

A STUDY OF THE KNOWLEDGE AND PRACTICES OF BREASTFEEDING BY MOTHERS IN A RURAL REFERRAL HOSPITAL

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ABSTRACT:

Background: Breastfeeding (BF) is critical for a baby's nourishment and development. There are a variety of misunderstandings about breastfeeding, which might have negative implications. This study aimed to determine women's breastfeeding knowledge and practices at rural referral hospitals. Methods: A cross-sectional descriptive study on randomly selected breastfeeding females in rural referral hospitals. The data for the study of breastfeeding knowledge and practices were collected using a semi-structured inquiry form. The information was imported into MS Excel, and a descriptive analysis was performed. Results: The majority of the mothers were aware of knowledge based on knowledge given by the doctor, the breastfeeding importance, breast milk nutrition, colostrum fed, exclusive breastfeeding duration of six months, initiation of weaning in six months and a majority of mothers were aware of practices based on not giving pre-lacteal feed given, bottle feeding, breast milk shortage, infant formula, duration of sucking. Conclusion: Most mothers who gave birth to their child in rural referral hospitals had good knowledge and practices recommended for breastfeeding.

Keywords: *Breastfeeding, Knowledge, Practice.*

INTRODUCTION:

Early breastfeeding knowledge and practices impact newborn health, development, growth, and survival in a rural hospital. Breastfeeding is beneficial to newborns because it is natural, has optimum nutrients, and is anti-infective. Human milk reduces infant mortality and hospitalizations. Compared to artificial meals, breast milk increases IQ and brain enlargement [1]. Around 40% of newborns under six months are exclusively breastfed [2]. As a result, the WHO advises healthcare workers to encourage optimal early breastfeeding behaviours [3]. This includes not giving pre-lacteals (solids or liquids given to a newborn before BF, hence before colostrum, e.g., milk, honey, sugar water, or herbs) [1] and not giving post-lacteals. Extensive skin-to-skin contact between a mom and a newborn and early start of breastfeeding and rooming-in (newborn

stays in the same room as a mother) can prevent up to 1.4 million child fatalities every year. Pre-lacteal feeding has also been linked to delayed nursing [4].

Optimal practices such as early breastfeeding initiation, colostrum feeding, exclusive breastfeeding, mother-newborn skin-to-skin contact, along with rooming-in (newborn staying in the same room as a mother) can prevent deaths in children under the age of five due to deadly disease. Furthermore, a link has been found between pre-lacteal eating and delayed nursing [5].

Around “2.4 million kids” die each year in India, with two-thirds of these deaths linked to improper newborn feeding habits. The encouragement of exclusive breastfeeding has been projected to reduce infant mortality by 13 percent. According to WHO recommendations, “Three variables can reduce infant mortality rates: starting breastfeeding within one hour of birth, practicing exclusive breastfeeding for six months, and adequate supplementation at six months [6].” Though, misunderstandings among ladies have made implementation challenging at the community level. Breastfeeding rates have been further diminished by factors like “career, readily available and actively advertised formula-based feeds, social pressures, and illness among lactating moms.” Breastfeeding has long been acknowledged as the finest nutrition for a newborn. Breastfeeding within the first six months and within one hour are critical treatments for achieving Millennium Development Goals and are connected to child malnutrition and death, respectively [7]. These initiatives have yet to be implemented effectively in India. According to the “National Family Health Survey”-2001 data, “Only 46.4 percent of children under six months receive proper beginning and continuation of breastfeeding.” According to [8], breastfeeding rates are also declining in India, particularly in urban areas and rural areas. It is critical to understand existing information, attitudes, and practices about newborn feeding habits in the community before developing an effective strategy to increase infant nutrition [1].

Breastfeeding seems to be affected by socio-economic conditions in India. In addition, the Indian government has launched the “National Rural Health Mission” (2013), which aims to apply “Integrated Management of Neonatal and Childhood Illnesses (IMNCI)” through the existing healthcare system. Inadequate practices and knowledge about exclusive BF have been linked to poor child health outcomes, particularly in underdeveloped countries. Nonetheless, promoting and accepting practices like exclusive breastfeeding is critical in emerging nations with a high burden of illnesses and limited availability to clean water and sanitation.

A baby is exclusively breastfed if no other solid food (including water) is given to them shortly after delivery. Six months of ‘Exclusively breastfeeding’ is beneficial to both mother and child. Non-exclusively breastfed infants are more prone to gastrointestinal illnesses [9]. Diarrhoea and other diseases can be fatal in partially or not breastfed infants. Furthermore, strong maternal views toward breastfeeding are linked to staying breastfeeding for longer and having a better likelihood of success [7].

On the other hand, poor views concerning breastfeeding among women are a substantial impediment to starting and continuing nursing. At the same time, many studies have investigated breastfeeding knowledge, attitudes, and practices in various world regions, but few such studies on Indian mothers [10]. “Non-breastfed infants aged 0–5 months” have a seven-fold and five-fold increased risk of diarrhoea and pneumonia death. Mbada et al. (2013) stated that breastfed babies grow normally, with average weight, height, head size, and chest circumference meeting ICMR guidelines. Breastfeeding for more than 12 months reduces the risk of breast cancer by 26%, ovarian cancer by 37%, and type 2 diabetes by 32%, respectively [11]. Education, occupation, and social parity have influenced exclusive breastfeeding knowledge and practice. Early initiation and exclusive breastfeeding rates in India are far from ideal, and future “KAP studies” on BF among Indian moms are lacking [12]. As a result, the objectives for this study are as follows: -

- To determine how well mothers’ knowledge in understand breastfeeding.
- To help in creating strategy to sensitize mothers and in breastfeeding practices.

METHODS:

This study was conducted for six months and carried out among 268 subjects. All subjects were breastfeeding mothers who gave birth to their babies in rural referral hospitals. The participants were informed about the trial via a patient information leaflet. Enrolled participants gave their consent. A one-to-one interview was done utilizing a standardized, pre-designed, self-administered questionnaire to evaluate breastfeeding knowledge and behaviors. Using a standardized formula with this data with “type I error(α) = 0.05” and “type II error(β) = 0.1,” the resulting sample size is 268.

Types of Method: This study was conducted with the method based on knowledge and practice, with mothers at the hospital using a validated researcher-administered questionnaire. The initial approaches included education, religion, occupation, socio-economic status, family structure, religion, and parity. The second strategy is based on the kind of delivery (normal or Lower segment Caesarean section (LSCS) and any complications discovered during the first postnatal visit.

Inclusion criteria: All registered and unregistered participants of postnatal care facilities in the hospital and volunteers are included in the study.

Exclusion criteria: All cases of intrauterine death and stillbirth. All females in whom BF is contraindicated like “galactosemia,” a lady with cancer, active TB, psychoses, or seriously ill mothers are excluded.

Data analysis:

Data is entered into an excel sheet and analyzed using IBM SPSS Statistics 26.0 software. Data was presented using descriptive statistics like frequency and percentages. One sample Z-test for proportion was used to find the significance of difference. The level of significance was set at 5%. All p-values less than 0.05 were treated as significant.

RESULTS:

The data in this section represents the impact of knowledge and practices of BF moms in rural hospitals. Table 1 shows distribution of breastfeeding mothers according to their demographic characteristics. Out of 268 mothers included in the study, 72 (26.9%) were illiterate, 50 (18.7%) had education up to middle school, 60 (22.4%) had education up to high school, and 58 (21.6%) had education up to higher secondary and 28 (10.4%) were graduates. Most of the breastfeeding mothers included in the study were housewives 154 (57.5%), 64 (23.9%) were semiskilled workers, 28 (10.4%) were skilled workers and 22 (8.2%) were professionals. According to the socio-economic status of breastfeeding mothers, 156 (58.2%) mothers belong to lower class, 28 (10.4%) belong to lower middle class, 32 (11.9%) belong to middle class, 40 (14.9%) belong to upper middle class and 12 (4.5%) belong to upper class. Out of 268 breastfeeding mothers included in the study, 202 (75.4%) were Hindu, 56 (20.9%) were Muslim, 8 (3.0%) were Christian, and 2 (0.7%) were Sikh. According to parity, 112 (41.8%) mothers had parity 1, 128 (47.8%) mothers had parity 2 and remaining 28 (10.4%) breastfeeding mothers had parity 3. Out of 268 breastfeeding mothers included in the study, 204 (76.1%) had normal vaginal delivery while 64 (23.9%) had LSCS delivery.

Table 2 shows distribution of breastfeeding mothers according to the knowledge about breastfeeding. Among the breastfeeding mothers included in this study, 104 (61.2%) have no complications during pregnancy, and 36 (13.4%) mothers had 1 to 2 ANC visits, 78 (29.12%) had 3-4 ANC visits, 80 (29.9%) had 5-6 ANC visits and 74 (27.6%) had 7 or more ANC visits.

Among the breastfeeding mothers included in the study, for 136 (57.7%) mothers, the knowledge about breastfeeding was given by doctor, 106 (39.6%) had knowledge about colostrum, 268 (100%) mothers had knowledge about importance of breastfeeding and breastfeeding nutrients. Only 72 (26.9%) mothers had knowledge about early initiation and exclusive breastfeeding, only 28 (10.4%) mothers had knowledge about pre-lateral feeds and majority (226, 84.3%) of mothers had knowledge about colostrum feed. Majority of mothers (216, 80.6%) feed their babies for at least two times/day, 32 (11.9%) mothers feed their baby for one time and 20 (7.5%) feed their baby whenever required.

Out of 268 breastfeeding mothers, 222 (82.8%) of breastfeeding motherlike to initiate weaning at around 6th month after deliver or baby birth. Most of the breastfeeding mothers (170, 63.4%) like to feed their babies 1-2 times, 46(17.2%) mothers like to feed their baby for 3-4 times, 22 (8.2%) mothers like to feed baby for 5-6 times and 30 (11.2%) mothers like to feed baby for more than or equal to 7 times.

Table 3 demonstrates the distribution of breastfeeding mothers included in the study according to their practices regarding breastfeeding. Majority of breastfeeding mothers practice proper positioning (n=130, 51.5%) while breastfeeding baby (p<.01). Only 74 (27.6%) women given pre-lacteal feed to baby (p<.01), in case of 56 (20.9%) mothers, the infant formula was given and out of these majority of mothers reported that the reason for infant formula was mainly insufficient breast milk (p<.01). Only 42 (15.7%) breastfeeding mothers reported that they bottle feed their babies (p<.01), and very small proportion of mothers (n=6, 2.2%) face shortage of breastmilk (p<.01). The results indicated that, around half mothers seem to feel an effective hold of their babies first time via both skin-skin (n=136, 50.7%) and wrapped (n=132, 49.3%) (p>0.05). Most of the breastfeeding mothers start weaning in month six (n=196, 73.1%) followed by 38 (14.2%) women in 4 months, 28 (10.4%) in 8 months and 6 (2.2%) in 5 months (p<.001).

DISCUSSION:

"The goal of the study is to improve and protect maternal understanding and behaviours in child health by ensuring that women at "rural referral hospitals" are supported and assisted with BF. Informing women about the benefits of nursing may sway those who haven't made up their minds or whose decision isn't final. Our results suggested that most mothers are illiterate or have education only until high school, and mainly mothers were housewives or semiskilled workers. The majority of breastfeeding mothers represent the lower class while only 14.9% represent the upper middle class. Thus, less education, occupation, and socio-economic status affect mothers during breastfeeding, as Szafranska and Gallagher (2016) suggested [13].

Similarly, Thomas et al. (2017) also stated that less education might impact mothers' knowledge of early breastfeeding [14]. As a result, both joint family and nuclear family mothers gave almost equal breastfeeding to their newborns, so the type of family doesn't affect them. Most breastfeeding mothers were from Hindu and Muslim religions, while few belong to Christian and Sikh religions. Tiwari et al. (2018) also reported a similar outcome supporting our result. Most breastfeeding mothers gave birth to their babies through normal delivery, while only 23.9% through LSCS delivery [15].

Similarly, Vijaylakshmi & others (2015) also mentioned the same [16]. Hamosh's (2001) finding showed that a higher percentage of knowledge was seen in mothers breastfeeding based on the importance of breastfeeding important, breast milk nutrients, colostrum fed, and similar results are also found in this study [2]. The duration based on exclusive breastfeeding as six months was higher in percent. Similarly, Chinnasami et al. (2016) also indicated that mothers' knowledge of exclusive breastfeeding in the first six months is higher [17]. Besides this, it was also found that most mothers know about pre-lacteal feeding, proper positioning of breast milk feeding, breast milk shortage, infant formula, and bottle-feeding practices.

Similarly, Banapurmath et al. (1996) indicated that women knew that giving pre-lacteal, infant formula, and bottle feed was a mean good practice of breastfeeding [18]. A similar observation was also mentioned by Vijayalakshmi et al. (2015) [16]. Thomas *et al.* (2017) reported more than 50% of mothers have practiced breastfeeding [14]. The maximum mother also knows the start of weaning after 6 months. Naseem and Mazher (2016) also mentioned similar findings regarding when to start weaning majority seem in six months [19]. Also, similar observation studies by Srivastava and Sethi (2007) suggest weaning is most prominent in 6 months [20].

According to the study findings, the rate of first-time hold in terms of skin-to-skin and wrapped-in was almost similar in ineffectiveness. Jones et al. (2003) mentioned no similarity between skin-to-skin contact and wrapped in based on first-time hold [5]. A study in the Hiregouder et al. (2013) suggested that “neonatal staff must encourage and empower parents to care for and form an attachment with their new baby [21]. This will boost parents' confidence in handling their babies while in hospital and increase their competence when the baby is discharged.”

Overall, findings of the current study indicate the majority of the mothers were aware of knowledge based on knowledge given by a doctor, the breastfeeding importance, breast milk nutrition, colostrum fed, exclusive breastfeeding duration of six months, initiation of weaning in six months and a majority of mothers were aware of practices based on not giving pre-lacteal feed given, bottle feeding, breast milk shortage, infant formula, duration of sucking. As a result, breastfeeding mothers have both knowledge and practices in rural referral hospitals. Thus, it may be helpful for doctors and nurses to create interventions to promote BF in mothers based on knowledge and practice.

CONCLUSIONS:

Despite our findings, breastfeeding mothers have a higher illiteracy rate, are less professional, come from a lower socio-economic level, and have a modest parity for mothers. Nonetheless, our findings show that postnatal mothers have adequate knowledge and good practices in all aspects of breastfeeding. There is a high percentage of knowledge based on doctor knowledge, the importance of breastfeeding, breast milk nutrition, colostrum fed, exclusive breastfeeding duration of six months, and initiation of weaning in six months. In contrast, practise based on breastfeeding in mothers shows a higher percentage of not giving pre-lacteal feed given, bottle feeding, breast milk shortage, infant formula, and duration of sucking. Breastfeeding knowledge and good practises among mothers in rural referral hospitals are suboptimal. Thus, most knowledge needs to be given by nurses to new mothers regarding all the factors studied in this study so existing information, attitudes, and practices about newborn feeding habits in the community will be improved.

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Tables:

Table 1. Demographic characteristics of mothers included in study

Demographic variable	frequency (n=268)	percentage
<i>Education</i>		
Illiterate	72	26.9
Middle School	50	18.7
High School	60	22.4
Higher Secondary	58	21.6
Graduate	28	10.4
<i>Occupation</i>		
Housewife	154	57.5
Semiskilled	64	23.9
Skilled	28	10.4
Professional	22	8.2
<i>Socio-Economic Status</i>		
Lower Class	156	58.2
Lower Middle Class	28	10.4
Middle Class	32	11.9
Upper Middle Class	40	14.9
Upper Class	12	4.5
<i>Religion</i>		
Hindu	202	75.4
Muslim	56	20.9
Christian	8	3
Sikh	2	0.7
<i>Parity</i>		
1	112	41.8
2	128	47.8
3	28	10.4
<i>Type of delivery</i>		
Normal	204	76.1
LSCS	64	23.9

Table 2. Distribution according to the knowledge about Breastfeeding

	frequency (n=268)	percentage
<i>Complications during ANC</i>		
Yes	104	38.8
No	164	61.2
<i>Number of ANC visits</i>		
1-2	36	13.4
3-4	78	29.1
5-6	80	29.9
>=7	74	27.6
<i>Knowledge based questions about BF</i>		
The knowledge given by a doctor	136	50.7
Importance of colostrum	106	39.6
Is breastfeeding important	268	100.0
Breast milk nutrients	268	100.0

Early initiation	72	26.9
Exclusive breastfeeding	72	26.9
Pre-lacteal Feeds	28	10.4
Colostrum Fed	226	84.3
<i>Exclusive BF (Months)</i>		
3 Months	4	1.5
4 months	10	3.7
5 months	24	9
6 months	220	82.1
8 months	10	3.7
<i>Frequency of breastfeeding</i>		
1 Time	32	11.9
2 Times	216	80.6
Whenever Required	20	7.5
<i>initiation of weaning</i>		
4 months	14	5.2
5 months	12	4.5
6 months	222	82.8
8 months	8	3
9 months	8	3
12 months	4	1.5
<i>times breastfeeding</i>		
1-2	170	63.4
3-4	46	17.2
5-6	22	8.2
>=7	30	11.2

Table 3. Distribution according to the practices about BF

<i>Practice</i>	Frequency (n=268)	Percentage	p-value
Pre-lacteal Feed given	74	27.6	<.001**
Proper positioning	130	48.5	>0.05
Milk Expressing	154	57.5	<.01**
Bottle feeding	42	15.7	<.001**
Breast milk shortage	6	2.2	<.001**
Infant formula	58	21.64	<.001**
<i>Duration of sucking</i>			
10 minutes	192	71.6	
15 minutes	32	11.9	<.001**
20minutes	44	16.4	
<i>Reason for giving infant formula (n=58)</i>			
Insufficient Milk	18	31.0	
Not Suckling	14	24.1	
Preterm-NICU	20	34.5	<.01**
Medically Compromised	6	10.3	
<i>First-time hold</i>			
Skin to Skin	136	50.7	>.05
Wrapped	132	49.3	>.05

<i>When to start weaning</i>			
4 months	38	14.2	
5 months	6	2.2	<.001**
6 months	196	73.1	
8 Months	28	10.4	

Figure 1.

