



A STUDY TO ASES THE EFFECT OF LUKEWARM FOMENTATION ON BREAST ENGAGEMENT WITH TENDERNESS AMONG POSTNATAL MOTHERS AT SELECTED HOSPITALS IN VARANASI

Nursing

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ABSTRACT

Breast feeding is a natural and essential for infant and also for mother. This study evaluated the effectiveness of lukewarm water fomentation for reducing breast engorgement and tenderness among postnatal mothers at selected hospitals in Varanasi. This Quasi- experimental study with quantitative approach was conducted among 70 postnatal mothers. Purposive sampling technique was used in selecting the postnatal mothers. Study shows that mean post-test score of breast engorgement and tenderness in experimental group (2.6± 0.53) was lesser than mean post test score of control group.

KEYWORDS

Breast engorgement and tenderness, Lukewarm fomentation, Postnatal mothers.

INTRODUCTION:

Breastfeeding is more than just feeding—it's a dynamic biological and social process which gives benefits for both mother and child. If we see globally, only 48% of infants under six months are exclusively breastfed, according to WHO's 2025 target of 50%. While rates vary South Asia leads at 61% and East/Southern Africa at 55%, and many regions of world is still struggling to meet recommendations. During breastfeeding body releases oxytocin, promoting maternal calm and bonding. Breastfeeding has significant physical and emotional effects on motherhood, like promoting postpartum weight loss and a faster return of the uterus to its pre-pregnancy size, also reducing the long-term risk of cardiovascular disease, type 2 diabetes, ovarian cancer, and postpartum depression. But breast engorgement is a common, painful swelling of breasts from milk, blood, and fluid buildup, typically 3-5 days after delivery when milk start to comes in breast, which makes breasts hard and tender, and it leading to issues like mastitis if not managed by frequent, removal of milk by feeding or pumping, massage, and warm or cold fomentation. And many effective research shows breast engorgement and also highlights its prevalence up to 75%, and describes its physiological causes which are fluid congestion, milk accumulation, which causes hardness, pain, redness, fever, and it will developed in conditions like early weaning, mastitis, cracked nipples etc, and there is need of effective non-pharmacological treatments.

Need For The Study:

According to National Welfare Health Service, approximately one-fourth of women (27%) initiate breast feeding within one hour after delivery while roughly half of the women (57%) give pre-lacteal feeds to their newborns. UNICEF reports that enhancing breastfeeding practices globally could prevent an estimated 1.5 million child deaths each year. Moreover, the under five mortality rate is projected to drop from 13% to 11.6% if optimal breastfeeding is practiced.

OBJECTIVES

- To assess the effect of lukewarm fomentation on breast engorgement with tenderness among postnatal mothers of experimental and control group.
- To evaluate the association between the level of breast engorgement and tenderness with selected demographic variables of postnatal mothers.

HYPOTHESES:

All hypothesis will be tested at 0.05 level of significance.

H₁:- There is a significant difference between the mean pre-test and post-test score of breast engorgement and tenderness among postnatal mothers of experimental group.

H₂:- There is a significant difference between the mean post-test score of breast engorgement and tenderness among postnatal mothers of experimental and control group.

H₃:- There is a significant association between the post-test level of breast engorgement and tenderness among postnatal mothers of control group with their selected demographic variables.

MATERIAL AND METHODOLOGY:

A quasi-experimental pre-test and post-test design with a quantitative approach was employed for the study. The population included all postnatal mothers admitted to hospitals in Varanasi. The sample

consisted of 70 postnatal mothers. A non-probability purposive sampling technique was used to select the study sample. The research instruments was a six-point breast engorgement scale, divided into two sections:

Part 1: Socio-demographic data

Part 2: Six-point breast engorgement scale

Table 1 Frequency And Percentage Distribution Of Postnatal Mothers With Breast Engorgement According To Their Socio-demographic Variables. (N=35+35)

Demographic variable	Category	Experimental group		Control group	
		Frequency(f)	%	Frequency(f)	%
Age of postnatal mothers in years	20-25	24	68.6	25	71.4
	26-30	9	25.7	8	22.9
	31-35	2	5.7	2	5.7
	Hindu	21	60	24	68.5
Religion of postnatal mother	Muslim	14	40	10	28.6
	Christian	0	0	1	2.9
	Other	0	0	0	0
Education of postnatal mother	No-formal education	12	34.3	6	17
	Primary	8	22.9	11	31.4
	Secondary	6	17	9	25.7
	Higher secondary	0	0	1	2.9
	Graduate/above	9	25.7	8	22.9
Monthly income of the family	Below Rs.5000	8	22.9	12	34.4
	Rs. 5001 to Rs 10000	13	37	11	31.4
	Rs. 10001 to Rs. 15000	8	22.9	6	17
	Above 15000	6	17	6	17
Locality	Rural	14	40.0	14	40
	Urban	21	60.0	21	60
Occupation	Business	1	2.9	0	0
	Government	0	0	0	0
	Private	4	11.4	1	2.8
	House wife	27	77	31	88.6
	Other	3	8.6	3	8.6
Mode of delivery	Normal delivery	12	34.3	15	42.9
	Caesarean delivery	23	65.7	20	57

Table-2: Comparison Of Mean Pre- Test And Mean Post-test Breast Engorgement Score Of The Postnatal Mothers With Breast Engorgement In Experimental Group (N=70)

Observation	Mean ± SD	Mean difference	't' value (p value)
Pre-test	5.4 ± 0.6	1.2 ± 0.58	12.15
Post-test	4.2 ± 0.71		

t(34)=2.02, p<0.05 S*-significant, NS-Non Significant

Table 2 shows the mean post test score 4.2± 0.71 of the experimental group was lesser than the mean pre-test score 5.4 ± 0.6 with the mean difference of 1.2 Hence it shows the warm water compression is effective in reducing of breast engorgement among postnatal mothers.

The calculated "t" value was 12.15 greater than the table value 2.0 hence hypothesis (H1) is accepted and inferred that there is significance difference in the mean pre-test and mean post-test breast engorgement score. Therefore, it was concluded that there is significant decrease in breast engorgement in post-test compared to that in pretest after application of luke warm fomentation. So it proves that the lukewarm fomentation is effective in reducing the breast engorgement.

Table 3: Comparison Of Post-test Scores Of The Postnatal Mothers With Breast Engorgement Of Experimental And Control Group. (N=70)

Post-test	Mean \pm SD	Mean difference	't' value
Experimental group	2.6 \pm 0.53	1.6	12.30
Control group	4.2 \pm 0.7		

t(69)=2.00, p<0.05 S*-significant, NS-Non Significant

Table 3 shows that mean post-test score of breast engorgement and tenderness in experimental group (2.6 \pm 0.53) was lesser than mean post-test score of control group (4.2 \pm 0.7) with the mean difference of (1.6) and t value is 12.30 Hence it shows that the warm water fomentation is effective in reducing breast engorgement among postnatal mothers.

The calculated 't' value was (12.30) greater than the tabled value (2.00). Hence the hypothesis H₁ is accepted and inferred that there is significance difference in the mean post-test breast engorgement scores of experimental and control group.

DISCUSSION

The current study's result shows that related research findings are discussed below.

In experimental group, most of the postnatal mothers i.e 68.6% were belongs to the category of 20-25 years, in control group, most of the postnatal mothers i.e 71.4 % were belongs to the category of 20- 25 years, in experimental group, most of the postnatal mothers were belongs to the category of Hindu 60%, In control group, most of the postnatal mothers were belongs to the category of Hindu religion 68.6%, in experimental group most of the postnatal mothers having, no formal education i.e 34.3%, In control group, most of the postnatal mothers were having primary education 31.4%, in experimental group most of the postnatal mothers having, Rs 5001-Rs 10000, 37%, In control group, most of the postnatal mothers having, less than Rs.5000 that is 34.4%, in experimental group, most of the postnatal mothers were belongs to the urban area that 60%, In control group, most of postnatal mothers were belongs to the urban area that 60% , in experimental group most of the postnatal mothers i.e,77% were home maker, In control group most of the postnatal mothers i.e 88.6% were house wife, in experimental group most of the participants that is 65.7% undergone caesarean, In control group, 57% of participants undergone caesarean delivery.

A study by Pinar et al. (2018) compared the effectiveness of cold and hot compresses on breast engorgement and pain in lactating women. The study found that both cold and hot compresses significantly reduced breast engorgement and pain, but cold compresses were more effective in reducing pain (p < 0.001). The study suggests that cold compresses can be a useful non-pharmacological method for managing breast engorgement and pain in lactating women.

Another study led by Moumita Manna and Lily Poder compared hot fomentation and cold compression for treating breast engorgement and tenderness in postpartum mothers. Findings indicated a statistically significant reduction in pain intensity with cold compression (6.1%) versus hot fomentation (4.9%). The cold compression group showed a greater reduction in pain intensity compared to the hot fomentation group (p=0.001). For breast engorgement scores, cold compression resulted in an average reduction of 3.6, while hot fomentation had an average reduction of 3.4. The difference in breast engorgement reduction between the two groups wasn't statistically significant (p=0.116). The study concluded both methods effectively reduced breast engorgement, with most postnatal mothers preferring warm water compression.

CONCLUSION

This study result shows that the luke warm fomentation is effective method to treat the breast engorgement. Lukewarm water has positive

effects on the postnatal mothers.]

RECOMMENDATIONS

Enhancing breastfeeding practices in infants and preventing breast complications requires early identification of breast engorgement and proper nursing care.

Warm water compression should be utilized in all clinical settings.

Future research could involve conducting a similar study with a larger sample size.

Online Resources

https://www.researchgate.net/publication/312552225_Effectiveness_of_Hot_Fomentation_Versus_Cold_C

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