

## Breastfeeding Practices in Women in Bihar- A Hospital based study

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### Abstract:

**Introduction:** Exclusive breastfeeding is defined by the World Health Organization as infant feeding that consists of only breastmilk. exclusive breastfeeding for the first 6 months of life, and continued breastfeeding with age-appropriate complementary feeding until 2 years of age. This has the potential to prevent approximately 19% of all under-5 years of age deaths in the developing world, more than any other preventive intervention. Although breastfeeding rates are progressively increasing worldwide, optimal breastfeeding practices are lagging behind, especially in rural and low resource settings including rural populations in India. Therefore, understanding and identifying factors associated with suboptimal breastfeeding practices in rural and low-resource settings can help improve nutrition care in early years of life.

**Materials and method:** A cross-sectional survey of postpartum women admitted in obstetric ward of DMCH, Darbhanga, Bihar was conducted between 1<sup>st</sup> February 2018 and 30<sup>th</sup> April 2018. Both caesarean section and normal delivery patients were included in this study. After proper consent by mother they were interviewed based on detailed questionnaire. Women who were HIV positive or whose neonate was critical or admitted in NICU were excluded from this study. A total of 250 samples were included in this study. A standard questionnaire was developed for this study which included both open and closed ended questions. Exclusive breastfeeding was defined by feeding of breastmilk only (as per the World Health Organization), and mixed infant feeding was defined as feeding of both breastmilk and formula milk and/or water. Qualitative information such as the influences on breastfeeding, and opinions on breastfeeding versus top feeding were also elicited.

**Result:** Out of 250 mothers interviewed 178 (71%) had initiated breastfeeding while 72 (28.8%) had not yet started to breastfeed their baby. It was observed that age group 18-24 had least percentage of breastfeeding as compared to those in elder age group. Among all demographic and social personal characters of mother, medical illness, mode of delivery and previous breastfeeding were found to be strongly in correlation with breastfeeding rates. Among those breastfeeding their baby 84 mother were giving exclusive breastmilk to their babies while remaining were giving mixed feeding ( breastmilk along with top feeding, either formula feed or cow milk). Among women who were not breastfeeding their baby main reason was lack of breastmilk production followed by difficulty in initiating breastfeeding following ceaserean section. Poor nutritional status of mother in our region as well as social myths prevelant in area can be reason behind such pattern.

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### I. Introduction

Breastfeeding is the most natural way of nurturing infants and the most cost-effective and health promoting form of infant feeding that mothers can easily perform. Human milk is considered an infant's first immunization, primes the gastrointestinal tract, and affects the postnatal adaptation of neonates.<sup>1</sup>

Exclusive breastfeeding is defined by the World Health Organization as infant feeding that consists of only breastmilk (including breastmilk that has been expressed or from a wet nurse) without any additional food or drink, including water.<sup>2</sup> Medicines, oral rehydration solution, vitamins, and minerals are permitted during exclusive breastfeeding.<sup>3</sup> Optimal infant and young child feeding has been defined by the World Health Organization as initiation of breastfeeding within an hour of birth, exclusive breastfeeding for the first 6 months of life, and continued breastfeeding with age-appropriate complementary feeding until 2 years of age. This has the potential to prevent approximately 19% of all under-5 years of age deaths in the developing world, more than any other preventive intervention.<sup>5</sup>

In Bihar, one of the most populated states in India (population of 104 million), roughly one in two children (48%) under the age of 5 years are stunted (NFHS 4, 2015). While there have been significant improvements in maternal and child health and nutrition indicators in the last decade, maternal, infant and

young child feeding practices remain suboptimal: only 7% of children under 2 years of age receive an adequate diet and only half are exclusively breastfed (NFHS 4, 2015). Although breastfeeding rates are progressively increasing worldwide, optimal breastfeeding practices are lagging behind, especially in rural and low resource settings<sup>7</sup> including rural populations in India. According to the 2015 World Breastfeeding Trends Initiative Report, India ranked 78 out of 150 countries surveyed on breastfeeding practices with fewer than half (44.6%) of newborns born annually breastfed within the first hour of birth and about two thirds (64.9%) optimally breastfed during the first years of life.<sup>6</sup> Therefore, understanding and identifying factors associated with suboptimal breastfeeding practices in rural and low-resource settings can help improve nutrition care in early years of life and contribute to achieving the United Nations Sustainable Development Goal 3 (SGD 3) of reducing neonatal mortality to at least as low as 12 neonatal deaths per 1000 live births by 2030.

The aim of the study was to determine the prevalence of early breastfeeding in postpartum women and to determine their attitudes, knowledge, and influences around breastfeeding.

## II. Material and methods

A cross-sectional survey of postpartum women admitted in obstetric ward of DMCH, Darbhanga, Bihar was conducted between 1<sup>st</sup> February 2018 and 30<sup>th</sup> April 2018. Both caesarean section and normal delivery patients were included in this study. After proper consent by mother they were interviewed based on detailed questionnaire. Women who were HIV positive or whose neonate was critical or admitted in NICU were excluded from this study. A total of 250 samples were included in this study.

A standard questionnaire was developed for this study which included both open and closed ended questions. It was translated to both maithali as well as in hindi for better understanding of mothers. Personal characteristics of the interviewee (age, occupation, level of education, medical illnesses), family characteristics (size and constituents of families, primary caretaker), and previous obstetric history (parity, child birth weight, duration and type of infant feeding) were elicited. Information such as the prevalence of breastfeeding and rates of initiation of breastfeeding, infant feeding patterns, timing of initiation was elicited. Exclusive breastfeeding was defined by feeding of breastmilk only (as per the World Health Organization), and mixed infant feeding was defined as feeding of both breastmilk and formula milk and/or water. Qualitative information such as the influences on breastfeeding and opinions on breastfeeding versus top feeding were also elicited.

## III. Result

During above mentioned period of study 1020 deliveries took place in hospital, out of which 250 women were included in study representing approximately 24.5% of total deliveries. Personal characteristics of samples and method of delivery is comprehensively tabulated in table below:

**Table 1:** Characteristics of women interviewed

<u>Age (years)</u>	<u>Number of women</u>	<u>Breastfeeding initiate</u>
18-24	105 (42%)	66 (62%)
25-30	68 (27.2%)	43 (63%)
31-35	36 (14.4%)	32 (88%)
36-40	25 (10%)	22 (88%)
>40	16 (6%)	15 (93%)
<u>Education status</u>		
Uneducated	86 (34.4%)	53 (61%)
Primary	37 (14.8%)	22 (59.4%)
Secondary	48 (19.2%)	38 (79%)
High school	58 (23.2%)	47 (81%)
Graduate	21 (8%)	18 (85%)
<u>Place of residence</u>		
Rural	186 (74.4%)	135 (72.6%)
Urban	65 (26%)	43 (66.15%)
<u>Parity</u>		
Primi	152 (60.8%)	100 (65.7%)

Multiparous	98 (39.2%)	78 (79.6%)
<b><u>Mode of delivery</u></b>		
Normal	170 (68%)	140 (82.5%)
Cesaerean	72 (29%)	33 (45.8%)
Forceps	8 (3%)	3 (37.5%)
<b><u>Previous breastfeeding</u></b>		
Yes	65 (26%)	60 (92%)
No	33 (13.2%)	8 (24.3%)
Not applicable	152 (60.8%)	110 (72.4%)
<b><u>Medical illness</u></b>		
Yes	15 (6%)	1(6%)
No	235(94%)	177(75.3%)

Out of 250 mothers interviewed 178 (71%) had initiated breastfeeding while 72 (28.8%) had not yet started to breastfeed their baby. It was observed that age group 18-24 had least percentage of breastfeeding as compared to those in elder age group. Among all demographic and social personal characters of mother, medical illness, mode of delivery and previous breastfeeding were found to be strongly in correlation with breastfeeding rates. Among those breastfeeding their baby 84 mother were giving exclusive breastmilk to their babies while remaining were giving mixed feeding ( breastmilk along with top feeding, either formula feed or cow milk)

**Table2.** Factors Influencing Decision to Breastfeed (n = 178)

<b>Factor</b>	<b>Number of responses</b>
1. "I know that breastmilk is good for my baby"	130
2. "I get advice from public information" (including TV, newspapers, internet, books, magazines)	54
3. "My relatives told me to breastfeed."	30
4. "Health professionals told me to breastfeed."	82
5. "My mother advised me to breastfeed."	120
6. "Breastfeeding gives my child immunity/my child will not get sick/prevents diarrhea."	40
7. "My mother-in-law advised me to breastfeed."	115
8. "Breastmilk is very nutritious /has enough nutrients."	76
9. "I want to breastfeed my child."	140
10. "Breastfeeding is convenient I do not have to prepare formula."	26
11. "Breastfeeding saves money."	47

12.	“I think breastfeeding is good for both mother and child.”	97
13.	“I know that if I breastfeed, I will have more milk.”	56
14.	“Formula makes my baby constipated.”	21
15.	“I want my child to develop well.”	146
16.	“I regret not breastfeeding my previous child.”	8
17.	“My husband told me to breastfeed.”	78
18.	“Midwives instruct me on how to breastfeed my baby.”	106
19.	“Everyone else is breastfeeding.”	124

Amongst all factors as cited by cases in this study family support either in term of husband, mother or mother in law was one of most important factors which promoted these mothers to initiate breastfeeding. Role of midwives as well as other healthcare professionals was also valuable.

**Table3.** Factors Influencing Decision Not to Breastfeed (n = 72)

<u>Factor</u>	<u>Number of responses</u>
1. “I have no breastmilk, and my baby cries.”	50
2. “I have pain after C-section.”	39
3. “I am HBV positive, and am afraid I will transmit the virus to my child.”	2
4. “I have IVF drip, and can’t move my arm.”	23
5. “I have fever after C-section.”	29
6. “My baby vomits after breastfeeding, so I stopped.”	5
8. “My husband told me to feed my baby formula.”	16
9. “I don’t have enough breast milk for twins.”	1
10. “My baby rejected my nipple.”	5
11. “My nipple is inverted.”	3

Among women who were not breastfeeding their baby main reason was lack of breastmilk production followed by difficulty in initiating breastfeeding following cesarean section. Poor nutritional status of mother in our region as well as social myths prevalent in area can be reason behind such pattern.

#### IV. Discussion

In this study it was found that rate of breastfeeding in our hospital is 71%. Out of these women 84 women were giving exclusive breastfeeding which is 33.6% of total sample. This study attempted to outline current breastfeeding practices in tertiary healthcare facility in Bihar as well as highlight barriers in way of exclusive breastfeeding. This study also attempted to determine factors which influence women’s decision regarding how to feed their baby. Adverse effect of increasing cesarean section on breastfeeding rates is also reflected in this study.

Prominent barriers to breastfeeding in this study were perceived as inadequate supply of breastmilk, promotion of breastmilk substitutes such as formula, and inadequate analgesia post-cesarean section. These barriers should be addressed, at both hospital and government levels. There is evidence to link maternal perceived insufficient milk supply to early cessation of lactation,<sup>8-10</sup> with approximately 25– 35% of lactating women reducing breastfeeding duration or level because of perceived breastmilk insufficiency.<sup>8-10</sup> This perception may be perpetuated by a lack of education into the physiology of breastmilk supply and lactation (supply = demand). Increase in education beginning in the antenatal period and continuing throughout

pregnancy, with further lactation support and reinforcement of breastfeeding in the postpartum period, may help change perception of inadequate supply of breastmilk.<sup>8-10</sup> Mothers can be reassured that their infants are receiving adequate nutrition from breast milk alone by regular monitoring (urine output) and tracking of growth of infants.

Women who have had cesarean sections in particular should be targeted to improve exclusive breastfeeding rates and promote early initiation of breastfeeding. Women who undergo cesarean section are generally monitored in ICU for few hours at least, during this period baby is generally kept along with relatives. This practice should be discouraged as it has adverse effect on early initiation of breastfeeding.

Change should start at a government level and permeate through all levels of the health system. Message that breast is best must not be ambiguous.

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