International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Evaluate the Effectiveness of Video Assisted Teaching on Knowledge Regarding Storage of Expressed Breast Milk Among Primipara Mothers At Selected Wards of V.P.I.M.S. Lucknow, U.P.

Ms. Aparna Pandey[1], Ms. Nitya Trivedi[2]

[1,2]Nursing Tutor, Nursing, Bora Institutte Of Allied Health Sciences

ABSTRACT

STATEMENT OF PROBLEM: Evaluate the effectiveness of video assisted teaching on knowledge regarding storage of expressed breast milk among primipara mothers at selected wards of V.P.I.M.S. Lucknow, U.P.

BACKGROUND OF THE STUDY: Primipara word derived from modern Latin word in 1842, from latin primus + parus from parire, where primus means first or prime and parus means "to produce, bring forth". Primipara is one who has delivered one viable child. A women who has pregnancy or beyond the stage of abortion. Mother breastmilk is the healthiest form of milk infected with human T-Lymphotropic viruses HIV or has active untreated tuberculosis. The expressions of breast milk allows a mother to be away intermittently from her infant, while continuing to breastfeed.

OBJECTIVES: The objectives were to assess the pre-test knowledge regarding storage of expressed breast milk among primipara mothes at selected ward V.P.M.I.S. Lucknow.

To evaluate the effectiveness of video assisted teaching on knowledge regarding storage of expressed milk among primipara mothers at selected wards of V.P.I.M.S, Lucknow.

To find out the association between pre-test knowledge with their demographic variables.

METHODOLOGY: A quantitative research approach and quasi experimental one group pre- test post – test design was used. By using purposive sampling technique total 30 samples of selected wards i.e. pediatric ward and maternity ward at V.P.I.M.S. were selected evaluate the effectiveness of video assisted teaching on knowledge regarding storage of expressed breast milk among primipara mothers.

RESULT: In the pre-test majority 90% had inadequate knowledge, and 10 % had moderate knowledge. In post test majority of mothers 86.66% had adequate knowledge and 13.33% had moderate knowledge. Paired t value was 31.2 which means video assisted teaching was effective.

CONCLUSION: So it is concluded that the video assisted teaching on knowledge regarding storage of expressed breast milk was effective.

KEYWORDS: Effectiveness, video assisted teaching, knowledge, storage of expressed breast milk, primipara mothers.

INTRODUCTION

Background of the study-

Primipara word derived from modern latin word in 1842 ,from Latin primus+parus from parire, where primus means first or prime and parus that means "to produce, bring forth". Primipara is one who has delivered one viable child. A women who has delivered only once of a foetus or foetuses' which reach viability (beyond 20th week of the pregnancy or beyond the stage of abortion). Mother breast milk is the healthiest form of milk for the babies. There are new exceptions , such as when the mother taking certain drugs or is infected with human T- lymphotropic viruses HIV or has active untreated tuberculosis. The expression of breast milk allow a mother to be away intermittently from her infant, while continuing to breastfeed.[1]

Worldwide Only 44% of infants under six months of age are expressed breast feed, while 68% of women continue the breastfeed their infant for at least one year, by two years of age, breastfeeding rates declines to 44%.India-Recommended that child initiate breast feeding within the first hour of birth and be exclusively breastfeed for the first 6 months of life or currently 55% of children are exclusively breastfeed in India according to WHO and UNICE. Breastfeeding promotes health and helps to prevent disease. Artificial feeding is the associated with more death from diarrhoea in infants both developing and developed country. Importance of breastfeeding has been so widely realised that the world health organization started to celebrate World Breast feeding week from 1-7 August in more than

170 Countries with a particular theme every year According to WHO Importance of breastfeeding has been so widely realised that the world health organization started to celebrate World Breast feeding week from 1-7 August in more than 170 Countries with a particular theme every year- According to WHO. [2]

India is a vast country, so breastfeeding practices vary accordingly in different regions and communities across the nation. The importance of breastfeeding to infant health cannot be overemphasized. The United Nations Children Fund(UNICEF) has estimated that exclusive breastfeeding in the first 6 months of life can reduce under 5 mortality rate in developing countries by 18%. Breastfeeding is manually beneficial to both mother as well as child and is considered the best source of nutrition for an infant. To this end the World Health Assembly has set a global nutrition target, that in 2025 at least 50% of infants should be exclusively breast milk at 6 month of age.[3]

Every mother required long maternity leave and increase in benefit it is still not present common practice to cut down these work related difficulties, a large number of working mothers have started to express their breast milk and give it to their babies. Bestfeeding has been accepted as the most vital intervention for reducing infant mortality and ensuring optimum growth and developing of children. More than 15% of child death could be averted in India by optimal breast feeding practices. Appropriate feeding practices are of fundamental importance for the survival growth, development and heath of infants and young children.[4]

Rising number of mother are expressing her breastmilk to feed the infants when away from them, which parents new issue for infant feeding. Having sound knowledge regarding expression, storage and use of breast milk is first step towards promoting practice of

expressed breast milk, which in turn promotes exclusive breast feeding. Primary concern in this handling, storage, an warming of expressed breast milk. So all breastfeed mothers should be motivated

to learn different techniques of expression, storage and use of expressed breast milk. Mother play a vital role in framing child health and in shaping their future. Breast milk after expression can be collected and stored in containers. It can be stored for up to six months in a Frozen at -18°C or lower temperature(CDC,2022). Baby-Friendly Hospital Initiative step number five of the " Ten steps to successful breastfeeding" states "show mothers how to breastfeed and how to breastfeed and how to maintain lactation even if they should be separated from their infant"-The World Health Organization WHO/UNICEF.[5]

Expressed breast milk is a healthy feeding option as compared to formula milk for working with post natal mother. Feeding expressed breast milk to infants in this newborn concept promotion of, and training in this practice would help mother to maintain their milk to supply when away from baby and benefit the infant of working and school girl mother. In this condition storage of expressed breast milk by freezing of refrigeration of milk with and without heating has been recommended. T his can hardly be avoided because of the social circumstances of most mother who are regularly separated from their infant because of work or schooling as well as the particular needs of some preterm or sick babies to be fed with expressed breast milk. The greatest fear that has hindered the prospects of in-vitro storage of breast milk for any considerable period of time is the possibility of bacterial contamination and growth of infectious pathogens in the stored milk, thereby rendering them unsafe for human consumption. Bacteriological examination of refrigerated milks has proven their safety for human consumptions for even possibility of bacteria contamination and growth of infectious pathogens in the stored milk.[6]

NEED OF THE STUDY

Across the first 6 months postpartum, the rate of exclusive expressed breast-milk feeding ranged from 5·1 to 8·0 % in 2006–2007 and from 18·0 to 19·8 % in 2011–2012. Factors associated with higher rate of exclusive expressed breast-milk feeding included supplementation with infant formula, lack of previous breast-milk feeding experience, having a planned caesarean section delivery and returning to work postpartum. Exclusive expressed breast-milk feeding was associated with an increased risk of early breast-milk feeding cessation when compared with direct feeding at the breast.[7]

Findings from the Infant Feeding Practices in the USA showed that 85 % of mothers had expressed breast milk at some point, 68 % expressed within the first 2 weeks after birth, and 25 % did so on a regular basis.[8]

Australia reported that over a 10-year period from 1992–1993 to 2002–2003, the rate of any expressed breast-milk feeding within the first 6 weeks increased from 38 to 69 % .[9]

Singapore reported an increase in exclusive expressed breast-milk feeding from 9 % in 2000–2001 to 18 % in 2006–2008. An Australian study found that 98 % of mothers had expressed breast milk at least once.[10]

August in more than 170 countries with a particular theme every year (Devi et al, 2020). Exclusive breastfeeding for first six months of life is important for sound growth and development of every infant. Thought breastfeeding is a natural process , its success has many obstacles like breast engorgement, inadequate milk production, working mother, admission of neonates Intensive Care Unit etc. For example, problem of latching are seen in 54.8% of cases and problems for initiation of breast feeding are present in 5.65% found in a study (Buvaneswari and Dash, (2019).Expressed breast milk feeding has increased

substantially in the past two decades. Once used primarily for preterm infants, feeding expressed breast milk is now more common in mothers giving birth to healthy term infants. From 2017 to 2018, they recruited 821 new mothers from two public hospitals in Hong Kong. Participants were followed up at 1.5, 3, and 6 months postpartum or until they stopped breastfeeding. The proportion, type, and mode of all milk feeding were assessed at each follow up. At 1.5 months postpartum, 47.9%, 37.7% and 14.4% of participants were feeding by direct breastfeeding only, mixed mode feeding, and expressed breast milk only, respectively. Participants feeding expressed breast milk only were more likely to be supplementing with infant formula. When compared with participants who provided only direct breastfeeding, participants who gave only expressed breast milk at 1.5 months had 57% lower odds of breastfeeding continuation at three months postpartum.[7]

A Descriptive cross sectional study on Awareness about the expressed breast milk feeding among working mother visiting a tertiary level hospital, Kathmandu. The research aim was to assess the status of knowledge and attitude regarding expressed breast feeding and to identify the barriers to expressed breast feeding among working mothers visiting Kathmandu Medical College Medical teaching hospital. The questionnaire consist of 24 questions and total sample size was 180 mothers. Half of the mothers had adequate knowledge regarding expressed breast feeding while slightly more than half of them(52.2%) had negative attitude about it. Only 11.7% of the mother shared that they had expressed breast milk, inadequate breast milk production (30.7%) and lack of time (26.4%)The study conclude that about half of the working feeding to their baby expressed breastmilk.This research aim was to asses and identify the status of knowledge and attitude regarding expressed breastfeeding and barriess among working mothers.[11]

A cross sectional study on structured antenatal milk expression education for nulliparous pregnant people results of a pilot, randomised controlled trail in the united states was done to describe preterm infants mother expressing practices and exclusive use of mothers breast milk neonatal intensive care setting, as well as to explore whether mother and infants characteristics are predictors of the mothers inadequate expressing practices and non exclusive use of mother breastmilk. The sample consisted of 129 mother. One-third of the mother had adequate expression practices. Half of the infants exclusively received their mothers own breast milk. data were collected through questionnaires in neonatal units. Multiple logistic regression was used determine whether mothers and infants characteristics are predictors of late expression initiation (>6 hr from birth), inadequate expression frequency (≤ times per a day) and nonexclusive use of own mothers milk. One-third of the mother had adequate expression practices. Half of the infants exclusively received their mothers own breast milk. Expression practices, as well as use of own mothers milk , were suboptimal. High gestational age was associated with both late expression, initiation and nonexclusive breast milk use . The mother maintained expression regardless of their well-being.[12]

A qualitative study on community practices published guideline, and evidence base surrounding breast milk handing and storage. This study aimed at exploring EBM handing and storage practices within an online exclusively expressed community and comparing these with both internet resource and evidence based research. The sample consisted were 460 posts on EBM handling and storage .A observational design was used .Content analysis was undertaken on 10000 posts from an Australian Face book peer-support community for women who exclusively express breast milk. Women's questions, reported practices, and advice for EBM handling and storage were analyzed thematically and compared with both

guidelines and evidence-based research. To facilitate safe EBV handling and continuation of expression, guidelines should be updated so they are consistent, align with current evidence, and cater to mother cost, convenience, and milk wastage concerns. Health care providers can partner with women to evaluate online information to empower mothers in their decision. “Three key themes emerged :How should I store my EBM?,” “How long can I store my EBM?,” and “How do I use my EBM?”on The greatest consistency and agreement between recommendation and community practices were found for storage method ,whereas the least was found for storage times.[13]

Randomized controlled trial study on structured antenatal milk expression education for nulliparous pregnant people: results of a pilot, randomized controlled trial in the United states. The purpose of study was to examine the feasibility of a structured AME intervention among nulliparous birthing people in the united states. We recruited 45 low-risk, nulliparous individuals at 34-36 6/7 weeks of gestation from a hospital-based midwife practice. The sample size 63 individuals were approached and screened for eligibility. Participation were randomized to AME or a control group receiving lactation education handouts. In small group of nulliparous birthing people in the U.S., AME education and independent practice beginning at 37 weeks of pregnancy was feasible. In some cases, AME provide a back-up supply of milk when supplementation was indication or desired. Between December 2016 and February 2018,63 individuals were approached and screened for eligibility, and 45 enrolled into the study (71%)of 22 participants assigned to AME 18 completed at least one AME study visit. Participants reported practicing AME on at least 60% of days prior to their infants birth. Most were able to express milk antenatally (15/18),more than half collected and froze antenatal milk (11/18),and 39%(7/18)supplemented their infants with antenatal milk after birth.[14]

A prospective study on effect of antenatal expression of breast milk at term in reduce breast feeding failures.This research aim was successfull implementation breastfeeding should be encouraged and supported prenatally, perinatally and postnatally. Promote early breast feeding in all baby. Total sample size 180 booked cases at term pregnant women. There are randomly selected pregnant ladies. Daily antenatal breastmilk expression after 37 completed weeks of pregnancy significantly reduced the time for establishing full breast feeding and reduced breast feeding failures. The study group who expressed breast milk daily after 37 weeks did not find it difficult to initiate breast feeding after vaginal or caesarean delivery. Sufficient milk started flowing within half an hour of initiation of breast feeding in most 85 (94.4%) subjects of study group as compared to 63(70%) patients of control group, which was statistically significant. There was no increase in any delivery complication. There were two partial breast feeding failures in control groups but none in study group.[15]

A cross sectional study was conducted on expressed breast milk feeding knowledge and attitude of employed mothers. The objective of this study was to assess the knowledge and attitude of employed mother towards breast milk expression, storage and usage. The total sample size was conducted among 300 full time employed. A content validated questionnaire consisting 28 questions testing knowledge and nine questions assessing attitude was used. The highest possible scores for knowledge and attitude were 28 and 45, respectively. The mean score for knowledge was 20.45(SD 4.06). Mother who scored ≥21(≥75% of maximum score) were categorized as having “good knowledge” while those who scored <21 were considered to have “poor knowledge” . More than half of the mothers had good knowledge ,and a higher proportion had a positive attitude towards breast milk expression, storage and usage. Addition support and education should be give to mother

8

who are :non Malay, non-tertiary education and having their first child as these factors were associated with poor knowledge and negative attitude.[16]

STATEMENT OF PROBLEM

"Evaluate the effectiveness of video assisted teaching on knowledge regarding storage of expressed breast milk among the primipara mothers at selected ward of VPIMS, Lucknow".

OBJECTIVES

- To assess the pretest knowledge regarding storage of expressed breast milk among primipara mothers at selected ward of VPIMS, Lucknow.
- To evaluate the effectiveness of video assisted teaching on knowledge regarding storage of expressed breast milk among primipara mothers at selected ward of VPIMS, Lucknow
- To find out the association between pretest knowledge with their demographic variables.

HYPOTHESIS

A hypothesis a tentative statement about the relationship between two or more variables. It is a specific, testable prediction about what you expect to happen in a study.

The entire hypothesis will be tested at the 0.05 level of significance.

H_1: The mean post-test knowledge score is significantly higher than the mean pre-test knowledge score.

H_2: There is significant association between pre-test knowledge score with their selected socio-demographic variables.

OPERATIONAL DEFINITION

Assess:-

It refer to estimating the level of knowledge gained regarding storage of expressed breast milk through an video assisted teaching among primipara mothers.

Effectiveness:-

It refers to determine the extend to which an video assisted teaching has achieve the desired outcome in terms of increasing the level of knowledge regarding storage of expressed breast milk among primipara mothers.

Video assisting :-

Video assisted teaching means to teach the mother though the video with subject wise teaching materials.

knowledge:- knowledge is information gained through an video assisted teaching on knowledge regarding storage of expressed breast milk among primipara mothers.

Expressed breast milk:-

Expressed breast milk refer to the process by which a women expel milk milk from her breast. The breast milk can then be stored and feed to her baby at a later point in time. Milk can be expelled manually using the hand and or with a pump specially designed for expressing breast milk.

Primipara Mothers:-

Primipara is one who has delivered one viable child. A women who has delivered only once of a foetus or foetuses' which reach viability (beyond 20th week of the pregnancy or beyond the stage of abortion).

ASSUMPTION

In this study researcher assume that

The sample will be representative of the population .

1. All primipara mothers may have some knowledge regarding storage of expressed breast milk.
2. Information video assisted teaching will be very beneficial technique to improve the knowledge regarding storage of expressed breast milk among primipara mothers.

DELIMITATIONS

Study is delimited for:-

- Primipara mothers.
- Sample size 30.
- Samples were only selected from paediatric and maternity ward at V.P.I.M.S. Lucknow.

PROJECTED OUTCONE

The study will help to enhance the knowledge regarding expressed breast milk among the primipara mothers because mother are the primary caregiver for their children. After this study, improve their knowledge and they can easily implement their knowledge regarding expressed breastmilk. Because primipara mother do not have adequate knowledge regarding expressed breastmilk. It is recommended as the single largest potential intervention to prevent child morbidity and mortality rate. So the study findings will help the researcher to recommend the health care personnel for the improvement on knowledge regarding breastfeeding among the primipara mother.

CONCEPTUAL FRAMEWORK

Conceptual framework presents logically constructed concepts to provide general explanation of the relationship among the concepts of research study, without using a single existing theory.[17]

Conceptual frameworks are usually constructed by using researchers own experiences, previous research findings or concepts of several theories or models.[15]

Conceptual framework = concept + framework, meaning knitting the concepts in a frame to have meaningful information.[17]

Concept is a word picture or mental idea of a phenomenon ; it is an image and symbolic presentation of an abtract idea. Chinn and Kramer (1999) defined a concept as a 'complex mental formulation of experience',.[17]

Miles and Huberman (1994) defined the conceptual framework as a 'written or visual presentation that explains the main things to be studies in either graphically or narrative form –the key factors, concepts or variables and the presumed relationship among them'.[17]

Conceptual model conceived of this study provided a frame for the development of learning material for the primipara mother. The conceptual model also provided planning effectiveness of an information video, assessment of knowledge. It further gives direction to research for finding solution.[18]

The study is based on the J.W.Kenny's open system Model which is most relevant to the present study to evaluate the effectiveness of video assisted teaching on knowledge regarding storage of expressed breast milk among the primipara mothers at selected ward of VPIMS, Lucknow. It this study, the researcher prepared modified conceptual framework based on J.W.Kenny's open system model.

The concepts of J.W. Kenny's open system model are input, throughput,output and feedback. Input refes to matter and information that is continuously processed through systems and released as output. After processing the input, the system returns the output to the environment in an altered state it may be positive or negative the affecting the environment for information to guide operations. The feedback is used for the adjustments to environment.[17]

Environment:

The system use the input to maintain its homeostasis.[17]

The main concepts of the open system model are input, throughput, output and feedback.

Input:-

Input refers to any form of matter, energy and information that enters in the system .[17]

In the present study, in input of primipara mother admitted in selected ward of VPIMS. Lucknow was acting as a system .

The energy and information of input were based on the information video assisted teaching on knowledge regarding expressed breastmilk.

Throughput:-

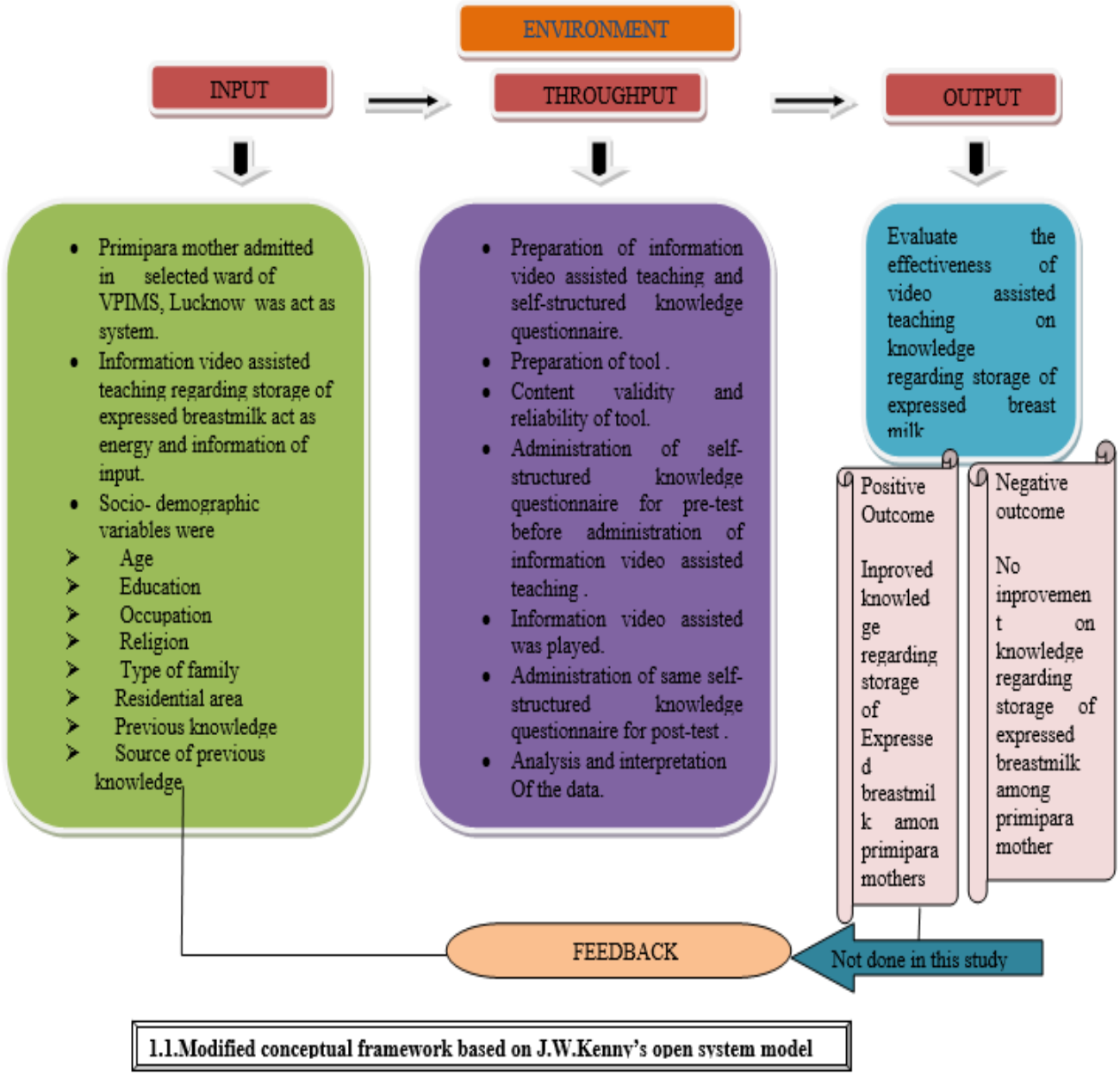
"Throughtput" is the action needed to accomplish the desired task to achieve the desired output.[17]

- Preparation of information video and self-structured knowledge questionnaire.
- Preparation of tool.
- Content validity and reliability of tool.
- Administration of self-structured knowledge questionnaire for pre-test before administration of information video assisted.
- Information booklet was distribution after pre- test.
- Administration of same self structured knowledge questionnaire for post-test.

Output:-

"Output" is the transfer of matter, energy information in the environment.[17]

In the present study , output was considered as effectiveness of information video assisted teaching on knowledge regarding storage of expressed breastmilk in terms of gaining knowledge scores. Output may be positive or negative. In this study, positive outcome referred to the improvement on knowledge regarding expressed breastmilk among primipara mother and negative output was considered as no improvement on knowledge regarding expressed breastmilk.



1.1.Modified conceptual framework based on J.W.Kenny's open system model

"Research methodology is the way to solve the research problem systematically it may understood as a science how research is done systematically."

-Pilot and Beck

Objectives-

- To assess the pre-test knowledge score regarding storage of expressed breast milk among primipara mothers at selected wards of VPIMS, Lucknow.
- To evaluate the effectiveness of video assisted teaching on knowledge regarding storage of expressed breast milk among primipara mothers at selected wards of VPIMS, Lucknow.
- To find out the association between pre-test knowledge scores with their demographic variables.

Research Approach-

"Research approach is a plan or procedure for research that span the steps from broad assumption to detailed method of data collection, analysis and interpretations."

The research approach for this study was a **quantitative research approach**, since the purpose of the study was to find out the effectiveness of video assisted teaching on knowledge regarding storage of expressed breastmilk among primipara mothers at selected wards of VPIMS, Lucknow.

Research Design-

Research design refers to the researchers overall plan for obtaining answers to the research questions for testing the research hypothesis, it is blue print for conducting a study with maximum control over the factors that may interfere with validity of findings.

The research design for this study was **quasi experimental one group pre-test and post-test design.**

GROUP	PRE TEST	INTERVENTION	POST TEST
Primipara Mothers	**O_1**	**X**	**O_2**
	D_1	**D_2**	**D_3**

Where,

O_1 – Pre-test by using self structured knowledge questionnaire regarding storage of expressed breast milk.

X – Knowledge video assisted teaching regarding storage of expressed breast milk.

O_2 – Post-test by using the same self structured knowledge questionnaire regarding storage of expressed breast milk.

Setting of the study-

"Setting is physical location and condition in which data collection takes place in a study".

The study was conducted at **Vivekananda Polyclinic and Institute of Medical Sciences, Lucknow.**

Variables-

"Variables are the characteristics, events or response that represents the element of research question in a detectible and measurable way in a quantitative research the concept that are of interest are translated into measurable characteristics called variables

Dependent Variables-

"It is the outcome or response due to the effect of the independent variables which researchers want to predict or explain."

In thispresent study the dependent variable was the "**Knowledge regarding storage of breast milk among primipara mothers"**

Independent Variables-

"It is the stimulus or activity that is manipulated or varied by variables".

In this study the independent variable was**"Video Assisted Teaching".**

Demographic Variables

"The characteristics and attributes of the study subject are considered as demographic variables".

In this study demographic variables were**age in years, educational qualification, occupation, type of family, religion, place of residence and previous knowledge regarding storage of expressed breast milk.**

Population

"A Population is the entire aggregation of cases in which researcher interested"

The population for the present study comprises primiparamother admitted in selected wards; Paediatric and Maternity ward.

Target Population

The target population of this study was **primipara mothers at VPIMS, Lucknow.**

Accessible Population

The accessible population of this study was **primipara mothers of selected wards i.e., maternity and pediatric ward at VPIMSLucknow,** who were willing to participate and who met inclusive criteria.

Sampling Criteria

Sample

"A sample is small portion of population selected for observation and analysis."

The sample for the present study comprises primipara mothers of selected wards at V.P.I.M.S. Lucknow.

Sample Size-

"Sample size means number of subjects, events, behaviour or situation that is examined in the study."

By using **Cochran formula**.

$n=z^2 P(1-P)/d^2$

Key-

n = sample size

z = Statistic for a level of confidence (1.64)

P = knowledge (95% P = 0.15)

d = Absolute Precision (15% d = 0.1)

1.64*1.64*0.9*0.1

= 0.242064

=0.242064\0.01

= 24.2

Hence, there will be add 10%

n = 30

Sampling Technique

"Sampling is the process of selecting a portion of the population to represent the entire population."

In the present study, the samples were selected according to the inclusion criteria by using questionnaire.

So, **Non – Probability Purposive Sampling techniques** was used in this study.

The sample size of the study constitutes 30 primipara mothers who fulfilled the criteria of research.

Criteria for sample selection-

The sample for the study was selected based on the following criteria :-

Inclusion criteria-

"Inclusion**criteria**was those characteristics that the prospective subjects must have if they are to included in the study."

It includes participant who met the inclusive criteria

- Primi para mothers of selected wards i.e. pediatric and maternity wards at VPIMS Lucknow.
- Participants who has given consent to participate in study.
- Participants who were able to read and write Hindi or English language.
- Participants who were admitted in maternity ward and pediatric ward of VPIMS Lucknow.

Exclusion criteria:-

"Exclusion criteria are those characteristic that disqualify prospective subjects from inclusion in the study"

It excludes participants who met following criteria:-

- Multipara mothers who were admitted in selected wards i.e.Pediatric and Maternity wards at VPIMS,Lucknow.
- Participant who were not interested to participate in this study.
- Participant who are not able to read or write.

Research tool-

Research tools were developed by the investigator to collect the data. The purpose of study to evaluate the "**Effectiveness of video assisted teaching on knowledge regarding storage of expressed breast milk among primipara mothers at selected wards of VPIMS, Lucknow."**

Development and description of the tool-

The steps are followed by the investigator to collect the tool.

- Literature was reviewed in preparation of the tool.
- Preparation of the first draft.
- Guidance and suggestion we taken from the experts.
- Finalization of tools.

These tools are prepared for the data collection from the participant as it provides adequate information regarding storage of expressed breast milk.

- **Tool 1-** Demographic profile.
- **Tool 2-** Self structure questionnaire.

In this study the tool consists two parts:-

Demographic variables :-

It includes age, educational qualifications, occupation, religion, type of family, place of residence and previous knowledge regarding expressed breast milk.

Self structured questionnaire:-

Knowledge questionnaires was developed by researcher to assess knowledge regarding expressed breast milk. This tool considered 30 multiple choice questions have four options. Out of four options only one will be correct of the storage of expressed breast milk.

To interpret the level of knowledge

The score interpretation is as follows;

S.No.	Level of knowledge	Score level	Score percentage
1	Inadequate	14	<50%
2	Moderate	15-22	50-73%
3	Adequate	23-30	>74%

Content Validity of Tool-

The content validity is the degree to which an instrument measures what it is intended to measures. The validity is the appropriateness, meaning fullness and usefulness of the interference made from the scoring of the instrument.

The prepared instrument along with a validity seeking letter, acceptance form, problem statement, objectives, hypothesis, operational definition and criteria checklist was submitted to 10 experts and requested to in their opinion about the content and its relevancy, clarity and appropriateness of the items. Most items were agreed by experts and the few items were modified based on the suggestions of the experts.

Pilot Study

Pilot study is a small-scale version of trial run designated to test the method to be used in a large mode rigorous study, which some times refer to as present study.

After validation of the tool pilot study was conducted in the pediatric wards at VPIMS, Lucknow 19-05-2024 to assess the feasibility and practicability of the study and to decide the statistical analysis for researcher. Prior to the study, formal permission was taken from the administrator of VPIMS, Lucknow.

Findings of pilot study- The data of self-structured knowledge questionnaire was analyzed by using descriptive and inferential statistics. In the pilot study, the pre-test mean was 14.6,standard deviation was 1.02 and post test mean was 25.4, standard deviation was 1.2. In the pilot study, paired , ‘ t’ test was used . Calculated ‘t’ value was 11.15 and tabulated value for df + 1 or -1. was given at 0.1 level of significance. The findings of the study revealed that there was a significant difference the mean post test knowledge score is highly significantly higher than mean pre test knowledge score which is showed that the video assisted program is highly effective .

List of statistical formula used in this study-

Mean: To obtain the mean, the individual observations were first added together and then divided by the number of observation. The operation of adding together or summation is denoted by the sign∑.

The individual observation is denote by the sign X, number of observation denoted by n, and the mean by X

Formula:

μ=number of values in population

∑values in population

Standard deviation –It is denoted by the Greek letter.

When sample is less than 30 then.

Formula:

$$\sigma = \sqrt{\frac{\sum_i^n (x_i - \bar{x})^2}{n-1}}$$

Paired ‘t’ test – To compare the change in a parameter at two different time intervals paired ‘t’ test was used.

$$t = \frac{d}{S_d / \sqrt{n}}$$

d- is the mean difference, i.e. the sum of the difference of all the data points (set 1point

1-set 2 point,….) divided by number of pairs. Sd is the standard deviation of the difference between all the pairs n is the number of pairs.

Data management and analysis-

The data collected from the samples were organized and tabulated. The data were analyzed in terms of objectives and hypothesis of the study by descriptive and inferential statistics, which are necessary to provide a substantial summary of results.

Descriptive statistics:

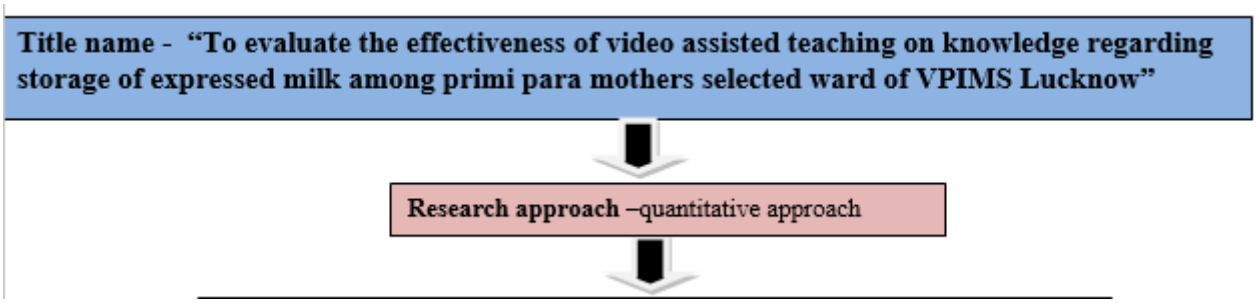
Frequency and percentage was used to analyze the demographic variables.

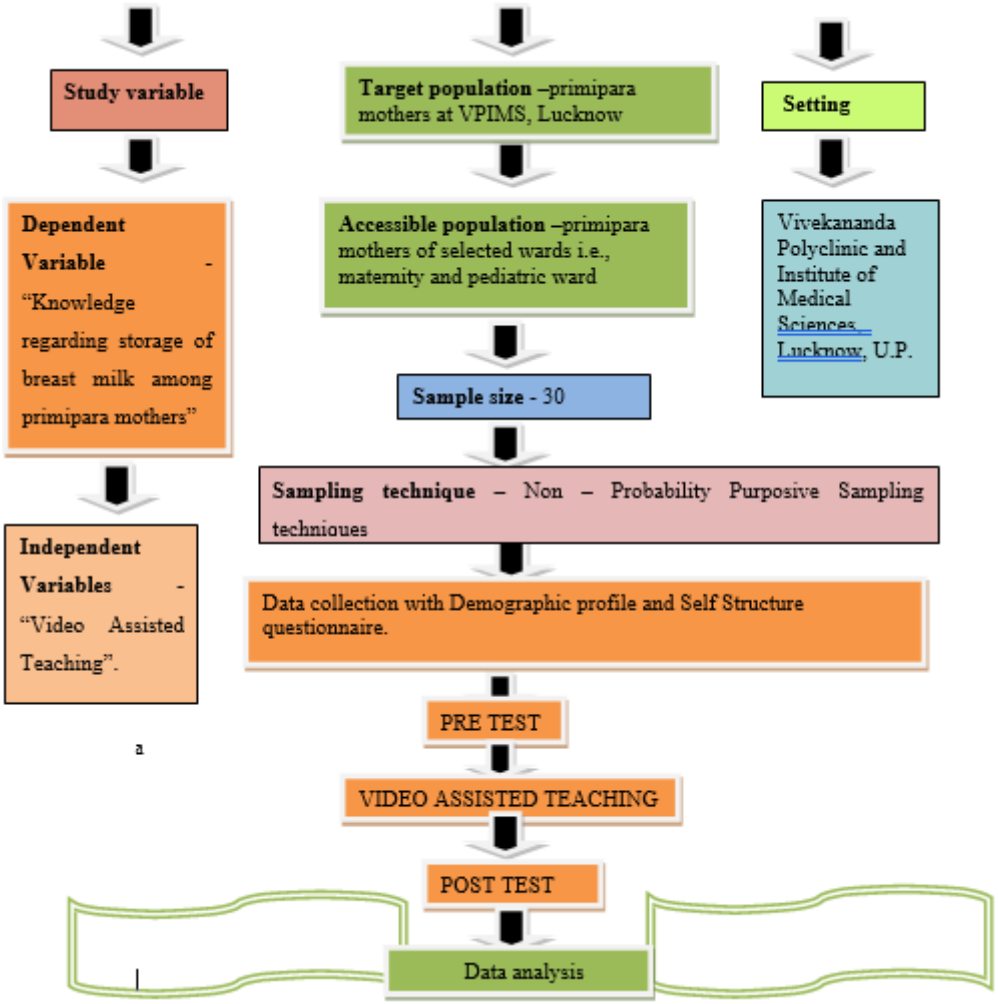
Mean and standard deviation were used to analyze the knowledge regarding storage of expressed breast milk among primipara mother at selected ward of VPIMS.

Inferential statistics:

Chi-square test was used to find the association the pre-test knowledge scores with their selected socio demographic variables.

Paired t test was used to assess the effectiveness of video assisted teaching on knowledge regarding storage ofexpressed breast milk i.e. Pediatric and Maternity ward at V.P.I.M.S., Lucknow





The chapter deals with the analysis and interpretation of the data collection from primary para mothers admitted in selected wards i.e. maternity ward at V.P.I.M.S, Lucknow, to determine the effectiveness of an information booklet on knowledge regarding breastfeeding among primary para mothers.

Analysis is categorizing, ordering, manipulating and summarizing of the data to obtain answer to research questions. The plan for data analysis comes directly from the purpose is to reduce data to an intelligible and interpretable form, so that the relation of research problem can be the relation problem can be studied and tested, as well as to support the researcher explanation of the relationship among the variables.

OBJECTIVES

- To assess the knowledge regarding breastfeeding among the primary Para mother.
- To assess the effectiveness of an information booklet on knowledge regarding breastfeeding among the primary Para mother
- To associate the pretest knowledge scores with their selected socio demographic variables.

RESEARCH HYPOTHESIS

The entire hypothesis will be tested at the 0.05 level of significance

H1: The mean post- test knowledges scores is significantly higher than the means pretest knowledge score.

H2: There is significant association between pretest knowledge scores with their selected socio demographic variables.

Primary Para mothers admitted in selected wards i.e., maternity ward at V.P.I.M.S, Lucknow, were selected by using pre- designed self-structured knowledge questionnaires. that includes 30 multiple choice questions regarding breastfeeding multiple-choice question have four and out of four choices only one was correct. These multiple-choice question in the self-structured knowledge questionnaire were designed to assess the knowledge of respondents regarding breastfeeding. Self-structured knowledge questionnaire including different aspects of knowledge regarding breastfeeding, which also included in the video.

The aspect of knowledge regarding breastfeeding number of questions

- Introduction of expressed breast milk
- Purpose and indication of expressed breast milk 3
- Container use for storage of expressed breast milk 3
- Ways to expressed breast milk 6
- Breastmilk storage guideline 10
- Importance of hygiene for storage of expressed breast milk 5

ORGANIZATION OF THE FINDINGS

Study finding was organized and presented under these following sections

Section 1: Description of sample according of their socio- demographic variables.

Socio demographic variables containing primipara mothers. characteristics were analyzed by using the frequency and percentage.

Section II: Analysis of pre-test and post-test knowledge scores and to analyze effectiveness of an information booklet on knowledge regarding expressed breast milk among primipara mothers.

Percentage distribution of pre-test and post-test knowledge scores.

Percentage of improvement in knowledge scores among primipara mothers after video assisted teaching regarding expressed breastfeeding

Testing of hypothesis (H1)

Section III: Association between the pre-test knowledge scores with their selected socio- demographic variables.

The association between the pre-test knowledge scores with their selected socio - demographic variables was analyzed by using chi square test.

SECTI0N-I

DESCRIPTION OF PRIMIPARA MOTHERS ACCORDING TO THEIR SOCIO-DEMMOGRAPHIC VARIABLES

S.no	Socio demographic variables		Frequency	Percentage
			F	P
		21- 25 Year	9	30%
		26-30 years	12	40%

1	Age in year	30-34 years	8	26%
		35 and above	1	3.3%
2	Education	Primary	2	6.6%
		Secondary	2	6.6%
		Highschool	6	2%
		Graduation	17	56.6%
		Illiterate	3	10%
3	Occupation	Housewife	25	83.3%
		Private job	2	6.6%
		Government job	2	6.6%
		Self-employee	1	3.3%
4	Type of family	Joint	20	66.6%
		Nuclear	10	33.3%
		Extended	0	0.0%
5	Religion	Hindu	29	96.6%
		Muslim	1	3.3%
		Christian	0	0.0%
		Other:Specific	0	0.0%
6	Residential area	Rural	11	36.6%
		Urban	19	63.3%
7	Previous knowledge	Yes	17	56.6%
		No	13	43.3%
8	Source of knowledge	Family	17	56.6%
		Society	9	30%
		Media	4	13.3%

Table no. 4.1: Frequency and percentage distribution of primary para mothers admitted in maternity ward at V.P.I.M.S, Lucknow, according to their socio-demographic variables.

Fig.4.1.1: PERCENTAGE DISTRIBUTION OF PRIMARY PARA MOTHERS ACCORDING TO THEIR AGE IN YEARS

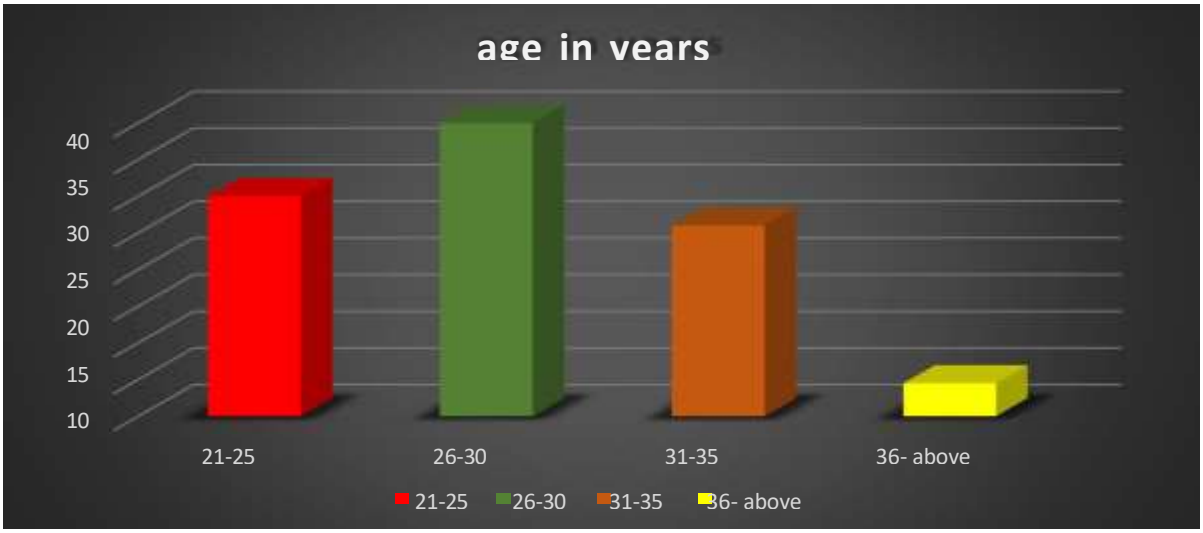


Fig 4.1.1: cuboidal bar diagram shows the percentage distribution of mothers according to their age

Percentage distribution of mothers of according of according to their age shows that, majority of the mothers, 40% were in the age group of 26-30 years.26%Mothers were in the age group 31-35 years,30% were in the age group 21-25 years and 3.3%were in the age group of 36 and above.

This indicates that the majority of primary para mothers were belong to 26-30 years of age.

Fig 4.1.2: PERCENATGE DISTRIBUTION OF PRIMARY PARA MOTHERS ACCORDING TO THEIR EDUCATION

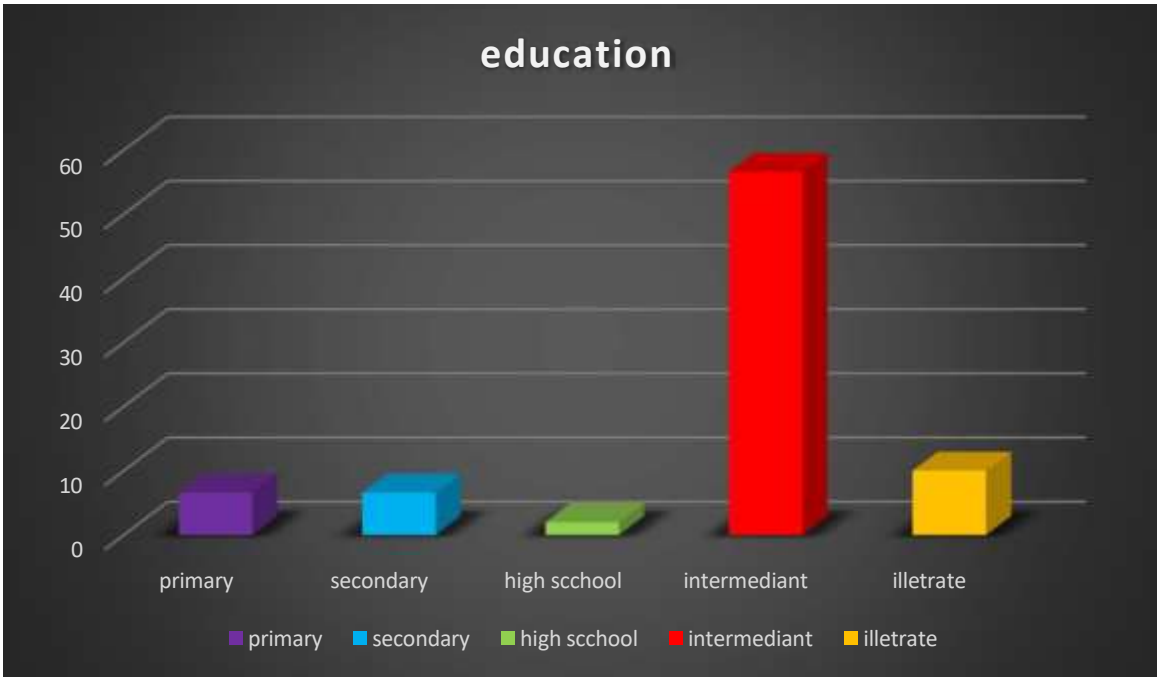


FIG 4.1.2: bar diagram shows percentage distribution of mothers according to their education.

Percentage distribution of mothers according to education were majority of mothers,56.6% were graduate mothers,6.6% mothers were of primary and secondary education, 10% mothers were illiterate and 2%

mothers were high school pass. The majority primary para mothers belong to intermediate pass.

Fig 4.1.3: PERCENTAGE DISTRIBUTION OF PRIMARY PARA MOTHERS ACCORDING TO THEIR OCCUPATION

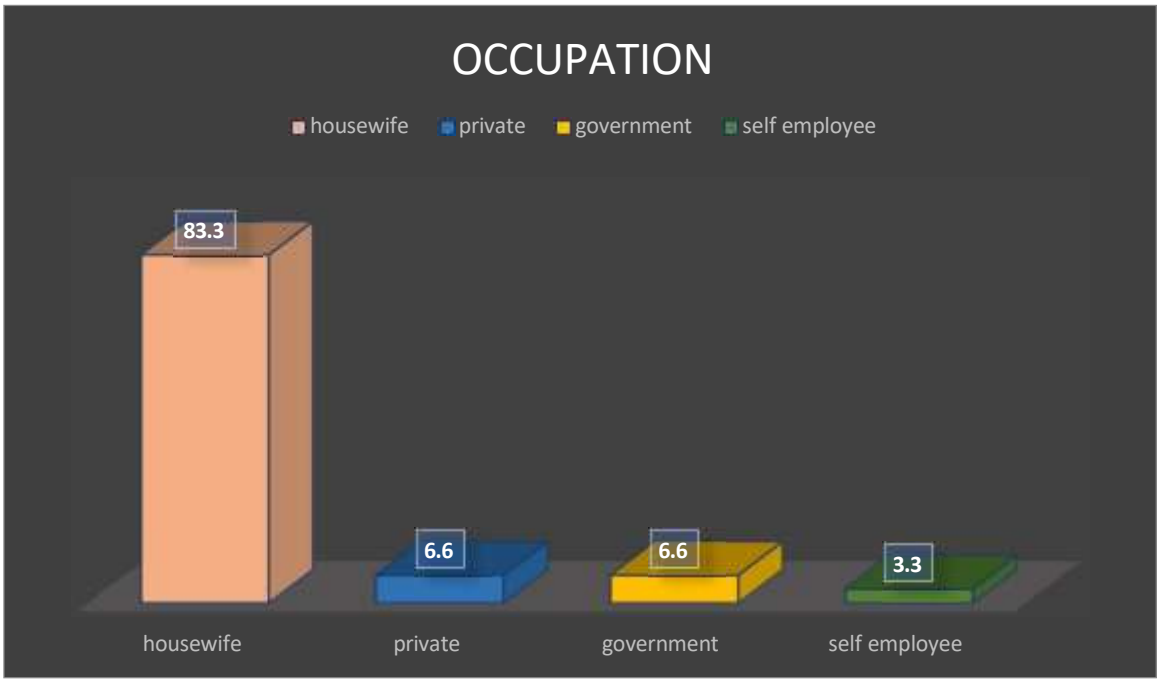


FIG 4.1.3: bar diagram shows the percentage distribution of mothers according to their occupation Percentage distribution of the primary para mothers according to their occupation is majority of mothers, 83.3% were housewife, 6.6% were private and government job mothers and 3.3% were self-employed mothers.

Fig 4.1.4 PERCENTAGE DISTRIBUTION OF PRIMARY PARA MOTHERS ACCORDING TO THEIR TYPE OF FAMILY

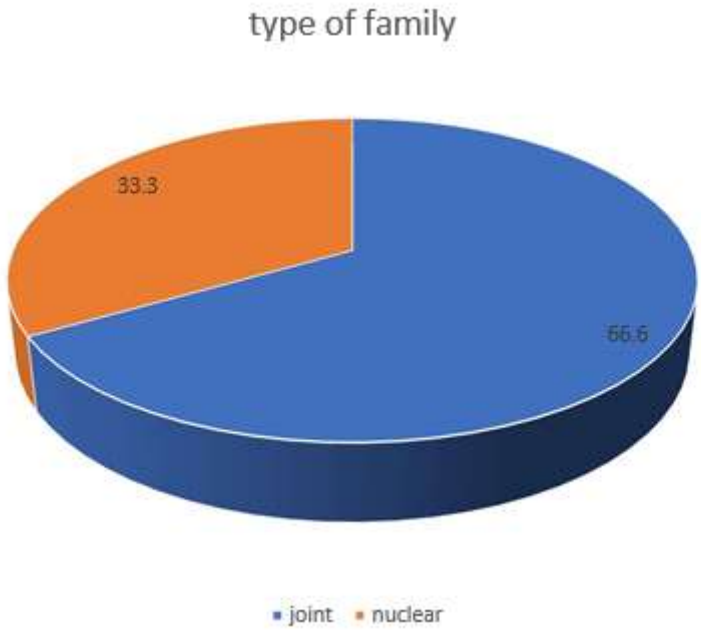


FIG 4.1.4: pie diagram shows the percentage distribution of mothers according to their type of family Percentage distribution of mothers according to their type of family shows that, majority of the mothers, 66.6% were from joint family, 33.3% were from nuclear family and 0.0% were Christian and extended family. This indicates that the majority of primary para mothers were from the joint family.

Fig 4.1.5: PERCENTAGE DISTRIBUTION OF PRIMARY PARA MOTHERS ACCORDING TO THEIR RELIGION

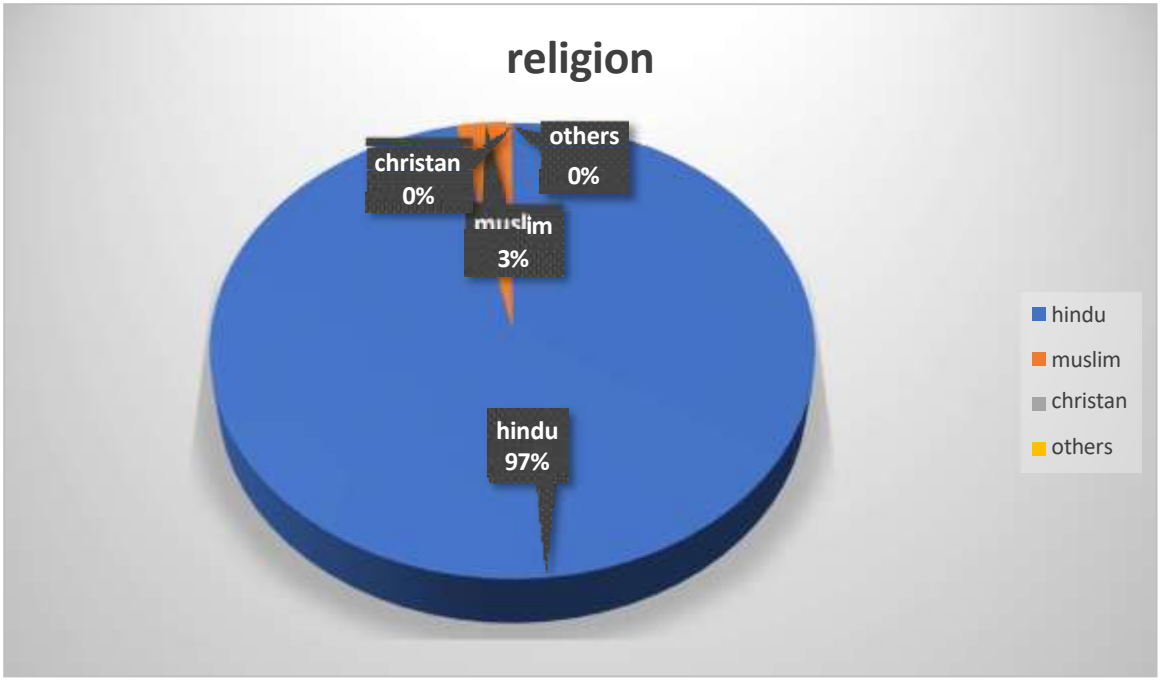


FIG 4.1.5: pie diagram shows the percentage distribution of mothers according to their religion Percentage distribution of the mothers according to the religion is majority,96.6% were Hindu mothers, 3.3% were Muslim family, 0.0% were Christian and others group. this indicates that majority of the primary para mothers were Hindu.

Fig 4.1.6: PERCENTAGE DISTRIBUTION OF THE PRIMARY PARA MOTHERS ACCORDING TO THEIR RESIDENTIAL AREA

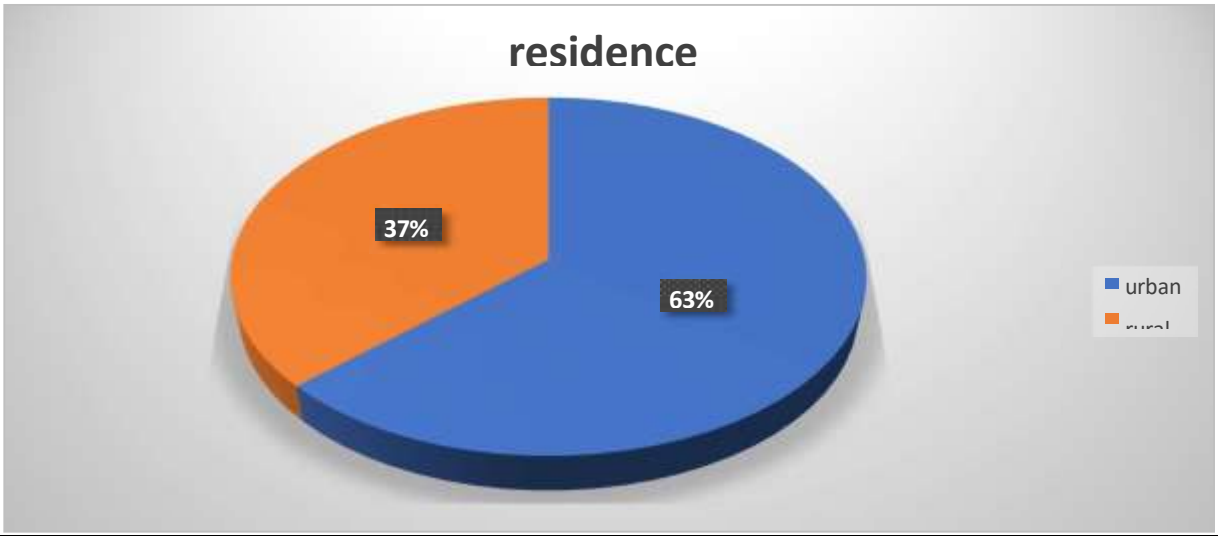


FIG 4.1.6: pie diagram shows the percentage distribution of mothers according to their residential area. Percentage distribution of mother according to their residential area is majority mothers, 63% were from urban area and 37% were rural area. This indicates that majority of the primary para mothers were from urban area.

SECTION II

Analysis of Pre-test and Post-test knowledge scores and to analyze effectiveness of an information booklet on knowledge regarding breastfeeding among mothers of under two-year children

This section describes the percentage distribution of mothers of under two-year children, according to the pre-test and post-test knowledge scores regarding breastfeeding through self-structured knowledge questionnaire was analyzed by using descriptive statistics.

Table No. 4.2.1 PERCENTAGE DISTRIBUTION OF PRE-TEST AND POST-TEST KNOWLEDGE SCORES

n=6

S. No.	Level of Knowledge	Pre-test Score	Post-test Score
1.	Inadequate (<50%)	90%	0%
2.	Moderate (50-73%)	10%	13.33%
3.	Adequate (74%)	0%	86.66%

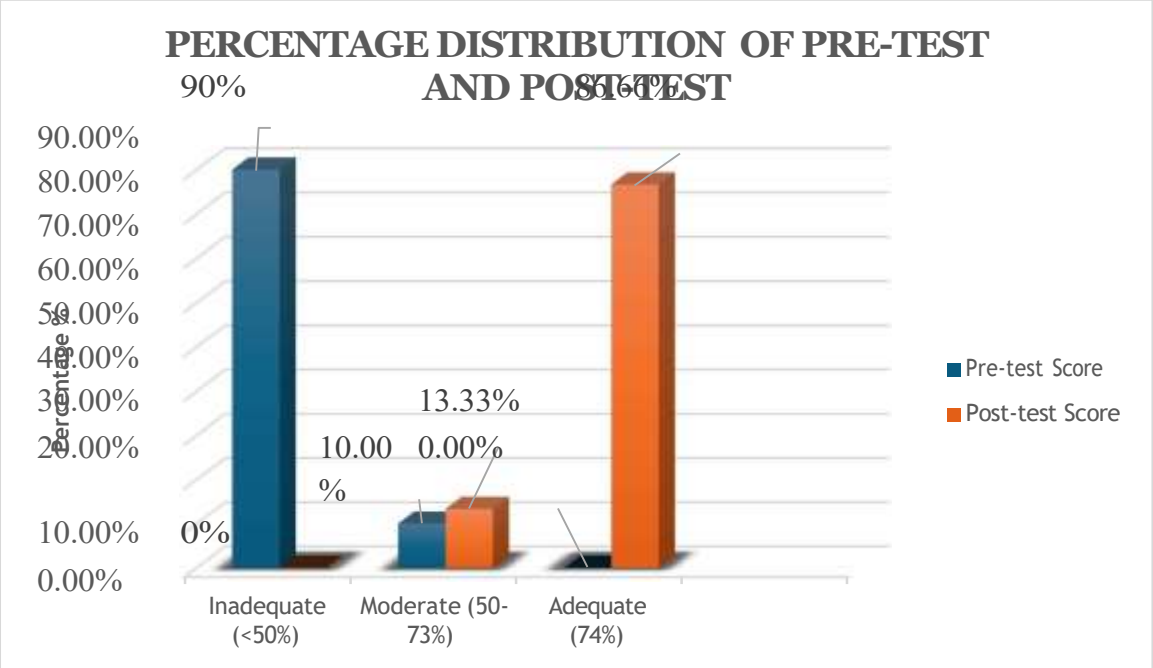


Figure: - 4.2.1: Clustered Column Diagram shows the percentage distribution of mothers according to their level of pre-test and post-test knowledge scores

Clustered Column in this figure 4.2.1 illustrate that in the pre-test majority 90.0% had inadequate knowledge, 10.00% had moderate knowledge and 0.00% had adequate knowledge. In the post-test

majority of the mothers, 86.66% had adequate knowledge and 13.33% had moderate knowledge. So, it is concluded that the Information Booklet regarding breastfeeding was effective.

Table No. 4.2.2

PERCENTAGE OF IMPROVEMENT IN KNOWLEDGE SCORES AMONG MOTHERS OF UNDER TWO YEAR CHILDREN AFTER DISTRIBUTION OF AN INFORMATION BOOKLET ON KNOWLEDGE REGARDING BREASTFEEDING

Pre-test	**Inadequate**	**Moderate**	**Adequate**	**Total**
	27	**3**	**0**	**30**
	90%	**10%**	**0%**	**100%**
Post-test	**Inadequate**	**Moderate**	**Adequate**	Total
	0	**4**	**26**	**30**
	0%	**13.33%**	**86.66%**	**100%**

Applied chi square (x^2) test for significance. x^2 value=1.953; df-2; p- value-0.377; consider not significant.

The data presented in table 4.2.2 shows that the majority of mothers 26 (86.66%) transfer in adequate knowledge and 4 (13.33%) in moderate knowledge in post-test from 27 mothers of inadequate knowledge scores of pre-test. Majority of mothers 26 (86.66%) were shifted in adequate knowledge and 4 (13.33%) remain in moderate knowledge in post-test knowledge scores from 30 mothers of moderate knowledge scores of pre-test. And 0 (00.00%) mothers of adequate knowledge in pre-test were remaining in post-test.

TESTING OF HYPOTHESIS (H_1)

In order to determine the difference between the mean pre-test and post-test knowledge scores, the following hypothesis H_1 was formulated: -

H_1: There is a significant difference between the pre-test and post-test knowledge scores regarding breastfeeding among mothers of under two-year children admitted in selected wards i.e. Pediatric and Maternity ward at V.P.I.M.S., Lucknow.

The data were analyzed by computing Wilcoxon Signed Ranka test for significance. The findings are presented

Table 4.2.3

Pre-test	**N**	**Mean**	**Standard Deviation**	**Mean difference**	**Df**	**p-value**
	30	2.1445	2.67	0.924	02	0.007
Post-test	30	1.22	1.47			

Z=-7.0007 and p<005

The presented data in table 4.2.3 shows that the mean post-test knowledge scores of mothers was 25.72 and mean pre-test knowledge score was 15.80. The 'z' value was computed i.e. -7.007 and p-value was

<0.001. This shows that the difference between pre-test and post-test scores of mothers was a true difference and not by chance. Hence, research hypothesis H_1 was accepted.

SECTION III

ASSOCIATION BETWEEN THE PRE-TEST KNOWLEDGE SCORES WITH THEIR SELECTED SOCIO-DEMOGRAPHIC VARIABLES

In order to determine the association between the levels of pre-test knowledge scores with their selected socio-demographic variables, the following hypothesis (H_2) was formulated.

H_2: There is a significant association between the pre-test knowledge scores with their selected socio-demographic variables.

The data was analyzed by chi-square. The findings are presented in table 4.3.1

Table No. 4.3.1 **n=*30***

Socio-Demographic Variables		Pre test						x^2 value	Df	p-value
		Inadequate		Moderate		Adequate				
		F	%	F	%	F	%			
AGE IN YEARS	20-24 Year	8	33.33%	1	16.66%	0	0%	1.926	6	0.59
	25-29 Year	8	33.33%	2	33.33%	0	0%			
	30-34 Year	7	29.16%	2	33.33%	0	0%			
	35 and above	1	4.1%	1	16.66%	0	0%			
EDUCATION	Primary	2	12.5%	1	12.5%	1	16.66%	3.01	8	0.933
	Secondary	2	12.5%	1	12.5%	1	16.66%			
	High School	6	37.5%	1	12.5%	1	16.66%			
	Graduation/Diploma	3	18.75%	3	37.5%	1	16.66%			
	Illiterate	3	18.75%	2	25%	2	33.33%			
OCCUPATION	Housewife	12	75%	2	28.57%	2	28.57%	7.6633	6	0.2661
	Private job	1	6.25%	1	14.28%	2	28.57%			
	Government job	2	12.5%	2	28.57%	2	28.57%			
	Self employed	1	6.25%	2	28.57%	1	14.28%			
RELIGION	Hindu	13	81.25%	2	33.33%	2	25%	4.011	6	0.17
	Muslim	1	6.25%	2	33.33%	2	25%			
	Christian	1	6.25%	1	16.66%	2	25%			
	Others	1	6.25%	1	16.66%	2	25%			
TYPE OF FAMILY	Joint	2	11.11%	2	33.33%	2	33.33%	5.925	4	0.204
	Nuclear	14	77.77%	2	33.33%	2	33.33%			
	Extended	2	11.11%	2	33.33%	2	33.33%			
RESDENTIAL AREA	Rural area	7	35%	3	50%	2	50%	0.625	2	0.73
	Urban area	13	65%	3	50%	2	50%			
PREVIOUS KNOWLEDGE	Yes	5	50%	5	50%	5	50%	0.048	2	0.975
	No	5	50%	5	50%	5	50%			

SOURCE OF KNOWLEDGE	Family	13	54.16%	1	33.33%	1	33.33%	1.666	4	0.796
	Society	8	33.33%	1	33.33%	1	33.33%			
	Media	3	12.5%	1	33.33%	1	33.33%			

The data given in Table no. 4.3.1 shows that the Chi-square test was used to find out the association between pre-test knowledge scores with their selected socio demographic variables. The finding of the chi-square test shows that there was an association between the pre-test knowledge scores with their specific socio demographic variables like: - **Age in years, Education. Occupation,** regarding breastfeeding. Here the p-value in each case was less than 0.05 (level of significance). Hence, research hypothesis H_2 was accepted.

The findings of the chi-square test also shows that there was no association between the pre-test knowledge scores with their specific socio demographic variables like: - **Religion, Type of family, Residential area, Previous knowledge regarding breastfeeding. Source of previous knowledge regarding storage of expressed breast milk.**

SECTION III

ASSOCIATION BETWEEN THE POST-TEST KNOWLEDGE SCORES WITH THEIR SELECTED SOCIO-DEMOGRAPHIC VARIABLES

In order to determine the association between the levels of Post-test knowledge scores with their selected socio-demographic variables, the following hypothesis (H_2) was formulated.

H_2: There is a significant association between the Post-test knowledge scores with their selected socio-demographic variables.

The data was analyzed by chi-square. The findings are Presented in table 4.3.2

Table No. 4.3.2 **n=*30***

Socio-Demographic Variables		**Post test**						**x^2 valu e**	**Df**	**p-value**
		Inadequate		**Moderate**		**Adequate**				
		F	**%**	**F**	**%**	**F**	**%**			
AGE IN YEARS	20-24 Year	0	0%	0	0%	9	34.61%	2.957	6	0.814
	25-29 Year	0	0%	3	75%	9	34.61%			
	30-34 Year	0	0%	1	25%	7	26.92%			
	35 and above	0	0%	0	0%	1	3.84%			
EDUCATION	Primary	0	0%	0	0%	2	7.69%	3.529	8	0.896
	Secondary	0	0%	0	0%	2	7.69%			
	High School	0	0%	0	0%	6	23.07%			
	Graduation/Diploma	0	0%	4	100%	13	50%			
	Illiterate	0	0%	0	0%	3	11.53%			
OCCUPATION	Housewife	0	0%	3	100%	22	81.48%	0.667	6	0.995
	Private job	0	0%	0	0%	2	7.40%			
	Government job	0	0%	0	0%	2	7.40%			
	Self employed	0	0%	0	0%	1	3.70%			
RELIGION	Hindu	0	0%	4	100%	25	96.25%	0.159	6	0.999
	Muslim	0	0%	0	0%	1	3.84%			

	Christian	0	0%	0	0%	0	0%			
	Others	0	0%	0	0%	0	0%			
TYPE OF FAMILY	Joint	0	0%	2	50%	18	69.23%	0.577	4	0.9655
	Nuclear	0	0%	2	50%	8	30.76%			
	Extended	0	0%	0	0%	0	0%			
RESDENTIAL AREA	Rural area	0	0%	0	0%	11	42.30%	2.672	2	0.262
	Urban area	0	0%	4	100%	15	57.69%			
PREVIOUS KNOWLEDGE	Yes	0	0%	0	0%	17	65.38%	6.036	2	0.048
	No	0	0%	4	100%	9	34.61%			
SOURCE OF KNOWLEDGE	Family	0	0%	1	25%	16	61.53%	4.548	4	0.336
	Society	0	0%	3	75%	6	23.07%			
	Media	0	0%	0	0%	4	15.38%			

The data given in Table no. 4.3.2 shows that the Chi-square test was used to find out the association between post-test knowledge scores with their selected socio demographic variables. The finding of the chi-square test shows that there was an association between the post-test knowledge scores with their specific socio demographic variables like: - **Age in years, Education. Occupation, regarding breastfeeding**. Here the p-value in each case was less than 0.05 (level of significance). Hence, research hypothesis H2 was accepted.

The findings of the chi-square test also shows that there was no association
between the post-test knowledge scores with their specific socio demographic variables like: - **Religion, Type of family, Residential area, Previous knowledge regarding breastfeeding. Source of previous knowledge regarding storage of expressed breast milk.**

DISCUSSION AND CONCLUSION

This chapter presents major findings of the study and discusses them in relation to similar studies conducted by other researchers.

The aim of the study was evaluate the effectiveness of video assisted teaching on knowledge regarding storage of expressed breast milk among primipara mothers at selected wards of V.P.I.M.S., Lucknow. Data collection and analysis were carried out based on the objectives of the study. The findings of the study were discussed in terms of objectives and hypothesis along with findings of other studies.

The findings of the study were discussed under the following sections;

Section I: Description of mothers according to their Socio demographic variables.

Section II: Analysis of Pre-test and Post-test knowledge scores and to analyze effectiveness of an information booklet on knowledge regarding storage of expressed breast milk among primipara mothers.

Section III: Association between the pre-test knowledge scores with their selected socio demographic variables.

MAJOR FINDINGS OF THE STUDY:

Section I: Description of mothers according to their Socio demographic variables.

- Majority of the mothers 30% were in the age group of 21-25 Years, 40% mothers were in the age group 26-30 Years, 26% mothers were in the age group 31-35 Years, and 3.3% were in the age group of 36 and above.
- Majority of the mothers were 56.6% completed Intermediate, 10% mothers were Illiterate, 6.6% mothers were completed Primary education, 6.6% mothers were completed Secondary education, and 2% mothers were completed High school.
- Majority of the mothers, 83.3% were Housewife, 6.6% mothers were doing Private Job, 6.6% mothers were doing Government job and 3.3% mothers were doing Self employee.
- Majority of the mothers, 66.6% were from Joint family, 33.3% mothers were from Nuclear family and 0.0% were from Extended family.
- Majority of the mothers, 96.6% were from Hindu religion, and 3.3% mothers were from Muslim religion, 0.0% were from Christian and 0.0% were from others.
- Majority of the mothers, 63.3% were from Urban area and 36.6% mothers were from Rural area.
- Majority of the mothers, 56.6% had previous knowledge and 43.3% mothers had no knowledge regarding storage of expressed breast milk.
- Majority of the mothers, 56.6% had source of knowledge from Family, 30% had from Society and 13.3% had from Mass media.

The above findings of the study were supported by aconducted a descriptive cross- sectional study on Knowledge and Practice on Expression and Storage of Breast Milk among Employed Mothers. The aim of this Study performed in developing countries have shown that the mortality risk among the infants, who have not consumed breast milk, is 6 to 10 times higher than those who have consumed breast milk. A total of 106 employed mothers had child less than 1 year of age, child where enrolled through non-probability purposive sampling technique. Majority (72.6%) of the respondents where in the age group 20-29 years with mean age 27.55and standard deviation of 4.30. The knowledge score was found adequate in 46.2% of respondent with mean score 6.76 and standard deviation of 3.08. The correlation between knowledge and practice was found positively statistically significant .With P value 0.01(r =0.469). Result: The study revealed the majority of respondent had inadequate knowledge as well as inappropriate practice on expression and storage of breast milk. The correlation of knowledge and practice was found positively statistically significant.4

Section II: Analysis of Pre-test and Post-test knowledge scores and to analyze effectiveness of an information booklet on knowledge regarding storage of expressed breast milk among primipara mothers.

The data presented in the table no. 4.2.1 has revealed that in the pre-test majority …… had inadequate knowledge, ……. had moderate knowledge and ……. had adequate knowledge. In the post test majority of the mothers ……. had adequate knowledge and ……. had moderate knowledge. So it is concluded that the information booklet regarding storage of expressed breast milk was effective.

This indicates that information booklet on knowledge regarding storage of expressed breast milk was effective in enhancing the knowledge level of primipara mothers.

Section: Association between the pre-test knowledge scores with their selected socio demographic variables.

The data given in table No. 4.3.1. shows that the chi-square test was used to find out the association between pre-test knowledge scores with their selected socio-demographic variables. The finding of the chi-square test shows that there was no association between the pre-test knowledge scores with their

specific socio-demographic variables like: - **Age in years, Education, Occupation, Religion, Type of family, Residential area, Previous knowledge and Source of knowledge** regarding storage of expressed breast milk. It shows that **research hypothesis H2 was accepted.**
The above study findings were conducted

NURSING IMPLICATION

Any research work has its worth when it is applied for the benefit of the public. The findings of the study have implication in the field of nursing education, nursing practice, nursing administration and nursing research.

Nursing education

- Nursing curriculum at Pediatric nursing areas should have more content on storage of expressed breast milk and its importance for primipara mothers.
- The curriculum should be such that it will generate interest among nursing students on storage of expressed breast milk and its importance for primipara mothers.
- Student nurses should apprise and guide the mothers specially primipara mothers for knowing and incorporating storage of expressed breast milk and its importance.
- The nurse can work as a health educator and arrange classes or health education programme for providing information on knowledge regarding storage of expressed breast milk among primipara mothers.
- The nursing personnel can develop or provide information booklet/ video assisted teaching/ pamphlets for awareness of storage of expressed breast milk among primipara mothers.

Nursing administration

- The nurse administrator can prepare module, manuals, health programmes regarding storage of expressed breast milk among primipara mothers and use the findings and content of the study.

Nursing research

- Based on the findings of the study nursing theory can be evolved which can be strengthened the field of nursing research.
- The present study contributes to the body of knowledge regarding storage of expressed breast milk among primipara mothers.
- The study may serve as guidelines for further research.

CONCLUSION

Conclusion of the study is the brief description of researcher work or summarize that what the researcher did and found. The present study aimed to evaluate the effectiveness of video assisted teaching on knowledge regarding storage of expressed breast milk among primipara mothers at selected wards of V.P.I.M.S., Lucknow.

The objectives of the study were,

- To assess the pretest knowledge regarding storage of expressed breast milk among primipara mothers at selected wards of V.P.I.M.S., Lucknow.
- To evaluate the effectiveness of video assisted teaching on knowledge regarding storage of expressed breast milk among primipara mothers at selected wards of V.P.I.M.S., Lucknow.
- To find out the association between pretest knowledge scores with their demographic variables.

The research hypothesis formulated were,

H1: The mean post –test knowledge score is significantly higher than the mean pre-test knowledge score.

H2: There is no significant association between pre-test knowledge scores with their selected socio-demographic variables.

The conceptual framework adopted for this study was based on

Research methodology for this study were,

A quantitative research approach and quasi experimental one group pre-test and post-test design were used. The total sample sizes of 30 mothers were selected by using non research committee of Vivekananda College of Nursing and also from the of Vivekananda Polyclinic and Institute of Medical Sciences, Lucknow. The obtained data were analyzed and interpreted on the basis of the objectives of the study. The collected data were summarized and tabulated by utilizing descriptive and inferential statistics.

In this study the tool consists of two parts-

- **Tool 1-** Demographic profile
- **Tool 2 -** Self structure knowledge questionnaire

The content validity of a tool was done by 10 experts. Pilot study was conducted on 10 mothers of storage of expressed breast milk among primipara mothers in the Pediatric ward in Vivekananda Hospital. The tool was tested for reliability by administering to 10 mothers of storage of expressed breast milk among primipara mothers admitted in the Maternity ward in Vivekananda Hospital, Lucknow. The main study was conducted from 19/05/2024 among 30 mothers of storage of expressed breast milk among primipara mothers admitted in selected wards i.e. Pediatric and Maternity ward at V.P.I.M.S., Lucknow by purposive sampling technique

Data was analyzed by using descriptive and inferential statistics. Frequency and percentage distribution used to analyze the socio-demographic variable. Wilcoxon Signed Ranks test was used to evaluate the effectiveness of video assisted teaching on knowledge regarding storage of expressed breast milk among primipara mothers and chi square test was used to find the association the pre test knowledge scores with their selected socio demographic variables.

MAJOR FINDINGS OF THE STUDY:

Section I: Description of mothers according to their Socio demographic variables.

- Majority of the mothers 30% were in the age group of 21-25 Years, 40% mothers were in the age group 26-30 Years, 26% mothers were in the age group 31-35 Years, and 3.3% were in the age group of 36 and above.
- Majority of the mothers were 56.6% completed Intermediate, 10% mothers were Illiterate, 6.6% mothers were completed Primary education, 6.6% mothers were completed Secondary education, and 2% mothers were completed High school.
- Majority of the mothers, 83.3% were Housewife, 6.6% mothers were doing Private Job, 6.6% mothers were doing Government job and 3.3% mothers were doing Self employee.
- Majority of the mothers, 66.6% were from Joint family, 33.3% mothers were from Nuclear family and 0.0% were from Extended family.
- Majority of the mothers, 96.6% were from Hindu religion, and 3.3% mothers were from Muslim religion, 0.0% were from Christian and 0.0% were from others.

- Majority of the mothers, 63.3% were from Urban area and 36.6% mothers were from Rural area.
- Majority of the mothers, 56.6% had previous knowledge and 43.3% mothers had no knowledge regarding storage of expressed breast milk.
- Majority of the mothers, 56.6% had source of knowledge from Family, 30% had from Society and 13.3% had from Mass media.

Section II: Analysis of Pre-test and Post-test knowledge scores and to analyze effectiveness of an information booklet on knowledge regarding storage of expressed breast milk among primipara mothers.

REFERENCE

1. Dutta DC, "Textbook of Obstetrics Including Perinatology & Contraception", 10th edition jaypee brothers medical publishers, page no: - 86-87.
2. Victora CG, Bahl R; Lancet Breastfeeding Series Group. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. Lancet. 2016 Jan 30;387(10017):475-90. doi: 10.1016/S0140-6736(15)01024-7. PMID: 26869575.
3. United Nations Children's Fund (UNICEF): Progress for Children: A Child Survival Report Card; Available from http://www.who.int/nutrion/topics/exclusive breast feeding /en/ [Last accessed on 2012 Apr 15].
4. Witters-Green R. Increasing Breastfeeding Rates in Working Mothers. Fam Syst Heal. 2003;21(4):415-434.doi:10.1037/hoo89617[DOI]
5. Talbert AW, Tsofa B, et.al. Knowledge of and attitudes to giving expressed breastmilk to infants in rural coastal Kenya; focus group discussions of first time mothers and their advisers. Int Breastfeed J. 2018 Apr 30; 13:16. doi: 10.1186/s13006-018-0158-9. PMID: 29719563
6. Bai DL, Fong DY, et.al. Practices, predictors and consequences of expressed breast-milk feeding in healthy full-term infants. Public Health Nutr. 2017 Feb;20(3):492-503. doi: 10.1017/S136898001600241X. Epub 2016 Oct 3. PMID: 27692019; PMCID: PMC10261400.
7. SN Clemons & LH Amir (2010) Breastfeeding women's experience of expressing: a descriptive study. J Hum Lact 26, 258-256.
8. CW Binns, NN Win , Y Zhao et.al. (2006) Trends in the expression of breastmilk 1993-2003.Breastfeed Rev 14, 5-9.
9. DM Hornbeak, M Dirani, WK Sham et.al. (2010) Emerging trends in breastfeeding practices in Singaporean Chinese women: findings from a population – based study . Ann Acad Mad Singapore 39, 88-94.
10. Babakazo P, Bosonkie M, et.al. Common breastfeeding problems experienced by lactating mothers during the first six months in Kinshasa. PLoS One. 2022 Oct 12;17(10):e0275477. doi: 10.1371/journal.pone.0275477. PMID: 36223384;
11. Otim ME, Omagino EK, et.al. Exclusive breast-feeding in the first six months: findings from a cross-sectional survey in Mulago hospital, Uganda. Afr Health Sci. 2022 Jun;22(2):535-544. doi: 10.4314/ahs.v22i2.62. PMID: 36407345;
12. Pandey, S. (2019). Awareness about expressed breast feeding among working mothers visiting a tertiary level hospital, Kathmandu. Journal of Kathmandu Medical College , 8(2), 60-65. https://doi.org/10.3126/jkmc.v8i2.28165

13. Demirci JR, Glasser M, et.al. Structured antenatal milk expression education for nulliparous pregnant people: results of a pilot, randomized controlled trial in the United States. Int Breastfeed J. 2022 Jul 7;17(1):50. doi: 10.1186/s13006-022-00491-8. PMID: 35799299;
14. Larobina C, Muller A, et.al. Community Practices, Published Guidelines, and Evidence Base Surrounding Breast Milk Handling and Storage: A Qualitative Study. Breastfeed Med. 2024 Mar;19(3):187-196. doi: 10.1089/bfm.2023.0273. Epub 2024 Feb 22. PMID: 38386986.
15. Sharma K. Suresh, "Textbook of Nursing Research and Statistics'', fourth edition Elsevier India Private Limited. Page no:- 104-105.
16. Singh G, Chouhan R, et.al. Effect of Antenatal Expression of Breast Milk at Term in Reducing Breast Feeding Failures. Med J Armed Forces India. 2009 Apr;65(2):131-3. doi: 10.1016/S0377-1237(09)80125-1. Epub 2011 Jul 21. PMID: 27408218;
17. Chowdhury S, Ray Sunanda. Textbook of nursing research. 1st edition. Delhi: kumar publishing house; 2012
18. Back Poli. Nursing research: 9th edition. New Delhi: wolters kluwer publisher private Ltd; 2015
19. Metin A, Baltac N. The effects of video- assisted breastfeeding education given to primiparous pregnant women on breastfeeding self-efficacy: randomized control study. BMC Pregnancy Childbirth. 2024 Feb 17;24(1):142. doi: 10.1186/s12884-024-06317-1. PIMD:38368316;
20. Fan HSL, Fong DYT, et.al. The Association Between Breastfeeding Self-Efficacy and Mode of Infant Feeding. Breastfeed Med. 2022 Aug;17(8):687-697. doi: 10.1089/bfm.2022.0059. Epub 2022 Jun 28. PMID: 35763837.
21. Buyuk ET, Baltacin N et.al The effect of video assisted breast milk and breast feeding given to the mothers of hospitalized newborns on the breast feeding self efficacy success: A Semi experimental study. Bezmialem Science 2023 oct;11(4): 417-424. http://doi:10.14235/bas.galenos.2023.98159.
22. Debu Adhikari, Mangala Shrestha, Nirmala Pokhrel et.al. Knowledge and practice on expression and storage of breast milk among employed mothers attending B. P. Koirala Institute of Health Sciences. Int J Health Sci Res.2022; 12(5):290-299. https://doi.org/10.52403/ijhsr.20220530
23. S Foruzan , J Mojgan et.al. Primiparous mother's perception and expectations regarding social support during the postpartum period: a qualitative study. Iran J Nurs Midwifery Res. 2023 Jan-Feb; 28(1): 38-46. doi: 10.4103/ijnmr.ijnmr_383_21 PMID: 37250948
24. Salarvand Shahin et.al. The Perceived Health Needs of Primiparous Mothers Referring to Primary Health Care Centers: A Qualitative Study. Int J Womens Health. 2020; 12: 745–753. Published online 2020 Sep 23. doi: 10.2147/IJWH.S258446 PMID: 33061663
25. VC Mireya, HC Sonia, et.al. Breastfeeding at the workplace: a systematic review of interventions to improve workplace environments to facilitate breastfeeding among working women. April 2021 International Journal for Equity in Health 20(1) doi:10.1186/s12939-021-01432-3
26. Edemba P.W.,Irimu et.al: Knowledge attitude and practice of breast milk expression and storage among working mothers with infants under six months of age in Kenya . Int breastfeed J17, 33 (2022), http://doi.org/10.1186/s13006-022-00469-6
27. Zhang Y, Yuan R, et.al. Effect of the theory of planned behavior on primipara breastfeeding. Ann Palliat Med. 2021 Apr;10(4):4547-4554. doi: 10.21037/apm-21-255. Epub 2021 Apr 6. PMID: 33832312.

28. Buckman C, Diaz AL, et.al. Parity and the Association Between Maternal Sociodemographic Characteristics and Breastfeeding. Breastfeed Med. 2020 Jul;15(7):443-452. doi: 10.1089/bfm.2019.0284. Epub 2020 May 22. PMID: 32456452.
29. Wong MS, Mou H, Chien et.al. Effectiveness of educational and supportive intervention for primiparous women on breastfeeding related outcomes and breastfeeding self-efficacy: A systematic review and meta-analysis. Int J Nurs Stud. 2021 May;117:103874. doi: 10.1016/j.ijnurstu.2021.103874. Epub 2021 Jan 15. PMID: 33548592.

30. Felicitee Nguefack et.al. Reasons for delayed breastfeeding initiation among newly delivered women in two first category hospitals in Yaounde, Cameroon: doi:10.4236/ojped.2020.103048.
31. Priya Mohan Prabhu et.al. Knowledge, attitude and practice of expression of breast milk among mothers in western Maharashtra. http://dx.doi.org/10.18535/jmscr/v4i1.07
32. Piro SS, Ahmed HM. Impacts of antenatal nursing interventions on mothers' breastfeeding self-efficacy: an experimental study. BMC Pregnancy Childbirth. 2020 Jan 6;20(1):19. doi: 10.1186/s12884-019-2701-0. PMID: 31906881.
33. Aditya V, Tiwari HC, et.al. A study on effectiveness of video assisted counselling in establishing and sustaining appropriate breast feeding practices. J Family Med Prim Care. 2020 Sep 30;9(9):4680-4685. doi: 10.4103/jfmpc.jfmpc_622_20. PMID: 33209783.
34. Pandey Shrijana et.al. Awareness about expressed breast milk feeding among working mothers visiting a tertiary level hospital, Kathmandu. doi: 10.3126/jkmc.v8i2.28165.
35. Uygur O, Yalaz M, et.al. Preterm Infants May Better Tolerate Feeds at Temperatures Closer to Freshly Expressed Breast Milk: A Randomized Controlled Trial. Breastfeed Med. 2019 Apr;14(3):154-158. doi: 10.1089/bfm.2018.0142. Epub 2019 Feb 5. PMID: 30720333.
36. Li L, Wan W, et.al. Breastfeeding after a cesarean section: A literature review. Midwifery. 2021 Dec; 103:103117.doi:10.1016/j.mdw.2021.103117.Epub 2021 Aug 14. PMID: 34425257.
37. Carré M, Dumoulin D, et.al. Maternal adherence to guidance on breast milk collection process. Arch Pediatr. 2018 May;25(4):274-279. doi: 10.1016/j.arcped.2018.02.003. Epub 2018 Apr 11. PMID: 29656039.
38. Rodrigo R, Amir LH, et.al. Review of guidelines on expression, storage and transport of breast milk for infants in hospital, to guide formulation of such recommendations in Sri Lanka. BMC Pediatr. 2018 Aug 14;18(1):271. doi: 10.1186/s12887-018-1244-2. PMID: 30107831.
39. Rai Suvarna . Expressed breast milk a less used option by working mothers of India. Doi :10.18203/2320-1770.IJRCOG20172603.
40. Deep Amol, Incidence of breast milk expression and evaluate the effect of self instructional module on working lactating mothers regarding expression and storage of breast milk. Ijhsr.org/IJHSR_Vol.8_Issue.6_June2018/31.pdf
41. Tani F, et.al. Maternal social support, quality of birth experience, and post-partum depression in primiparous women. J Matern Fetal Neonatal Med. 2017 Mar;30(6):689-692. doi: 10.1080/14767058.2016.1182980. Epub 2016 May 20. PMID: 27123699.
42. Moudi Asieh , A sample of 93 primiparous women who were reffered to health care centers. https://doi: 10.15419/bmrat.v3i11.132

43. Chale LE, Fenton TR, Kayange N. Predictors of knowledge and practice of exclusive breastfeeding among health workers in Mwanza city, northwest Tanzania. BMC Nurs. 2016 Dec 30;15:72. doi: 10.1186/s12912-016-0192-0. PMID: 28050163; PMCID: PMC5203719.
44. Sharma Rimple, "Essential of pediatric nursing", third edition jaypeepublication; 2021, page no:-76-79.
45. Dutta Parul, "Textbook of pediatrics nursing", second edition, jaypeebrothersmedical publishers, page no. 55-57.
46. Ghai O.P, Gupta Piyush et.al., " Essential of pediatrics nursing" , sixth edition, page no. 150-152.
47. Singh Mahendra, " Care of the newborn" , sixth edition, sagar publication, page no. 132.
48. Gupta Suraj, " The short textbook of pediatrics" , eleventh edition, jaypeepublication, page no. 124-125.