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Planned Teaching Programme Through Booklet for Primi Gravidae Women Regarding Lactation Problems

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ABSTRACT

Introduction: Lactation issues are painful ailment that affects postpartum women and leads to failed breastfeeding. As a result, there is a strong need to improve women's awareness and self-care behaviors related to breast problems, especially among primi gravidae. Aim: The paper aims to evaluate the effect of planned teaching programmed through booklet for primi gravidae women regarding lactation problems. A quasi-experimental design was utilized. **Setting:** The study was done at the antenatal clinic of Suez Canal University Hospital. A purposive sample that consisted of 200 primi gravidae women was divided into two groups (control group comprising 100 pregnant women and study group comprising 100 pregnant women) using structured interview schedule, observational checklist regarding lactation and lactation problem were used for data collection. The procedure passed through four phases; interviewing and assessment, designing, implementation, and evaluation phase. **Results:** Pre-intervention study design showed that the majority of the sample in both the study and control groups had poor lactation and it is related to knowledge and practices compared to post-intervention. About 74% of the study group had good knowledge, whereas the control group had no significant difference from pre-intervention ($P \leq 0.001$). It was seen that 72.0% of the study group-initiated breastfeeding directly after delivery compared to only 25% of the control group. 63% of control versus 39% in the study faced breast problems. **Conclusion:** In pre-intervention, most of the members of both study and control group primi moms had poor knowledge and practice about breastfeeding and breastfeeding issues, according to the study's findings. As a result of the program, the booklets distributed were effective in increasing knowledge and practice of lactation problems in primi gravidae. The findings confirm the research hypothesis that women who enroll in the program and receive the booklet are able to avoid and overcome lactation disorders than those who did not. **Recommendation:** Classes for mothers are necessary to educate primi gravidae mothers regarding the bases of breastfeeding and breastfeeding problems during pregnancy, and that will help to reduce the risk of various complications and breastfeeding disorders.

Keywords: Planned Teaching; Program; Prim Gravida; Lactation; Lactation Problems

INTRODUCTION

Breastfeeding is a unique fluid that beneficial to both mothers and their babies. This is based on the advice of major medical organizations. Breast problems are most common within the first three to six days after delivery irrespective of the place, religion and socioeconomic status. Apart from emotional disturbance, the problems affect mothers' physical well-being and most importantly result in nutritional problems among infants (Nankunda, Tumwine & Soltvedt, 2016).

These breast disorders are common in postoperative moms, and if adequate care is not followed, mothers will develop these issues within a few days of giving birth. Minor breast issues are rarely life-threatening, but they can worsen and become a major postpartum complication. Following faulty breastfeeding techniques, ignorance of mothers regarding feeding practices, improper breast hygiene, lack of proper health education, cultural beliefs and practices during the postnatal period forces mothers to neglect proper breastfeeding techniques and breast care. This negligence and ignorance exaggerate and in turn lead to suppression of lactation (Tiwari, Pareshbhai & Rajendrakumar, 2016).

In primipara moms, inverted and flat nipples are frequent. Because prevention is preferable to treatment, it is preferable to form the nipples during the prenatal period. They can contour their nipples to avoid flat and inverted nipples, which makes it easier for the newborn infant to suck. Sucking an infant is also beneficial to moms; stimulating the nipples shortly after delivery causes the release of hormones of oxytocin, that contract uterus. This aids in the management of postpartum hemorrhage and the quickening of the uterus's return to its pre-pregnancy size. To avoid these issues, extra attention to the mother's breasts during pregnancy and in the early days after birth is required (John *et. al.*, 2015).

Breastfeeding advice given to mothers during the antepartum period enhances their understanding of the topic and, as a result, the prevalence of this practice for a longer period of time. In order to effectively navigate the experience, mothers require direction and consistent, compassionate, effective, and useful assistance. The consistency of information is critical to the nursing intervention's effectiveness. According to the references, moms who are given sufficient breastfeeding advice have fewer difficulties nursing (Reis Santos, França & Cruz, 2015). Breast issues have a high occurrence rate, which may be related to women's lack of awareness about correct nursing methods and practices. Previous research has suggested that it is critical to examine the prim gravida women's knowledge and behaviors about breastfeeding issues. As a result, the current research was carried out.

Aim: To evaluate the effect planned teaching programed through booklet for primi gravidae women regarding Lactation problems, through -

- Assess the pregnant women knowledge and practice about lactation problems (pre intervention and post intervention) & assess breast problems and implement guideline for pregnant women regarding lactation problems.

Research Hypothesis: Women who engaged and completed the program have a good knowledge and practices also they will avoid and overcome lactation problems than those who don't.

METHODOLOGY

Design

A quasi-experimental study design was utilized.

Setting

This study was conducted at the antenatal clinic of Suez Canal University Hospital at Ismailia city.

Participants

Primi gravidae, free from medical, obstetrics and psychological problems that prevent breastfeeding after delivery, women at the third trimester of pregnancy, full-term pregnancy, single one baby, and neonate free from a specific health problem as cleft palate. Women who were not contactable by telephone after discharge were asked to come to the clinic postnatal for follow up.

Sampling

Sample type: Simple random sample.

Sample size: 2 hundred primi gravidae women.

Egyptian women, fully breastfeeding at six months, was reported to be 32% by Hassan, & Abdelwahed (2015). We hypothesized that this intervention could increase that rate to 60%. To detect an increase of 22%, with a power of 90%, we required a sample of 80 women in per because of dropped out we increased to 100 in each group assuming 0.05 level of significance.

Recruitment

Eligible of two hundred prim gravida mothers in the 3rd trimester attending antenatal clinic in previously mentioned hospitals. Selected according to inclusion criteria and divided into equal two groups - Control group (n=100) received routine care, and study group (n=100) received knowledge and practice sessions with an illustrated booklet about lactation and lactation problems and follow up at early postnatal period.

Tools

Researchers created pre and post-intervention questionnaires in Arabic based on a thorough study of the literature. There were two sections to the pre-intervention questionnaire. The first component gathered demographic data, as well as prior breastfeeding and lactation-related information and obstetrical data. The second portion consisted of 13 questions.

There were two sections to the post-intervention questionnaire. The first portion provided extensive information about the infant and whether or not she was nursing. This contained information such as infant weight, feeding method, nursing duration, and start-up time. For follow up (interview or telephone), each participant was asked if faced any problem during breast feeding.

Observational Chick List

Assess pregnant women's practice regarding

lactation and lactation problems before and after the intervention. It was divided into following women's practices regarding breast care, it consisted of (13) items; breast self-examination, it consisted of (18) items; breastfeeding positions, it consisted of (9) items; engorgement, it consisted of (8) items; breast milk expression, it consisted of mastitis, it consisted of (10) item; flat or inverted nipple, it consisted of (5) items; and nipple soreness, it consisted of (11) items.

Scoring System for women's Knowledge:

A score of two was given for good knowledge /practice and one for average knowledge/practice and zero for poor knowledge /practice. The item scores were added up for each part, and the total was divided by the number of items, yielding a mean score for the part. The mean and standard deviations were calculated after the scores were converted to a percentage score. If the percent score was 75 percent or higher, the women's knowledge/practices were judged excellent, ordinary if the percent score was 50 percent to 75 percent, and poor if the percent score was less than 50 percent.

Local nursing professionals, three breastfeeding educators and two lactation specialists determined the content validity of the questions. A pilot investigation was carried out with ten women who were not included in the final sample. As a consequence, modest changes to the questionnaire's wording were made.

Ethical Considerations

All ethical considerations were followed at the start of the interview and intervals during the study, each lady was told about the study's objective and advantages. The Ethical Commtee of Technical Institute of Health, 6/2/2018. Before beginning data collection, each woman gave her oral agreement. Confidentiality was maintained throughout the study procedure, with personal data not being released and the women being informed that all data would be utilized solely for research purposes Each lady was told that participation was completely optional and that her withdrawal would have no impact on her care.

The researcher started the study by visiting antenatal clinic of hospital three days/week, (Sunday, Tuesday, Thursday), from 10 A.M to 1 P.M in the period from the beginning of June 2019 to the end of March 2020 until the study was completed through the following phases.

Interviewing and Assessment Phase

This phase included interviewing both the control and study groups to obtain socio-demographic information as well as baseline data on women's knowledge and behaviors about breastfeeding and lactation issues. To eliminate bias, the control group is interviewed first, followed by the research group. The researcher welcomed the lady, introduced herself to each woman in the study, described the objective of the investigation, and gave her all the information she needed about the study (purpose, duration, and activities) before taking her oral permission. The data was gathered by the researcher by distributing the tools to each lady at her workplace. Each woman interview took around one hour on average to complete (20-30 minutes). The average number of women collected every day was 3-4.

Designing Phase

Based on results obtained from preprogram assessment of study group that contains women's knowledge and practices regarding lactation problems. The booklet was developed with sessions number and its contents, different methods of teaching, and instructional media were determined accordingly to study group.

Implementation Phase

Intervention Group: During a face-to-face interview, women assigned to the intervention group were given a pre-intervention questionnaire. They were then given a 45-minute to 1-hour antenatal educational program, as well as a guideline instructions booklet written in basic Arabic with many illustrations to help women understand breastfeeding difficulties "pre-test assessment." The instructional session included not only the benefits of breastfeeding but also the necessity of complete nursing for both the mother and her baby, as well as guidance on posture and attachment, drugs contraindicated of the breast, and reviewed common breastfeeding problems how to overcome them. This included verbal information, discussions of concerns or questions expressed by the ladies, and hands-on nursing demonstrations. Following that, the ladies were given a booklet including breastfeeding advice as well as contact information for the researchers., They were followed up on the first day, one week and three months by telephone. Where possible, women were contacted by the same researcher in order to maintain consistency. The telephone calls were to monitor breastfeeding progress and identify potential problems. Three months postnatal, the post-intervention questionnaire was re-administered during an outpatient postnatal clinic or by telephone.

Control Group: The women in the control group

got routine treatment as well as data collection calls from the researchers. There was no attempt to keep information from other sources under control.

Evaluation Phase

The primary outcomes were the time of initiation of breastfeeding, as well as the occurrence of breast problems postpartum. The proportion of women fully breastfeeding their babies at three months, and their breastfeeding knowledge, practice and problems management is conducted at the outpatient clinic or over the phone for both groups. To minimize bias, the evaluation began with the control group before moving on to the study group. Follow up were scheduled for the first week and three months postnatal.

Statistical Design

Prior to automated input, data were double-checked. Data tabulation and analysis were performed using the Statistical Package for Social Sciences (SPSS version 20.0). Descriptive statistics were used in this study (e.g., mean, standard deviation, frequency and percentages). Pearson correlation coefficients and a test of significance (*t*-test, chi-square) were employed. There was a substantial level value considered when $p \leq 0.05$.

RESULTS

A total of 200 primi-gravida was included in our study. The demographic characteristics were similar for both groups so they have been combined here. Their mean age &SD of the study and control groups are 23.43 ± 3.69, 23.58 ± 4.36, slightly more than half of both study (52.0%) and control group (56.0%) are housewives, 48.0%, 46.0% had secondary school and 67.0%, 58.0% of both groups are from the rural area. The vast majority of both the study (87.0%) and control (91.0%) group had followed up pregnancy in a certain health place that 70.1%, 74.7% of them started to follow up at the first trimester. 77.0%of study and 71% of control groups had not any information about lactation and its problems, but the rest of women source of health information was on the internet. There are no significant differences between both groups regarding socio-demographic characteristics, pregnancy follow up and getting information.

Table 1 demonstrates the importance of recognizing breastfeeding and lactation issues. Pre-intervention, the majority of the sample in both the study and control groups had low knowledge compared to post-intervention. More than two-thirds of the study group had good knowledge, whereas the control group had no significant difference pre-intervention but a highly significant difference post-intervention ($P \leq 0.001$).

Table 1: Distribution of the Mothers by Level of Knowledge Regarding Lactation and Its Problems Pre and Post Intervention (n=200)

Knowledge About	Pre-Intervention		X^2	*P*-Value	Post Intervention		X^2	*P*-Value
	Study Group n= 100	Control Group n=100			Study Group n= 100	Control Group n=100		
	%	%			%	%		
Breast Feeding			FET 3.470	0.063				
Good	0	0.0			74	0.0		
Average	28	17.0			26	21.0		
Poor	72	83.0			0	79.0		
Breast Care								
Good	4.0	11.0	FET 3.539	0.170	70.0	13.0	FET 97.416	0.000**
Average	20.0	19.0			27.0	21.0		
Poor	76.0	70.0			3.0	66.0		
Nipple Problems								
Good	1.0	0.0	FET 2.668	0.263	67.0	1.0	FET 147.810	0.000**
Average	16.0	10.0			31.0	15.0		
Poor	83.0	90.0			2.0	84.0		
Breast Engorgement								
Good	0.0	0.0	FET 0.866	0.352	87.0	3.0	FET 102.913	0.000**
Average	7.0	4.0			12.0	8.0		
Poor	93.0	96.0			1.0	92.0		
Mastitis								
Good	0.0	1.0	FET 4.557	0.102	63.0	3.0	FET 102.913	0.000**
Average	41.0	28.0			33.0	38.0		
Poor	59.0	71.0			4.0	59.0		
Breast Milk Leakage								
Good	2.0	4.0	FET 1.028	0.598	85.0	6.0	FET 132.855	0.000**

***A highly statistically significant difference (P ≤ 0.001), FET=Fisher Exact Test*

Table 2: Relationship between Total Knowledge Level and Socio-Demographic Variables for Both Groups Pre and Post Intervention (n=200)

Level of Knowledge / Variable	Study Group						Control Group					
	Good n= 61		Average n= 37		Poor n= 2		Good n= 0		Average n= 11		Poor n= 89	
	No (6)	%	No (10)	%	No (84)	%	No (2)	%	No (7)	%	No (91)	%
Age (years)												
≤ 20	3	50.0	4	40.0	24	28.6	0	0.0	3	42.9	33	36.3
21-25	2	33.3	4	40.0	36	42.8	1	50.0	3	42.9	25	27.5
26-30	1	16.7	2	20.0	19	22.6	1	50.0	0	0.0	26	28.5
31-35	0	0.0	0	0.0	5	6.0	0	0.0	1	14.3	7	7.7
FET	2.314						4.536					
***p*- value**	0.889						0.605					
Residence												
Rural	5	83.3	7	70.0	55	65.5	1	50.0	4	57.1	53	58.2
Urban	1	16.7	3	30.0	29	34.5	1	50.0	3	42.9	38	41.8
FET	0.853						0.057					
***p*- value**	0.653						0.972					
Educational Level												
Basic	0	0.0	1	10.0	10	11.9	0	0.0	1	14.3	21	23.1
Secondary	4	66.7	6	60.0	38	45.2	2	100.0	5	71.4	39	42.9
University & above	2	33.3	3	30.0	36	42.9	0	0.0	1	14.3	31	34.1
FET	2.052						4.572					
***p*- value**	0.726						0.334					
Occupation												
Working	4	66.7	5	50.0	39	46.4	0	0.0	1	14.3	41	45.1
Housewife	2	33.3	5	50.0	45	53.6	2	100.0	6	85.7	50	54.9
FET	0.937						5.095					
***p*- value**	0.626						0.078					
Monthly Income												
Enough	3	50.0	3	30.0	45	53.6	0	0.0	2	28.6	41	45.1
Not Enough	3	50.0	7	70.0	36	42.9	2	100.0	4	57.1	49	53.8
Enough and Saving					3	3.6	0	0.0	1	14.3	1	1.1
FET	3.000				7.745							
***p*- value**	0.558				0.101							

***A highly statistically significant difference (P ≤ 0.001), FET=Fisher Exact Test*

Table 2 illustrates that there are insignificant relation between level of total knowledge and socio-demographic characteristics for both groups pre intervention.

Table 3: Relationship between Age of Study Group and Level of Total Knowledge Post Guideline Intervention

Level of Knowledge / Variable	Study Group						Control Group					
	Good n= 79		Average n= 21		Poor n= 0		Good n= 4		Average n= 9		Poor n= 87	
	No	%	No	%	No	%	No	%	No	%	No	%
Age (years)												
≤ 20	30	38.0	1	4.8	0	0.0	4	100.0	5	55.6	27	31.0
21-25	31	39.2	11	52.4	0	0.0	0	0.0	3	33.3	26	29.9
26-30	13	16.5	9	42.9	0	0.0	0	0.0	1	11.1	26	29.9
31-35	5	6.3	0	0.0	0	0.0	0	0.0	0	0.0	8	9.2
FET	13.171						10.730					
***p*- value**	0.004*						0.097					
Residence												
Rural	51	64.6	16	76.2	0	0.0	3	75.0	3	33.3	52	59.8
Urban	28	35.4	5	23.8	0	0.0	1	25.0	6	66.7	35	40.2
FET	1.015						2.834					
***p*- value**	0.314						0.242					
Educational Level												
Basic	11	13.9	0	0.0	0	0.0	1	25.0	2	22.2	19	21.8
Secondary	35	44.3	13	61.9	0	0.0	0	0.0	6	66.7	40	46.0
University & above	33	41.8	8	38.1	0	0.0	3	75.0	1	11.1	28	32.2
FET	4.049						6.233					
***p*- value**	0.132						0.182					
Occupation												
Working	38	48.1	10	47.6	0	0.0	4	100.0	3	33.3	37	42.5
Housewife	41	51.9	11	52.4	0	0.0	0	0.0	6	66.7	50	57.5
FET	0.002						5.583					
***p*- value**	0.969						0.061					
Monthly Income												
Enough	37	46.8	14	66.7	0	0.0	1	25.0	3	33.3	39	44.8
Not Enough	39	49.4	7	33.3	0	0.0	3	75.0	6	66.7	46	52.9
Enough and Saving	3	3.8	0	0.0	0	0.0	0	0.0	0	0.0	2	2.3
FET	3.004					1.449						
***p*- value**	0.223					0.836						

***A highly statistically significant difference (P ≤ 0.001), FET=Fisher Exact Test*

Table 4: Distribution of Studied Sample According to Women's Practice Regarding Lactation Problems Pre and Post of Intervention

Practice Items	Pre-Intervention		X^2	*P*-Value	Post Intervention		X^2	*P*-Value
	n= 100 in the Study Group	n=100 in the Control Group			n= 100 in the Study Group	n=100 in the Control Group		
	%	%			%	%		
Breast Care			FET 4.777	0.092				
Good	4.0	0.0			20.0	0.0		
Average	21.0	27.0			65.0	32.0		
Poor	75.0	73.0			15.0	68.0		
Breast Self-Examination								
Good	2.0	1.0	FET 1.767	0.413	53.0	3.0	FET 113.267	0.000**
Average	11.0	17.0			40.0	18.0		
Poor	87.0	82.0			7.0	79.0		
Feeding Positions								
Good	0.0	0.0	FET 1.202	0.273	43.0	0.0	FET 105.067	0.000**
Average	32.0	25.0			54.0	34.0		
Poor	68.0	75.0			3.0	66.0		
Breast Engorgement								
Good	6.0	2.0	FET 3.740	0.154	41.0	5.0	FET 83.576	0.000**
Average	33.0	26.0			53.0	30.0		
Poor	61.0	72.0			6.0	65.0		
Milk Expression								
Good	3.0	5.0	FET 1.981	0.371	49.0	7.0	FET 103.431	0.001**
Average	16.0	10.0			42.0	13.0		
Poor	81.0	85.0			9.0	80.0		
Mastitis								
Good	0.0	0.0	FET 1.330	0.249	57.0	0.0	FET 136.938	0.001**
Average	13.0	8.0			37.0	14.0		
Poor	87.0	92.0			6.0	86.0		
Flat Nipple								
Good	3.0	4.0	FET 1.948	0.178	68.0	6.0	97.389	0.001**
Average	22.0	30.0			25.0	31.0		
Poor	75.0	66.0			7.0	63.0		
Nipples Soreness								
Good	0.0	0.0	FET 0.567	0.451	59.0	0.0	FET 126.584	0.001**
Average	15.0	19.0			36.0	22.0		
Poor	85.0	81.0			5.0	78.0		

***A highly statistically significant difference (P ≤ 0.001), FET=Fisher Exact Test*

Table 4 illustrates the practice regarding lactation and lactation problems. The majority of both groups had pre-intervention poor practice compared to the post-intervention; the study group had improvement at practice. The control group had no significant difference. There is a substantial difference between before and after the intervention ($P \leq 0.001$).

Table 5: Relation between Level of Total Practice and Socio-Demographic Characteristics for Both Groups Pre-Guideline Intervention

Level of Total Practice / Variable	Study Group				Control Group			
	Average n=7		Poor n=93		Average n=7	Poor n=93	Average n=7	Poor n=93
	No	%	No	%	No	%	No	%
Age (years)								
≤ 20	2	28.6	29	31.2	2	50.0	34	35.4
21-25	2	28.6	40	43.0	1	25.0	28	29.2
26-30	2	28.6	20	21.5	1	25.0	26	27.1
31-35	1	14.2	4	4.3	0	0.0	8	8.3
FET	1.783				0.589			
***p*- value**	0.619				0.899			
Rural	3	42.9	64	68.8	1	25.0	57	59.4
Urban	4	57.1	29	31.2	3	75.0	39	40.6
FET	1.984				1.863			
***p*- value**	0.159				0.172			
Educational Level								
Basic	2	28.6	9	9.7	2	50.0	20	20.8
Secondary	3	42.8	45	48.4	2	50.0	44	45.9
University &above	2	28.6	39	41.9	0	0.0	32	33.3
FET	2.438				2.833			
***p*- value**	0.296				0.243			
Occupation								
Working	3	42.9	45	48.4	1	25.0	43	44.8
Housewife	4	57.1	48	51.6	3	75.0	53	55.2
FET	0.080				0.610			
***p*- value**	0.778				0.435			
Monthly Income								
Enough	4	57.1	47	50.6	0	0.0	43	44.8
Not Enough	3	42.9	43	46.2	4	100.0	51	53.1
Enough and Saving	0	0.0	3	3.2	0	0.0	2	2.1
FET	0.298				3.409			
***p*- value**	0.862				0.182			

***A highly statistically significant difference (P ≤ 0.001), FET=Fisher Exact Test*

Table 5 illustrates that there are in statistically significant relationship between level of total practice and socio-demographic characteristics for both groups pre guideline intervention.

Table 6: Relation between Level of Total Practice and Socio-Demographic Characteristics for Both Groups Post Guideline Intervention

Level of Total Practice / Variable	Good n= 61		Average n= 37		Poor n= 2		Good n= 0		Average n= 11		Poor n= 89	
	No	%	No	%	No	%	No	%	No	%	No	%
Age (years)												
≤ 20	9	14.8	22	59.5	0	0.0	0	0.0	4	36.4	32	36.0
21-25	37	60.7	5	13.5	0	0.0	0	0.0	5	45.4	24	27.0
26-30	10	16.3	10	27.0	2	100.0	0	0.0	1	9.1	26	29.1
31-35	5	8.2	0	0.0	0	0.0	0	0.0	1	9.1	7	7.9
FET	38.548						2.641					
***p*-value**	0.000						0.450					

Residence												
Rural	39	63.9	27	73.0	1	50.0	0	0.0	5	45.5	53	59.6
Urban	22	36.1	10	27.0	1	50.0	0	0.0	6	54.5	36	40.4
FET	1.118						0.799					
***p*- value**	0.572						0.372					
Educational Level												
Basic	8	13.1	3	8.1	0	0.0	0	0.0	3	27.3	19	21.4
Secondary	22	36.1	24	64.9	2	100.0	0	0.0	7	63.6	39	43.8
University & above	31	50.8	10	27.0	0	0.0	0	0.0	1	9.1	31	34.8
FET	9.895					3.019						
***p*- value**	0.042*					0.221						
Occupation												
Working	11	18.0	35	94.6	2	100.0	0	0.0	3	27.3	41	46.1
Housewife	50	82.0	2	5.4	0	0.0	0	0.0	8	72.7	48	53.9
FET	56.297						1.403					
***p*- value**	0.000**						0.236					
Monthly Income												
Enough	33	54.1	16	43.2	2	100.0	0	0.0	2	18.2	41	46.1
Not Enough	26	42.6	20	54.1	0	0.0	0	0.0	8	72.7	47	52.8
Enough and Saving	2	3.3	1	2.7	0	0.0	0	0.0	1	9.1	1	1.1
FET	3.173					5.584						
***p*- value**	0.529					0.061						

***A highly statistically significant difference (P ≤ 0.001), FET=Fisher Exact Test*

Table 6 illustrates statistically significant relationship of educational level &occupation of study group and level of total knowledge post guideline intervention.

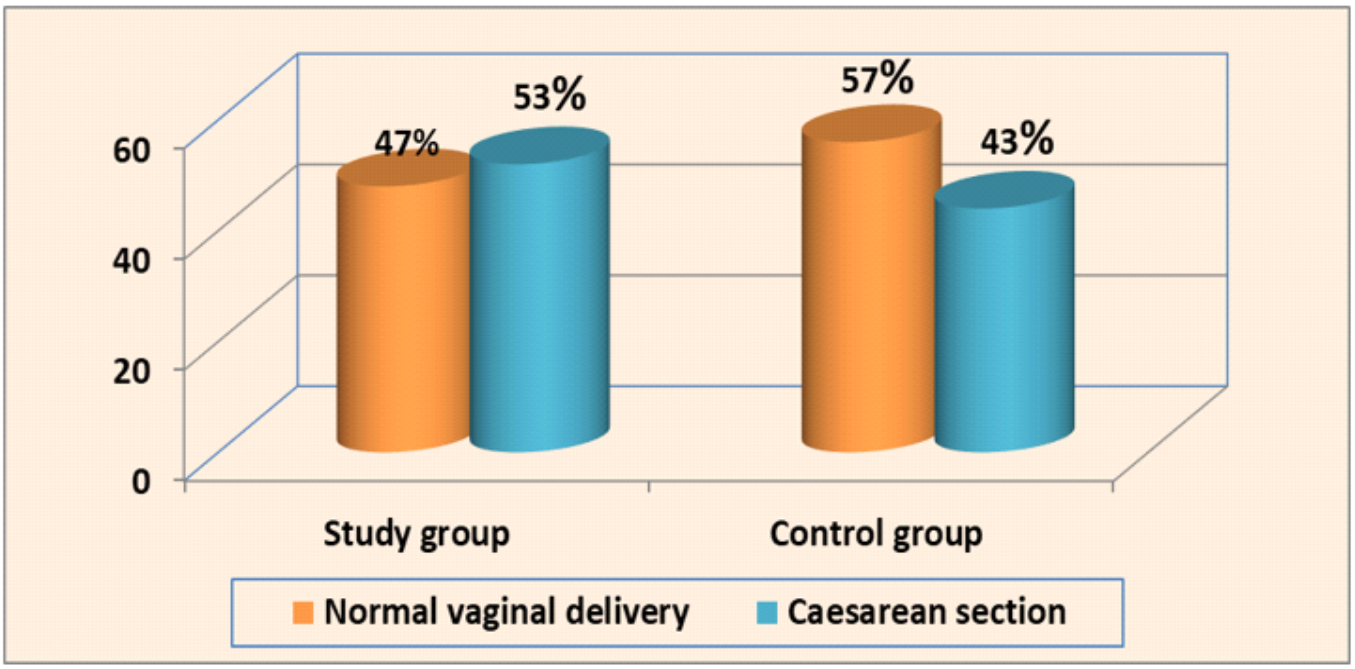

Figure 1: Mode of Delivery of the Studied Sample (n=200)

It illustrated that 53% in the study group and 43% in the control delivered by CS.

Table 7: The Coefficient of Correlation between Overall Knowledge and Total Practice Regarding Lactation Issues

Total Practice Score		Score for Overall Knowledge							
		Study Group (N=100)				Control Group (N=100)			
		Pre-Guideline		Post Guideline		Pre-Guideline		Post Guideline	
		R	*p*	*r*	*P*	*r*	*p*	*r*	*P*
	Pre-Guideline	0.543	0.000**			0.561	0.000**		
	Post Guideline			0.612	0.000**			0.597	0.000**

***A highly statistically significant difference (P ≤ 0.001)*

There is an extremely substantial correlation between total knowledge score and total practice score when it comes to lactation difficulties (Table 7).

Table 8: Distribution of Study and Control Groups According to Follow-up One Week After Delivery

Group	Study Group (N=100)	Control Group (N=100)	X^2	*P*-value
Items	**%**	**%**		
Time of Initiation of Breast Feeding				
After Delivery Directly	72.0	25.0	FET 49.317	0.000**
After One Hour	15.0	23.0		
After 3-5 hours	10.0	28.0		
After One Day	3.0	24.0		
Have You had a Problem During Breastfeeding?				
Yes	39.0	63.0	11.525	0.001**
No	61.0	37.0		
What this Problems? (n=39 & n=63)				
Baby Refusing	18.0	0.0	FET 28.534	0.000**
Mastitis	5.1	0.0		
Engorgement	10.3	19.1		
Inverted Nipple	20.5	46.0		
Baby Crying	25.6	6.4		
Cracked Nipple	15.4	20.6		
Breast Abscess	5.1	7.9		
What's Your Action this Problem? (n=39 & n=63)				
Correct	69.2	1.6	FET 63.584	0.000**
Incorrect	30.8	39.7		
Not Done	0.0	58.7		

***A highly statistically significant difference (P ≤ 0.001), FET=Fisher Exact Test*

DISCUSSION

The aim was to evaluate a planned teaching program through booklet for pregnant women regarding lactation problems. This aim is significantly approved through the research hypothesis. The present study findings reveal that there is an improvement of mothers' knowledge and practice as well as a decrease in occurrences of breast problems after implementation of the teaching program in the intervention than those who don't apply compared to pre-intervention. These findings direct attention to stress the importance of education about lactation and lactation problems during the antenatal period.

In relation to the attendance of antenatal care, it is one of the most significant factors in determining a successful pregnancy. Antenatal services were available to the majority of studied women in both groups but the

majority of them do not receive antenatal classes about breastfeeding problems. The present study findings are in harmony with Hassan, NourEldin & Abd-Allah (2019) who stated that most of the women who were examined got antenatal care. On the other hand, this finding is inconsistent with Hassan *et al.*, (2020). Also, Varghese & Patwa (2020) mentioned that nearly two-thirds of women did not receive antenatal care which showed a great deficiency in the health education received during antenatal visits.

This may also reflect the deficiencies at health institutions regarding their roles in health education as the health care providers neglect health teaching about such topics for pregnant women, especially primipara. So, this may lead to various breast problems which interfere with the establishment and continuation of breastfeeding.

As regard to total score level of knowledge regarding breastfeeding and its problems. It is noticed that more than three-quarters of women exhibited a poor level of knowledge regarding breast problems before intervention which increased significantly later post-implementation of intervention in the study group. This study finding is similar to Sunita & Deepika (2020) who reported that there was a low level of women's knowledge about lactation issues. On the other hand, the results were contradicted with Aneesha *et al.*, (2019) who reported that good knowledge of mothers' pre-intervention regarding breast problems. This discrepancy with the current study may be related to different educational levels among the studied women.

Regarding the sources of knowledge, the current study revealed that nearly half of women mentioned that the internet was a primary source of knowledge regarding breast problems. This study finding is opposite to Abd El-Salam & Ashour (2020) who demonstrated that family members were the most common source of women's knowledge. While Hassan *et al.*, (2020) declared that midwives were the most common sources of women's knowledge, this may be attributed to social media knowledge spread.

According to our findings, it was observed that practices of breast care are worse at both groups' pre-intervention. This agrees with Kumar *et al.*, (2021) who studied a community-based study on breastfeeding practices in the urban area of Meerut. He reported that the majority of participants did not carry out the practice of breast care. On the other hand, the study finding is not matching with Karatay Baş & Ergin (2018) finding who stated that only one-fifth of the studied women expressed their breast manually or used breast pumps. Furthermore, in the present study, there is a highly significant difference between study and control groups post-intervention of care of breast engorgement and mastitis. This agrees with Witt *et al.*, (2014) who found that the breast massage during the lactation period was significant in the study group.

As regard to the relationship between studied prim gravida women's socio-demographic data and their total knowledge scores about breast engorgement, the current study reported a statistically significant relationship between women's occupation, family income and their total knowledge scores. These results are similar to the finding of the study done by Pardeshi *et al.*, (2019), who stated that there was a statistically significant relationship between women's total knowledge and occupation. On the other hand, the current study finding is contradicted with Aneesha *et al.*, (2019), who mentioned that there were no significant associations between occupation and women's total knowledge and practice among women. The current study revealed a statistically significant relationship between total self-practice and both women's education and occupation. These results were matched with Abd El-Razek (2013) who mentioned there was a significant association between performance scores regarding self-care during the postnatal period and the educational level of the studied women.

As regard to the mode of delivery, about half of the women had a cesarean section with spinal anesthesia, these results are similar to Karatay Baş & Ergin (2018), who reported that nearly three-quarter of women had a cesarean section. On the other hand, the present study contradicted with El-Saidy & Aboushady (2016) who reported that nearly three-quarters of women had a normal vaginal delivery and the rest of them had a cesarean section.

Regarding the breastfeeding initiating time, the finding revealed that a minority of them initiated breastfeeding immediately after delivery as compared to one-quarter of the control group. It was in the same line with Shrooti, Prativa & Devkumari (2016) who mentioned that half of the studied women initiated breastfeeding within 2 hours after delivery. On the other hand, the finding disagrees with Ebrahim & Esmat (2018), who reported that more than half of women initiated breastfeeding after more than two hours. From

the researcher's point of view, this difference may be due to a lack of anticipatory guidance and support to initiate breastfeeding immediately after delivery, in addition to the pain resulting from caesarian section and episiotomy among the studied women who had a vaginal delivery. This is may be attributed to a delay in establishing breastfeeding.

From the researcher's point of view, educational level plays an important role that influences the women's ability for effective and exclusive breastfeeding. High-educated women tend to initiate breastfeeding, longer duration and more effectively than women with low education. Maternal employment is also an important factor as women who work have better chances to gain valuable health and social information.

The study also showed that only less than thirty-nine in the study group compared to sixty-three in the control group suffered from breast problems during the postnatal period. There were a significant number of women who complained of breast engorgement, inverted, cracked nipples. This result matched with Angeline, Yesudas & John (2020) who clarified that less than one-fifth had breast engorgement as abreast complications occur among postnatal women. On the other hand, this finding is inconsistent with Karatay Baş & Ergin (2018), who stated that three-fifths of postnatal women had breast engorgement during the postnatal period in the study group. Finally, regarding breastfeeding issues, the current study found a significantly substantial link between total knowledge and total practice scores. This demonstrated that knowledge has a favorable impact on practices and, as a result, reduces lactation issues.

CONCLUSION

In pre-intervention, most of both group study and control primi moms had poor knowledge and practice about breastfeeding and breastfeeding issues, according to the study's findings. There is a very significant difference between pre and post-intervention among women registered in the program and received the booklet and none. As a result, the program and the booklet distributed were effective in increasing knowledge and practice of lactation problems in primi gravidae. As a consequence, the findings confirm the research hypothesis that women who enroll in the program and receive the booklet are abler to avoid and overcome lactation disorders than those who did not.

RECOMMENDATION

Mother classes to educate pregnant mothers especially primi gravidae during pregnancy and give them help and assistance to start breastfeeding as early as possible after delivery.

Antenatal clinics at the hospital must be provided with booklets containing the bases of breastfeeding and breastfeeding problems, dolls for showing mothers all practice to be given to pregnant mothers especially primi gravidae.

Further research about lactation problems and the role of the nurse of it, and its prevention can be suggested.

Conflict of Interests

The authors declare that they have no conflict of interests.

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