

A STUDY TO ASSESS THE EFFECTIVENESS OF BREAST MASSAGE ON REDUCTION OF BREAST ENGORGEMENT AMONG MOTHERS UNDERGONE LOWER SEGMENT CESAREAN SECTION ADMITTED IN SELECTED HOSPITALS AT BHOPAL

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Abstract

The most common breastfeeding problems are breast engorgement and nipple discomfort, which are caused by inexperience and improper breastfeeding technique. The success and sustainability of breastfeeding are adversely affected by such difficulties. Breast massage was employed as an intervention in this study in order to reduce breast engorgement. Pre- and post-tests were given to one group in order to assess the efficacy of the breast massage technique in lowering breast engorgement in mothers who had lower segment cesarean sections using a pre-experimental design. The study comprised thirty postnatal moms who had received LSCS in total. The degree of breast engorgement was assessed using demographic information and a six-point scale. Breast massage is effective in reducing breast engorgement, as the study clearly shows a significant reduction in breast engorgement.

Keyword: Breast Engorgement, Breast Massage, Lower Segment Cesarean Section

BACKGROUND

Breastfeeding is one of the best ways of ensuring a kid's wellbeing and endurance. As opposed to WHO suggestions, not exactly 50% of babies under a half year old are solely breastfed. Breastmilk is the best dinner for children. It is safe and clean, and it has antibodies that help prevent a number of common diseases that affect children. Breastmilk keeps on giving all the energy and supplements that a newborn child need all through the initial not many long periods of life, getting together to half or a greater amount of their dietary requests in the last part of the principal year and dependent upon 33% in the second year of life.¹

The mammary gland, which primarily consists of fat, is the milk-producing gland. The female reproductive system's accessory glands include the mammary glands. The breast is made up of variable amounts of glandular tissue that produces milk and is supported by fibrous connective tissue and fatty tissue that attaches the breast to the chest wall. There are roughly 20 lobes in each breast, and within each lobe are several lobules, which are glandular structures where milk is generated. The breast's lobules are supported by fatty and connective tissue, and the breast itself is covered with subcutaneous fat. After a woman is nursing, glandular tissue in the breast increases to support milk

production and decreases after milk production stops. The nipple is a tiny conical eminence located in the centre of the breast and is surrounded by a pigmented area called the areola. The areola's surface is covered in many sebaceous glands that lubricate the nipple during breastfeeding.²

When the breast engorges and grows heavier, an increase in circulation of prostaglandins helps to stimulate milk production during the early stages of puerperium. The breast feels uncomfortable, stiff and occasionally flushed. The areola's skin is usually tight, which makes it look glossy, but it feels rigid rather than soft. The nipple may get bigger, flatter and more flexible, which makes it difficult to pull on.³

Most new mothers who breastfeed, whether exclusively or not, are familiar with the sensation of breast engorgement. Unfortunately, it is usually a very unpleasant situation to cope with. Some mothers are unable to continue feeding their infant despite their breasts cracking and feeling hot to the touch. As a result, engorged breasts might cause mothers so much distress that they decide to quit breastfeeding right once. Fortunately, there are numerous methods for treating engorged breasts. One method to lessen breast engorgement is to massage the breast. By stimulating breast milk production, massage can lower the likelihood of problems like blocked milk ducts and engorged breasts.⁴

Simple steps of breast massage mother can practice before feeding:4

Hold up your bosom and delicately rub the base piece of your bosom.

- Lightly rub the top of your breast with one hand.
- Gently rub the left piece of your bosom.
- Give your right breast a light rub.
- Make a "scissor" with two fingers, place your nipples in the middle, pinch slightly, and lightly shake.
- Palm your whole bosom and softly shake.

SIGNIFICANCE OF THE STUDY

Strong correlations exist between caesarean sections and delayed lactogenesis, poorer newborn sucking, postponement of early nursing, lower breastfeeding success, increased supplementing, and shorter breastfeeding length. These elements contribute to typical breast issues include breast engorgement, painful nipples, nipple damage, mastitis, and breast abscess. The optimal rate for caesarean sections, according to the international medical community, is between 10% and 15% of all post-caesarean section women globally.5

PROBLEM STATEMENT

A review to survey the viability of bosom knead on decrease of bosom engorgement among moms gone through lower portion cesarean segment conceded in chosen medical clinics at Bhopal.

OBJECTIVES:

- To evaluate the pre-test level of bosom engorgement among moms gone through lower fragment cesarean area.
- To figure out the adequacy of bosom knead on bosom engorgement among moms gone through lower fragment cesarean area.
- To compare the level of breast engorgement among mothers who underwent lower segment caesarean sections before and after the test.
- To relate the pre-test level of bosom engorgement among moms gone through lower fragment cesarean segment with their chose segment factors.

MATERIALS AND METHODS

Research approach	Evaluative approach
Research design	Pre-Experimental research design is used with one group pretest and posttest research design.
Population	Post natal mothers
Sample	Mothers undergone lower segment cesarean section
Sample size	30
Sampling technique	Convenient Sampling technique
Variables	
Independent variable	Breast massage
	Breast Engorgement
Dependent variable	Age, education, occupation, gravida, postnatal day, Frequency of breast feeding
Demographic variables	
Setting	People's Hospital, Bhopal, (M.P.)
Duration of study	6weeks

CRITERIA FOR SAMPLE SELECTION

Inclusion Criteria

- Mothers who had delivered lower segment cesarean section.

Exclusion Criteria

- Mothers who had delivered normal vaginal delivery

DESCRIPTION OF THE TOOL

Section A: Demographic Variables

Section B: Six Point Breast engorgement scale

SCORING PROCEDURE

Classification	: Scoring
No engorgement	: 1
Mild engorgement	: 2-3
Moderate engorgement	: 4-5
Severe engorgement	: 6

METHOD OF DATA COLLECTION

The principal and research ethics committee of the hospital that was chosen for data collection gave the researcher official approval. The samples chosen were mothers who met the inclusive standards. With the mothers, the investigator quickly developed a connection. They received guarantees that nothing would hurt them emotionally or physically while the study was being conducted. The investigator received instructions regarding the advantages of breast massage for mothers. For all samples, breast massage intervention lasted between 10 and 15 minutes.

DATA ANALYSIS

Data were organized, compiled, summarised and analysed following the collection of the data. Using both descriptive and inferential statistics, the data have been analysed on the basis of the study's objectives.

FINDINGS

Table 1: Frequency and percentage distribution of demographic variables of LSCS mothers.

N =30

Demographic Variables	No.	%
Age		
20 – 25 Years	8	26.6
26 – 30 Years	11	36.7
More than 31 Years	11	36.7
Education		
Illiterate	6	20.0
Matriculation	8	26.7
Intermediate	10	33.3
Graduation	6	20.0
Occupation		
Housewife	12	40.0
Govt. Job	10	33.3
Private Job	8	26.7
Postnatal Day		
Third day	10	33.3
Fourth day	14	46.7
Fifty day	6	20.0
Frequency of breast feeding		
More than an hour	18	60.0
Less than an hour	12	40.0

Table 1 shows the frequency and percentage distribution of demographic variables of LSCS mothers. Regarding age, 11(36.7%) were more than 31 years and were aged between 26 – 30 years and 8(26.6%) were aged between 20 – 25 years.

With respect to education, 10(33.3%) had intermediate education, 8(26.7%) had matriculation education and 6(20%) were graduates and were illiterates respectively.

In terms of occupation, 12(60%) were housewives, 10(33.3%) were government employees and 8(26.7%) were private employees.

With respect to postnatal day, 14(46.7%) were on 4th postnatal day, 10(33.3%) were on third postnatal day and 6(20%) were on fifth postnatal day.

In terms of frequency of breast feeding, 18(60%) had breast fed with a frequency of more than an hour and 12(40%) had breast fed with a frequency of within one hour. The Figure 1 shows the Percentage distribution of age of the LSCS mothers.

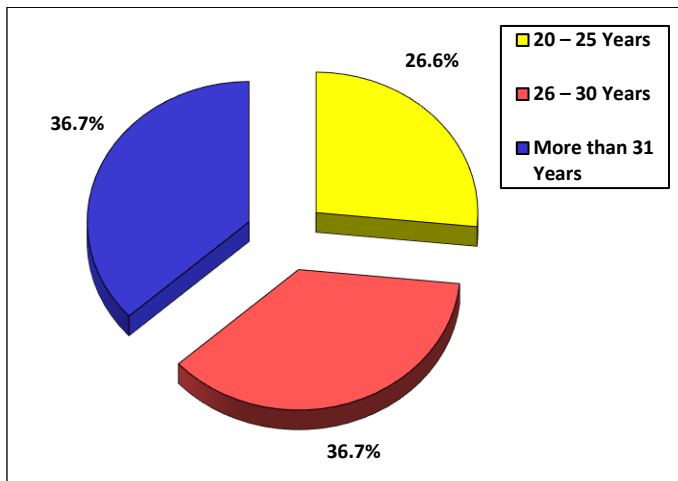


Figure 1: Percentage distribution of age of the LSCS mothers

The Figure 2 shows the Percentage distribution of education of the LSCS mothers.

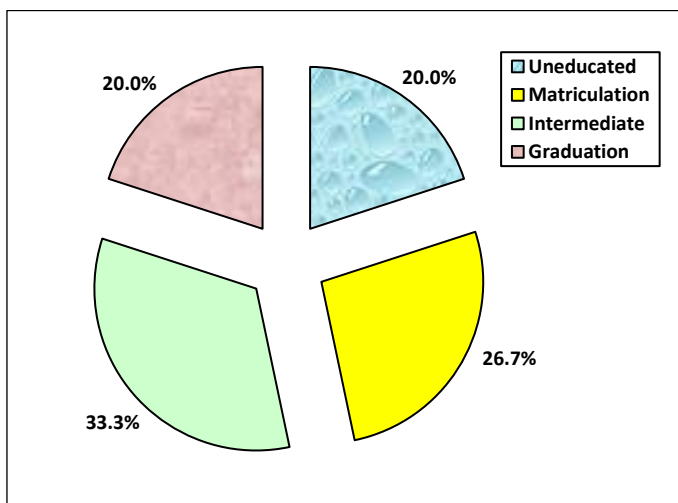


Figure 2: Percentage distribution of education of the LSCS mothers

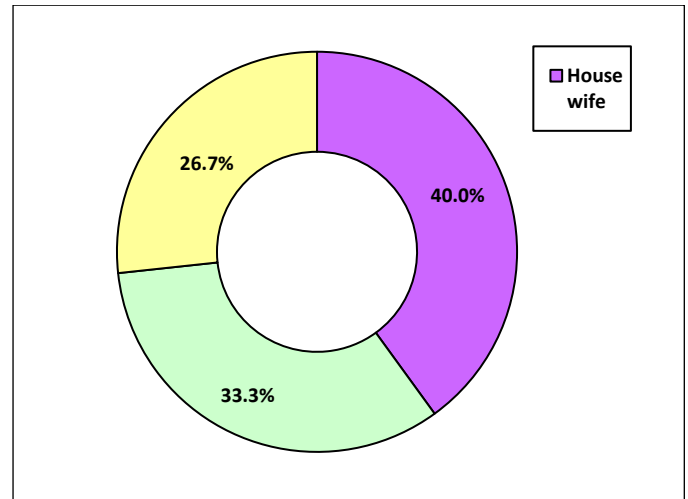


Figure 3: Percentage distribution of occupation of the LSCS mothers

The Figure 3 represents the Percentage distribution of occupation of the LSCS mothers

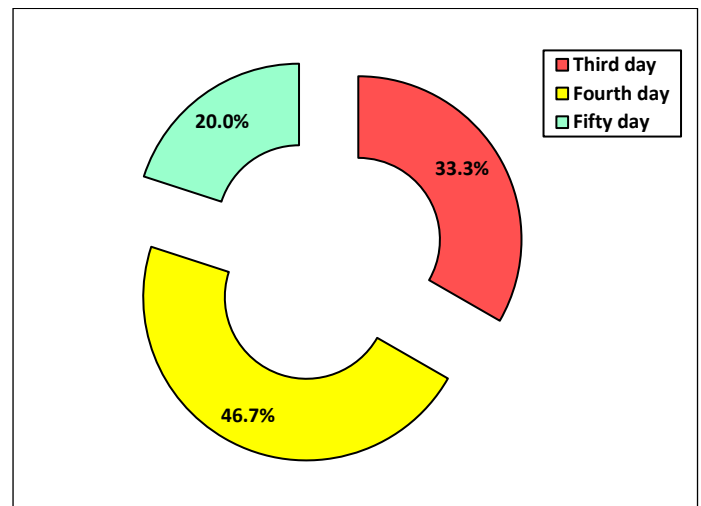


Figure 4; Percentage distribution of postnatal day among the LSCS mothers

The Figure 4 shows the Percentage distribution of postnatal day among the LSCS mothers

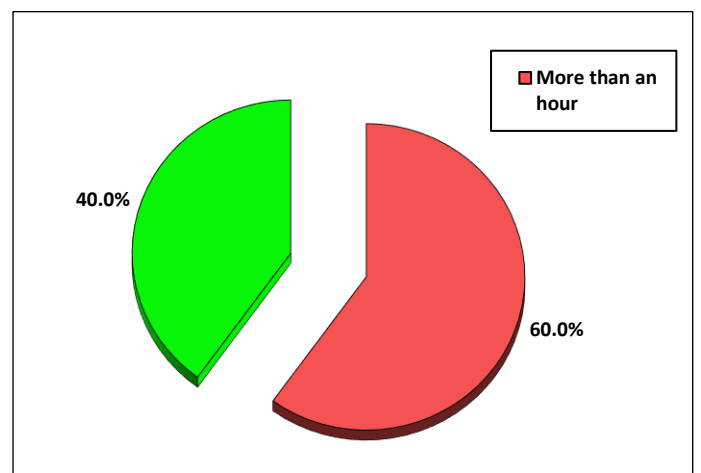


Figure 5: Percentage distribution of frequency of breast feeding among the LSCS mothers

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The Figure 5 shows the Percentage distribution of frequency of breast feeding among the LSCS mothers

OBJECTIVE 1 TABLE

Table 2: Frequency and percentage distribution of pre-test
N = 30

Level of Engorgement	Pretest	
	Frequency	Percentage (%)
No engorgement (1)	0	0
Mild engorgement (2 – 3)	17	56.67
Moderate engorgement (4 – 6)	10	33.33
Severe engorgement (6)	3	10.0

It shows that 17(56.67%) had mild engorgement, 10(33.33%) had moderate engorgement and 3(10%) had severe engorgement.

The Figure 6 shows the Percentage distribution of pretest level

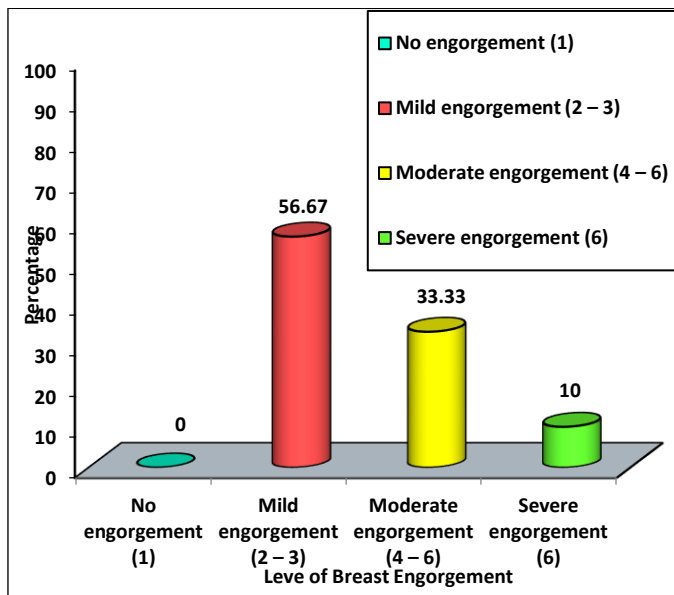


Figure 6: Percentage distribution of pretest level

OBJECTIVE 2 TABLE

Table 3: Frequency and percentage distribution of post-test
N = 30

Level of Breast Engorgement	Post Test	
	Frequency	Percentage (%)
No engorgement (1)	24	80.0
Mild engorgement (2 – 3)	6	20.0
Moderate engorgement (4 – 6)	-	-
Severe engorgement (6)	-	-

The table 3 shows the frequency and percentage distribution of post test level of breast engorgement among the lower segment caesarean section mothers.

It shows that after the administration of breast massage, 24(80%) had no breast engorgement and 6(20%) had mild breast engorgement.

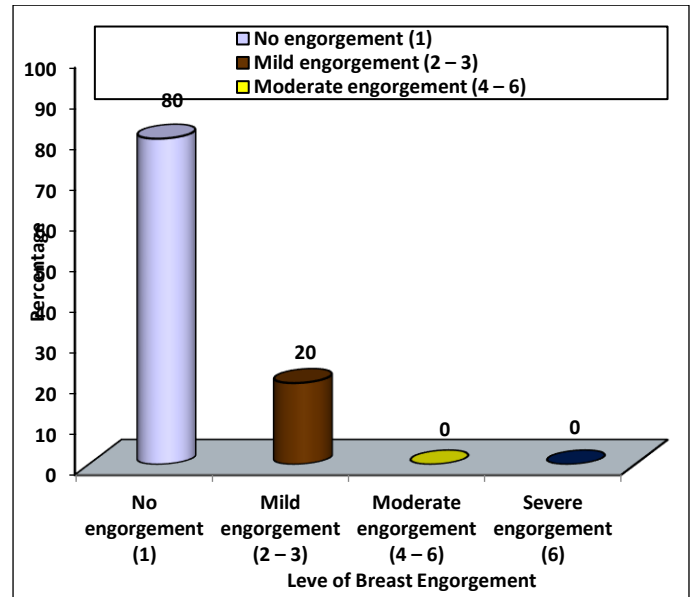


Figure 7 : Percentage distribution of post-test

OBJECTIVE 3 TABLE

Table 4: Comparison the pre-test and post- test
N = 30

Test	Breast Engorgement		Mean reduction Score & %	Paired 't' Test & p-value
	Mean	S.D		
Pretest	3.70	1.23	2.43 (62.0%)	t = 14.848 p = 0.0001 S***
Post Test	1.27	0.58		

***p<0.001, S – Significant

The pre-test mean score for breast engorgement was 3.70 x 1.23, while the post-test mean score was 1.27 x 0.58, as shown in Table 4. The mean decrease score was 2.43 i.e., 62.0%. The determined matched 't' worth of t = 14.848 was viewed as genuinely critical at p<0.001 level.

The above discoveries plainly demonstrate that the bosom rub on decrease of bosom engorgement managed among the lower fragment cesarean segment moms viewed as have positive effect that brought about a critical decrease in the degree of bosom engorgement among moms who had lower portion cesarean segment in the post test.

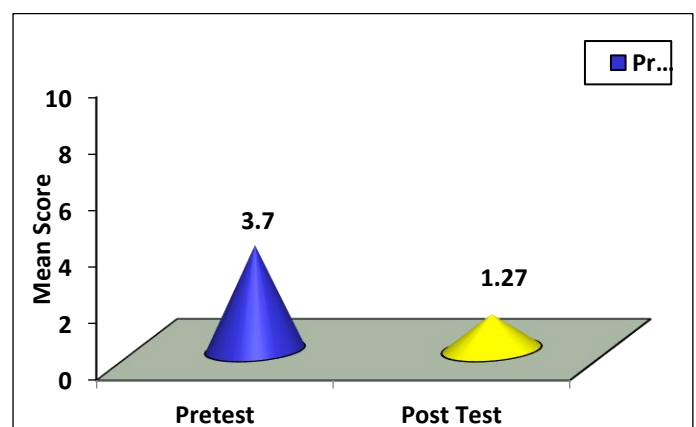


Figure 8: Comparison the pre-test and post- test

OBJECTIVE 4 TABLE

**Table 5: Association of pretest breast engorgement score
N = 30**

Demographic Variables	N	Pretest		One Way ANOVA/ t test
		Mean	S.D	
Age				
20 – 25 Years	8	2.50	0.53	F = 9.185 P = 0.001 S***
26 – 30 Years	11	4.45	0.68	
More than 31 Years	11	3.81	1.40	
Education				
Illiterate	6	3.50	0.83	F = 3.062 P = 0.046 S*
Matriculation	8	3.75	1.16	
Intermediate	10	3.10	0.99	
Graduation	6	4.83	1.47	
Occupation				
Housewife	12	3.66	1.15	F = 2.180 P = 0.133 N.S
Govt. Job	10	3.20	1.13	
Private Job	8	4.37	1.30	
Postnatal day				
Third day	10	4.00	1.33	F = 0.556 P = 0.580 N.S
Fourth day	14	3.64	1.39	
Fifty day	6	3.33	0.51	
Frequency of breast feeding				
More than an hour	18	3.72	1.07	t = 0.111 P = 0.913 N.S
Less than an hour	12	3.66	1.49	

***p≤0.001, *p<0.05, S – Significant, N.S – Not Significant

The relationship between various demographic variables and the pretest breast engorgement score among mothers who had lower segment caesarean sections is depicted in table 5. To determine the impact of demographic factors on LSCS mothers' pretest breast engorgement scores, a one-way ANOVA and an unpaired t test were used.

Pretest mean score of breast engorgement was found to be statistically significantly associated with age (F=9.185, p=0.001) among LSCS mothers. The segment variable training (F=3.062, p=0.046) show genuinely critical relationship with pretest mean score of bosom engorgements among LSCS moms at p<0.05 level. The other segment factors didn't show measurably huge relationship with pretest mean score of bosom engorgements among LSCS moms.

DISCUSSION

Chin and yen (2008) was conducted such an investigation of how Gua-Sha therapy affected breast engorgement in a Chinese hospital. In the 66 study at the Level III medical teaching hospital, 54 new mothers participated. Samples were divided at random according to the experiment and control groups. The experimental group was given GuaShaping therapy while the control group received heat packs and massages. Using a six-

point scale and a visual analogue scale, the severity of breast engorgement was evaluated prior to the intervention. According to the results of a comprehensive estimate equation analysis, except for body temperature, all factors were found to have an effect on reducing nausea symptoms in the experimental and control groups. Results offered empirical support for the use of Gua-sha therapy as a successful method for treating breast engorgement.⁶

Contrary to the current study's findings, a study by Prasad et al. (2017) found that the majority of postpartum moms had insufficient milk when it came to breastfeeding issues. The unwillingness to suckle was one of the other issues. The least common issues for mothers, however, were engorged breasts and cracked nipples. The variances in methodology could be ascribed to the tools used for sampling and data gathering.⁷ Another supportive study done by Amal F. Mohammed and Nabaweya S. Shehata a recognised public health objective is to extend breastfeeding and increase its exclusivity. Supporting women in coping with and resolving typical issues that may develop during the nursing phase, particularly after caesarean delivery, may help ensure effective breastfeeding. The study's objective was to assess the teaching module's impact on post-cesarean section mothers' breast issues. A pre/post-test quasi-experimental study design was employed. A purposive sample of 100 women was used in this study, which was conducted at Ain Shams University Maternity Hospital's Postnatal Inpatient Maternity Unit and Breast-Feeding Clinic. An organized Arabic meeting poll, Lock breastfeeding graphing scale, moms' taking care of oneself practice observational agenda, Visual Simple Scale, Six-point bosom engorgement scale, and the Areola Injury Score, notwithstanding created strong material (informative module). An exceptionally measurably critical improvement in the entirety of moms' taking care of oneself practices in managing bosom issues at the post and follow-up of mediation contrasted with pre-intercession (P < 0.001). The concentrate likewise showed lower scores on the whole Lock scale at the post-and follow-up of the mediation contrasted with pre-intercession for torment, bosom engorgement, and areola wounds (P 0.001). The current study came to the conclusion that the instructional module's application has enhanced mothers' self-care behaviours and has a favourable impact on easing breast issues among post-cesarean section moms. The study suggested that post-cesarean care for women should include an educational programme about breast issues and how to manage them.⁸

CONCLUSION

The study found that giving breast massages to lower segment caesarean women was successful in lowering the degree of breast engorgement. Breast massage is simple to do, painless, and can improve postpartum comfort for the mother; for these reasons, it could be easily adopted as a regular intervention.

IMPLICATIONS

In order to prevent newborn mortality and morbidity, breast engorgement, and breast cancer, health professionals, especially maternity nurses, play a crucial role in encouraging and supporting postpartum mothers to exclusively breastfeed their infants.

FUNDING: Self

CONFLICT OF INTEREST: None

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