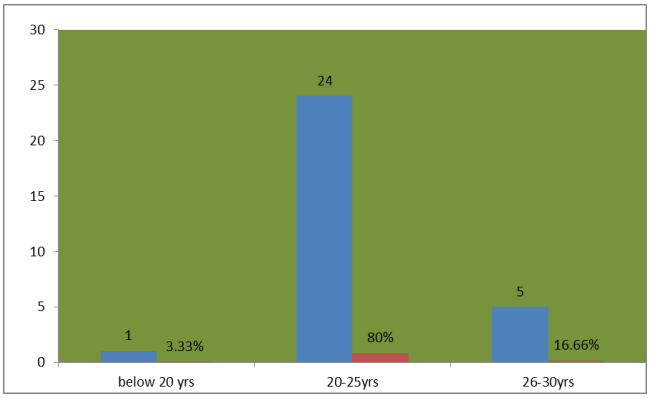

Fig 1: Age

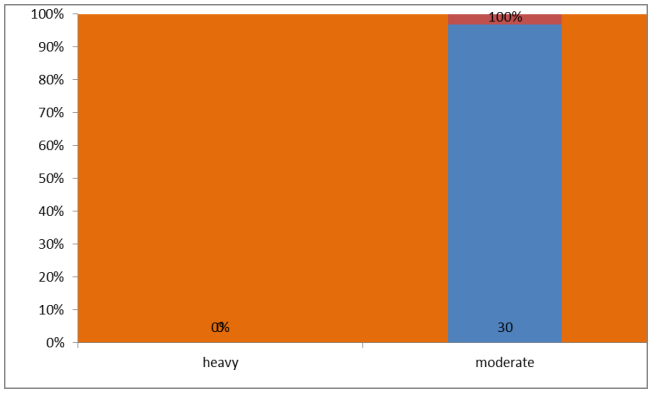

Fig 2: Vaginal Bleeding

References

1. Shyla S. Nature and characteristics of after pain among postnatal mothers admitted in a tertiary care hospital in Soth India. International Journal of Reproduction, Contraception, Obstetrics and Gynecology, 2016; 5(9):3045-3045
2. Reda M. Nabil Aboushady. Effect of uterine massage and active management during third stage of labor on reduction of postpartum hemorrhage among high risk women. Journal of Nursing and Health Science, 2018; 10:46-57
3. Juul. Effects of uterine massage on number of postpartum hemorrhage cases at a level 2 maternity hospital in the Western Cape, South Africa. Research Articles (nursing)(191), 2014, 60-65
4. Dahlke JD. Prevention and management of postpartum hemorrhage. American journal of obstetrics and gynecology, 2015, 80-87
5. World Health Organization. Geneva: WHO, 2009.
6. Jangsten E. Women's perception of pain and discomfort after childbirth in Angola. Afr J Reprod Health, 2005, 148-58
7. Catherins's A study to assess the effectiveness of selected nursing measures on after birth pain among postnatal mothers in selected hospital, Punjab. Thesis of Omayal Achi College of Nursing, submitted to Dr. M.G.R. Medical University, Chennai, 2005, 60-67
8. Holdcroft. Pain and uterine contractions during breast feeding in immediate post-partum period increase with parity. Journal of Obstetrics and gynecology, 2003, 589-596
9. Yellanel. Postpartum anxiety and depression. American journal of nursing, 2010, 44
10. Deussen A. Analgesia for relief of pain due to uterine cramping. Journal of Obstetrics and gynecology, 2010: 73-751.
11. Priyakumari M. PhD, Effectiveness of selected nursing interventions on reduction of after pain among multipara mothers. 2012; 24:105-107
12. Poornima Ramaswamy. Effectiveness of selected nursing measures on level of after birth pain among primipara mothers. Journal of Gynecology and Obstetrics. 2014; 20:100-105
13. Adejumo. Effects of uterine massage on number of postpartum haemorrhage cases a level 2 hospital in the westerncape, South Africa. Scientific Research Publishing, 2014, 1-10
14. Rehana A Salam et.al, Essential childbirth and postnatal interventions for improved maternal and neonatal health. Journal of reproductive health, 2014, 36-41. Priyakumari M. PhD, Effectiveness of selected nursing interventions on reduction of after pain among multipara mothers. 2012; 24:105-107
15. Manjubala Dash. Effectiveness of selected nursing intervention on after pain among postnatal mothers in the selected hospital in puducherry. International journal of vaccine and vaccination, 2015; 10:115-120.
16. Priyakumari M. PhD, Effectiveness of selected nursing interventions on reduction of after pain among multipara mothers. 2012; 24:105-107.