



## An Observational Study On Breastfeeding And Its Determinants Among Mothers Of Infants Under 12 Months In Hospital Of Rajasthan

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### Abstract

Reducing newborn mortality to less than 12 per 1000 live births is the suggested SDG-3 objective. A newborn's risk of neonatal death increases by 33% if they are nursed after one hour of delivery. In order to determine mothers of children under three years old's knowledge, habits, and underlying factors of early start of breastfeeding (EIBF), cross-sectional research was carried out. A sample of four hundred moms with children under three years old was gathered. SPSS version 23.0 statistical software was used to analyze the data. Every feature was provided in a detailed summary. Two categorical variables were examined for associations using the Chi-square ( $\chi^2$ ) test. The logistic regression model was used for multivariable analysis in order to ascertain the correlation between maternal and sociodemographic variables and EIBF. Within an hour after giving birth, 75.8% of moms started nursing their babies, although only 34.3% of mothers were aware that early breastfeeding could be started. 95% of moms gave their newborns colostrum. Compared to women under 25, mothers over 25 (AOR 1, 95% CI 0.52, 1.57; p value < 0.73) were less likely to nurse their newborns during the first hour of their delivery. The target of SDG-3 is to decrease the newborn mortality rate to less than 2 per 1000 live births. A important strategy to prevent a significant number of neonatal fatalities is to start breastfeeding within an hour of birth. Might continue nursing for a long time after birth. Enhancing home visits during the third trimester to provide information about colostrum feeding and EIBF might increase the coverage of EIBF.

**Keywords:** Breastfeeding, Early Initiation, Neonatal Mortality, Maternal Knowledge

### 1. INTRODUCTION

Since sound kids are the groundwork of a solid country, it is basic to start taking care of them when they are conceived, especially all through their most memorable year of life [1]. From birth through the main year of life, how a baby is taken care of meaningfully affects their development and advancement. Baby taking care of strategies incorporate breastfeeding only all through the initial a half year of a newborn child's life, trailed by valuable taking care of at the proper time and mature past the initial a half year, while proceeding to breastfeed the newborn child. Quite possibly of the most fundamental right that each youngster has is the option to be breastfed. Among the few sorts of supplements that are promptly available to babies from their moms, bosom milk is the most plentiful. With regards to the wellbeing and advancement of kids, breastfeeding is a fundamental practice. With regards to giving food and insurance against infection, bosom milk is the most secure and most secure choice for babies. Each of the proteins, fats, sugars, nutrients, minerals, and against infective components that are found in bosom milk are remembered for the supplements that are found in bosom milk.

Antibodies are conveyed during breastfeeding, which reinforce the resistant framework and shield against youth illnesses like looseness of the bowels, pneumonia, and different elements that add to mortality in kids younger than five. Moreover, breastfeeding has been connected to higher intelligence level, as well as more prominent achievement of instruction at development, expanded efficiency, expanded procuring potential, and upgraded social improvement. Then again, lacking breastfeeding is the essential main thrust behind in excess of about a third of all baby fatalities, especially in low-pay conditions, and is connected to huge financial misfortunes at the public level.

In 1992, the World Wellbeing Association (WHO) and the Unified Countries Kids' Asset (UNICEF) sent off the Child Cordial Medical clinic Drive fully intent on advancing and supporting selective breastfeeding for of guaranteeing the security of youngsters. It is suggested that a youngster gets no other food, including water, during the initial a half year of their life. This is known as selective breastfeeding.

As per the discoveries of an extraordinary number of explorations, elite breastfeeding is valuable for the improvement of youthful children concerning development, invulnerability, and the evasion of sickness. A few examinations, then again, have shown a connection between's the shortfall of elite breastfeeding and high paces of infant mortality and dismalness because of unhealthiest and diseases. This procedure isn't pervasive in the unfortunate world, and the ascent at the

worldwide level is very low, with a ton of potential for improvement. Regardless of the way that the advantage of selective breastfeeding is all around recognized, this nursing technique isn't generally utilized. To meaningfully affect bringing down child horribleness and passing, baby sustenance drives all around the globe keep on requiring monetary speculations and a persistent obligation to the improvement of taking care of practices.

At the point when a blameless kid is exposed to the disaster of hunger, the obligation lies with the mother, the family, and the local area. This is on the grounds that they have either an absence of information or an absence of information about the destructive impacts of pre-lacteal taking care of, the advantages of selective bosom taking care of, and the significance of starting legitimate weaning at the fitting time. It is critical to know that consistently, 1,000,000 kids all through the globe die because of the way that they are not breastfed. Various large numbers of individuals who can live are impacted by intense or persistent sicknesses that are related with the adverse results of fake taking care of.

There is a deficiency of writing in India that tends to the current situation with information, mentalities, and nursing propensities among mothers. Accordingly, this examination was done to get a comprehension of the different sociocultural and clinical perspectives, as well as to evaluate the current situation with information, demeanour, and breastfeeding propensities among moms of newborn children matured 0 to a year.

## 2. LITERATURE REVIEW

**Rudrappa (2020)** examined that the current research was a cross-sectional study that was carried out between October and November of 2018 in the postnatal wards of a tertiary hospital located in South India. Within the postnatal wards, there were a total of two hundred moms that participated in the research. A scoring system was used in order to evaluate the moms' level of knowledge and general attitude. A number of different areas of investigation were used, including socio-demographic information, prenatal care for the mother, birth history, and breastfeeding specifics. In order to analyze the data, the SPSS program version 20.0 was used. End Result: Sixty percent of the moms were in the age range of fifteen to twenty-five years old. Among the moms who participated in this research, twenty percent were illiterate, fifty-one point five percent were homemakers, sixty-eight percent were members of nuclear families, and seventy-four percent were urban residents. Ninety percent of the two hundred postnatal moms who had given birth vaginally were aware of the optimal time to begin breastfeeding, seventy percent were aware of the appropriate amount of colostrum to feed their infants, and thirty-five percent were aware of the appropriate amount of time to nurse exclusively.

**Bhagwasia and Rao (2021)** explained that the information was gathered by conducting a survey from door to door. In order to provide support for the research, a more generic set of questionnaires was designed. Calculating the socioeconomic position of the family was accomplished via the use of the National Family and Health Survey-IV. End Result: The beginning of breastfeeding was seen in each and every one of the youngsters alike. There was a tiny percentage of infants who were nursed until they were 24 months old, however almost all of the children were breastfed up to the age of six months. The educational standing and lifestyle of the parents were shown to have a substantial influence on the length of breastfeeding of the kid ( $p < 0.05$ ). Additionally, the lifestyle of the parents was found to have an impact on the age at which supplement food was provided to the child ( $p < 0.05$ ). The findings of this research demonstrated that there is a significant connection between the lifestyle choices of parents and the food habits of their children.

**Choudhary (2020)** found that forty percent of children aged 0 to six years old in Rajasthan were undernourished. According to the assumptions presented above, the sample size that was determined was 396. When determining the nutritional health of children, the World Health Organization's weight for age parameters were used. The Chi-square test was used, and a p value was calculated. Only 41.70 percent of children had a nutritional status that was considered normal, 47.72 percent were considered to be moderately undernourished, and 10.60 percent were considered to be seriously undernourished. There were significant associations found between the nutritional status of the kid and the mother's reading level, mother's age, mother's registration with the ANC, site of delivery, supplemental nutrition, and vaccination status and the child's nutritional status. The Conclusions Identifying relevant determining variables and implementing nutrition-specific treatments are two of the most important techniques for preventing morbidity and death in children. Early nutritional status assessment is another important strategy. Other interventions that are within the realm of affordability, such as a program for the education and development of skills among teenage females, as well as health care for mothers and children, are necessary in order to put a stop to the worsening malnutrition problem in India. SUBJECT WORDS Immunization and nutritional status also.

**Ravishankar et al. (2020)** decided the examples or qualities that are connected with elite breastfeeding across the eight EAG states and Assam, exploratory element investigation and Pearson's relationship coefficient were utilized. To decide the degree to which the qualities that are considerably connected with EBF shift among the nine expresses, a one-way examination of fluctuation was used. The Exploratory Element Investigation revealed five parts, which are as per the following: segment highlights, mortality, age at marriage, populace, and ripeness. Inside this gathering, the variable extent of youngsters (matured 6-35 months) who were only breastfed for no less than a half year was displayed to have a huge negative relationship with segment elements, mortality, and age at marriage. As indicated by the discoveries of a one-way examination of change, these three qualities showed impressive variety across each of the nine states. Considering that these states have a high pace of kid mortality, the discoveries of this examination appear to be of incredible importance for the people who are liable for forming strategies on medical services. The exploration features various variables that

relate to segment highlights, youngster mortality, and the age of the female at marriage, the reduction of which is expected to bring about an improvement in the act of selective breastfeeding in the nine socio-monetarily in reverse provinces of India that are getting looked at.

### 3. RESEARCH METHODOLOGY

This exploration was a local area based cross-sectional review that was done in the Alwar region of Rajasthan during the long stretches of July and September of 2018.

#### 3.1. Study setting

Throughout the examination, 52 towns from the Rajgarh block in the Alwar region of Rajasthan were incorporated.

#### 3.2. Study participants

Ladies who are moms of youngsters who are under three years of age and who live in the networks that was getting looked at for the review.

#### 3.3. Sample size calculation

The evaluation study was completed ahead of time to lay out the example outline, which comprised of a rundown of ladies with youngsters younger than three, explicitly inside the Rajgarh block of Alwar, Rajasthan, which had an expected populace of 40,000 individuals. We decided the size of the example to be 322 in light of the level of newborn children that were breastfed during the primary hour after conveyance, which was 29.8 percent. Considering an accuracy of  $\pm 5\%$  and a non-reaction pace of 5%, the last example size comprised of 400 examples.

#### 3.4. Sampling technique

There were 52 villages in the Rajgarh block of the Alwar district in Rajasthan that were used to collect samples. For the purpose of achieving the requisite sample size, each village's mothers of children less than three years old were included in the study.

The procedure for collecting data An explanation of the intention behind the research was provided to each and every mother. The moms who were willing to take part in the research provided their informed permission either verbally or in writing by providing their consent. In the course of the house-to-house survey, the field data collectors conducted face-to-face interviews in order to obtain the necessary information.

#### 3.5. Statistical analysis and interpretation

Coding and entering the survey responses into Excel files were the responsibilities of a trained data entry operator. The procedure included verifying the data's probability distribution, the variety of factors, and the accuracy of the skipping in the responses. After that, the data was analysed using SPSS version 23.1, a statistical programme. The data visualisations were created using Microsoft Excel 2007. For the purpose of analysing early initiation, we only included moms with children less than three years old. Mothers whose babies were less than six months old were included in the study on exclusive breastfeeding.

Mothers were considered to have favourable knowledge and practice towards the issue of early beginning of breastfeeding if they obtained five points for knowledge and three points for practice.

For every single characteristic, a comprehensive overview was supplied. For studies on continuous variables, the summary statistics of mean plus standard deviation (SD) were utilised. When dealing with categorical data, both the data summaries and the diagrammatic display utilised the number and the percentage. The Chi-square ( $\chi^2$ ) test was employed to ascertain the relationship between two category variables.

After taking into account all relevant factors and their relationships established by previous studies, we constructed a logistic regression model to conduct our multivariable analysis. The purpose of this was to examine the correlation between EIBF and other maternal and socio demographic factors. Pre- and post-estimation testing of the model was conducted. Last but not least, the stated adjusted odds ratio and 95% confidence interval.

#### 3.6. Ethical approval

A member of the ethics committee of World Vision India gave their approval to the research. Mothers who participated in the survey were asked to provide their permission via oral communication.

## 4. RESULT AND DISCUSSION

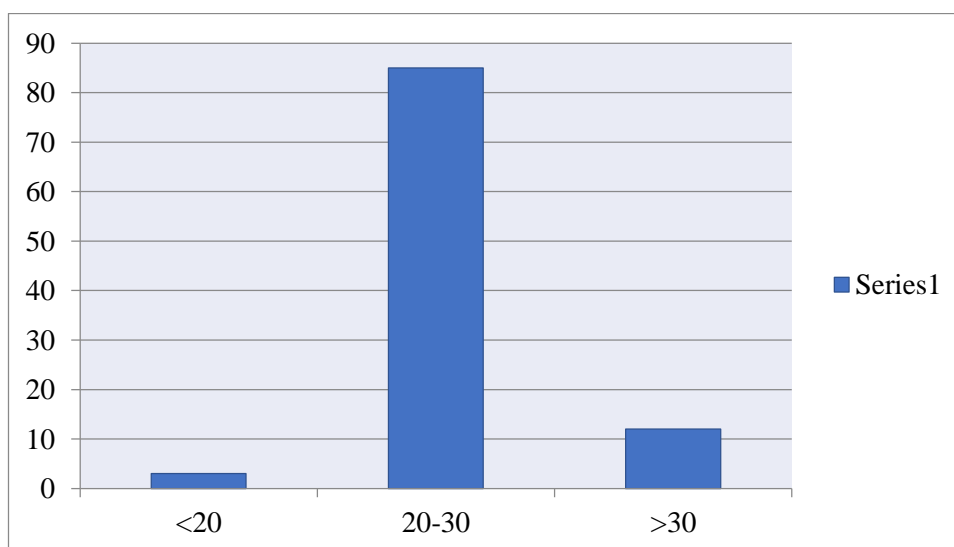
The majority of moms, 84.8%, were of the proper reproductive age, which is between 20 and 30 years old. Only 12 mothers, or 3%, were younger than 20 years old. The percentage of moms who were illiterate was more than a quarter (27.3%), while the percentage of mothers who had finished upper secondary school was lower than a quarter (23.8%). Ninety-five percent of moms live in homes that are classified as pucca. Only 46.3% of mothers have a monthly income that falls between Rs. 5,000 and Rs. 10,000, while 26.5% of mothers have a monthly income that is less than Rs. 5000. The percentage of moms who became pregnant before their previous kid reached the age of three was just 11.5%. Only

one percent of mothers had an Antodaya ration card, which allows them to get subsidised ration, while fewer than one quarter of mothers (19.0%) had a card that said they were below the poverty threshold. More than sixty-three and a half percent of moms are members of families that are co-parented.

Using a self-administered questionnaire, this retrospective cross-sectional cohort research was carried out on a sample of 150 women who were between the ages of 18 and 40 and who lived in a metropolitan region. The study focused on breastfeeding patterns. Remarkably, out of a total of 150 participants, 39 moms (representing 26%) chose to breastfeed their children exclusively, while 111 mothers (representing 74%) opted for combination feeding. There were 32.4% of moms who had a strong understanding of feeding, 32.1% of women who lived in joint families, and 35.7% of mothers who delivered their babies vaginally exclusively breastfed their children. According to the findings of this research, women who are more likely to follow exclusive breastfeeding are those who are members of joint families, have a high level of education, give delivery vaginally, and have a proper understanding of the feeding methods that were provided to them by their health care providers during ANC treatment.

**Table 1: Financial and segment attributes of moms (n=400).**

Characteristics	Frequency (N)	Percent
<b>Age (in years)</b>		
<20	12	3.0
20-30	340	85.0
>30	48	12.0
<b>Education</b>		
Illiterate	109	27.3
Primary	56	14.0
Secondary	81	20.3
Higher Secondary	95	23.8
Graduate and above	59	14.8
<b>Types of house</b>		
kutch house	38	9.5
pacca house	362	90.5
<b>Average monthly income</b>		
<5000-9999	106	46.3
>10000	185	27.3
<b>Monthly currently pregnant at the time of study</b>		
Yes	46	11.5
No	354	88.5
<b>Types of rasan cards</b>		
Above poverty line	322	80.5
Below poverty line	78	19.5
<b>Types of family mother lives</b>		
Nuclear family	146	36.5
Joint family	254	63.5



**Figure 1: Age (in years)**

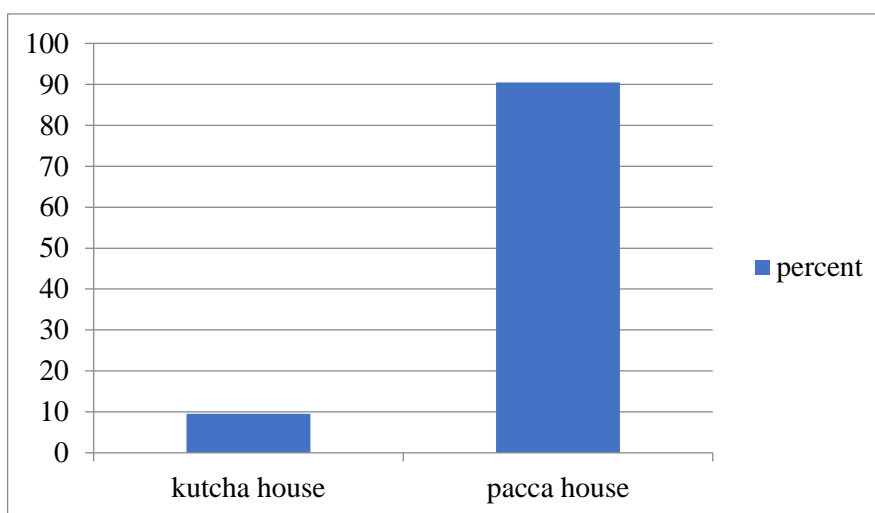


Figure 2: Types of house

During their pregnancy, almost a third (37.3%) of moms had four ANC check-ups. 96.5 percent of moms gave birth in a medical institution, with 18.3 percent in private hospitals and 78.3% in government facilities. 3.25% of moms had more than five children in their homes, compared to 68.5% who had one to two children. Table 2 shows that of moms who received information regarding breastfeeding, 44.8% got it from their mother-in-law and 18.5% from their physician or nurse.

According to the present survey, 66.5 percent of moms had heard about colostrum. 97% of the moms were aware that a newborn should only be fed breast milk, and 47% were aware that starting nursing at an early age facilitates the placenta's removal from the baby. Despite not being aware of the advantages of EIBF, less than half (47.9%) of moms utilized it. While 75.8% of women started early breastfeeding within an hour of giving birth and 24.3% started after an hour, 77.5% of moms were aware that a newborn should be nursed within that time. 85.5% of moms believe that delaying the early start of breastfeeding will likely result in a kid who struggles to sip breast milk. While 49.5% of moms did not use EIBF despite having strong awareness of it, 86.5% of mothers who were knowledgeable about it did so. More moms in nuclear families (77.4%) than in mixed families (74.8%) practiced EIBF. Mother-in-law, physicians/ANMs, and other family members provided the moms with knowledge on nursing. While 95.0% of moms provided colostrum to their infant, only 77.0% of mothers were aware that it should be given to the child. Regarding prelacteals, before the age of six months, 23.1% of mothers fed their infants animal milk, 5.8% gave them porridge, and 7.7% gave them cookies. The crude (unadjusted) and adjusted odds ratios for the factors that influence early EIBF are shown in Table 2. In a multivariate study, the mother's age, education, number of live births, family type, delivery location, degree of breastfeeding expertise, monthly income, and source of breastfeeding information during the first hour after delivery were all substantially correlated with EIBF.

Table 2: Reproductive characteristics of mothers

Characteristics	Frequency (N)	Percent
<b>Number of ANC checkups</b>		
<3 ANC	251	62.8
4 ANC	149	37.3
<b>Place of delivery</b>		
AT home	14	3.5
At home facility	386	96.5
<b>Sex of child</b>		
Male	217	54.3
Female	183	45.8
<b>No. Of live births</b>		
No children	1	0.25
1-2 children	274	68.5
>3 children	125	31.3
<b>Sources of knowledge of breast feeding</b>		
ASHA workers	32	8
Doctor/ nurse	74	18.5
Household member	81	20.3
Community member	16	4
Mother in law	179	44.8
Others	18	4.5

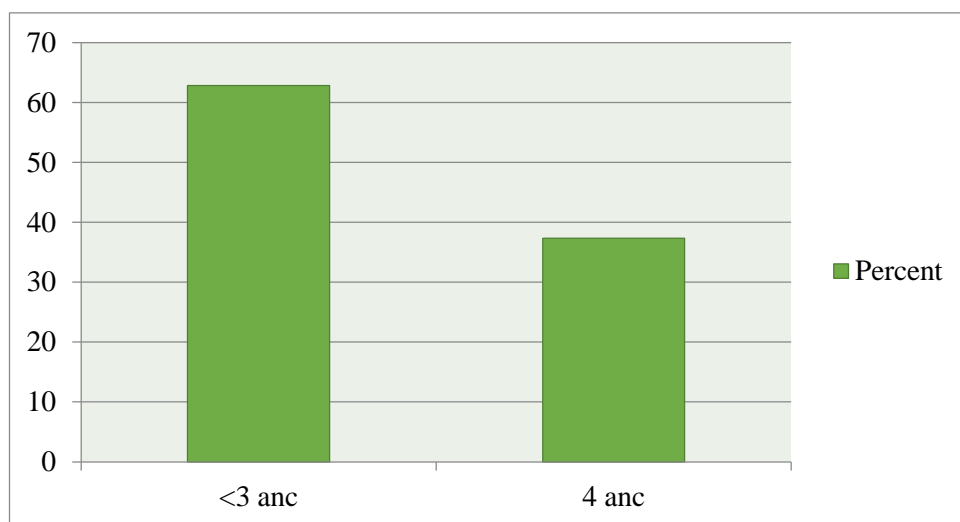


Figure 3: Number of ANC checkups

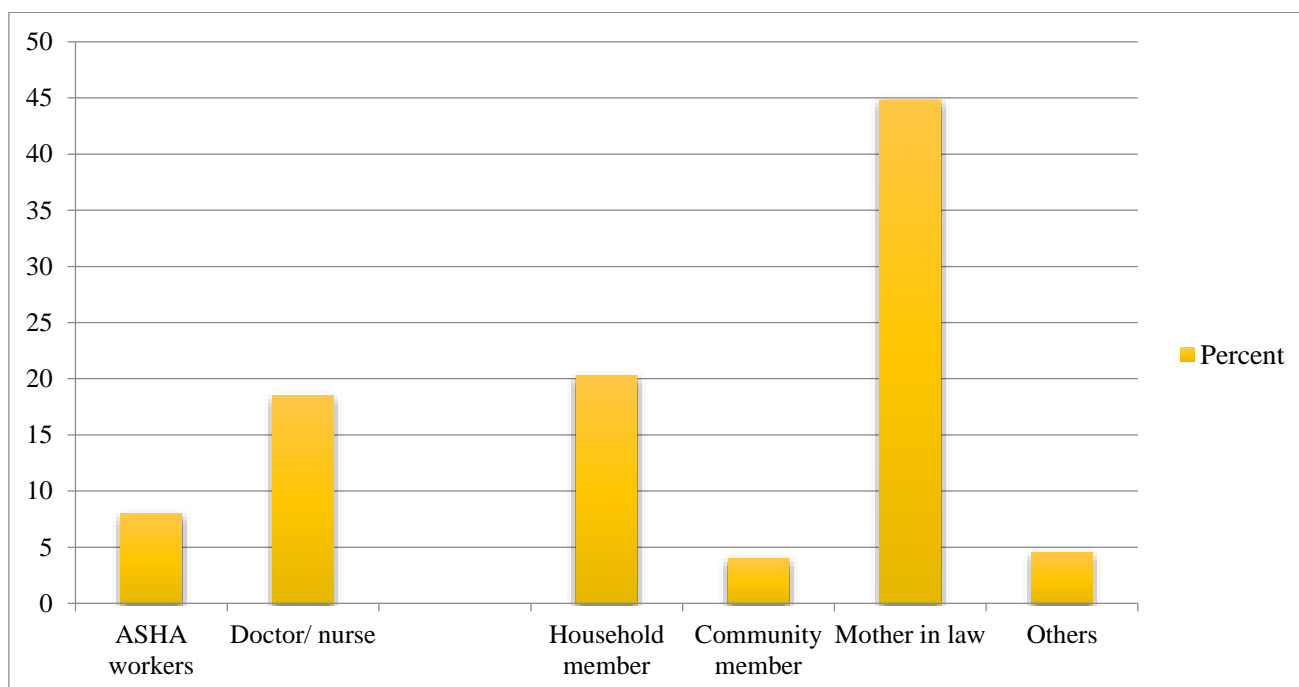


Figure 4: Sources of knowledge of breast feeding

When it comes to EIBF, mothers who are well-informed have 4.44 times higher chances of nursing their newborn than mothers who are ignorant or have inadequate information (AOR: 4.44, 95%. p value < 0.00, CI 2.34, 8.44).

As to the standards of IYCF-2006, the Indian government suggests initiating breastfeeding as soon as possible after delivery, ideally within an hour.<sup>15</sup> Within an hour after delivery, early initiation of breastfeeding (EIBF) is recognized as one of the most economical ways to lower infant mortality.<sup>16</sup> Within an hour after giving birth, almost two thirds (75.8%) of the moms in our research had started early breastfeeding. There was a strong correlation found between the age of the infant, the mothers' knowledge of the EIBF, and the source of the breastfeeding information and the newborn's ability to nurse within an hour of delivery.

According to a recent survey, the largest percentage of mothers—64 percent—received nutrition education via home visits.<sup>19</sup> In contrast to our results, the Global Nutrition Report 2020 states that less than half (44.4%) of newborns worldwide were breastfed within an hour of their birth. Based on research, the EIBF climbed at an average yearly rate of rise of 10.3% between 2006 and 2014, rising from 24.5% to 44.6%. Mothers' understanding of EIBF was 34.3%, which is much less than the 67.8% of respondents in the survey done in Kolkata, India. According to our research, compared to infants born in healthy facilities (75.3%), over two-thirds (85.7%) of babies born at home were nursed within an hour of their delivery. The results might be attributed to grassroots NGO interventions aimed at enhancing frontline worker ability, community knowledge, and new baby care practices. The results demonstrated that mothers' degree of expertise and the information imparted by healthcare professionals were linked to a higher risk of EIBF. The results underscore the importance of counseling and IEC programs in empowering women.

## 5. CONCLUSION

Research suggests that initiating breastfeeding at an early age might significantly reduce neonatal mortality, as 33% of newborns are more likely to die if nursing is delayed. Focusing on this crucial intervention may help us reach SDG-3, which aims to lower the infant death rate by less than 12 per 100 live births. Although early breastfeeding was discovered to be quite prevalent, less than 25% of infants delivered in healthcare facilities did not get early breastfeeding. Decision-makers at the policy level can think about adding two more counseling sessions in the third trimester to highlight EIBF and EBF and to boost the adoption of EIBF practice. In order to create targeted programs that promote child health, prevent neonatal mortality, and boost practices, factors and challenges related to the delay of EIBF may need to be further investigated.

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