"Effectiveness Of Reverse Pressure Softening Technique On The Level Of Breast Engorgement And Breast Feeding Among Postnatal Mothers At Queen Mary Hospital"

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Abstract
Background: *Breastfeeding residue the most healthy, simple and a feeding method that is least expensive and fulfils the needs to new born. During initial 2 days once baby is born as a part of normal process, breasts of women get accumulated with milk. Due to this reason, breasts get heavy and swollen, however this process is generally not very painful and hard under normal scenarios. In around 70% – 80% of mothers breast engorgement is seen. It is a condition which causes pain and also puts an effect on majority of mothers. It may be very stressful situation for mothers especially when they are fulfilling the needs of baby. This condition also hinders the process of smooth breast feeding, which further leads to early closure of breastfeeding and is related to other extreme conditions including infection in breast.*
Methods: *A quantitative research approach was done on 50 postnatal mothers who were admitted at Queen Mary Hospital, KGMU, Lucknow. A purposive sampling technique was used. Socio-demographics data were obtained by the tool "Demographic Variables"; Level of breast engorgement was assessed by the tool "Six Point Breast Engorgement Scale" and Level of breast feeding was assessed by "Bristol Breastfeeding Assessment Tool".*
Results: *Results revealed that significant level of breast engorgement was present among postnatal mothers in both experimental & control groups during pretest. Similarly, many (around 68%) mothers in experimental group & 64% mothers in control group had poor level of breast feeding before applying the test. However, after the application of reverse pressure softening technique, there was significant amount of benefit to postnatal mothers considering breast engorgement (52% mothers had soft breast, 40% had slight firmness only) and breast feeding (80% mothers had good level of breast feeding). Also, an association was observed between demographic variables and level of breast engorgement & breast feeding.*
Conclusions: *It can be concluded that Reverse Pressure Softening Technique helps to reduce level of breast engorgement & improve breast feeding.*
Keywords: *RPST - Reverse Pressure Softening Technique, QMH – Queen Mary Hospital.*

I.   Introduction

Engorgement of breast is a frequent problem for the lactating mother during initial two weeks once delivery happens. Engorgement of the breasts can be extremely painful; may predispose to nipple tenderness, fissures and abscesses; and is associated with completion of lactation. Pain in breasts has been identified as one of the reasons due to which mothers stop breast feeding in intial few weeks based on a study which was done by NFHS.

Human milk and Breastfeeding both are the standards for newborn feeding and nutrition. Considering both short as well as long term neuro & medical developmental advantages of breastfeeding, infant nutrition not should be only a lifestyle but also considered as a public health issue. The American Academy of Pediatrics reaffirms its recommends that babies consume only breast milk for about 6 month followed by complementary foods are introduced, and breastfeeding continue for 1 year or more as desired by mother and infant both.

American Journal of Obstetrics and Gynecology – Elsevier Postpartum engorgement of the breast is important because it can cause fissure of the nipple in future or after delivery and also it is associated with lactation failure among women. This is the common problem in both women who breast feed or who don't feed and it occurs frequently. It is mostly caused by insufficient demand of infant and supply. If the breast engorgement remain untreated then it may leads to cause serious condition that's painful blebs or mastitis in future.

Objectives
The primary objective was to assess effectiveness of reverse pressure softening technique on the level of breast engorgement and breast feeding among postnatal mothers. Secondary objectives were to assess the pre interventional level of breast engorgement and breast feeding among the postnatal mothers in experimental and control group, to assess the post interventional level of breast engorgement and breast feeding among the postnatal mothers in experimental and control group, to compare pre and post interventional level of breast engorgement and breast feeding among the postnatal mothers in experimental and control group., to find out association between pre interventional level of breast engorgement among postnatal mothers with their selected demographic variables in experimental group and control group, to find out association between pre interventional level of breast feeding among postnatal mothers with their selected demographic variables in experimental group and control group.

II. Methods
Research approach, design, study variables, setting, population & duration
Quantitative research approach was followed & experimental research design was employed.

Target & accessible population
Postnatal mothers admitted at Queen Mary Hospital, KGMU, Lucknow were accessible population.

Sample size & sampling technique
Sample size was 50 & purposive sampling technique was used.

Tools for data collection, analysis & intervention
Tool 1 Self structured questionnaire which includes demographic variables. Tool 2 Six Point Breast Engorgement Scale to access level of breast engorgement. Tool 3 Bristol Breastfeeding Assessment Tool to access Level of breast feeding. Descriptive and inferential statistics was used for data analysis. Intervention was pre-test followed by intervention followed by post-test.

Inclusion Criteria
The study included the participants who were; postnatal mothers who have undergone cesarean section and normal delivery and suffering from breast engorgement at Queen Mary Hospital, KGMU, Lucknow.

Exclusion Criteria
The study excluded Participants who were; having complications, having normal nipple and postnatal mothers whose babies were in NICU or still born.

Data Collection Process
In data collection process, systematic methods were used for gathering information relevant to the research. In this study, data collection was done at postnatal ward at Queen Mary Hospital, KGMU, Lucknow. Firstly, ethical permission was obtained from concerned authority.

Sample was selected by purposive sampling technique according to inclusion criteria. Self-introduction and purpose of the study were explained to the subjects. Demographic data was obtained from postnatal mothers. Six Point Breast Engorgement Scale was used to access level of breast engorgement and Bristol Breastfeeding Assessment Tool was used to access Level of breast feeding.

III. Results

Distribution of Postnatal Mothers in relation to their Demographic Variables in experimental and control groups

The findings showed that; in Experimental group 36% mothers belonged to age group of 24-27 years and 32 % to 28-31 years, for the rest of age groups 20% mothers >20-23 years and 12% belonged to 32-35 years. 44% mothers lived in Rural Areas while 56% lived in Urban areas, 72% mothers were Hindu and 28% were Muslim. Primary & Secondary level educated mothers were 52% & 28% respectively and 16% mothers were not educated and only 4% were graduate, 68% were from Nuclear family while 32% from joint family, 72% mothers had monthly income range of Rs. 5,000 to Rs. 10,000. 48% mothers preferred 2 hours of breastfeeding frequency while 44% preferred breastfeeding on demand, 72% mothers were supported by their husbands, 8% by mothers and 20% by in laws, 60% mothers were Vegetarians & 40% non-vegetarians, 28% mothers had Normal Delivery while 72% had Caesarean Delivery.

In Control group 24% mothers belonged to age group of 24-27 years & 32% to 28-31 years. 24% were from Rural Areas & 76% to urban areas, 84% mothers were from Hindu religion while 16% mothers were from Muslim religion. 20% mothers were not educated, 24% were primary level, 44% were secondary level while 12% were graduate. 48% were from nuclear family while 52% were from joint family, 44% mothers belonged to income range of Rs 5000 to 10,000 per month. Majority of mothers had parity 1. 64% mothers preferred 2 hours of breastfeeding frequency while 28% preferred on demand breastfeeding. 52% mothers were supported by their husbands, 12% by mothers and 36% by in laws. 68% mothers were vegetarians and 32% were non-vegetarians, 32% mothers had normal delivery while 68% mothers had Caesarean Delivery.

Table1: Frequency & percentage distribution of Postnatal Mothers in relation to their Demographic Variables

Demographic Variable	Experimental Group (n=25)		Control Group (n=25)	
	f	%	f	%
Age				
>20-23	5	20	6	24
24-27	9	36	6	24
28-31	8	32	8	32
32-35	3	12	5	20
Area of living				
Rural	11	44	6	24
Urban	14	56	19	76
Religion				
Hindu	18	72	21	84
Muslim	7	28	4	16
Christian	0	0	0	0
Others	0	0	0	0
Education Level				
Illiterate	4	16	5	20
Primary	13	52	6	24
Secondary	7	28	11	44
Graduate	1	4	3	12
Type of family				
Nuclear	17	68	12	48
Joint	8	32	13	52
Extended	0	0	0	0
Monthly Income				
< 5,000	4	16	6	24
5,000-10,000	18	72	11	44
10,000 −>15,000	3	12	8	32
Parity of Mother				
1	20	80	18	72
2	2	8	4	16
>2	3	12	3	12
Frequency of breastfeeding				
2 hours	12	48	16	64
6 hours	2	8	2	8
8 hours	0	0	0	0
On demand	11	44	7	28
Social Support				
Husband	18	72	13	52
Mother	2	8	3	12
Inlaws	5	20	9	36
Friend	0	0	0	0

Dietary Pattern				
Vegetarian	15	60	17	68
Non-Vegetarian	10	40	8	32
Type of delivery				
Normal	7	28	8	32
Caesarean	18	72	17	68

Distribution of Postnatal Mothers in relation to their Level of Breast Engorgement in Experimental and Control Groups (Pre Test)

The findings showed that; no mother had soft breast in both experimental as well as control groups. 1 mother in each group had slight firmness in breast, 8% of mothers in experimental group and 16% in control group had firm, no tender breast. In experimental group 28% mothers had firm breasts with mild tenderness while in control group this percentage was 24%. 20% mothers in experimental group had firm, tender breast while this percentage was same for control group as well. 40% mothers in experimental group and 36% in control group had very firm, very tender breast.

Table2: Frequency & percentage distribution of Postnatal Mothers in relation to their Level of Breast Engorgement in Experimental and Control Groups (Pre Test)

Level of Breast Engorgement	Experimental Group (n=25)		Control Group (n=25)	
	f	**%**	**f**	**%**
Soft, no changes in breasts	0	0	0	0
Slight firmness in breast	1	4	1	4
Firm, no tender breast	2	8	4	16
Firm, mild tenderness in breast	7	28	6	24
Firm, tender	5	20	5	20
Very Firm, very tender	10	40	9	36

Distribution of Postnatal Mothers in relation to their Level of Breast Feeding in Experimental and Control Groups (Pre Test)

The findings showed that; 68% mothers had poor level of breastfeeding in experimental group while 64% mothers had the same in control group. 28% mothers in experimental group had moderate level of breastfeeding, for control group this percentage was 36%. Only 1 mother had good level of breast feeding in experimental group. In control group, no mother had this level.

Table3: Frequency & percentage distribution of Postnatal Mothers in relation to their Level of Breast Feeding in Experimental and Control Groups (Pre Test)

Level of Breast Feeding	Experimental Group (n=25)		Control Group (n=25)	
	f	**%**	**f**	**%**
Poor (0)	17	68	16	64
Moderate (1)	7	28	9	36
Good (2)	1	4	0	0

Distribution of Postnatal Mothers in relation to their Level of Breast Engorgement in Experimental and Control Groups (Post Test)

The findings showed that; 52% mothers had soft breast in experimental group and only 12% had the same control group. 40% mothers had slight firmness in breast in experimental group and 16% had the same control group. 8% of mothers in experimental group and 32% in control group had firm, no tender breast. In experimental group no mothers had firm breasts with mild tenderness while in control group this percentage was 20%. Similarly, no mothers in experimental group had firm, tender breast while this percentage was 20% for control group. No mother in any group had very firm, very tender breast.

Table4: Frequency & percentage distribution of Postnatal Mothers in relation to their Level of Breast Engorgement in Experimental and Control Groups (Post Test)

Level of Breast Engorgement	Experimental Group (n=25)		Control Group (n=25)	
	f	**%**	**f**	**%**
Soft, no changes in breasts	13	52	3	12
Slight firmness in breast	10	40	4	16

Firm, no tender breast	2	8	8	32
Firm, mild tenderness in breast	0	0	5	20
Firm, tender	0	0	5	20
Very Firm, very tender	0	0	0	0

Distribution of Postnatal Mothers in relation to their Level of Breast Feeding in Experimental and Control Groups (Post Test)

The findings showed that; no mother had poor level of breastfeeding in experimental group while 40% mothers had the same in control group. 20% mothers in experimental group had moderate level of breastfeeding. For control group this percentage was 40%. 80% mothers in experimental group had good level of breastfeeding. For control group this percentage was 20%.

Table5: Frequency & percentage distribution of Postnatal Mothers in relation to their Level of Breast Feeding in Experimental and Control Groups (Post Test)

Level of Breast Feeding	Experimental Group (n=25)		Control Group (n=25)	
	F	%	f	%
Poor (0)	0	0	10	40
Moderate (1)	5	20	10	40
Good (2)	20	80	5	20

Comparison between pre-test and post-level of breast engorgement of experimental group and control group

In pre test for experimental group the mean level was 4.84 with standard deviation 1.17 and for the control group the values were 4.68 and 1.24 respectively. The difference of means between experimental groups and control groups was 0.16, calculated t value was 1.37 and critical t value was 2.013. Similarly in post test, for experimental group the mean level was 1.56 with standard deviation 0.65 and for the control group the values were 3.2 and 1.29 respectively. The difference of means between experimental groups and control groups was 1.64, calculated t value was 19.64 and critical t value was 2.013. Thus, findings showed that there was a significant difference between pre and post intervention level of breast engorgement among post natal mothers in experimental and control group.

Comparison between pre-test and post-level of breast feeding of experimental group and control group

In pre test for experimental group the mean level was 0.36 with standard deviation 0.56 and for the control group the values were 0.4 and 0.57 respectively. The difference of means between experimental groups and control groups was 0.04, calculated t value was 0.24 and critical t value was 2.013. Similarly in post test, for experimental group the mean level was 1.8 with standard deviation 0.4 and for the control group the values were 0.8 and 0.76 respectively. The difference of means between experimental groups and control groups was 1, calculated t value was 5.81 and critical t value was 2.013. Thus, findings showed that there was a significant difference between pre and post intervention level of breast feeding among post natal mothers in experimental and control group.

Association Between The Level Of Breast Engorgement With Their Selected Demographic Variables in Experimental Group

Findings showed that; with regards to age, the obtained χ^2 value was 15.71 (significant at P<0.05) inferring a significant association. Regarding Area of living, the obtained χ^2 value was 5.056 (significant at P<0.05) inferring a significant association. For Religion χ^2 value was 2.04 (not significant at P<0.05) meaning no significant association between religion and level of breast engorgement. Regarding Educational Level, the obtained χ^2 value was 24.856 (significant at P<0.05) inferring a significant association. To mention about Type of Family, the obtained χ^2 value was 1.048 (not significant at P<0.05) inferring that there was no significant association. With regards to monthly Income, the obtained χ^2 value was 8.227 (significant at P<0.05) inferring a significant association. With regards to Parity of mothers, χ^2 value was 8.25 (significant at P<0.05) meaning a significant association. Regarding frequency of breast feeding, the obtained χ^2 value was 16.169 (significant at P<0.05) inferring a significant association. With regards to social support, the obtained χ^2 value was 12.457 (significant at P<0.05) inferring a significant association between social support and level of breast engorgement. With regards to dietary pattern, the obtained χ^2 value was 4.524 (significant at P<0.05) inferring a significant association. Regarding type of delivery, the obtained χ^2 value was1.899 (significant at P<0.05) meaning no significant association between type of delivery and level of breast engorgement among postnatal mothers.

Table6: **Frequency, Percentage and χ2 distribution on level of breast engorgement among postnatal mothers in experimental group with their demographic variables**

Demographic Variables	Level of Breast Engorgement in Experimental Group						χ2	p value (0.05)
	1	2	3	4	5	6		
Age								
a) >20-23	0	0	0	2	3	0		
b) 24-27	0	0	0	3	1	5	15.71*	0.0001
c) 28-31	0	1	2	1	1	3		
d) 31-35	0	0	0	1	0	2		
Area of living								
a) Rural	0	0	0	3	4	4	5.056*	0.0245
b) Urban	0	1	2	4	1	6		
Religion								
a) Hindu	0	1	2	5	4	6		
b) Muslim	0	0	0	2	1	4	2.04**	0.1532
c) Christian	0	0	0	0	0	0		
d) Others	0	0	0	0	0	0		
Educational Level								
a) Illiterate	0	0	0	1	3	1		
b) Primary	0	0	0	2	2	9	24.856*	0.0001
c) Secondary	0	1	2	3	0	0		
d) Graduate	0	0	0	1	0	0		
Type of family								
a) Nuclear	0	1	1	5	4	7		
b) Joint	0	0	1	2	1	3	1.048**	0.3060
c) Extended	0	0	0	0	0	0		
Monthly Income								
a) >5,000	0	1	3	1	2	1		
b) 5,000-10,000	0	0	1	4	3	9	8.227*	0.0041
c) 10,000-<15,000	0	0	0	0	0	0		
Parity of mother								
a) 1	0	1	1	7	4	7		
b) 2	0	0	1	0	0	1	8.25*	0.0041
c) <2	0	0	0	0	1	2		
Frequency of breast feeding								
a) 2 hours	0	0	0	3	1	8		
b) 6 hours	0	0	0	0	2	0	16.169*	0.0001
c) 8 hours	0	0	0	0	0	0		
d) On demand	0	1	2	4	2	2		
Social Support								
a) Husband	0	1	0	6	3	8		
b) Mother	0	0	0	1	0	1	12.457*	0.0004
c) In-Laws	0	0	2	0	2	1		
d) Friends	0	0	0	0	0	0		
Dietary pattern								
a) Vegetarian	0	1	2	4	4	4	4.524*	0.0334
b) Non-Vegetarian	0	0	0	3	1	6		
Type of delivery								
a) Normal	0	0	1	1	2	3	1.899**	0.1682
b) Caesarean	0	1	1	6	3	7		

Association Between The Level Of Breast Engorgement With Their Selected Demographic Variables in Control Group

Findings showed that; with regards to age, the obtained χ2 value was 5.814 (significant at P<0.05) inferring a significant association between age and level of breast engorgement among postnatal mothers. Regarding Area of living, χ2 value was 5.08 (significant at P<0.05) meaning a significant association; For Religion, χ2 value was 4.993 (significant at P<0.05) inferring a significant association , regarding Educational

Level, the obtained χ2 value was 12.147 (significant at P<0.05) meaning a significant association. Regarding Type of Family, the obtained χ2 value was 4.546 (significant at P<0.05) inferring a significant association. With regards to monthly Income, the obtained χ2 value was 8.163 (significant at P<0.05) inferring a significant association. With regards to Parity of mothers, the obtained χ2 value was 4.067 (significant at P<0.05) inferring a significant association, regarding frequency of breast feeding, the obtained χ2 value was 16.082, (significant at P<0.05) meaning that there was a significant association. With regards to social support, the obtained χ2 value was 7.626 (significant at P<0.05) inferring a significant association. Regarding dietary pattern, the obtained χ2 value was 4.679 (significant at P<0.05) inferring a significant association. With regards to type of delivery, the obtained χ2 value was 6.209 (significant at P<0.05) inferring a significant association between type of delivery and level of breast engorgement among postnatal mothers.

Table7: **Frequency, Percentage and χ2 distribution on level of breast engorgement among postnatal mothers in control group with their demographic variables**

Demographic Variables	Level of Breast Engorgement in Control Group						χ2	p value (0.05)
	1	2	3	4	5	6		
Age								
>20-23	0	0	1	1	2	2		
24-27	0	1	0	2	1	2	**5.814***	**0.0159**
28-31	0	0	2	2	1	3		
31-35	0	0	1	1	1	2		
Area of living								
Rural	0	1	0	1	1	3	**5.08***	**0.0242**
Urban	0	0	4	5	4	6		
Religion								
Hindu	0	1	2	6	4	8		
Muslim	0	0	2	0	1	1	**4.993***	**0.0255**
Christian	0	0	0	0	0	0		
Others	0	0	0	0	0	0		
Educational Level								
Illiterate	0	0	0	0	2	3		
Primary	0	1	0	2	0	3	**12.147***	**0.0005**
Secondary	0	0	3	3	2	2		
Graduate	0	0	1	1	1	1		
Type of family								
Nuclear	0	0	1	2	4	5		
Joint	0	1	3	4	1	4	**4.546***	**0.0330**
Extended	0	0	0	0	0	0		
Monthly Income								
>5,000	0	0	1	2	1	2		
5,000-10,000	0	1	0	2	2	6	**8.163***	**0.0043**
10,000-<15,000	0	0	3	2	2	1		
Parity of mother								
1	0	1	3	4	3	7		
2	0	0	0	2	1	1	**4.067***	**0.0437**
<2	0	0	1	0	1	1		
Frequency of breast feeding								
2 hours	0	1	1	4	2	8		
6 hours	0	0	2	0	0	0	**16.082***	**0.0001**
8 hours	0	0	0	0	0	0		
On demand	0	0	1	2	3	1		
Social Support								
Husband	0	0	1	3	4	5		
Mother	0	0	0	1	0	2	**7.626***	**0.0058**
In-Laws	0	1	3	2	1	2		
Friends	0	0	0	0	0	0		
Dietary pattern								
Vegetarian	0	1	2	6	3	5	**4.679***	**0.0305**

Non-Vegetarian	0	0	2	0	2	4	
Type of delivery							
Normal	0	1	0	2	3	2	**6.209***	**0.0127**
Caesarean	0	0	4	4	2	7	

Association Between The Level Of Breast Feeding With Their Selected Demographic Variables in Experimental Group

Findings showed that with regards to age, ($\chi 2$ = 4.793, significant at P<0.05) it was inferred that there is significant association between age and level of breast feeding among postnatal mothers. For Area of living, ($\chi 2$ = 2.014, not significant at P<0.05) it was inferred that there is no significant association. Regarding Religion, ($\chi 2$ = 0.053, not significant at P<0.05) it was inferred that there is no significant association, with regards to Educational Level, ($\chi 2$ = 15.314, significant at P<0.05) it was inferred that there is significant association. Regarding Type of Family, ($\chi 2$ = 4.242, not significant at P<0.05) it was inferred that there is no significant association. With regards to monthly Income, ($\chi 2$ = 10.484, significant at P<0.05) it was inferred that there is significant association. Regarding Parity of mothers, ($\chi 2$ = 0.798, not significant at P<0.05) it was inferred that there is no significant association. Regarding frequency of breast feeding, ($\chi 2$ = 12.9, significant at P<0.05) it was inferred that there is significant association, with regards to social support, ($\chi 2$ = 9.971, significant at P<0.05) it was inferred that there is significant association. With regards to dietary pattern, ($\chi 2$ =1.401, not significant at P<0.05) it was inferred that there is no significant association. Regarding type of delivery, ($\chi 2$ = 3.241, not significant at P<0.05) it was inferred that there is no significant association between type of delivery and level of breast feeding among postnatal mothers.

Table 8: **Frequency, Percentage and $\chi 2$ distribution on level of breast feeding among postnatal mothers in experimental group with their demographic variables**

Demographic Variables	Level of Breast Feeding			$\chi 2$	p value (0.05)
	1	**2**	**3**		
Age					
a) >20-23	3	2	0		
b) 24-27	6	2	1	**4.793***	**0.0286**
c) 28-31	4	4	0		
d) 31-35	3	0	0		
Area of living					
a) Rural	8	2	1	**2.014****	**0.1559**
b) Urban	9	5	0		
Religion					
a) Hindu	12	6	0		
b) Muslim	5	2	0	**0.053****	**0.8179**
c) Christian	0	0	0		
d) Others	0	0	0		
Educational Level					
a) Illiterate	3	2	0		
b) Primary	12	0	1	**15.314***	**0.0001**
c) Secondary	1	5	0		
d) Graduate	1	0	0		
Type of family					
a) Nuclear	14	3	1		
b) Joint	3	4	0	**4.242****	**0.0394**
c) Extended	0	0	0		
Monthly Income					
a) >5,000	3	2	0		
b) 5,000-10,000	14	2	1	**10.484***	**0.0012**
c) 10,000-<15,000	0	3	0		
Parity of mother					
a) 1	14	5	1		
b) 2	1	1	0	**0.798****	**0.3717**
c) <2	2	1	0		
Frequency of breast feeding					
a) 2 hours	11	0	1	**12.9***	**0.0003**

	1	2	3	χ2	p value
b) 6 hours	2	0	0		
c) 8 hours	0	0	0		
d) On demand	4	7	0		
Social Support					
a) Husband	15	3	1		
b) Mother	0	2	0	**9.971***	**0.0016**
c) In-Laws	1	3	0		
d) Friends	0	0	0		
Dietary pattern					
a) Vegetarian	9	5	1	**1.401****	**0.2366**
b) Non-Vegetarian	8	2	0		
Type of delivery					
a) Normal	5	1	1	**3.241****	**0.0718**
b) Caesarean	12	6	0		

Association Between The Level Of Breast Feeding With Their Selected Demographic Variables in Control Group

Findings showed that; with regards to age, ($χ2 = 5.039$, significant at $P<0.05$) inferring a significant association between age and level of breast feeding. Regarding Area of living, ($χ2 = 1.358$, not significant at $P<0.05$) inferring no significant association. With regards to Religion, ($χ2 = 0.405$, not significant at $P<0.05$) inferring no significant association. Regarding Educational Level, ($χ2 = 7.458$, significant at $P<0.05$) inferring a significant association. With regards to Type of Family, ($χ2 = 1.462$, not significant at $P<0.05$) inferring no significant association. Regarding monthly Income, ($χ2 = 5.025$, significant at $P<0.05$) inferring a significant association. Regarding Parity of mothers, ($χ2 = 2.214$, not significant at $P<0.05$) inferring no significant association. With regards to frequency of breast feeding, ($χ2 = 6.223$, significant at $P<0.05$) inferring a significant association. With regards to social support, ($χ2 = 8.655$, significant at $P<0.05$) inferring a significant association. Regarding dietary pattern, ($χ2 = 0.587$, not significant at $P<0.05$) inferring no significant association. With regards to type of delivery, ($χ2 = 2.31$, not significant at $P<0.05$) inferring no significant association between type of delivery and level of breast feeding among postnatal mothers.

***Table9* Frequency, Percentage and χ2 distribution on level of breast feeding among postnatal mothers in control group with their demographic variables**

Demographic Variables	Level of Breast Feeding				
	1	**2**	**3**	**χ2**	**p value (0.05)**
Age					
a) >20-23	4	2	0	**5.039***	**0.0248**
b) 24-27	5	1	0		
c) 28-31	3	4	1		
d) 31-35	4	1	0		
Area of living					
a) Rural	3	3	0	**1.358****	**0.2439**
b) Urban	13	5	1		
Religion					
a) Hindu	14	7	0	**0.405****	**0.5245**
b) Muslim	2	2	0		
c) Christian	0	0	0		
d) Others	0	0	0		
Educational Level					
a) Illiterate	5	0	0	**7.458***	**0.0063**
b) Primary	5	1	0		
c) Secondary	5	5	1		
d) Graduate	1	2	0		
Type of family					
a) Nuclear	8	3	1	**1.462****	**0.2266**
b) Joint	8	5	0		
c) Extended	0	0	0		
Monthly Income					
a) >5,000	4	2	0	**5.025***	**0.0250**
b) 5,000-10,000	9	2	0		

c) 10,000-<15,000	3	4	1		
Parity of mother					
a) 1	12	5	1	**2.214****	**0.1368**
b) 2	3	1	0		
c) <2	1	2	0		
Frequency of breast feeding					
a) 2 hours	12	3	1	**6.223***	**0.0126**
b) 6 hours	0	2	0		
c) 8 hours	0	0	0		
d) On demand	4	3	0		
Social Support					
a) Husband	10	2	1	**8.655***	**0.0033**
b) Mother	3	0	0		
c) In-Laws	3	6	0		
d) Friends	0	0	0		
Dietary pattern					
a) Vegetarian	11	5	1	**0.587****	**0.4436**
b) Non-Vegetarian	5	3	0		
Type of delivery					
a) Normal	5	2	1	**2.31****	**0.1285**
b) Caesarean	11	6	0		

IV.   Discussion

To assess the pre interventional level of breast engorgement & breast feeding among postnatal mothers in experimental & control group

In present study, majority of postnatal mothers (60%) had higher levels of breast engorgement and around 68% had poor level of breast feeding in experimental group before performing the test.

Similarly, a study (IJCRT2312533) by Dr. Ashok Sharma, Assistant Professor at Shrey Institute of Nursing Science Rajkot revealed that in his study as well most of the postnatal mothers had moderate breast engorgement in pre-test.

To assess the post interventional level of breast engorgement and breast feeding among the postnatal mothers in experimental and control group

In present study, 92% postnatal mothers reported soft to very less engorgement after post test.

Similarly the study by Prof Ashok Sharma (IJCRT2312533) concluded that there was an reduction to mild breast engorgement post-test among the postnatal mothers of experimental group.

To compare pre and post interventional level of breast engorgement and breast feeding   among the postnatal mothers in experimental and control group

In current study, mean level of breast engorgement was 4.84 during pretest and for breast feeding mean level was 0.36. However, after performing the test mean level of breast engorgement reduced to 1.56 and for breastfeeding mean level increased to 1.8. Thus, technique was found to be helpful in reducing engorgement levels and increasing levels of breast feeding.

On the other hand, in study by Prof Ashok Sharma (IJCRT2312533) concluded that there was an reduction to mild breast engorgement post-test among the postnatal mothers of experimental group. Along with this, the pre-test level of breastfeeding was fair and it had shown some increase in the post-test. Thus the study concluded that the Reverse Pressure Softening (RPS) technique was effective in reducing the level of breast engorgement and improving breastfeeding among the postnatal mothers who underwent caesarean section.

To find out association between pre interventional level of breast engorgement among postnatal mothers with their selected demographic variables in experimental group and control group

In present study, it was observed in experimental group that some demographic variables including age, area of living, educational level, monthly income, parity of mothers, frequency of breast feeding, social support and dietary pattern were associated with level of breast engorgement. However, other variables were not. However, in control group all the demographic variables were associated with level of breast engorgement.

Similarly a study by TRS. ANANTHAVARSHENI concluded that there was a significant association between the demographic variables with the level of breast engorgement in both experimental and control group.

To find out association between pre interventional level of breast feeding among postnatal mothers with their selected demographic variables in experimental group and control group

It was inferred in experimental group that demographic variables including age, educational level, monthly income, frequency of breast feeding, social support and type of family were associated with level of breast engorgement. However, other variables including Area of living, religion, parity of mothers, dietary pattern and type of delivery did not show any association. In control group demographic variables including age, education level, monthly income, frequency of breast feeding, social support were associated with level of breast engorgement. However, other variables including Area of living, religion, type of family, parity of mothers, dietary pattern and type of delivery did not show any association.

On contrast to this, in study by TRS. ANANTHAVARSHENI , post test level of breast engorgement in experimental group and control group revealed that there is no significant association between the level of breast engorgement and their selected demographic variables.

V.   Limitations

Some limitations were found by the researcher during the research study period such as the study sample was small and cannot be generalized. Also, the study period was limited.

VI.   Conclusion

Valuable insightful details regarding effectiveness of reverse pressure softening technique on the level of breast engorgement and breast feeding among postnatal mothers were provided in this study. From the findings, a significant improvement in levels of breast engorgement and breast feeding was observed. From statistical significance point of view, it was observed that Mean level of engorgement during pre test was 4.84 which was reduced to 1.56 in experimental group. On the otherhand, mean level of breast feeding increased from 0.36 to 1.8. Thus, it has been observed that Reverse Pressure Softening Technique is helpful to reduce breast engorgement & ensures optimized levels of breastfeeding.

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