



“A STUDY TO ASSESS KNOWLEDGE AND PRACTICE REGARDING EXPRESSED BREAST MILK AMONG POSTNATAL MOTHERS IN SELECTED HOSPITAL IN A VIEW TO DEVELOP AN INFORMATION BOOKLET”

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INTRODUCTON

“WITH THE BIRTH OF EVERY CHILD MAN MAY CALCULATE THAT GOD IS STILL HOPEFUL ABOUT THE WORLD HE CREATED”.

-Words Worth

"Just as there is no substitute for mother's love

There is no substitute for mother's milk"

God has created a very beautiful universe and He created many things in it. The human life is the most beautiful gift of God to universe. The physiological changes are nicely arranged for the different stages of life. There is no single stage that could become harmful to the body. The continuity of the life on earth is maintained by a birth of new human being. And for that, he has created a very beautiful and precious person that is “MOTHER”.¹

When a girl become mother for first time she is facing so many problems since pregnancy till that child become mature, for example pregnancy symptoms, delivery problems, postnatal problems and lack of knowledge regarding breast feeding is one of the problem in PNC mothers. Painful breast engorgement is one of the main physical difficulties experienced by mother in the first week of postpartum. As it involves the processes of lacto genesis, engorgement has serious implications for short-term and long-term success of lactation and breast feeding

BACKGROUND OF THE STUDY

The first year of life is crucial in laying the foundation for good health. At these times certain specific biological and psychological needs must be met to ensure the survival and healthy development of the child into a future adult. Breast feeding is the ideal method initiated for physiological and psychological need of infant. During antenatal period, the mother and foetus are physically linked and the mother feeds her baby completely through her placenta. After birth, breast feeding creates a unique bond between the mother and her baby. When mother's breast gives adequate warmth, affection, security, food and protection for her baby. Customs, tradition, superstition, myths and ignorance sometimes deprives the child from getting this benefit.

Breast feeding promotion network of India, (BPNI) says, the infant aged (0- 5 months) who are not breast feed have seven fold and fivefold increased risk of death from diarrhoea compared to the infants who are exclusively breast feed. To reduce the infant mortality rate and improvement in the health status and development of infants and young children, breast feeding is very important.

NEED FOR THE STUDY:

Expressing breast milk enables working mothers to sustain exclusive breastfeeding on returning to work, as their babies can be fed with the expressed milk in their absence by another person. In addition to allowing infants left behind by their mothers, to enjoy the full benefits of breast milk, breast milk expression is also of immense benefits to mothers as it brings relief from the pressure that the milk subjects the mammary glands, hence reduces the risk of breast engorgement, mastitis and breast cancer. Breast milk expression is believed to be a feasible intervention to ensure high level coverage of exclusive breast feeding. Reports from studies across the globe showed direct association between the prevalence of expressed breast milk feeding and the overall prevalence of exclusive breast feeding.¹¹

PROBLEM STATEMENT

“A STUDY TO ASSESS KNOWLEDGE AND PRACTICE REGARDING EXPRESSED BREAST MILK AMONG POSTNATAL MOTHERS IN SELECTED HOSPITAL IN A VIEW TO DEVELOP AN INFORMATION BOOKLET”

OBJECTIVES

- 1) To assess the existing level of knowledge and practice regarding expressed breast milk among postnatal mothers.
- 2) To find out association between knowledge and practice regarding expressed breast milk among postnatal mothers with their selected demographic variables.
- 3) To develop information booklet regarding expressed breast milk.

ASSUMPTIONS

1. Postnatal mothers may have some knowledge regarding expressed breast milk.
2. Postnatal mothers might be practicing expressed breast milk.

LIMITATIONS

- The findings of the study are limited to the selected samples only.
- Only postnatal mothers were included in the study.

ETHICAL ASPECT

Study was approved by the institutional ethical committee and the study was conducted in accordance with the ethical guidelines prescribed by Central Ethical Committee on Human Research.

RESEARCH METHODOLOGY

RESEARCH APPROACH

Descriptive approach describes situations as they exist in the world and provides an accurate data of the characteristics of particular individuals, situations, or groups. The outcome of descriptive research provides a basis for future quantitative research.

RESEARCH DESIGN

For the present study, a descriptive design was adopted as it is a virtue of a situation that naturally happens. In many aspects of nursing there is a need for a clear picture or description of the phenomena before causality can be examined.

SETTING OF THE STUDY

The setting is the location where a study is conducted. The study was conducted in postnatal ward of selected hospital. The hospital is 500 bedded with multi-specialty such as surgery, medicine, orthopedic, psychiatry, pediatric, and OBG.

VARIABLES

Variables are qualities, properties or characteristics of persons, things or situation that change or vary.

Independent Variable:

Postnatal Mothers

Dependent Variable:

Knowledge and practice related to expressed breast milk.

Extraneous Variable:

Age, Educational status, job status, living area, number of kids, family monthly income, source information, type of family, maternity Leave available.

POPULATION

Maternity and postnatal ward is equipped with 30 beds. 30 mothers will be admitted at a onetime to the postnatal ward and 100-110 deliveries are conducted per month. The mothers with normal delivery discharged after 3-4 days of delivery. **SAMPLE**

In this study, the sample consists of 100 postnatal mothers in postnatal ward of selected hospital.

SAMPLING TECHNIQUE

Convenient sampling technique was found to be appropriate for the present study.

SAMPLING CRITERIA

a. Inclusion criteria

1. Subjects who are able to communicate in Marathi or English.
2. Subjects who are willing to participate in the study.
3. Subjects who are (6days – 6weeks) admitted in postnatal ward.

b. Exclusion criteria

1. Postnatal mother who are not available at the time of data collection

DESCRIPTION OF THE TOOL

The structured knowledge questionnaires were constructed in three parts with a total number of 48 items. The researcher developed socio demographic variables, structured knowledge questionnaires and observation checklist which contains items of the following aspects.

Section – I Socio- demographic data

Consist of age, educational status, job status, living area, number of kids, family monthly income, source information, type of family, maternity leave available. The details of socio-demographic data are given in annexure 6.

Section II: - Structured Knowledge Questionnaires

It consists of 29 items on structured interview schedule (Structured Knowledge Questionnaire) on expressed breast milk. Each item has four options with one most appropriate answer. The maximum score for the correct response to each item was 1 mark & for wrong answer the score was 0.

Section – III Observation checklist on practice of breastfeeding

It includes observation checklist regarding expressed breast milk position and techniques. Each item has two options with a score of yes or no. Thus the total score is ten in section – III. The details of the questionnaires of knowledge and practice of expressed breast milk are given in annexure.

METHOD OF DATA COLLECTION:-

Data collection tool are the procedures or instruments used by the investigator to observe or measure the key variables in the research problem. Data was collected by the investigator herself. The main study was conducted at selected hospitals from 04/02/2021 to 28/02/2021. The subjects were selected by the convenient sampling. Each subjects were given instructions regarding the purpose of the study. The study was conducted on 100 subjects at selected hospital.

- 1) The investigator introduced self & explained the purpose of the study.
- 2) The investigator took consent from the participants.
- 3) The pretest was taken to assess the knowledge and practice among the postnatal mothers, through structured knowledge questionnaires and observation checklist.
- 4) Information booklet was administered at the end of the pretest.
- 5) Data collected was tabulated and analyzed.

PLAN FOR DATA ANALYSIS

The obtained data was analyzed by using both descriptive & inferential statistics based on objectives & hypothesis of the study. Experts in the field of nursing and statistics directed the development of data analysis plan, which was as follow:

1. Organizing data on master sheet.
2. Tabulation of the data in terms of frequencies, percentage, mean, median, standard deviation to describe the data.
3. Inferential statistics was used to find out association between knowledge and practice regarding expressed breast milk among postnatal mothers with their selected demographic variables by using chi square test.

RESULT**DATA INTERPRETATION, ORGANIZATION OF DATA: TABLES, FIGURES AND GRAPHS**

The data collected of the study was classified, organized and analyzed under following sections:-

SECTION I

Deals with analysis of demographic characteristics of postnatal mothers in selected hospital in terms of frequency and percentage.

SECTION II

Deals with analysis of data related to assessment of the knowledge and practice regarding expressed breast milk among postnatal mothers in selected hospital in terms of frequency and percentage.

SECTION III

Deals with analysis of data related to the association of knowledge and practice regarding expressed breast milk among postnatal mothers with their selected demographic variables.

SECTION I

Deals with analysis of demographic characteristics of postnatal mothers.

Table 1: Frequency & percentage distribution of postnatal mothers in selected hospitals in terms of

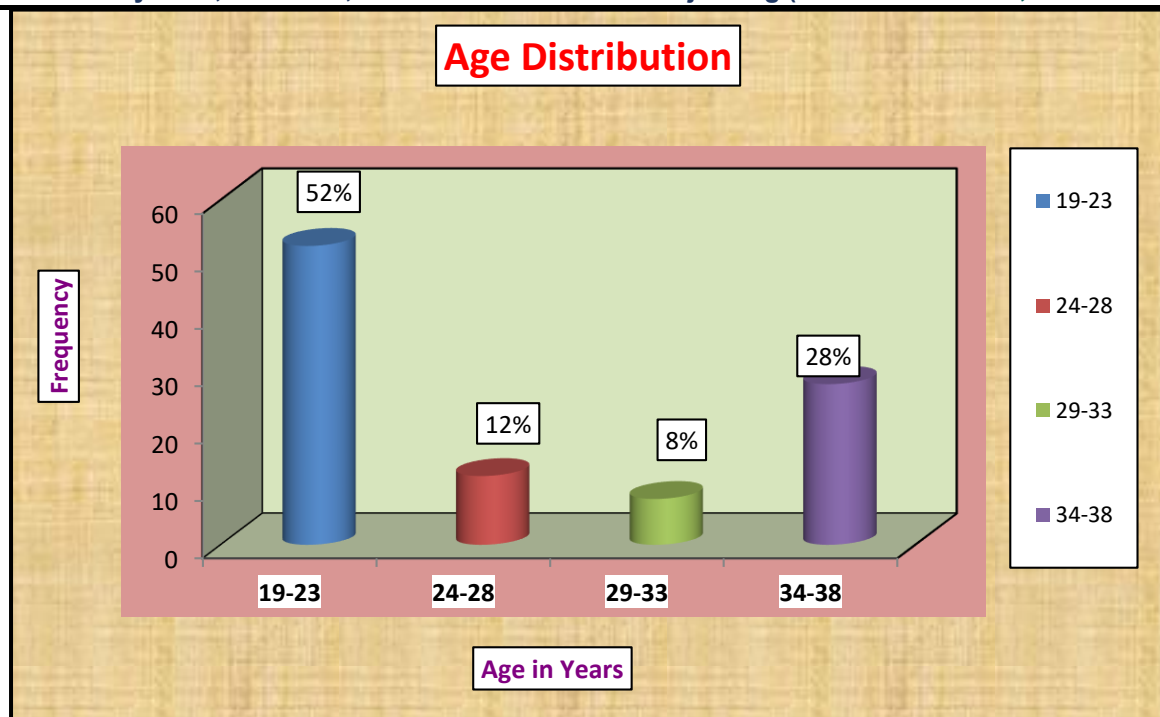
frequency and percentage

n=100

Sr. No.	Variable	Groups	Frequency	Percentage%
1	Age (in years)	19-23	52	52%
		24-28	12	12%
		29-33	8	8%
		34-38	28	28%
2	Education Level	Primary	15	15%
		Secondary	32	32%
		Graduate	18	18%
		Post Graduate	35	35%
3	Job Status	Housewife	45	45%

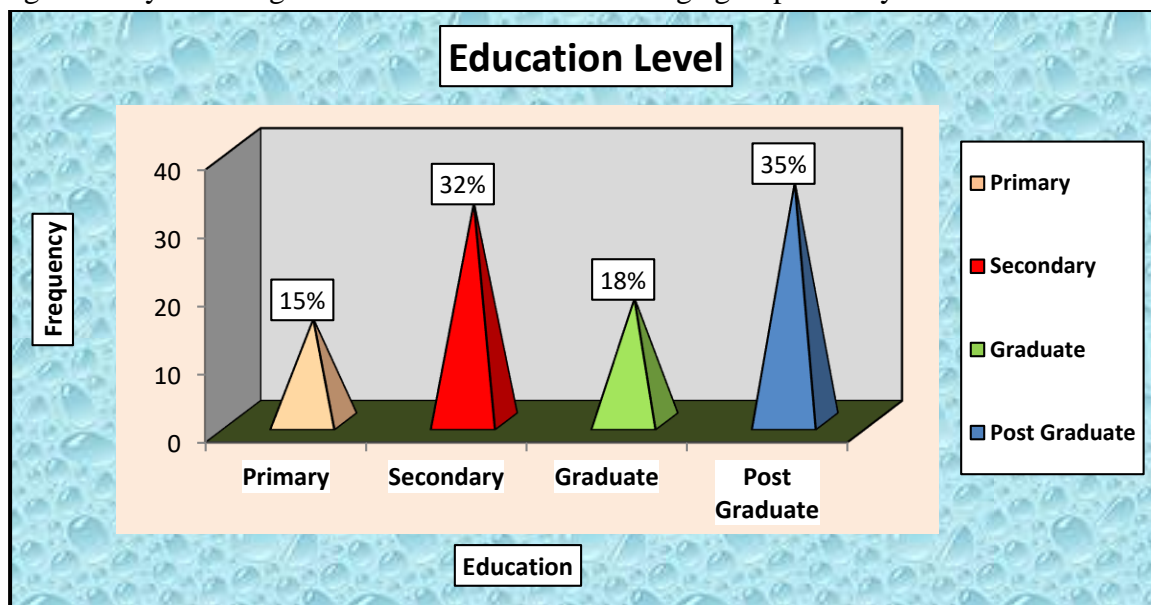
		Daily Wages	16	16%
		Private Sector	20	20%
		Government Sector	19	19%
4	Living Area	Urban	65	65%
		Rural	35	35%
5	Number of Kids	1	52	52%
		2	36	36%
		3	11	11%
		4	0	0%
		more than 4	0	0%

Sr. No.	Variable	Groups	Frequency	Percentage
6	Family Monthly Income	less than 2000	11	11%
		2001-5000	0	0%
		5001-10000	8	8%
		more than 10000	81	81%
7	Source of Information	Health Personnel	39	39%
		Friends	23	23%
		TV / Net/ Social Media	4	4%
		Breast Feeding Program	34	34%
8	Type of family	Nuclear	49	49%
		Joint	44	44%
		Extended	7	7%
9	Is maternity leave available	Yes	80	80%
		No	20	20%



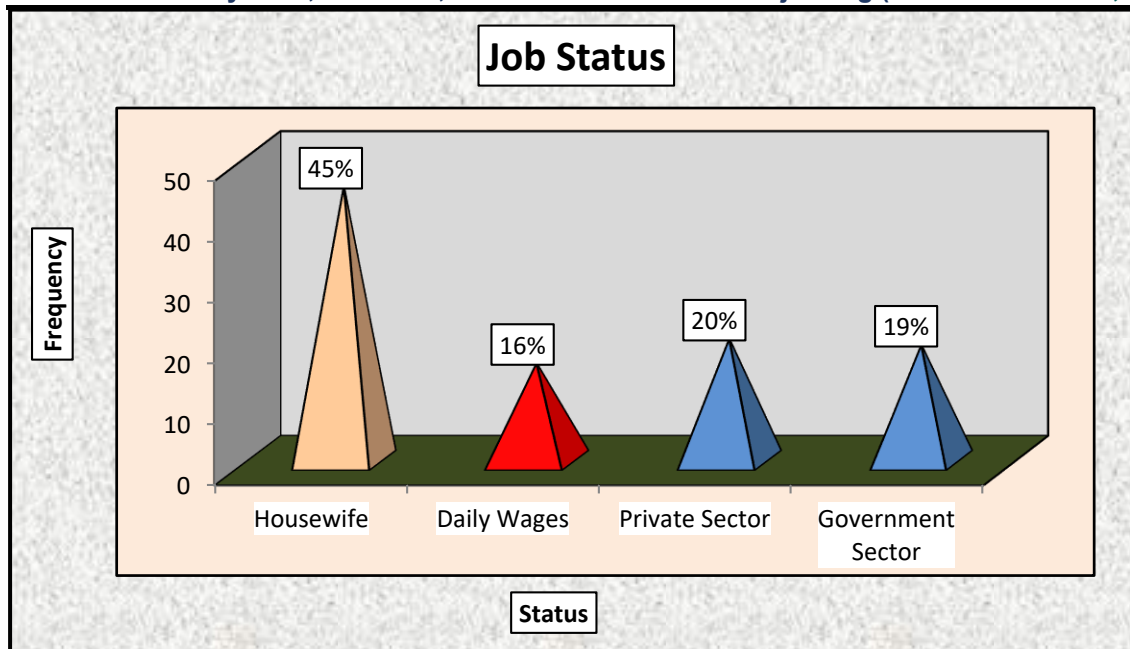
Graph No-1: Bar graph showing percentage distribution of postnatal mothers in selected hospitals according to age

In the study maximum 52% were from age group 19-23 years, 12% from the 24-28 years, 28% mothers of age 34-38 years of age and minimum 8% from the age group 29-33 years



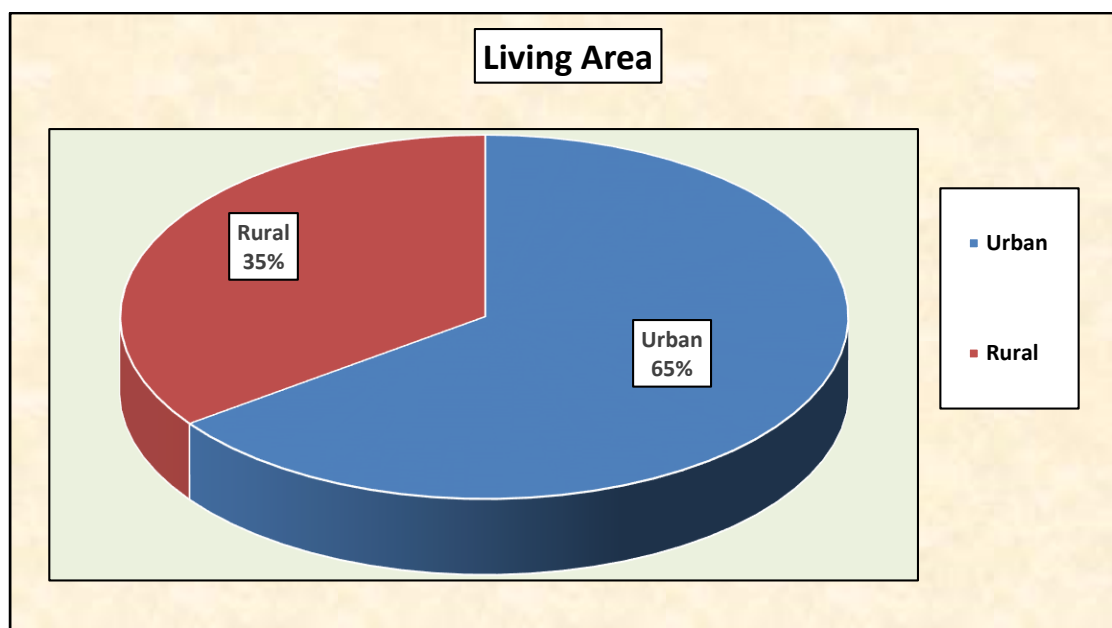
Graph No-2: Cone graph showing percentage distribution of postnatal mothers in selected hospitals according to education level

Education status shows that 15% postnatal mothers were educated up to primary, 32% mothers educated up to secondary, 18% were graduates and 35% of the mothers were post graduates.



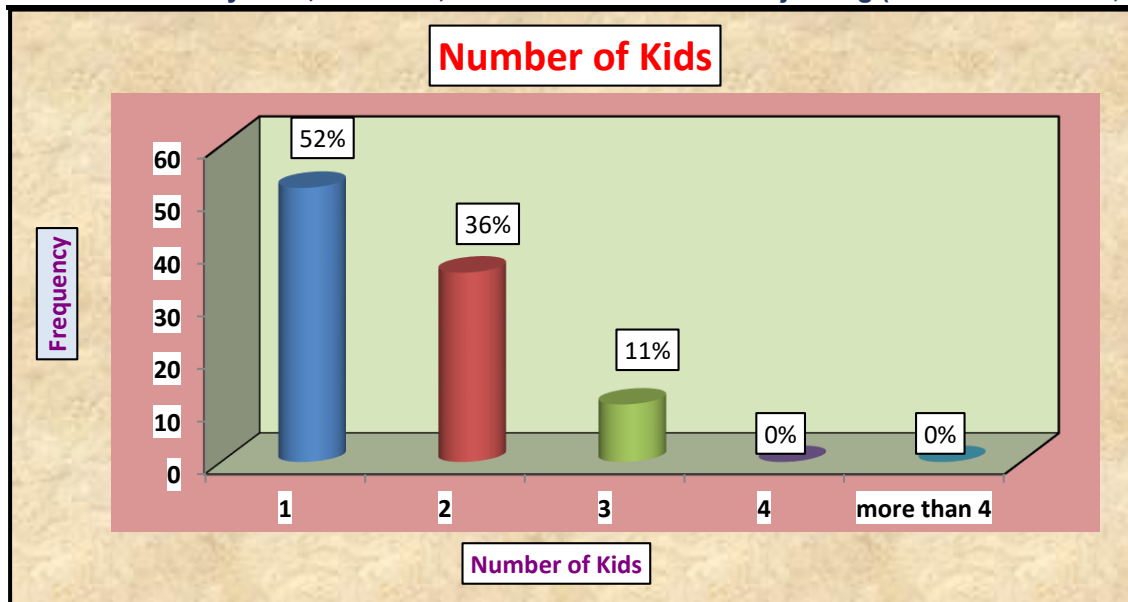
Graph No-3: Cone graph showing percentage distribution of postnatal mothers in selected hospitals according to job status

Most of the postnatal mothers 45% were housewives, 20% worked in the private sector and 19% of the postnatal mothers work in the government sector and least 16% of them were working on daily wages



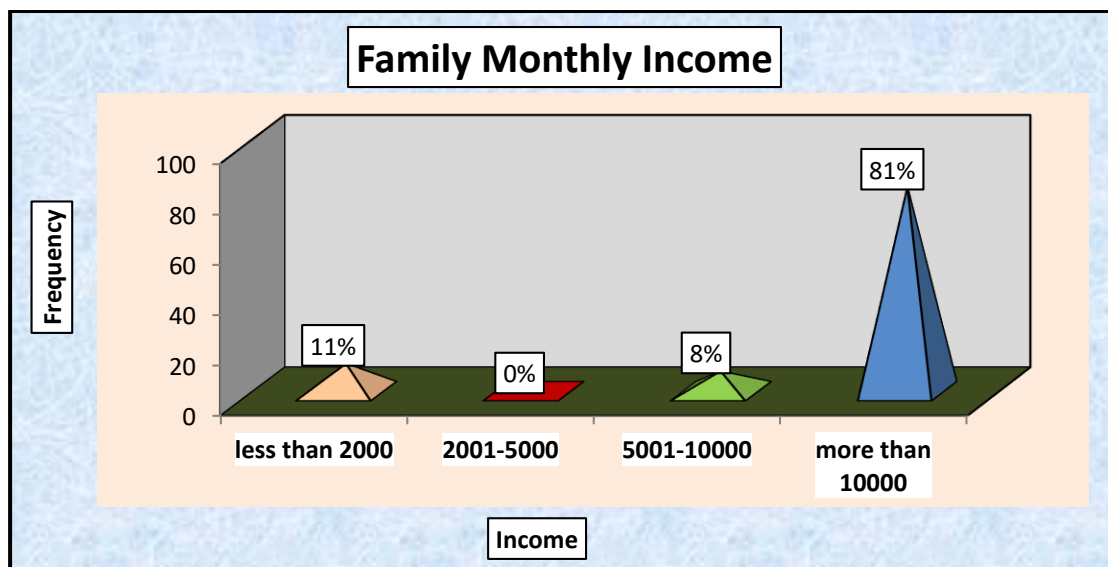
Graph No-4: Pie graph showing percentage distribution of postnatal mothers in selected hospitals according to living area

Maximum 65% postnatal mothers resided in urban area while 35% were from the rural area.



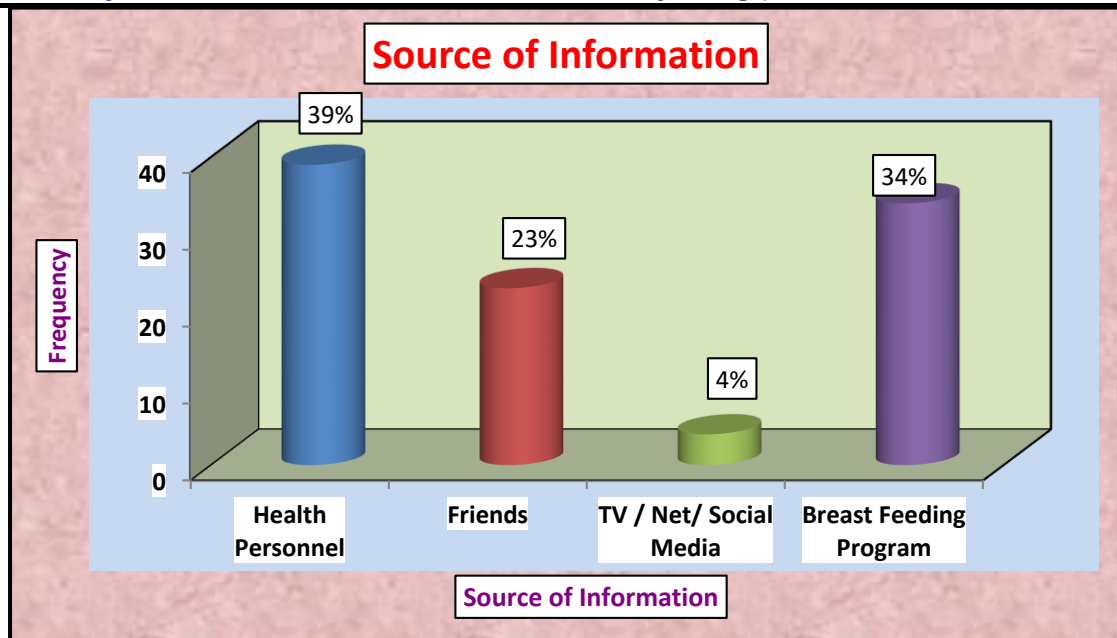
Graph No-5: Cylinder graph showing percentage distribution of postnatal mothers in selected hospitals according to number of kids

Most of the postnatal mothers 52% had one kid, 36% of them had 2 kids, 11% of them had 3 kids and none of them had four and more than four kids.



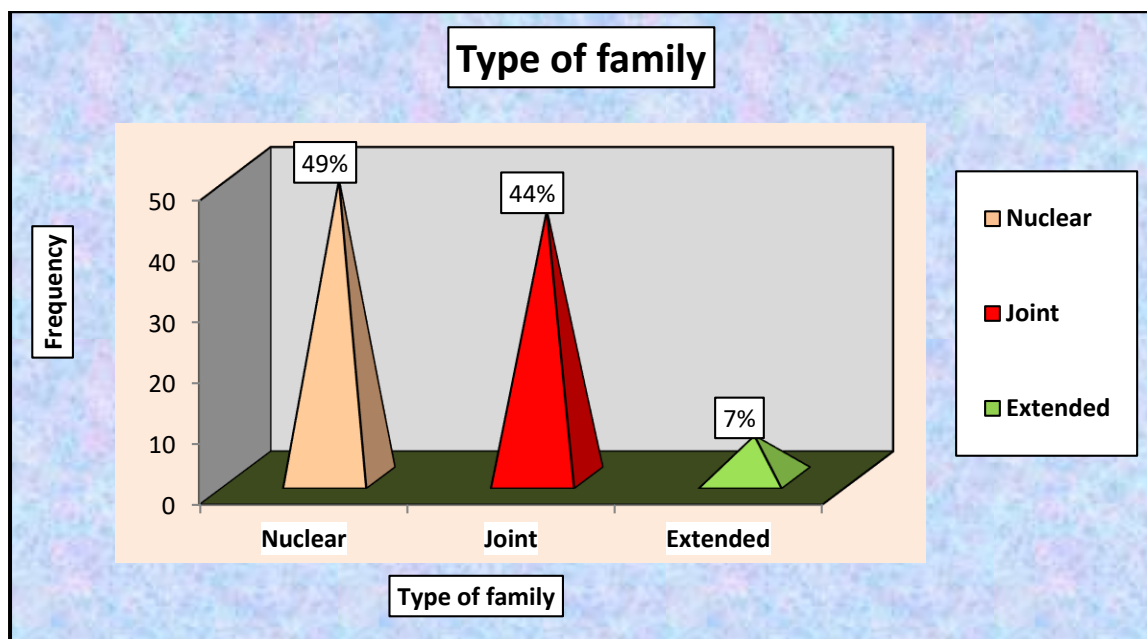
Graph No-6: Cone graph showing percentage distribution of postnatal mothers in selected hospitals according to family monthly income

In the study 11% mothers had family monthly income less than 2000 Rs, 8% of them had family monthly income in 5001 to 10000 Rs and 81% had more than 10000 Rs per month.



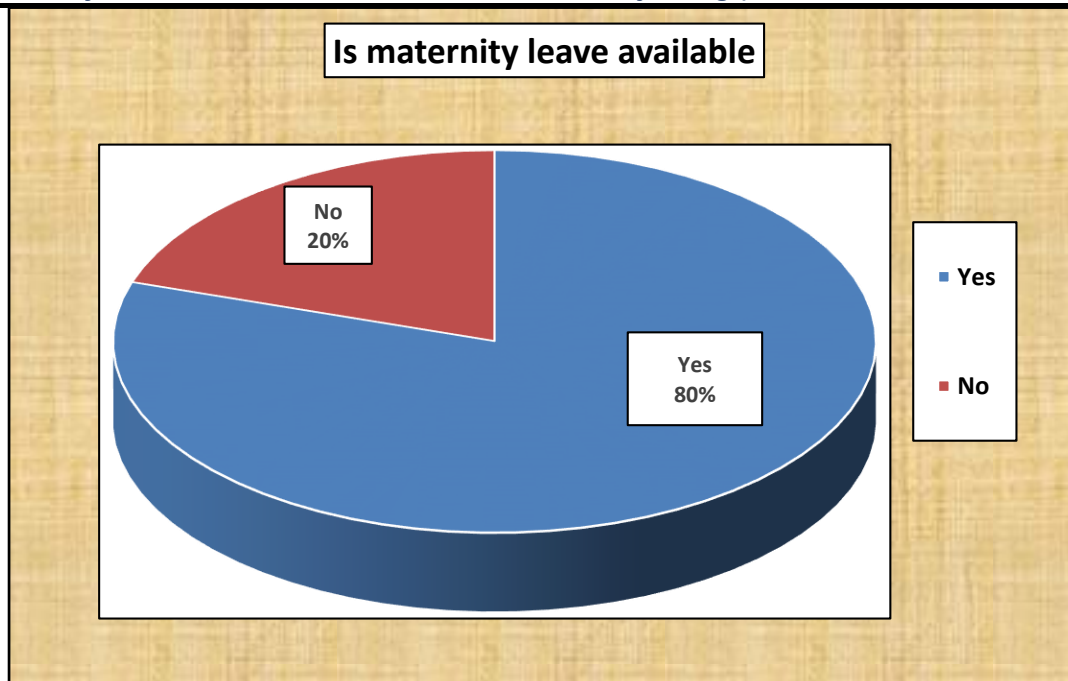
Graph No-7: Cylinder graph showing percentage distribution of postnatal mothers in selected hospitals according to source of information

39% mothers got the information from health personnel, 23% from the friends, 4% from the TV / Net/ Social Media and 34% mothers from Breast Feeding Program.



Graph No-8: Cone graph showing percentage distribution of postnatal mothers in selected hospitals according to type of family

Maximum postnatal mothers 49% were from the nuclear families, 44% from the joint families and minimum 7% postnatal mothers belonged to the extended families.

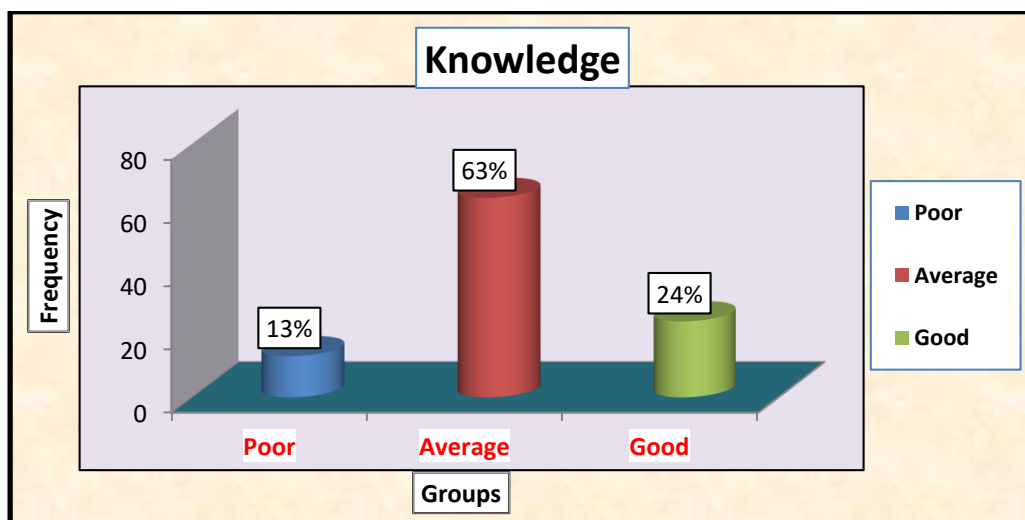


Graph No-9: Pie graph showing percentage distribution of postnatal mothers in selected hospitals according to maternity leave available

Most of the postnatal mothers 80% received maternity leave while 20% postnatal mothers didn't received maternity leave.

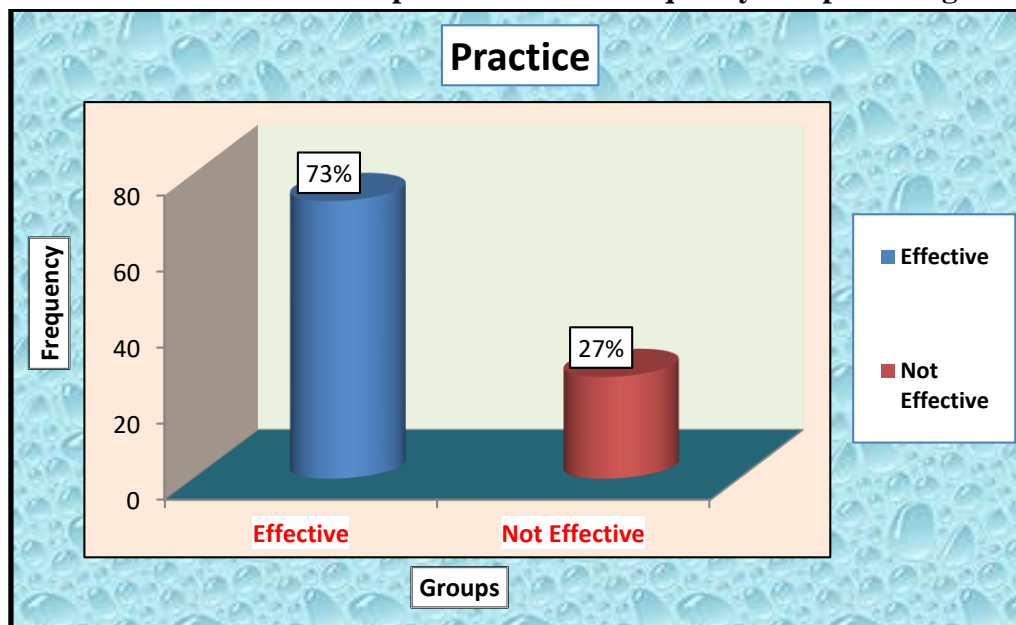
SECTION II

Deals with analysis of data related to assessment of the knowledge regarding expressed breast milk among postnatal mothers in selected hospital in terms of frequency and percentage.



Graph No- 10: Bar graph showing general assessments of knowledge regarding expressed breast milk Reveals that assessment of the knowledge score regarding expressed breast milk among postnatal mothers in selected hospital shows, 13% of the postnatal mothers had poor knowledge, 63% had average knowledge and 24% of them had good knowledge. Average knowledge score was 17.12 with standard deviation of 4.99

Deals with analysis of data related to assessment of the practices regarding expressed breast milk among postnatal mothers in selected hospital in terms of frequency and percentage.



Graph No-11: Bar graph showing General assessments of practices regarding expressed breast milk reveals that assessment of the practices score regarding expressed breast milk among postnatal mothers in selected hospital shows, 73% of the postnatal mother's shows effective practices and 27% of them had not effective practices. Average practices score was 4.16 with standard deviation of 2.13.

Table 2: Analysis of data related to assessments of practice scores regarding expressed breast milk among postnatal mothers n=100

SR NO	PROCEDURE	Yes		No	
		Frequency	Percentage%	Frequency	Percentage%
1	Do you know poor attachment at the nipples leads to poor feeding?	72	72%	28	28%
2	Do you know in case of blocked duct and milk stasis, manual expression of milk is helpful?	71	71%	29	29%
3	Does relaxing technique and thinking about baby helps to stimulate milk production?	32	32%	68	68%
4	Is combining hand expressing and using breast pump provides more stimulation for milk supply?	29	29%	71	71%
5	Is sitting and standing comfortable with container near the breast is good position for expressing milk?	31	31%	69	69%
6	Does expressing frequently for 8-10 times in 24 hours help to establish milk supply?	31	31%	69	69%
7	Does putting the thumb above the nipple and areola with second finger supporting below?	33	33%	67	67%

8	Does syringe pump helps for expressing milk?	40	40%	60	60%
9	Is 20-30 minutes expressing helps for effective expression of milk?	39	39%	61	61%
10	Does expression from 2nd breast done after complete expression from the first breast?	38	38%	62	62%

Table no. 2 reveals that assessment of the practices score regarding expressed breast milk among postnatal mothers in selected hospital shows that maximum postnatal mothers had effective practices and minimum postnatal mothers had not effective practices.

SECTION III

Deals with analysis of data related to the association of knowledge scores regarding expressed breast milk among postnatal mothers with their selected demographic variables.

Table 3: ANALYSIS OF DATA RELATED TO THE ASSOCIATION OF KNOWLEDGE SCORES WITH SELECTED DEMOGRAPHIC VARIABLES n=100

Variable	Groups	Pre Test – Knowledge			Chi-Square	d.f.	p value	Significance
		Poor	Average	Good				
Age (in years)	19-23	7	35	10	3.65	6	0.72	Not Significant
	24-28	1	7	4				
	29-33	0	5	3				
	34-38	5	16	7				
Educational Level	Primary	2	10	3	1.38	6	0.96	Not Significant
	Secondary	4	22	6				
	Graduate	2	11	5				
	Post Graduate	5	20	10				
Job Status	Housewife	7	31	7	7.37	6	0.28	Not Significant
	Daily Wages	1	8	7				
	Private Sector	4	11	5				
	Government Sector	1	13	5				
Source of Information	Health Personnel	2	25	12	12.51	6	0.052	Not Significant
	Friends	3	18	2				
	TV / Net/ Social Media	2	2	0				
	Breast Feeding Program	6	18	10				
Type of family	Nuclear	4	33	12	4.84	4	0.30	Not Significant
	Joint	7	25	12				
	Extended	2	5	0				
Is maternity leave available	Yes	9	52	19	1.2	2	0.54	Not Significant
	No	4	11	5				

Table no. 3 reveals that there is no significant association between the pretest knowledge scores and demographic variables.

Deals with analysis of data related to the association of practice scores regarding expressed breast milk among postnatal mothers with their selected demographic variables.

Table 4: ANALYSIS OF DATA RELATED TO ASSOCIATION OF PRACTICE SCORES WITH THE DEMOGRAPHIC VARIABLES n=100

Variable	Groups	Pre Test – Practice		Chi-Square	d.f.	P value	Significance
		Effective	Not Effective				
Age (in years)	19-23	38	14	1.13	3	0.76	Not Significant
	24-28	8	4				
	29-33	7	1				
	34-38	20	8				
Educational Level	Primary	13	2	1.85	3	0.60	Not Significant
	Secondary	23	9				
	Graduate	12	6				
	Post Graduate	25	10				
Job Status	Housewife	33	12	2.54	3	0.46	Not Significant
	Daily Wages	11	5				
	Private Sector	17	3				
	Government Sector	12	7				
Source of Information	Health Personnel	27	12	1.77	3	0.62	Not Significant
	Friends	17	6				
	TV / Net/ Social Media	4	0				
	Breast Feeding Program	25	9				
Type of family	Nuclear	31	18	4.66	2	0.10	Not Significant
	Joint	36	8				
	Extended	6	1				
Is maternity leave available	Yes	56	24	1.82	1	0.17	Not Significant
	No	17	3				

Table no. 4 reveals that there is no significant association between the pretest practice scores and demographic variables

MAJOR FINDINGS OF THE STUDY

The analysis of the demographic data of the study samples gave an idea about the general characteristics of the postnatal mothers in selected hospitals. The following are the major findings of the study.

SECTION –I**Demographic Variables**

1. According to age of postnatal mothers from selected hospitals, in the study 52% were from age group 19-23 years, 12% from the 24-28 years, 8% from the age group 29-33 years and 28% mothers of age 34-38 years of age.
2. According to education level of postnatal mothers from selected hospitals, in the study 15% mother educated up to primary, 32% mothers educated up to secondary, 18% were graduates and 35% of the mothers were post graduates.
3. According to job status of postnatal mothers from selected hospitals, in the study 45% mothers were housewives, 16% of them were working on daily wages, 20% work in the private sector and 19% of the postnatal mothers work in the government sector.
4. According to living area of postnatal mothers from selected hospitals, in the study 65% mothers were from the urban area and 35% were from the rural area.
5. According to number of kids to postnatal mothers from selected hospitals, in the study 52% mothers had one kid, 36% of them had 2 kids, 11% of them had 3 kids and no one of the mother had four and more than four kids.
6. According to family monthly income of postnatal mothers from selected hospitals, in the study 11% mothers had family monthly income less than 2000 Rs, 8% of them had family monthly income in 5001 to 10000 Rs and 81% had more than 10000 Rs per month.
7. According to source of information regarding expressed breast milk among postnatal mothers from selected hospitals, in the study 39% mothers got the information from health personnel, 23% from the friends, 4% from the TV / Net/ Social Media and 34% mothers from Breast Feeding Program.
8. According to type of family of postnatal mothers from selected hospitals, in the study 49% mothers were from the nuclear families, 44% from the joint families and 7% mothers from the extended families.
9. To the question is maternity leave available, 80% of postnatal mothers from selected hospitals answered yes and 20% postnatal mothers answered no.

SECTION-II**General assessments of Knowledge**

- For the assessment purpose the total score of knowledge was divided in to three groups like poor (0-10 score), average (11-20 score) and good (21-29 score).
- Assessment of the knowledge score regarding expressed breast milk among postnatal mothers in selected hospital shows, 13% of the postnatal mothers had poor knowledge, 63% had average knowledge and 24% of them had good knowledge.
- Average knowledge score was 17.12 with standard deviation of 4.99.

General assessments of practices

- For the assessment purpose the total score of practices was divided in to two groups like effective (0-5 score) and not effective (6-10 score).
- Assessment of the practices score regarding expressed breast milk among postnatal mothers in selected hospital shows, 73% of the postnatal mother's shows effective practices and 27% of them had not effective practices.
- Average practices score was 4.16 with standard deviation of 2.13.

SECTION-III**Association of Knowledge with demographic variables**

- The chi-square test was conducted to see the association of knowledge regarding expressed breast milk with selected demographic characteristics of postnatal mothers at selected hospital.
- The chi-square test was conducted at 5% level of significance.
- For all the demographic variables age of mother, education level of mother, job status, living area, number of kids, family monthly income, source of information, type of family and maternity leave

available, the p value of the association test with knowledge was more than 0.05, hence accept the null hypothesis.

- Concludes that, there was no significant association of these demographic variables with knowledge regarding expressed breast milk among postnatal mothers at selected hospital.

Association of practices with demographic variables

- The chi-square test was conducted to see the association of practices regarding expressed breast milk with selected demographic characteristics of postnatal mothers at selected hospital.
- The chi-square test was conducted at 5% level of significance.
- For the demographic variable, living area the p value of the association test with practices was less than 0.05, hence reject the null hypothesis.
- Concludes that, there was significant association of living area with practices regarding expressed breast milk among postnatal mothers at selected hospital.
- For the demographic variables age of mother, education level of mother, job status, number of kids, family monthly income, source of information, type of family and maternity leave available, the p value of the association test with practices was more than 0.05, hence accept the null hypothesis.
- Concludes that, there was no significant association of these demographic variables with practices regarding expressed breast milk among postnatal mothers at selected hospital.

CONCLUSION

1. In the study participants, 13% of the postnatal mothers had poor knowledge, 63% had average knowledge and 24% of them had good knowledge regarding expressed breast milk. Average knowledge score was 17.12 with standard deviation of 4.99.
2. In the study participants, 73% of the postnatal mother's shows effective practices and 27% of them had not effective practices regarding expressed breast milk. Average practices score was 4.16 with standard deviation of 2.13.
3. The p value of the chi square test for the demographic variables, age of mother, education level of mother, job status, living area, number of kids, family monthly income, source of information, type of family and maternity leave available, with knowledge was more than 0.05, hence accept the null hypothesis.

Concludes that, there was no significant association of these demographic variables with knowledge regarding expressed breast milk among postnatal mothers at selected hospital.

4. The p value of the chi square test for the demographic variable, living area with practices was less than 0.05, hence reject the null hypothesis.

Concludes that, there was significant association of living area with practices regarding expressed breast milk among postnatal mothers at selected hospital.

RECOMMENDATIONS

Recommendations for further study based on the findings of the study the following recommendations could be made-

- A study to assess the effectiveness of Self Instructional Module on knowledge regarding Expressed Breast Milk Feeding among working mothers of infants admitted to selected hospitals
- A study to assess the effectiveness of a structured teaching programme on knowledge and practice among working mothers regarding expressed breast milk feeding on selected garment factories in Bangalore urban
- A study to assess Effectiveness of information booklet on knowledge and practices of expressed breast milk among working postnatal mothers in selected maternity hospitals at Nellore
- "A study to assess the effectiveness of information booklet on knowledge and practices of expressed breast milk among postnatal workingmothers in selected hospitals of Tumkur City".

- A study to assess the effectiveness of lecture cum demonstration on knowledge and practice regarding breast milk expression and its storage among mothers of babies in NICU in selected hospitals, Bangalore.
- Comparative study can be conducted in rural and urban area.

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