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Research Article

A STUDY ON IMPORTANCE OF BREAST FEEDING OVER FORMULA FEEDING AMONG INFANTS

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ABSTRACT

Breast feeding has been recognized as an important public health tool for the primary prevention of child morbidity and mortality. consequently, the WHO and UNICEF have recommended breast feeding for the first six months after Delivery, followed by introduction of complementary foods and continued breast feeding for 24 months or more. The present study was conducted is to create awareness about the benefits of breast feeding over formula feeding and to investigate the factors that influence infant nutrition. An interactive survey was conducted in a questionnaire model among 150 lactating mothers and end to end answers was obtained. Breast feeding was the best compared to artificial feeding. 35% of the mothers giving artificial feeding by birth, 40% by 3rd month, and 25% by 6th month respectively. Most of the samples were not the first decision to bottle fed their infants in some Exceptional they preferred to use bottle feeding. A very valuable answer was that they took help from the health professionals if they have another baby to avoid the problems associated with artificial feeding. They usually feed their baby on Routine or on demand to maintain the child to follow the appetite. Breast feeding importance has been discussed among the lactating mothers who have chosen artificial feeding. Collected data is represented graphically and subjected to chi square statistical analysis and the value at $p < 0.10$ is significant.

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INTRODUCTION

A big decision new moms must make for their little one's nutrition is breast vs. formula. Some people can be uncomfortable around women while they are breastfeeding. However, if you pull out a bottle of formula, there are those who may criticize you for not feeding your baby what they might consider "nature's perfect food" -- breast milk

Breastfeeding: The American Academy of Pediatrics (AAP) recommends breast milk as the best nutrition for infants. Babies should be breastfed exclusively for the first six months, according to the AAP. After other foods have been introduced, the AAP encourages mothers to continue to breastfeed until baby is at least a year old, and as long after that as both mother and child are willing.

Breast milk is good for your baby in many ways:

- It provides natural antibodies that help your baby resist illnesses, such as ear infections
- It's usually more easily digested than formula. So breastfed babies are often less constipated and gassy.
- It may lower the risk of sudden infant death syndrome in the first year of your baby's life.
- Breast milk may even help your child in later years, by reducing the risk of being overweight of developing asthma, type 1 and type 2 diabetes, high cholesterol, Hodgkin's disease, leukemia, and lymphoma.
- Breastfeeding is good for moms, too. Women who breastfeed have a reduced risk of breast cancer, diabetes, heart disease, osteoporosis, and ovarian cancer.

Formula Feeding: -Formula feeding is also a healthy choice for babies. If you use a formula, your baby will get the best possible alternative to breast milk.

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To breastfeed your baby or not. Most women probably have very definitive views on the merits and benefits of breast feeding a baby vs. bottle feeding, and many women will likely have been influenced by what they have seen and read, by their culture and undoubtedly by their family and friends. The breastfeeding vs. bottle feeding debate is a very emotive topic with advocates on both sides of the fence vehemently defending their positions. One thing is clear however and that is that, in most of cases, health professionals the world over would recommend breast feeding over formula feeding where ever possible.

Advantages of breast feeding

- Undoubtedly mankind has found it difficult, if not impossible, to improve on Mother Nature in many facets of our lives, and breast milk is no different. A mother's breast milk therefore has all the nutrients, vitamins, and, probably most importantly, the anti-infection antibodies that the newborn baby requires to get a good start in life
- Mother's breast milk reflects what the mother eats, and the taste of breast milk is often affected by the types of foods that the mother has recently eaten. This provides the baby with subtle differences in the taste of the breast milk and, as they say, variety is the spice of life.
- Mother's milk is more easily digested by the infant than formula milk. Remember that a baby's digestive system is still somewhat immature, so it is much easier for the baby to break down and absorb the minerals and nutrients contained in mother's milk over formula milk. Because breast milk is easier to digest, your baby will suffer less from constipation and diarrhea.

Disadvantages of breast feeding

- Undoubtedly breast feeding is more demanding physically for the mother than bottle feeding. Factor in to this that the baby may require feeding every two or three hours and for some women the physical effort can take a toll on their own well-being.
- Breast milk is the best nutrition for babies. Breast-feeding provides many health benefits for both baby and mother. A vitamin-D Supplement is recommended for all breast-feeding women.
- Not all mothers feel comfortable with the concept of breast feeding from the start. Many mothers need time to grow into the role and to master the techniques for comfortable Breast feeding. As a side note, there is nothing wrong with this, and it is important that mothers who aren't comfortable breast feeding take their time and go at their own pace. Bottle feeding will provide a good alternative until the mother is ready to breast feed.

Objectives

1. To educate the people about importance of breast feeding
2. To create awareness on benefits of breastfeeding and cons of supplemental feeding.
3. To know the nutritional status of supplemental feeding and breastfeeding.
4. To evaluate effect of infant formula supplement on formula growth, IQ, tolerance and Morbidity.

5. To develop public acceptability and the promotion of breast feeding.

MATERIALS AND METHODS

Methodology of the present study is discussed under the following heads.

1. Research design
2. Selection of sample
3. Size of the sample
4. Data Collection
5. Data Analysis

Research design

- Modern Government hospital was selected as the area of the study.
- Random Sampling was done.
- Size of the sample was 150 in number.
- Data Collection was done through a questionnaire as a tool.
- After data collection the data was analysed.

Selection of the area: Sample was selected from modern Government hospital and some households in some family friends and anganwadi centers.

Selection of the sample: Artificial feeding lactating mothers were selected randomly.

Sampling: Through the random sampling 150 subjects were selected for the Survey. Sample included the women of around 35 years & artificial feeding lactating mothers

Duration of the study: The study has been carried for a period of 3 months i.e; during the months of January 2018 - March 2018.

Tools and techniques used for the collection of data

Questionnaire: A well designed questionnaire was used to elicit the information from the subjects, which include both open ended and closed ended questions.

It includes

- General information
- Why Breast feeding is preferable to infants?
- Factors for choosing formula feeding
- Health status of the infant after giving formula milk.

Data analysis

Data was collected, consolidated and subjected to statistical analysis using statistical measures such as chi- square test, mean, graphical representation.

Chi square was applied, whose formula is given below:

$$X^2 = \sum_{i=1}^r \sum_{j=1}^c \frac{(O_{i,j} - E_{i,j})^2}{E_{i,j}}$$

Where,

O = observed value

E = expected value

E_{ij} = R × C ÷ N

RESULT AND DISCUSSION

Table 1 Baby's Feeding Type

Category	Infant Age (0-6 Months)	Percent (%)	Infant Age (6-12 Months)	Percent (%)
Breast Feeding	80	53.3	100	66.6
Formula Feeding	40	26.6	25	16.6
Both	20	13.3	15	10
Other	10	6.6	10	6.6
Total	150	100	150	100

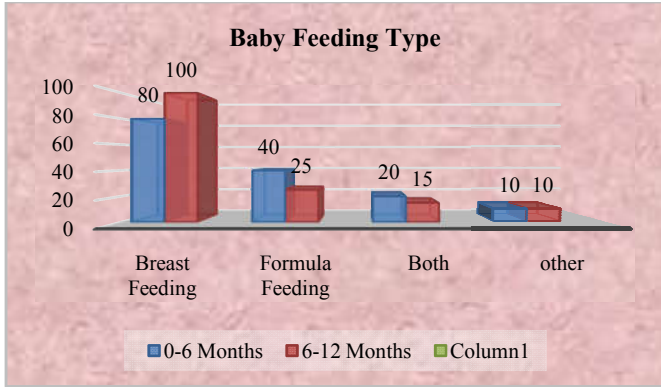


Figure no-1

Interpretation: From the graph shows that 80% of Mothers prefer Breast Feeding for 0-6 months of their infant whereas 100% prefer in 6-12 months. 40% prefer Formula Feeding for the first 6 months whereas 25% prefer in 6-12 months. 20% prefer both feeding methods for first 6 months and 15% prefer in 6-12 months. 10% prefer other feeding types until 12 Months.

Category	Breast feeding	Formula Feeding	Both	Other	Row Totals
0-6 months	80 (90.00) [1.11]	40 (32.50) [1.73]	20 (17.50) [0.36]	10 (10.00) [0.00]	150
6-12 months	100 (90.00) [1.11]	25 (32.50) [1.73]	15 (17.50) [0.36]	10 (10.00) [0.00]	150
Column Totals	180	65	35	20	300 (Total)

Note: The Chi Square statistic is 6.398. The p value is 0.9377. This result is significant at p<.10

Table 2 Problems Faced During Breast Feeding

Category	Infant Age (0-6 months)	Percent %	Infant Age (6-12 months)	Percent %
Back pain	46	30	70	46
Breast engorgement	29	20	35	24
Fatigue	40	26	25	16
Other	35	24	20	14
Total	150	100	150	100

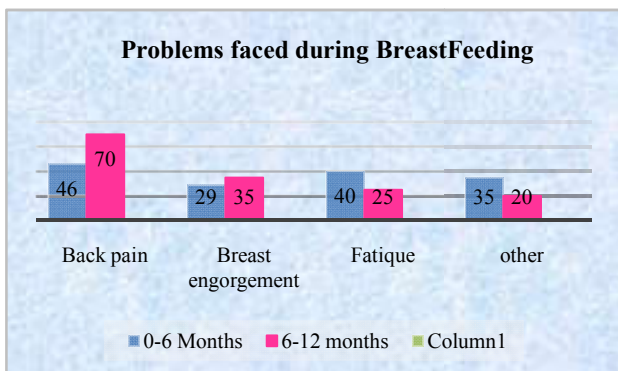


Figure no 2

Interpretation: From the figure shows that 46% faced during Breast feeding is Back pain in first 6 months and 70% in 6-12

months. 29% faced breast Engorgement in first 6 months and 35% in 6-12 months. 40% faced Fatigue in first 6 months and 25% in 6-12 months.

Category	Back pain	Breast engorgement	Fatigue	Other	Row Totals
0-6 months	46 (58.00) [2.48]	29 (32.00) [0.28]	40 (32.50) [1.73]	35 (27.50) [2.05]	150
6-12 months	70 (58.00) [2.48]	35 (32.00) [0.28]	25 (32.50) [1.73]	20 (27.50) [2.05]	150
Column Totals	116	64	65	55	300

Note: The Chi Square statistic is 13.0805. The p value is .004466. This result is significant at p<.10.

Table 3 Risk Factors with Artificial Feeding

Category	Infant Age (0-6 months)	Percent (%)	Infant Age (6-12 months)	Percent (%)
Increased Mortality	30	20	40	26
Obesity	60	40	50	33
Reduced cognitive Development	50	33	40	26
Asthma	10	7	20	14
Total	150		150	

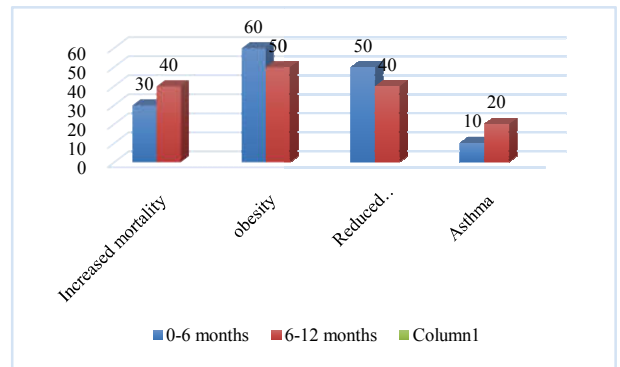


Figure no-3

Interpretation: From the graph it shows that 30% causes increased mortality in the first 6 months and 40% in the next 12 months. 60% causes obesity in the first 6 months and 50% in the next 12 months where as 50% causes reduced cognitive development in first 6 months and 40% in the next 12 months. 10% causes Asthma in first 6 months & next 12 months

Category	Increased Mortality	Obesity	Reduced cognitive Development	Asthma	Row Totals
0-6 months	30 (35.00) [0.71]	60 (55.00) [0.45]	50 (45.00) [0.56]	10 (15.00) [1.67]	150
6-12 months	40 (35.00) [0.71]	50 (55.00) [0.45]	40 (45.00) [0.56]	20 (15.00) [1.67]	150
Column Totals	70	110	90	30	300

Note: chi-square statistic is 6.7821. The p-value is .079177. The result is significant at p<.10

Table 4 Number of Scoop per Feed

Category	Infant Age (0-6 months)	Percent (%)	Infant Age (6-12 months)	Percent (%)
1 Scoop	90	60	70	46
2 scoop	30	20	35	24
3 scoop	20	13	25	16
4 scoop	10	7	20	14
Total	150		150	

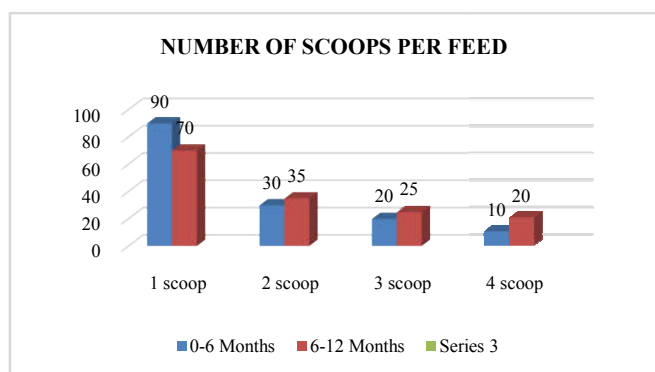


Figure no 4

Interpretation: From the graph it shows that 90% mothers feed their infants 1 scoop in first 6 months and 70% in next 12 months, that 30% mothers feed their infants 2 scoop in first 6 months and 35% in next 12 months, 20% mothers feed their infants 3 scoop in first 6 months and 25% in next 12 months, 10% mothers feed their infants 4 scoop in first 6 and in 12 months.

Category	Infant Age		Row Total
	(0-6 months)	(6-12 months)	
1 scoop	90 (80.00) (1.25)	70 (80.00) (1.25)	160
2 scoops	30 (32.50) (0.19)	35 (32.50) (0.19)	65
3 scoops	20 (22.50) (0.28)	25 (22.50) (0.28)	45
4 scoops	10 (15.00) (1.67)	20 (15.00) (1.67)	30
Column Totals	150	150	300 (Total)

Note: The chi-square statistic is 6.7735. The p-value is .079478. The result is significant at $p < .10$.

SUMMARY AND CONCLUSION

The Present Study was conducted on “Importance of Breast Feeding Compared to Formula Feeding in Maternity hospital, in some households and some of the family members. The study is carried out by asking close end-end questionnaire with the lactating mothers about their feeding methods to their infant. Around 150 samples were collected to the survey. In which, 41% of the mothers preferred breast feeding, 19% and 40% preferred formula feeding and both respectively. Most of the mothers answered that breast milk is the best milk, compared to formula milk. In a typical 24-hour period, they feed their infants for every 2 hours. Most of the mother’s decision was not the primary decision to give formula feeding depending upon their status. It also observed that 40% started Formula Feeding their infant from 3 months, 35% by birth, and 25% by 6 months. It also shows that 56% Preferred formula feeding on the basis of infant appetite. 38% feed their infants 1 scoop, 33% feed 2 scoops 29% feed 3 scoops per feed respectively. The study also assessed the health status of infant after giving formula milk and risk associated with it. The outcomes of the survey was helpful to know the nutritional status of supplement feeding and Breastfeeding and to develop public acceptability and the promotion of breastfeeding.

Conclusion

Breastfeeding is the biological point for infant feeding against which all other alternatives should be measured. There is a convincing evident to show that pre-mature weaning results in increased risk of disease and poorer outcomes for infant and their mothers both in the short and long term. Breastfeeding offers many benefits to your baby. Breast milk contains the

right balance of nutrients to help your infant grow into a strong and healthy toddler. Some of the nutrients in breast milk also help protect your infant against some common childhood illnesses and infections. The Outcomes of the study shows that no formula can match the natural immune benefits of breast milk. Most of the mother’s decision was not the primary decision to give formula feeding depending upon their status especially Working Mother or Mother having medical Issues. The aim of the study was to create awareness about the benefits of breastfeeding over formula feeding and to investigate the factors that influence infant nutrition. In the conclusion the information obtained was Breast feeding is the best milk compared to artificial feeding for both mother and infant.

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