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Effectiveness of planned teaching programme on knowledge regarding breast engorgement 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. 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. Structured knowledge 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, knowledge of the primi-gravida mothers was significantly higher in the experimental group than the control group. There was anassociation between the pre-test level of knowledge with educational status, LMP & EDD in experimental group and an association was found between pre-test level of knowledge score in control group with educational status.**Conclusion:** There was a significant improvement in the knowledge scores after the administration of planned teaching programme. Hence, the study concluded that planned teaching programme was effective in improving the knowledge of primigravida mothers regarding breast engorgement.

Keywords: Planned teaching programme, primigravida mothers, effectiveness, knowledge, breast engorgement.

Introduction:

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. Pregnant women need to be responsible women so, as to best support the health of her future child.[1] 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.[2]Changes in the breast occurs because of rising hormone levels in the body and increased blood flow to the breast tissue.[3]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.[5]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.[6]

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.[7]World Health Organization recommends that infants should be exclusively breastfed for the first six month of life.[8]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.[10]

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).**[11]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.[12]Some of these problems can be overcome if the women are informed antenatally. And also the researcher being in nursing profession have come across many cases of breast engorgement especially among primigravida mothers So, the researcher felt that it is necessary to impart knowledge to the primigravida mothers regarding breast engorgement through planned teaching programme as teaching is an essential part of education.

Materials and methods:

The study is aquasi-experimental study conducted at OBG Department (antenatal, postnatal, and private ward) of Central Referral Hospital Gangtok, Sikkim. The purpose of the study was to assess the knowledge regarding breast engorgement among 60 samples (30 experimental and 30 control). Apurposive sampling techniqueas adopted. Structured knowledge questionnaire, 6-point breast engorgement scalewere 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 was administered to the experimental group. Post-test was done after the planned teaching programme using same structured knowledge questionnaire, level of engorgement was checked using 6point breast engorgement scale for both the group. The data were analysedusing the descriptive and inferentialstatistics (Frequency table, mean and standard deviation) statistics in SPSS software version 20.

Result:

The study result shows the sample characteristics of both control and experimental group in the table 1.

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 level of knowledgeon breast engorgement shows majority 14 (47%) have average knowledge in the pretest score and 26(87%) have good knowledge in the posttest among experimental group. Majority 15(50%) and 20(67%) have average knowledge in the pretest score and posttest respectively among the experimental group. Table 2 shows the comparison details on level of knowledge between the experimental and control group. The level of significance between pretest and posttest score among the experimental and control group was found to be p=0.001 and p=0.006 respectively.

Table 2:Comparison between pre-test and post-test level of knowledge among primigravida mothers in experimental and control group.

[N=60]

Level of knowledge	**Experimental Group (n=30)**				**Control Group (n=30)**			
	Pre-test		**Post-test**		**Pre-test**		**Post-test**	
	(f)	**(%)**	***(f)***	**(%)**	***(f)***	**(%)**	***(f)***	**(%)**
Poor	15	50	0	0	14	47	8	26.6
Average	14	**47**	4	13	15	**50**	20	**67**
Good	1	3	26	**87**	1	3	2	6.6
Mean	11.37		23.93		11.03		13.53	
SD	3.709		4.533		4.406		4.091	
Mean D	12.56				2.50			

t value	13.87	2.948
df	29	29
P value	0.001*	0.006*

***p<0.05 level of significance**

The comparison of post-test level among both the experimental and control group is shown in the table 3. There is a significant difference between the post-test level among experimental and control group where p-value =0.001.

Table 3:Comparison of post-test level of knowledge among primigravida mothers between experimental and control group.

[N=60]

Comparison	Groups	Mean	SD	Mean D	t value	df	"p" value
Post-test	Experimental	23.93	4.533	10.40	9.329	58	0.001*
	Control	13.53	4.091				

***Significant at p<0.05**

The association between the level of knowledge with selected demographic variables among the experimental and control group is shown in table 4 and table 5.The study revealed that there is an association between knowledge score of experimental and control group with educational status of mother.

Table 4:Association between pre-test level of knowledge with selected demographic variables among primigravida mothers in experimental group.

[n=30]

	Demographic Variable	Below median (<)	Above median (>)	χ2/fisher's exact	df	p value
1.	**Age in years**					
A.	18-27	4	2	0.833	1	0.361
B.	28-37	11	13			
2.	**Religion of mothers**					
A.	Christian	1	1	0.373	2	0.830
B.	Hindu	12	13			
C.	Others	2	1			
3.	**Educational status of mother**					
A.	Secondary	1	5	6.835	2	0.033*
B.	Higher secondary	2	5			

C.	Graduate & above	12	5			
4.	**Occupation status of mother**					
A.	Unemployed	3	3	1.455	1	0.712
B.	Employed	12	12			
5.	**Type of family**					
A.	Nuclear family	11	10	0.159	1	0.690
B.	Joint family	4	5			
6.	**Family income per month**					
A.	2001-30000	0	0	NA	NA	NA
B.	≥30001	15	15			
7.	**Dietary pattern**					
A.	Vegetarian	1	0	1.034	1	0.309
B.	Non-Vegetarian	14	15			
8.	**Place of residence**					
A.	Urban	10	11	0.159	1	0.690
B.	Rural	5	4			
9.	**Source of information (from) about:**					
9.1	**Breast Engorgement**					
A.	Family members/Relatives	12	13	0.240	1	0.624
B.	Health personnel	3	2			
9.2	**Newborn feeding behaviour**					
A.	Family members/Relatives	12	13	0.240	1	0.624
B.	Health personnel	3	2			

***Significant at p<0.05**

Table 5:Association between pre-test level of knowledge with selected demographic variables among primigravida mothers in control group.

[n=30]

	Demographic Variable	**Below median (<)**	**Above median (>)**	**χ2/fisher's exact**	**df**	**p value**
1.	**Age in years**					
A.	18-27	6	2	2.560	2	0.278
B.	28-37	11	10			

2.	**Religion of mothers**					
A.	Christian	4	1	1.493	2	0.474
B.	Hindu	10	10			
C.	Others	3	2			
3.	**Educational status of mother**					
A.	Primary	1	0	4.922	3	0.178*
B.	Secondary	2	3			
C.	Higher secondary	2	5			
D.	Graduate & above	12	5			
4.	**Occupation status of mother**					
A.	Unemployed	8	6	1.002	1	0.961
B.	Employed	9	7			
5.	**Type of family**					
A.	Nuclear family	10	8	1.023	1	0.880
B.	Joint family	7	5			
6.	**Family income per month**					
A.	2001-30000	**0**	**0**	NA	NA	NA
B.	≥30001	17	13			
7.	**Dietary pattern**					
A.	Vegetarian	1	1	1.039	1	0.844
B.	Non-Vegetarian	16	12			
8.	**Place of residence**					
A.	Urban	8	9	0.814	1	0.367
B.	Rural	9	4			
9.	**Source of information (from) about:**					
9.1	**Breast Engorgement**					
A.	Familymembers/Relatives	11	12	3.137	1	0.077
B.	Health personnel	6	1			
9.2	**Newborn feeding behaviour**					
A.	Familymembers/Relatives	11	12	3.137	1	0.077
B.	Health personnel	6	1			

***Significant at p<0.05**

DISCUSSION

Based on the present results of statistical tests, the study showed that there is a significant difference ($p<0.05$)between knowledge score before and after intervention in experimental group. There is no significant difference ($p>0.05$)before and after intervention in the control group.

A studyconducted by R.S Padmasree, etal.,on a quasi-experimental, quantitative study on effectiveness of prenatal teaching on prevention of breast engorgement among 60 mothers 30 in each group by convenience sampling technique. The mean pre-test level of knowledge in control group was 9.83 and the post-test knowledge was 10.3. The 't' value of control group was 0.71 while in the experimental group, the mean pre-test level was 10.20 and the post-test level 20.76. the 't' value of experimental group was 12.83, which shows highly significant at 0.001 level of significant.[13]

The present study showed that the planned teaching programme was effective in improving the knowledge of the primigravida mothers.The mean pre-test knowledge score of primigravida mothers in experimental group was 11.37 & post-test knowledge score was 23.93. The difference in the mean score was found to be 12.56 and were statistically significant at 0.001(t=13.87, df=29). It concluded that the program was effective.The mean pre-test knowledge score of primigravida mothers in control group was 11.03 & post-test knowledge score was 13.53. The difference in the mean score was found to be 2.50. This findings were statistically significant at 0.006 level (t=2.948, df=29).

Another study,conducted by Pardeshi P, Pathak N et.alon knowledge regarding breast complication during puerperium among 100 postnatal mothers using non probability purposive sampling technique.The study found that in pre-test assessment, both the group were homogenous but after the administration of intervention, significant differences were noted at 0.05 level of significance. In post-test 87% mothers had good knowledge, 12% had average knowledge & 1% had poor level of knowledge.[14]

Conclusion:

The study concluded that planned teaching programme was effectivein improving knowledge level of primigravida mothers regarding breast engorgement. By imparting adequate knowledge on these topics, the investigator believes that the participants of the study can rethink about their present health status and can be able to overcome with the problems.

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