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A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Expression and Storage of Breast Milk Among Antenatal Mothers, Attending Antenatal Clinic at H.S.K Hospital and Research Center, Bagalkot, Karnataka

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Abstract:-

Mother is a person most honorable occupation and who need more skills . The breastfeeding is basic to health and development of children and also important for mothers. Just as there is a no person who can replace the mother's love there is no substitute for mothers milk. Breastfeeding refers to the processes by which a woman expels milk from her breast. The breast milk can be stored and feed to her baby at a later period time.

➢ ***Objectives***

- **To assess the existing level of knowledge regarding expression and storage of breast milk among antenatal mothers attending antenatal clinic, At H.S.K. hospital and research Centre Bagalkot.**
- **To determine the effectiveness of structured teaching programme on knowledge regarding expression and storage of breast milk.**
- **To find out the association between post-test knowledge scores with their selected socio-demographic variables.**

➢ ***Hypothesis:***

- **H1: There is a significant difference between pre-test and post-test knowledge scores, regarding expression and storage of breast milk among antenatal mothers, who are attending antenatal clinic at H.S.K. hospital Bagalkot.**
- **H2: There is a significant association between post-test knowledge levels of antenatal mothers regarding expression and storage of breast milk with their selected socio-demographic variables.**

➢ ***Methods***

An evaluative approach with one group pre-test, post-test design was used. The sample consisted of 50 antenatal mothers attending antenatal clinic at H.S.K. hospital Bagalkot. They were chosen by convenient sampling technique of Non-probability type. The study was conducted at H.S.K Hospital and research center Bagalkot. The data was collected before and after administration of structured teaching programme. Structured knowledge questionnaire was used to collect data. A structured teaching programme was developed to assess the knowledge regarding expression and storage of breast milk among antenatal mothers attending antenatal clinic at H.S.K Hospital and research center Bagalkot.

➢ ***Results***

The findings of the study concluded that antenatal mothers had inadequate level of knowledge regarding expression and storage of breast milk. The structured teaching programme was effective in improving the knowledge of the antenatal mothers.

➢ ***Interpretation And Conclusion***

The findings of the study concluded that antenatal mothers had inadequate knowledge regarding expression and storage of breast milk. The STP was highly effective in improving the knowledge of antenatal mothers regarding expression and storage of breast milk

I. RESEARCH METHODOLOGY

The study is aimed to assess the effectiveness of structured teaching Programme on knowledge regarding expression and storage of breast milk among antenatal mothers, attending antenatal clinic at H.S.K Hospital and Research center, Bagalkot, Karnataka.

➢ *Research Approach:*

A evaluative approach using pre-test (O_1) and post-test (O2) without a control group was adopted for this study in order to accomplish the objectives.

➢ *Research Design:*

A one group pre-test post-test Quasi experimental design has been used to attain the objectives of the present study.

➢ *Independent Variable:*

In this study the independent variable refers to structured teaching programme on expression and storage of breast milk.

➢ *Dependent Variable:*

In this study it refers to knowledge of antenatal mothers regarding expression and storage of breast milk.

➢ *Socio-Demographic Variables:*

These are general characteristics of sample, of which some can have influence on dependent variable. It includes age, gender, monthly income of the family, religion, type of family, education, occupation, order of pregnancy and sources of information.

➢ *Setting of the Study:*

The study was conducted in Antenatal clinic at H.S.K hospital and research center Bagalkot.

➢ *Populations:*

The accessible population of this study are the antenatal mothers who are attending antenatal clinic at HSK hospital and research center Bagalkot.

➢ *Sample:*

Present study consist of 50 antenatal mothers attending antenatal clinic at H.S.K Hospital and research center, Bagalkot.

➢ *Sampling Technique:*

Sampling is a process of selecting a part of the assigned population to represent the entire population. Convenient sampling technique was used to select the hospital and sample.

➢ *Development and Description of the Tool:*

The data collections technique was Structured knowledge questionnaire keeping this in mind structured close ended questionnaire was selected and developed on knowledge regarding expression and storage of breast milk among antenatal mothers. The tool was prepared on the bases of objective of the study.

➢ *Reliability of the Tool:*

This is done by critically evaluating questions based on difficulty index and discriminative index. The reliability index was r= **0.87**r: Reliability co-efficient of the half test.

➢ *Data Collection:*

After obtaining the prior permission from the principal of Sajjalashree institute of nursing sciences and formal permission from Dean of H.S.K hospital Navanagar Bagalkot Karnataka the main study was conducted. The main study was conducted from 25/01/2019 to 10/02/2019 among 50 subjects; the subject was selected by sampling technique. The investigator given self-introduction explained the purpose of the study, subject's willingness to participate in the study was ascertained. The subjects are assured anonymity and confidentiality of the information provided by them and written informed consent was obtained. The pretest knowledge questionnaire was administered, which was followed by STP, which was followed by the posttest after 3 days. The data collection process was terminated after thanking the Subjects for their participation and cooperation. The data collection was then complied for data analysis.

II. RESULTS

This chapter deals with the analysis and interpretation of data collected to assess the effectiveness of structured teaching programme on knowledge regarding expression and storage of breast milk among antenatal mothers, attending antenatal clinic at H.S.K Hospital and research center Bagalkot.

❖ *Presentation of Data*

To begin with, data was entered in a master sheet, for tabulation and statistical processing. The findings were presented under following headings.

- *Section I: Description according to demographic variable of antenatal mothers.*
- *Section II: Area wise Mean, Mean percentage and standard deviation for the knowledge of antenatal mothers regarding expression and storage of breast milk in pre-test.*
- *Section III: Area wise Mean, Mean percentage and standard deviation for the knowledge of antenatal mothers regarding expression and storage of breast milk in post-test.*
- *Section IV: Comparison in pre-test and post-test knowledge regarding expression and storage of breast milk among antenatal mothers.*
- *Section V: Association of the demographic variables of antenatal mothers with the pre-test knowledge scores.*

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➢ *SECTION: 1 DESCRIPTION ACCORDING TO THE DEMOGRAPHIC VARIABLES*

Characteristics		frequency	Percentage (%)
Age	18-20 years	12	24%
	21-25 years	25	50%
	26-30 years	9	18%
	30 and above	4	8%
Religion	Hindu	48	96%
	Muslim	2	4%
	Christian	0	0
	Others	0	0
Place of residence	Rural	38	76%
	Urban	12	24%
Type of family	Nuclear	35	70%
	Joint	15	30%
Family income	Below 5000	30	60%
	5,000-10,000	11	22%
	10,000-20,000	6	12%
	Above 20,000	3	6%
Educational status	Primary education	35	70%
	Secondary education	10	20%
	Diploma	5	10%
	Graduation and above	0	0
Occupation	Housewife	10	20%
	Govt. employee	6	12%
	Private employee	4	8%
	Others	30	60%
Dietary habits	Vegetarian	23	46%
	Mixed	27	54%
Order of pregnancy	Primi	29	58%
	Second	12	24%

Table 1

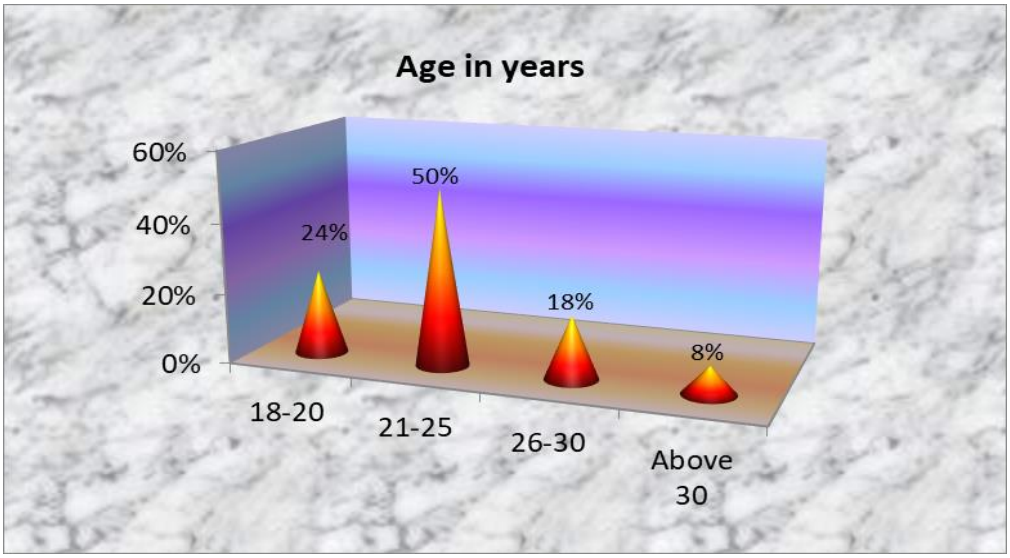

Fig 1:- Diagram depicting percentage wise distribution of antenatal mothers according their age.

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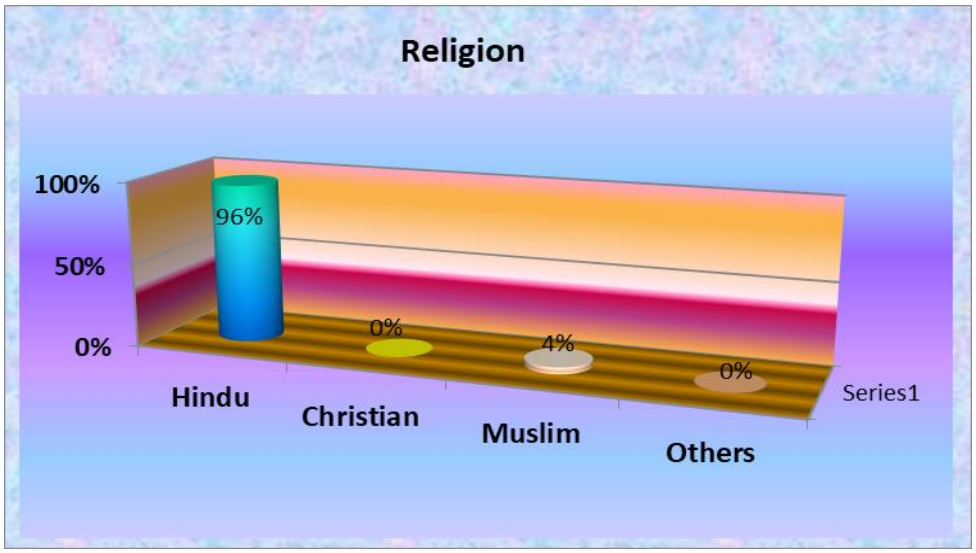

Fig 2:- Diagram depicting percentage wise distribution of the subjects according to their religion

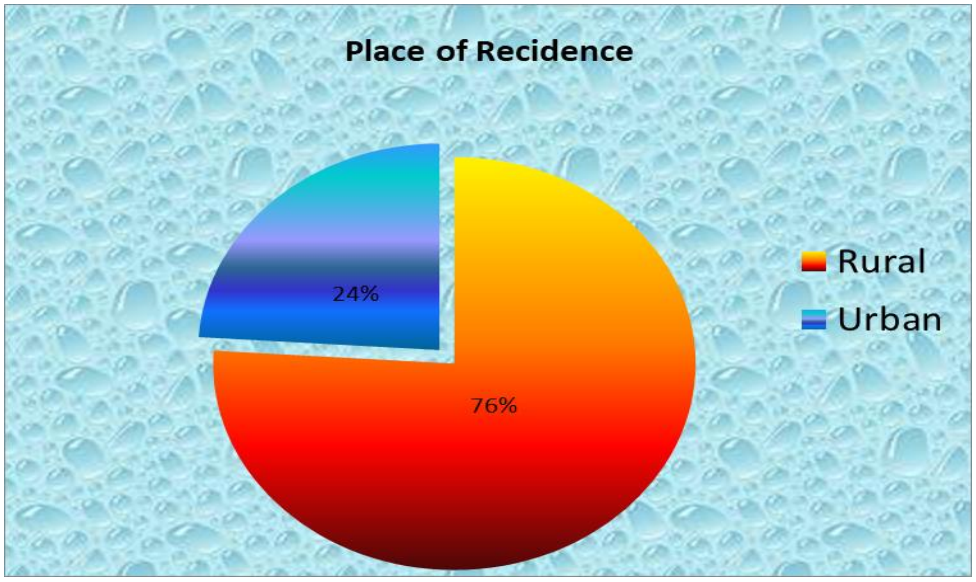

Fig 3:- Diagram depicting percentage wise distribution of the subjects according to their place of residence

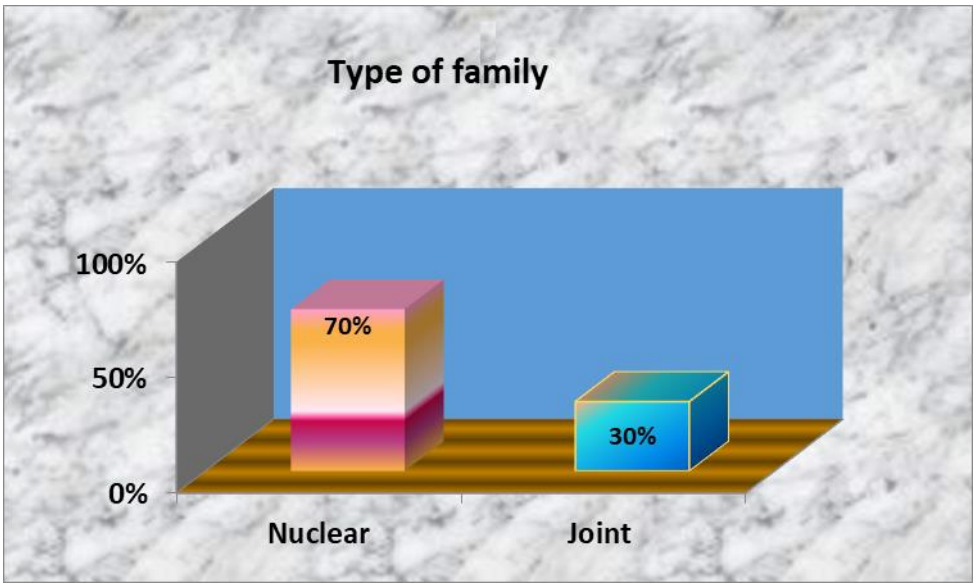

Fig 4:- Diagram depicting percentage wise distribution of the subjects according to their type of family

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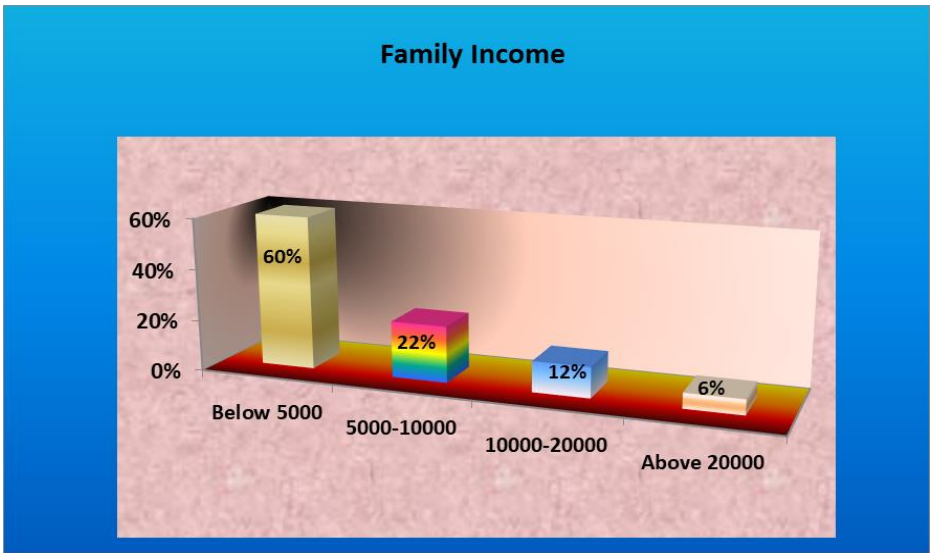

Fig 5:- Diagram depicting percentage wise distribution of the subjects according to their family income

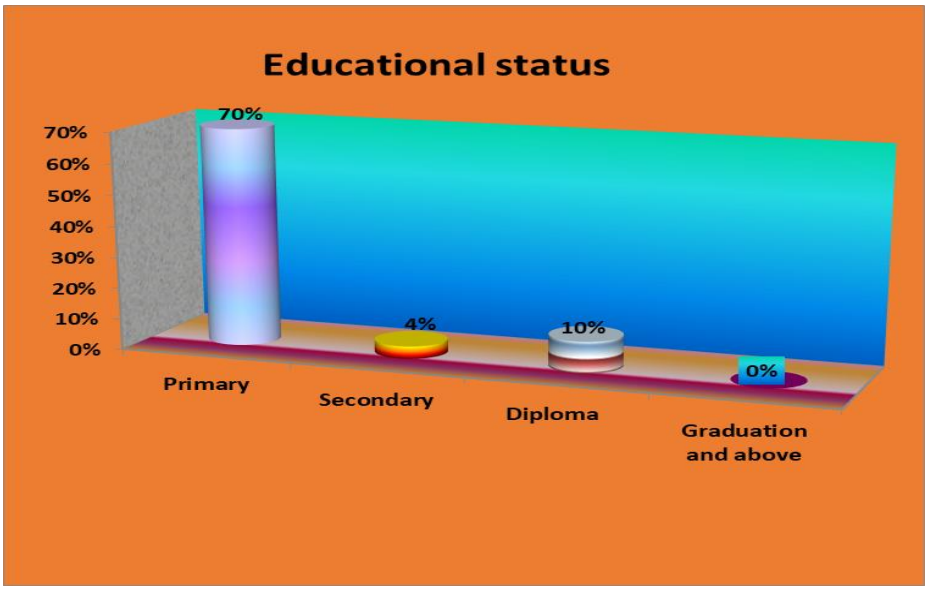

Fig 6:- Diagram depicting percentage wise distribution of antenatal mothers according to their educational status

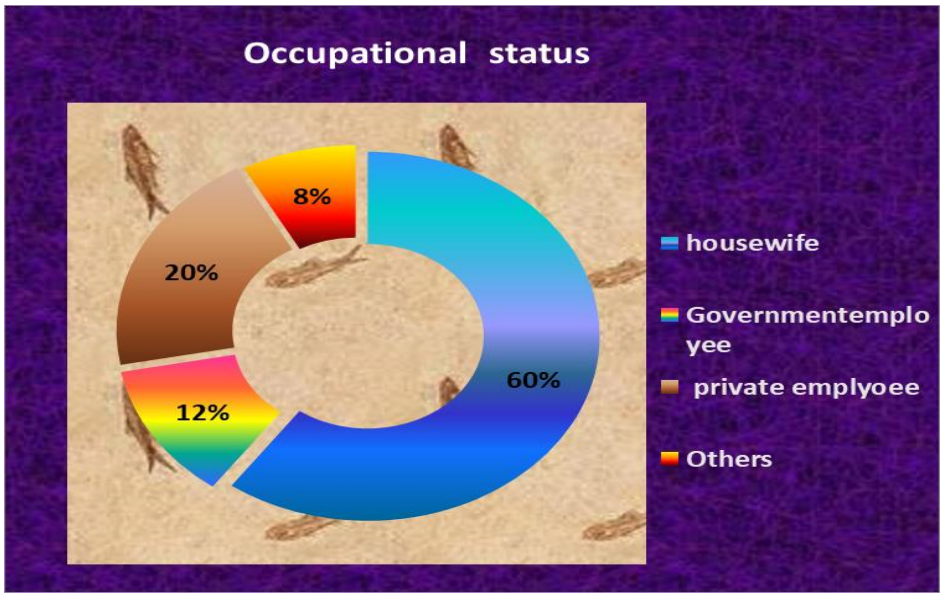

Fig 7:- Diagram depicting percentage wise distribution of the subjects according to their occupation.

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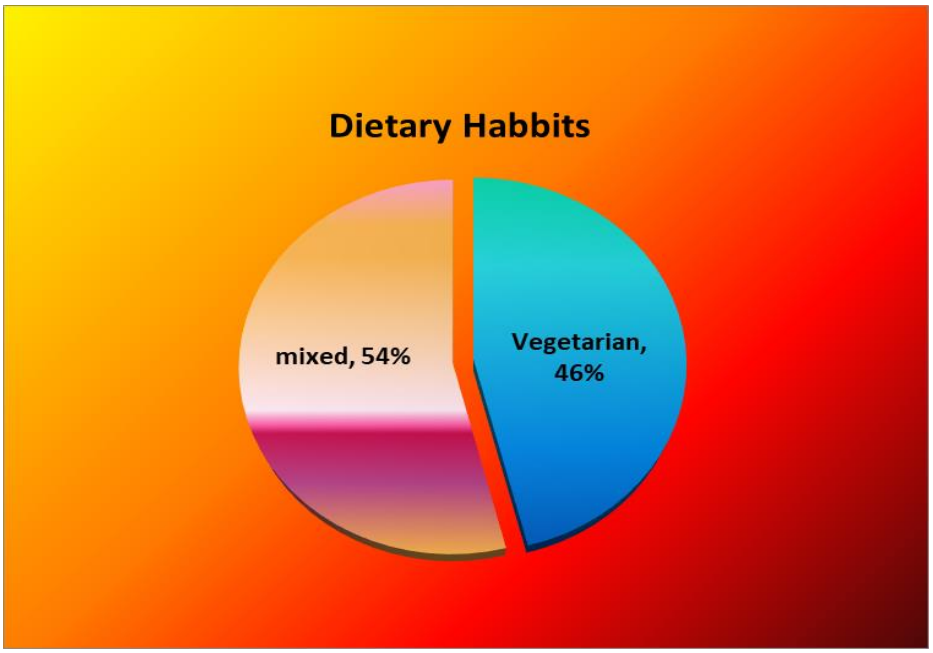

Fig 8:- Diagram depicting percentage wise distribution of the subjects according to their dietary habits.

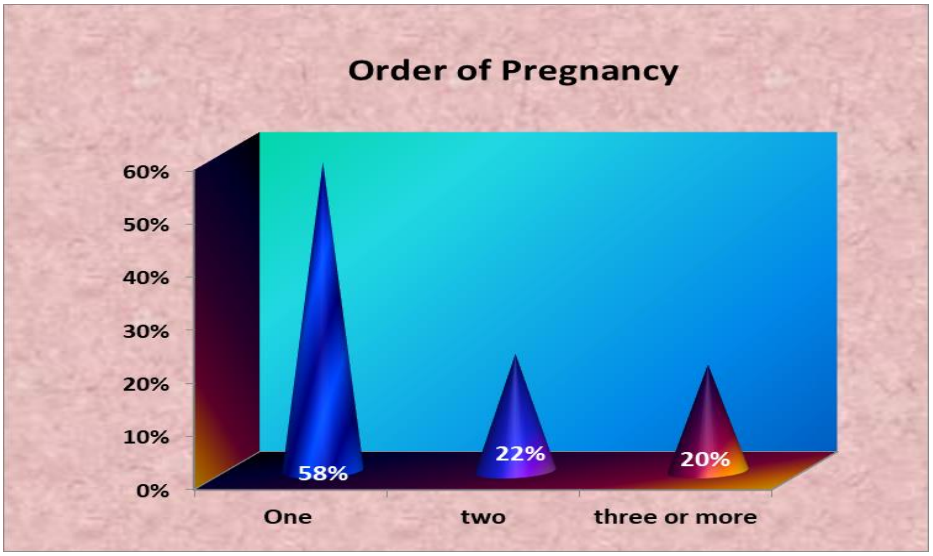

Fig. 9:- Diagram depicting percentage wise distribution of the subjects according to their order of pregnancy

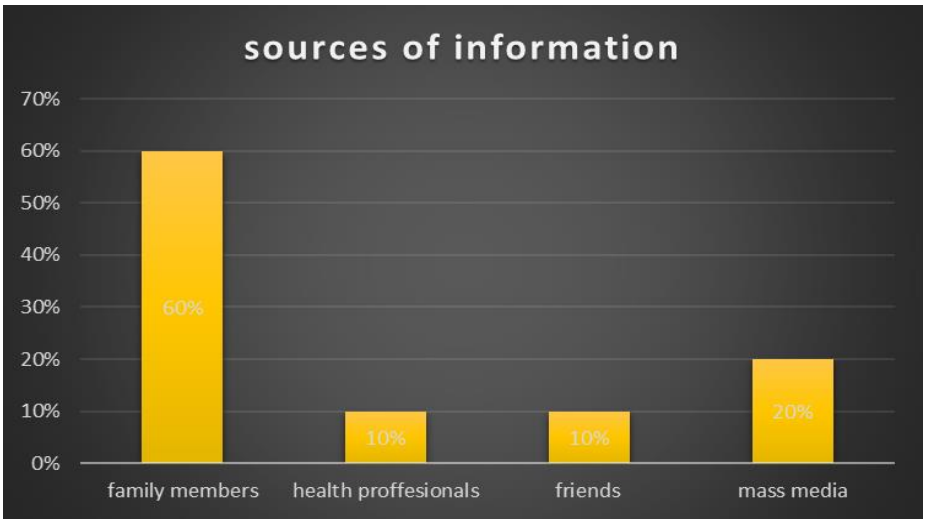

Fig 10:- Diagram depicting percentage wise distribution of subjects according to their sources of information.

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- *Section-II: Area wise mean, percentage and standard deviation for the knowledge of antenatal mothers regarding expression and storage of breast milk during pregnancy in pre test (N=50)*

SI. NO	Area wise	No. of items	Mean	S.D	Mean%
1	Knowledge on importance of breast milk among antenatal mothers	11	16.16	1.61	44%
2	Knowledge on breast feeding among antenatal mothers	8	15.37	2.19	42%
3	Knowledge regarding procedure on manual expression of breastmilk among antenatal mothers	8	13.75	1.96	38%
4	Knowledge regarding storage of expressed breast milk	9	12.66	1.88	35%
	Over all knowledge	**36**	**57.94**	**7.72**	**64%**

Table 2

The above table shows that the maximum mean percent obtain by the subjects is found in the aspect of Knowledge on importance of breast milk among antenatal mothers 44% followed by Knowledge on breast feeding among antenatal mothers 42%, Knowledge regarding procedure on manual expression of breastmilk among antenatal mothers 38%, Knowledge regarding storage of expressed breast milk 35%. The overall mean percentage in the pre test was found with standard deviation

- *SECTION-III: Area wise mean, mean percentage and standard deviation for the knowledge of antenatal mothers regarding expression and storage of breast milk during pregnancy in post test. (N=50)*

Sr. no	Area wise	No. of items	Mean	S.D	Mean%
1	Knowledge on importance of breast milk among antenatal mothers	11	25.81	3.64	71%
2	Knowledge on breast feeding among antenatal mothers	8	36.5	5.16	77%
3	Knowledge regarding procedure on manual expression of breast milk among antenatal mothers	8	41.37	5.85	82%
4	Knowledge regarding storage of expressed breast milk	9	40	3.28	70%
	Overall knowledge	**36**	**143.68**	**17.93**	**70%**

Table 3

The above table shows the maximum mean percentage obtained by the subjects is found in the aspect ofKnowledge regarding procedure on manual expression of breast milk among antenatal mothers82% followed by Knowledge on breast feeding among antenatal mothers 77% Knowledge on importance of breast milk among antenatal mothers 71% Knowledge regarding storage of expressed breast milk 70%.

- *Section-IV: comparison of pre-test and post-test knowledge regarding expression and storage of breast milk among antenatal mothers (N=50)*

Aspects of knowledge	Pre-test		Post test		t value	DF	P value inference
	mean	SD	mean	SD			
Knowledge on importance of breast milk among antenatal mothers	16.16	1.61	25.81	3.64	15.46	9	P<0.05
Knowledge on breast feeding among antenatal mothers	15.37	2.19	36.5	5.16	15.46	9	P<0.05
Knowledge regarding procedure on manual expression of breast milk among antenatal mothers	13.75	1.96	41.37	5.85	15.46	9	P<0.05
Knowledge regarding storage of expressed breast milk	12.66	1.88	40	3.28	15.46	9	P<0.05
Overall knowledge	57.94	7.64	143.68	17.93	15.46	9	P<0.05

Table 4

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From the above table it is evident that the obtain t value 15.46 is greater than table value at 0.05 level of significance. Therefore t value is found to be significant. It means there is gain in knowledge level of antenatal mothers. These supports that structured teaching programme on expression and storage of breast milk is effective in increasing the knowledge level of antenatal mothers(table4)

➢ *SECTION- V: Association of the demographic variables of antenatal mothers with the pre-test knowledge scores (N=50)*

Demographic variables	DF	Calculated chi square value	Table value	Level of significance
Age	9	2.970	15.46	NS
Religion	4	2.97	15.46	NS
Place of residence	1	1.714	15.46	NS
Type of family	1	0.630	15.46	NS
Family income	9	13.388	15.46	NS
Educational status	9	3.027	15.46	NS
Occupational status	9	15.213	15.46	NS
Dietary habits	1	0.113	15.46	NS
Order of pregnancy	9	18.46	15.46	NS
Sources of information	9	3.027	15.46	NS

Table 5 (**P>0.05 , S=significant , NS=non-significant)**

The calculated x^2 value was 2.970 and the table value of x^2 at 15.46% level of significance with the degree of freedom 9. As the calculated value was less than the table value the research hypothesis related to age if the sample and pre test knowledge score was accepted. Hence no significant association was observed between the age of the antenatal mothers and their present scores on expression and storage of breast milk.

The calculated x^2 value was 3.027 and the table value of x^2 at 15.46% level of significance with the degree of freedom 9. As the calculated value was less than the table value the research hypothesis related to education if the sample and pre test knowledge score was accepted. Hence no significant association was observed between the age of the antenatal mothers and their present scores on expression and storage of breast milk.

The calculated x^2value was 15.213 and the table value of x^2 at 15.46% level of significance with the degree of freedom 9. As the calculated value was less than the table value the research hypothesis related to occupation if the sample and pre test knowledge score was accepted. Hence no significant association was observed between the age of the antenatal mothers and their present scores on expression and storage of breast milk.

The calculated x^2value was 13.388 and the table value of x^2 at 15.46% level of significance with the degree of freedom 9. As the calculated value was less than the table value the research hypothesis related to family income if the sample and pretest knowledge score was accepted. Hence no significant association was observed between the age of the antenatal mothers and their present scores on expression and storage of breast milk.

The calculated x^2value was 2.97 and the table value of x^2 at 15.46% level of significance with the degree of freedom 4. As the calculated value was less than the table value the research hypothesis related to religion if the sample and pretest knowledge score was accepted. Hence no significant association was observed between the age of the antenatal mothers and their present scores on expression and storage of breast milk.

The calculated x^2value was 0.113 and the x^2 value of table at 15.46% level of significance with the degree of freedom 1. As the calculated value was less than the table value the research hypothesis related to food habits if the sample and pretest knowledge score was accepted. Hence no significant association was observed between the age of the antenatal mothers and their present scores on expression and storage of breast milk.

The calculated x^2 value was 0.630 and the table value of x^2at 15.46% level of significance with the degree of freedom 1. As the calculated value was less than the table value the research hypothesis related to type of family if the sample and pretest knowledge score was accepted. Hence no significant association was observed between the age of the

antenatal mothers and their present scores on expression and storage of breast milk.

The calculated x^2 value was 18.46 and the table value of x^2 at 15.46% level of significance with the degree of freedom 9. As the calculated value was less than the table value the research hypothesis related to gravida if the sample and pretest knowledge score was accepted. Hence no significant association was observed between the age of the antenatal mothers and their present scores on expression and storage of breast milk.

The calculated x^2 value was 3.027 and the table value of x^2 at 15.46% level of significance with the degree of freedom 9. As the calculated value was less than the table value the research hypothesis related to sources of information if the sample and pretest knowledge score was accepted. Hence no significant association was observed between the age of the antenatal mothers and their present scores on expression and storage of breast milk.

Findings reveals that there is no significant association between pretest knowledge scores and the selected socio demographic variables such has age, education, education, occupation, family income, religion, food habits, type of the family, gravida, sources of information. Thus H2- stated is rejected.

III. CONCLUSION

The focus of this study was to assess the effectiveness of structured teaching programme on knowledge regarding expression and storage of breast milk among antenatal mothers, attending antenatal clinic at H.S.K Hospital and research center, Bagalkot, Karnataka. Majority of antenatal mothers were willing to participate in the study. They gave free and frank responses on knowledge regarding expression and storage of breast milk. The study was based on General System Theory. It provides a comprehensive systematic framework to assess the effectiveness of structured teaching programme on knowledge regarding expression and storage of breast milk among antenatal mothers.

REFERENCES

[1]. Incredibly easy. Maternal _ Neonatal Nursing. 2nd edition. LippincottWilliams and Wilkins Publications. 2009.
[2]. N Jayne Kiossner. Introduction maternity Nursing. First edition. Lippincott Williams and WilkinsPublication. 2006
[3]. Donald Ian. Practical obstetric problems. 5th ed. New Delhi: B.I. Publications Private Limited; 1998; 127-142.
[4]. Basavanthappa BT. Text book of midwifery and reproductive health nursing. 1st ed. New Delhi: Jaypee Brothers; 2006
[5]. Park. Park's textbook of preventive and social medicine. 17th ed. New Delhi: Banarsidas Bhanot India; 2000; p383.
[6]. Rathnam SS. Obstetrics and gynaecology for postgraduates. 1st ed. New Delhi: Orient Longman; 1999; 48-227.
[7]. Lower back pain. WWW.babycenter.in/pregnancy/antenatalhealth/naturalremedies.
[8]. Borg-Stein J, Dugan SA. Musculoskeletal disorders of pregnancy, delivery and postpartum. Phys Med Rehabil Clin N Am. 2007 Aug;18(3):459-76, ix.
[9]. Mantle MJ, Greenwood RM, Currey HLF: Backache in pregnancy. Rheumatol Rehabil 16: 95, 1977.
[10]. Kushtagi P, Bhanu BT. Effectiveness of subcutaneous injection of sterile water to the lower back for pain relief in labor. Acta Obstet Gynecol Scand. 2009;88(2):231-3.