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Effectiveness of planned teaching programme on practice regardingbreast engorgement and new-born feeding behaviour among primigravida mothers admitted at selected hospital, Gangtok, Sikkim.

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Abstract: *Pregnancy is unique, exciting, and often joyous time in a women's life, as it highlights the woman's amazing creative and nurturing power while providing a bridge to future. Breastfeeding is the most natural way to feed the baby. Effective breastfeeding is a function of the proper positioning of baby and mother. Positioning, good attachment and successful breastfeeding is the important for baby's body.Pregnant women need to be responsible women so, as to best support the health of her future child.This study was conducted to determine the impact of planned teaching programme among Primi-gravida mothers.* ***Methods:****The study was aquasi-experimental research study design. 60 samples were selected 30 in experimental and 30 in control group using purposive sampling technique. The experimental group received planned teaching programme regarding breast engorgement and new-born feeding behaviour. Structured questionnaire were developed and sent for validation. Reliability of the tool and pilot study was conducted. The data were collected after getting permission from theInstitutional Ethics Committee and writtenconsent from the participants. Data were analysed by SPSS software version 20 and using descriptive and inferential statistics.****Results:*** *The findings of the study revealed that after the intervention, practice of the primi-gravida mothers was significantly higher in the experimental group than the control group. Majority 93.3% had normal/no breast engorgement and 26.6% had mild engorgement in experimental and control group respectively Majority 63.3% had moderate practice score in the experimental group and 80% had poor practice score in the control group.* ***Conclusion:*** *There was a significant improvement in the practice scores after the administration of planned teaching programme. Hence, the study concluded that planned teaching programme was effective in improving the practice of primigravida mothers regarding breast engorgement and newborn feeding behaviour.*

Key Words: *Planned teaching programme, primigravida mothers, effectiveness, knowledge, breast engorgment, new-born feeding behaviour.*

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I. Introduction

Physiological changes occur in pregnancy to nurture the developing foetus and prepare the mother for labour and delivery. During pregnancy, the pregnant mother undergoes significant anatomical and physiological changes in order to nurture and accommodate the developing foetus.[1] Changes in the breast occurs because of rising hormone levels in the body and increased blood flow to the breast tissue.[2] Certain changes occurring during pregnancy may lead to some problem to the breasts. These problems are commonly seen during the second and third trimesters.[4]Breastfeeding is an art and skills which need to be learnt and mastered. This skill has to be learnt and followed by mothers not only to feed their infants but also to avoid breastfeeding complications.[3] Many common problems that may arise during the breastfeeding period, such as breast engorgement, plugged milk duct, breast infection and insufficient milk supply, originate from conditions that lead the mother to inadequate empty the breasts. Incorrect techniques, not frequent breastfeeding and breastfeeding on scheduled times, pacifiers and food suppliers are important risk factors that can predispose to lactation problems. The adequate management of those conditions is fundamental, as if not treated they frequently lead to early weaning. There are specific measures that should be taken to empty the breasts effectively.[4]

Breastfeeding is an important public health strategy for improving infant and child morbidity and mortality, improving maternal morbidity, and helping to control health care costs.[5] World Health Organization recommends that infants should be exclusively breastfed for the first six month of life.[6] Engorgement symptoms occur most commonly between days 3 and 5 postpartum, with more than two-thirds of women experiencing tenderness by day 5, but the onset may be as late as day 9-10.Majority experiences moderate symptoms. More time spent in breast feeding during 48 hours after birth correlates with less engorgement. The 20% post- natal mothers especially primigravida mothers are affected with breast engorgement from 0-4 days of postnatal period.[9]Breast engorgement can be prevented in the first days after giving birth.[7]

NFHS -3 data reflects the starting of breast feed within 1 hour will help to prevent the breast engorgement. Also, data showed the starting of breast feed in 1 hour is only 24.5%, due to lack of awareness among women. **(NFHS 2019).**[8] It is important for the baby to latch-on to the breast correctly during feeding so that it can suck effectively. Usually due to poor technique, lack of support results in problems of breastfeeding, sore or cracked nipples, breast engorgement. Poor technique may lead to breast engorgement.[9]WHO advocates exclusive breast feeding, as advocated lack of confidence in mother's ability to breast feed, breast pain or soreness, perception of insufficient milk supply and lack of individualized are some of the reasons for early breastfeeding discontinuation.[10]Some of these problems can be overcome if the women are informed antenatally. The researcher have come across many cases of breast engorgement and lack of breastfeeding practices due to lack of knowledge especially among primi-gravida mothers. So, the researcher felt that it is necessary to impart knowledge to the primigravida mothers regarding breast engorgement and newborn feeding behaviour through planned teaching programme so as to improve their practice.

II. Materials And Methods

Aquasi-experimental study was conducted at OBG Department (antenatal, postnatal, and private ward) of Central Referral Hospital Gangtok, Sikkim. The purpose of the study was to assess the practice regarding breast engorgement and new-born feeding behaviour among 60 samples (30 experimental and 30 control). Apurposive sampling techniqueas adopted. Demographic proforma,6-point breast engorgement scale and LATCH breastfeeding assessment tool were used. Reliability of toolwas found r = 0.8, using the Intra-rater method, split-half method using Karl Pearson's correlation coefficient.The data were collected after getting the clearnance from Institutional Ethics Committee. After the pretest, a planned teaching programme regarding breast engorgement and newborn feeding behaviourwas administered to the experimental group. Post-test was done after the planned teaching programme using the level of engorgement and feeding behaviour was checked using 6point breast engorgement scale and LATCH breastfeeding assessment tool for both the group. The data were analysedusing the descriptive and inferentialstatistics (Frequency table, mean and standard deviation) statistics in SPSS software version 20.

III. Result

The study result shows the sample characteristics of both control and experimental group in the table 1.Table 2 depicted the pregnancy profile of both the group.

Table 1: Frequency and percentage distribution of the sample characteristics of primigravida mothers respectively

[N=60]

		Experimental Group (n=30)		**Control Group (n=30)**	
Sl.no.		***(f)***	***(%)***	***(f)***	***(%)***
	Part A: Demographic Proforma				
1.	**Age of the mother (in years)**				
A.	18-27	6	20	8	26.67
B.	28-37	24	**80**	21	**70.00**
C.	38-47	0	0	1	3.33
2.	**Religion of mother**				
A.	Christian	2	6.67	5	16.67
B.	Hindi	23	**76.67**	20	**66.67**
C.	Muslim	0	0	0	0
D.	Others	5	16.67	5	16.67
3.	**Educational status of mother**				
A.	Primary	0	0	1	3.33
B.	Secondary	2	6.67	5	16.67
C.	Higher secondary	7	23.33	6	20
D.	Graduate & above	21	**70**	18	**60**
E.	No formal education	0	0	0	0
4.	**Occupation status of mother**				

A.	Unemployed	6	20	14	46.67
B.	Employed	24	**80**	16	**53.33**
C.	Self-employed	0	0	0	0
5.	**Type of family**				
A.	Nuclear family	19	**63.33**	18	**60**
B.	Joint family	11	36.67	12	40
C.	Extended family	0	0	0	0
6.	**Family income per month**				
A.	≤10000	0	0	0	0
B.	10001-20000	0	0	0	0
C.	20001-30000	0	0	1	3.33
D.	≥ 30001	30	**100**	29	96.67
7.	**Dietary pattern**				
A.	Vegetarian	1	3.33	2	6.67
B.	Non-vegetarian	29	**96.67**	28	**93.33**
8.	**Place of residence**				
A.	Urban	21	**70**	18	**60**
B.	Rural	9	30	12	40
9.	**Source of information (from) about:**				
9.1	**Breast engorgement**				
A.	Family members/Relatives	24	**80**	23	**76.67**
B.	Friends	0	0	0	0
C.	Health personnel	6	20	7	23.33
D.	Mass Media	0	0	0	0
E.	Others	0	0	0	0
9.2	**Newborn feeding behaviour**				
A.	Family members/Relatives	24	**80**	23	**76.67**
B.	Friends	0	0	0	0
C.	Health personnel	6	20	7	23.33
D.	Mass Media	0	0	0	0

The practice scores regarding level of breast engorgement among primigravida mothers in experimental and control group is shown in Fig. 1. Majority 93.3% is having normal/no engorgement and 26.6% mild engorgement in experimental and control group respectively. None is having moderate or severe engorgement in both experimental and control group.

[N= 60]

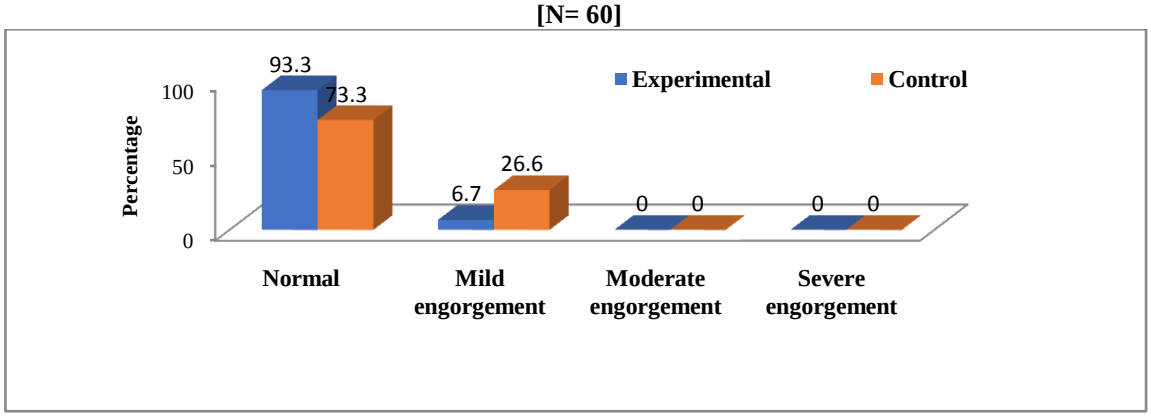

Figure 1: Bar diagram showing the post-test level of practice scores regarding level of breast engorgement among primi-gravida mothers in experimental and control group.

The post-test level of practice scores regarding LATCH breast feeding practice among primigravida mothers in experimental and control group is shown in Fig. 2. Majority 63.3% is having moderate practice score in the experimental group and 80% is having poor practice score in the control group.

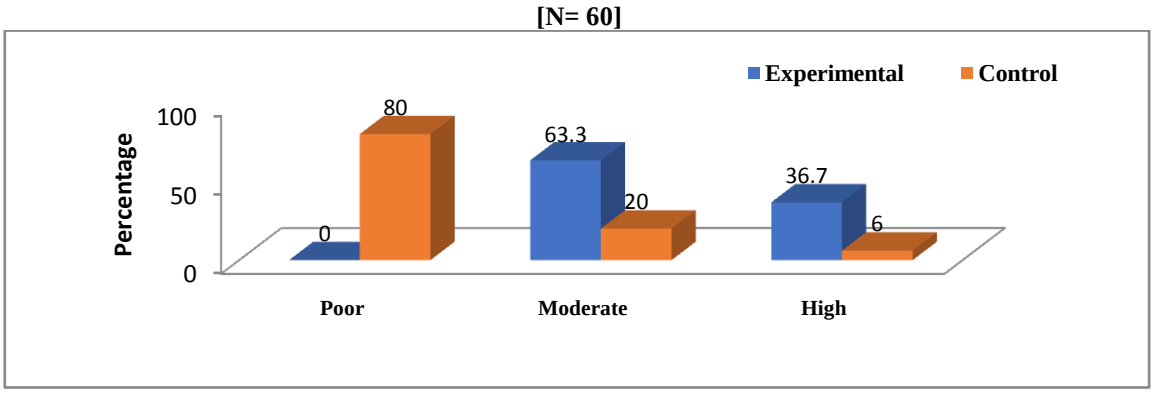

Figure 2: Bar diagram showing the post-test level of practice scores regarding LATCH breast feeding practice among primi-gravida mothers in experimental and control group.

The level of practice regarding satisfaction and elimination patternamong primi-gravida mothers in experimental and control group is shown in table 2. 100% baby sleeps after breast-feeding, pass soft stool, pass green, brown, colour of stool in both experimental and control group. Majority 80% and 73% baby sleeps 2-3 hours after breast feeding in experimental and control grouprespectively. Majority 7% and 10% baby sleeps after breast feeding but wake up after 10-15 minutes in experimental and control group respectively. Majority 87% and 70% baby pass urine 5-6 times/day in experimental and control group respectively.

Table 2: Frequency and percentage distribution on post-test level of practice regarding satisfaction and elimination patternamong primigravida mothers in experimental and control group.

[N=60]

Sl.no.	Structured Questionnaire on satisfaction and Elimination Pattern.	Experimental Group n=30		Control Group n=30	
		f	*%*	*f*	*%*
1	Baby sleeps after breast feeding.	30	100	30	100
2	Baby sleeps 2-3 hours after breast feeding.	24	80	22	73.33
3	Baby sleeps after breast feeding but wake up after 10-15 minutes.	2	7	3	10
4	Baby pass urine 5-6 times/day	26	86.66	21	70
5	Baby pass soft stool	30	100	30	100
6	Baby pass green, brown, colour of stool	30	100	30	100

IV. Discussion

R.S. Padmasree etal., 2017 conducted a quasi-experimental study on effectiveness of prenatal teaching on prevention of breast engorgement among 60 mothers (30 in each group). Convenience sampling technique as used for selection of the sample. Study finding shows the post-test knowledge was 10.3, t-value of control group was 0.71 while in experimental group, the post-test level is20.76, t-value of experimental group was 12.83 whichshows highly significant at 0.001 level.[11]

Reena, S. Rajesari, e al., 2013 also conducted a quasi-experimental study to assess the effectiveness of lactation counselling on breast engorgement and new-born feeding behaviour among 60 primi-gravida at Sri Ramachandra hospital. Data was collected using breast engorgement and new-born feeding behaviour assessment tool. The findings showed that none of the primi-gravida had breast engorgement in experimental group and 73% had engorged breast in control group. The significant difference was found on breast engorgement and new-born breastfeeding behaviour among primi-gravida at $p<0.001$. The study proved the effectiveness of lactation counselling on breast engorgement and new-born feeding behaviour breastfeeding technique among primi-gravida.[12]

Another study by Abbas Majeed Iqbal, Hasan Tereq Rajaa, a descriptive study on assessment of LATCH tool regarding initiation of breastfeeding among 120 women after childbirth. Purposive sampling technique was adopted for the study. Data was collected using questionnaire. The study findings showed majority 53.3% had moderate score, 42.5% had high score and 4.2% had poor score of LATCH breastfeeding. There was a significant relationship between ages with LATCH assessment tool.[13]Seema Devi et al. on knowledge and newborn feeding pattern assessment regarding breast feeding among 80 postnatal mothersrevealed that less than one third (17.5%) of newborn feeding pattern and more than one third (35%) had adequate feeding pattern and nearly half (47.5%) had inadequate feeding pattern.[14]

V. Conclusion:

The study concluded that planned teaching programme was effective in improving the practice of primigravida mothers regarding breast engorgement and newborn feeding behaviour. Hence, planned teaching programme can be implemented in the hospital and community setting for enhancing the practice of the pregnant mothers for self and for the newborn.

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Rai Shajeena Kirat, et. al. "Effectiveness of planned teaching programme on practice regardingbreast engorgement and new-born feeding behaviour among primigravida mothers admitted at selected hospital, Gangtok, Sikkim." *IOSR Journal of Nursing and Health Science (IOSR-JNHS)*, 12(1), 2023, pp. 01-05.