

A Quasi Experimental Study to Assess the Effectiveness of Hot Application in Breast Engorgement among Post Natal Mothers Admitted in Post Natal Ward in Selected Hospital

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Abstract: The word 'postnatal' comes from the Latin word 'post' which means 'after' and 'natal' means 'of birth'. It is the period beginning immediately after the birth of a child and extending for about 6 weeks. Worldwide the incidence rate of breast engorgement is 1: 8000 and in India it is 1: 6500 women. It occurs between the third to fourth day of postpartum and more than 2/3 of women develop tenderness on the fifth day of postpartum. Some develop as late as 9 to 10 day postpartum. Approximately 2/3 of women experience at least moderate symptom of breast engorgement. Conclusion: Hot application compress with traditional methods reduce the breast engorgement and promote lactation.

Keywords: assess, effectiveness, hot application, breast engorgement, post natal

1. Introduction

Breast engorgement occurs in the mammary glands due to expansion and pressure exerted by the synthesis and storage of breast milk. Engorgement usually happens when the breasts switch from colostrum to mature milk (often referred to as when the milk "comes in"). However, engorgement can also happen later if lactating women miss several nursing and not enough milk is expressed from the breasts. It can be exacerbated by insufficient breastfeeding and/or blocked milk ducts. When engorged the breasts may swell, throb, and cause mild to extreme period. Engorgement may lead to mastitis (inflammation of the breast) and untreated engorgement puts pressure on the milk ducts, often causing a plugged duct. The woman will often feel a lump in one part of the breast, and the skin in that area may be red and/or warm. If it continues unchecked, the plugged duct can become a breast infection, at which point she may have a fever or flu-like symptoms. Motherhood is a very humanizing effect. Mother is placed at the level of god to provide love warmth and satisfy need of baby. It is usually a joyful event when women give birth to a baby despite of tremendous pain and discomfort.

3. Result

2. Materials and Methods

The objectives of the study were to determine the effectiveness of hot application by comparing Pre-test & Post-test level of breast engorgement among the post natal mothers experimental and control group. The research method adopted for the study was Quantitative research approach. Purposive sampling technique was used to select 60 subjects from a selected hospital. Description of tool consists of three sections. First section consists of demographic data of post natal mothers: For the assessment purpose the score range 0 to 9 divided in to the three groups like, 0-3 score (Poor), 4-6 score (Average), 7-9 score (Good). In experimental group, 23.33% mothers had poor knowledge, 43.33% had average and 33.33% had the good knowledge. Second sections consist of obstetrical variables; it consists of 20 multiple choice questions related to post natal mothers and knowledge regarding hot application. Scoring: Every question consists of 4 options. Each question has only one mark, the scores range from zero to maximum score. Third section consists of six point breast engorgement pain scale. [Hill and Humenick 1994].

Table 1: Frequency and Percentage distribution of the post natal mothers

Sr. No.	Variable	Groups	Experimental		Control	
			Frequency	Percentage	Frequency	Percentage
1	Order of Parity	Primi Para	13	43.33	12	40.00
		Multi Para	17	56.67	18	60.00
2	Mode of Delivery	Vaginal	6	20.00	9	30.00
		Caesarean	14	46.67	21	70.00
3	Post Natal Days	2-3 days	8	26.67	7	23.33
		3-4 days	15	50.00	17	56.67
		4-6 days	7	23.33	6	20.00
		more than 6 days	0	0.00	0	0.00
4	Type of New Born	Term new born	8	26.67	9	30.00
		Pre term	15	50.00	12	40.00

		Post Term	7	23.33	9	30.00
5	Type of Nipple	Normal	5	16.67	7	23.33
		Flat	7	23.33	8	26.67
		Inverted	8	26.67	5	16.67
		Cracked	10	33.33	10	33.33

Table 2: Comparison of the breast engorgement among post natal mothers (Unpaired t test)

Sr. No.	Variable	Groups	Experimental		Control	
			Frequency	Percentage	Frequency	Percentage
6	Initiation of Breast feeding	Within 1 Hour	6	20.00	9	30.00
		More than 1 Hour	24	80.00	21	70.00
7	Frequency of Feeding	every 2 hrs	17	56.67	10	33.33
		every 4 hrs	0	0.00	0	0.00
		every 6 hrs	0	0.00	0	0.00
		As per demand	13	43.33	20	66.67
8	Duration of feeding	Till baby stops	23	76.67	21	70.00
		For 15 min	5	16.67	6	20.00
		For 10 min	2	6.67	3	10.00
		For 5 min	0	0.00	0	0.00
9	Position adapted for feeding	Sitting	29	96.67	30	100.00
		Side lying	1	3.33	0	0.00
		Football	0	0.00	0	0.00
		Cradle Hold	0	0.00	0	0.00
10	Pattern of breast feeding at each time	Feeding on one side breast	0	0.00	0	0.00
		Feeding on both side breast	30	100.00	30	100.00
11	Mode of breast feeding	Direct breast feeding	30	100.00	30	100.00
		Expressed Breast feeding	0	0.00	0	0.00

Post Test	Size	Mean	S. D.	T	p
Experimental	30	1.80	0.55	14.59	0.000
Control	30	4.13	0.68		

The above Table 2 shows that the post-test average score of experimental group was 1.80 with standard deviation of 0.55. The post-test average score of control group was 4.13 with standard deviation of 0.68. The test statistics value of the unpaired t test was 14.59 with p value 0.00.

Table 3: Comparison of the breast engorgement among post natal mothers

Sr. No.	Variable	Groups	Mean	F value	p value	Significance
1	BREAST ENGORGEMENT- Experimental Group	Day 1 Pre	5.90	312.58	0.00	Significant
		Day 1 Post	5.16			
		Day 2 Pre	4.46			
		Day 2 Post	3.76			
		Day 3 Pre	2.86			
		Day 3 Post	1.80			

The above Table 3 shows the day wise comparison of the breast engorgement among post natal mothers admitted in post natal ward in selected hospital in experimental group was done by the one way ANOVA. The F test statistics of the ANOVA test was 312.58 with the p value 0.00.

The p value less than 0.05, shows the significant difference in the day wise average breast engorgement.

4. Discussion

The discussion of the present study is based on findings obtained from inferential statistical analysis of collected data. The aim of the study is to assess the effectiveness of hot application on breast engorgement. The findings of the study have been discussed as per the objectives and hypotheses along with the findings of other studies.

The present study revealed that there was significant

decrease in breast engorgement score from baseline (**0.05**) in experimental group after intervention. There was significant increase in the mean breast engorgement score from baseline (0.68) in control group.

Hence the null hypothesis is rejected and research hypothesis is accepted. Thus, it can be interpreted that, after giving the hot application in experimental group there was subsequent decrease in the mean engorgement score.

5. Conclusion

From this, it is concluded that hot application can be used as a cost effective nursing intervention in reducing the breast engorgement. Hot Application over breast are found to be an effective nursing intervention in reduce breast engorgement. Hot Application is found to have no side effects when compared with other pharmacological

treatment. The findings of the study enlighten the fact that Hot Application can be used as a cost effective nursing intervention in decreasing the breast engorgement.

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