

Original Research Article

Breastfeeding practices of nursing mothers in Tamil Nadu: a hospital based cross sectional study

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Received: 16 July 2018

Revised: 24 August 2018

Accepted: 27 August 2018

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ABSTRACT

Background: Breastfeeding is an essential component of maternal and child health. It has been envisaged that early initiation and exclusive breastfeeding are two key factors, which prevent mortalities relating to newborn and infants, and is also a great source of health and wellbeing of the mother and child. This study was conducted to estimate the prevalence of early initiation of breastfeeding and the reasons for delay among postnatal mothers, in selected health centers in and around Chennai, Tamil Nadu.

Methods: This hospital based cross sectional study was carried out among 450 post natal mothers who delivered in primary, secondary and tertiary care government hospitals in Chennai and its peripheries. The participants were selected by two-stage sampling. A pre-tested structured interview schedule was used to elicit data regarding breastfeeding practices. The data was analyzed using SPSS version 21 software and results presented using descriptive and analytical statistics.

Results: A majority of the study participants (84.2%) belonged to 21–30 years age group and 48% mothers had normal delivery while 52% had a caesarean section. The prevalence rate of early initiation of breastfeeding was 55.8%. The reasons for delay in early initiation of breastfeeding were found to be due to ignorance of the mother (28.2%), pain after delivery (27.2%), respiratory distress (11.1%) and low birth weight of babies (7.5%). Caesarean section, birth in tertiary care hospitals and birth order of the child significantly influenced the timing of initiation of breastfeeding.

Conclusions: This study emphasizes the need for an increased effort to propagate and popularize the concept of early initiation of breastfeeding among the community, especially to antenatal mothers.

Keywords: Feeding practices, Early initiation, Delivery, Pre-lacteal feeds

INTRODUCTION

Breastfeeding is a natural process and standard way of feeding the baby.¹ Breast milk is widely acknowledged as a complete form of nutrition for infants providing benefits to infant's health, growth, immunity and development.² It enhances the cognitive and sensory development of a child. Breastfeeding is a cost effective way to reduce the infant mortality and morbidity.

Breastfeeding reduces all the mortalities related to infant and childhood. World Health Organization recommends the practice of early initiation of breastfeeding with exclusive breast-feeding up to 6 months and continues till 2 years along with complementary feeding.³

According to World Health Organization, starting breast feed within 1 hour is referred to as "early initiation of breast feeding".⁴ As per Indian Academy of Pediatrics

guidelines, breast feeding must be initiated as early as possible after the birth, for all normal newborns including those born by caesarean section avoiding delay beyond an hour.⁵ Early initiation of breast feeding saves over 1 million newborn infants every year.⁶ In spite of its known advantages, several factors related to the mother and the child affect early initiation of breast feeding. This includes mother's knowledge about benefits of breast feeding, problems faced during nursing, mother's socio-cultural and economic situation, the attitude, the support system available, the recommendation of hospital and health professionals, hospitals and national policies, etc.⁷

The highest prevalence of early initiation of breastfeeding is seen in Latin America, The Caribbean, East and North Africa. In South Asian countries like India, Pakistan and Bangladesh, only 24-26% of the babies are breast fed within one hour, the result of which is high neonatal mortality rates found in India, Pakistan and Bangladesh with 40-50 per 1000 live births.⁶ According to World Breastfeeding Trends Initiative report, every year among 26 million newborn, only 8 million babies in India were breastfed within an hour of birth. India ranks 31st, out of the 51 countries surveyed for early initiation of breastfeeding practices.⁸

The overall prevalence of early initiation of breastfeeding in India was 24.5% according to National Family Health Survey- III data (2005).⁹ In states like Bihar and Uttar Pradesh, the prevalence rates were very low as 3.7% and 7.3%. The highest prevalence rate was found in the state Nagaland with 66.4%. The states like Meghalaya, Mizoram, Tamil Nadu, Manipur, Goa, Orissa shows the prevalence rates above the national level of 24.5%.^{9,10} A study conducted by Anaiappan in Chennai city, showed the prevalence rate of the children breast fed within one hour was 54.5%.¹¹ As per another study conducted by Raj in Tiruvallur district, the prevalence rate was 89%.³

The Baby Friendly Hospital Initiative (BFHI) was launched in the year 1991-1992, by World Health Organization and UNICEF, in around 156 countries throughout the world with a goal to ensure initiation of breast feeding in all infant before their discharge from the hospital.¹² The hospitals which implemented the ten recommendations for successful breast feeding were declared as Baby Friendly Hospitals.⁷ By strengthening this initiative in the community, a better child survival can be achieved. WHO and UNICEF implemented a revised and expanded version of BFHI in the year 2009.⁵

Many cultural beliefs and traditional factors affect breastfeeding. Colostrum is considered as harmful in many cultures and is discarded. Pre-lacteal feeds like sugar water, honey, cow/ buffalo milk, castor oil are some of the cultural feeds introduced even before initiation of breastfeeding.¹³ However, early initiation of breast feeding is an important indicator for breast feeding practices. The prevalence of early initiation of breast-feeding was 58.8% in Tamil Nadu, which was higher than the national level of 23.5% according to NFHS- 3

data.^{14,15} Though it is higher than many other states in the country, it does not match with the BFHI standards, considering the fact that Tamil Nadu has a higher prevalence of institutional deliveries (around 98.4%).¹⁵⁻¹⁷

Though prevalence of early initiation of breastfeeding is in an increasing trend in the study area, there is a wide gap in achieving the national target of 80%.¹⁸ Considering all these factors and due to lack of similar studies, this study was carried out in hospitals in and around Chennai to find out the gap in prevalence of early initiation of breast feeding in spite of high institutional delivery and awareness created by the health professionals in the government hospitals as well as during antenatal period.

Objectives of the study

- To estimate the prevalence of early initiation of breastfeeding among the newly delivered mothers in the study area.
- To identify the reasons for delay in early initiation of breastfeeding.

METHODS

Study setting

This study is a hospital based cross-sectional study carried out in Government hospitals in and around Chennai for a period of six months. The hospitals included primary, secondary and tertiary care hospitals in Chennai and its neighboring Thiruvallur districts. Official Permission was obtained for carrying out the study in Primary Health Centers and District Head Quarters Hospital Thiruvallur District and Institute of Obstetrics & Gynecology, Chennai. The district of Thiruvallur is subdivided into 13 Blocks. There are 13 Block Level PHCs, 6 Upgraded PHCs [CHCs], 24 Additional PHCs, 3 Urban PHCs, 8 Taluk & Non-taluk hospitals and 1 District Head Quarters Hospital which caters to all the health care needs of the people of this District. The Institute of Obstetrics & Gynecology in Chennai caters to the maternity health care need of the people in the northern region of the State.

Study population

The study population identified was any mother who had delivered the babies (normal as well as cesarean section) in the selected government hospitals, within 5 days of delivery.

Inclusion criteria

Inclusion criteria were any mother who had a five-day history of childbirth, all postnatal mothers who delivered normally or by caesarean section with live babies who were willing to take part in the study; all post natal mothers who initiated breastfeeding at the time of data collection.

Exclusion criteria

Exclusion criteria were mothers who were not willing to participate in the study were excluded. Any serious illness in the childlike birth injuries, severe jaundice and congenital anomalies and twin deliveries were excluded. The mothers under influence of sedation and other complications like postpartum psychosis, postpartum hemorrhage, mastitis, etc. and any maternal/neonatal complication which warranted delay/ avoidance of breastfeeding were excluded.

Sample size and sampling technique

According to NFHS-3 data, the prevalence of early initiation of breast-feeding in Tamil Nadu was found to be 58.8%.¹⁵ Considering this prevalence rate, at 95% level of significance and 8% relative precision, the final sample size was calculated as 421. It was finally rounded off to 450.

The sampling technique employed in this study was a two-stage sampling. The study area comprised of 13 hospitals at primary care level, nine hospitals at secondary care level and one tertiary care hospital. The first stratification was carried out at the level of care, and the sample size of 150 participants was equally distributed to each level. In each level, the postnatal mothers were identified based on consecutive sampling. Data was collected among postnatal mothers who delivered in these hospitals within 48 hours of delivery.

The study period

The study was done during the period from October 2015 to March 2016

Ethical approval and informed consent

Approval was obtained from the Institutional Ethics Committee prior to the commencement of the study. Each participant was explained in detail about the study and informed consent was obtained prior to data collection.

Data collection

A pretested structured interview schedule was used for the data collection. The schedule consisted of the following sections: 1) Demographic variables like age of the mother, sex of child, educational status, family income, occupation, religion and socio-economic status of mother. 2) Antenatal details like medical problems faced by the mother, antenatal registration and risk factors during antenatal period. 3) Delivery particulars like place of delivery, birth order of present delivery, term of delivery, mode of delivery, complication during delivery, assistance adopted in normal delivery, indication for caesarean delivery and mode of anesthesia. 4) Postnatal details like postnatal problems, breast

symptoms and conscious of the mother after delivery. 5) Neonatal particulars like birth weight, APGAR score and complications of neonate. 6) Breast feeding practices like time of delivery, time of initiation of breast feeding, time of breast milk secretion after initiation of breast feeding, suckling reflex, cultural factors affected breast feeding and artificial feeding given to the child. Few details like birth weight, APGAR score, delivery time, indication for caesarean section were collected from hospital records from the duty nurses available.

Operational definitions

Prevalence of early initiation of breastfeeding: It is the Percentage of mothers who initiated breastfeeding their child within one hour of delivery during the study period.

Initiation of breastfeeding: It is an act of allowing the baby to suck the mother's nipple or to feed the baby with her expressed breast milk for the first time after delivery.

Early initiation of breastfeeding: It refers to initiation of breastfeeding within one hour of delivery.

Exclusive breastfeeding: It is the practice of feeding the infants with breast milk alone, (no other foods or liquids given) for the first 6 months.

Pilot study

A pilot study was carried out among 45 postnatal mothers from primary, secondary and tertiary health centers (15 from each center), and based on the outcome the questionnaire was validated.

Statistical analysis

Data was entered and analyzed using EPIDATA and SPSS version 21. The descriptive statistics like mean, frequency distribution and percentage is used to assess the various variables. The analytical statistics like P-value, Chi-square, Odds ratio and Confidence interval were used to determine the association of early initiation of breastfeeding with selected variables.

RESULTS

The study was conducted among 450 mothers admitted for delivery in the hospitals in and around Chennai. The socio-demographic characteristics of the study participants are given in Table 1. The mean age was 24.6 years. Out of 450 mothers 84.2% of mothers were between 21–30 years of age. Among 450 mothers, 240 (53.3%) mothers delivered male baby and 210 (46.7%) mothers delivered female baby. The study population included both rural and urban population. About 219 (48.7%) mothers belonged to rural area and 231 (51.3%) mothers belonged to urban area. The religion of study population included 395 (87.7%) Hindus, 33 (7.3%)

Christians and 22 (4.9%) Muslims. Among the study subjects, 94% were literate with 45.6% mothers had the level of secondary education. Out of 450 mothers, house wives were 428 (95.1%).

Table 1: Socio-demographic characteristics of the study participants.

S. No	Characteristics	Frequency	Percentage (%)
1.	Age distribution of the mother (in years)		
	<20	50	11.1
	21 – 30	379	84.2
	>31	21	4.7
2.	Sex distribution of the child		
	Male	240	53.3
	Female	210	46.7
3.	Distribution of place of residence		
	Rural	219	48.7
	Urban	231	51.3
4.	Distribution of religion		
	Hindu	395	87.8
	Christian	33	7.3
	Muslim	22	4.9
5.	Educational distribution of the mother		
	Illiterate	27	6.0
	Primary	64	14.2
	Secondary	205	45.6
	Higher secondary	97	21.6
	Graduate	57	12.7
6.	Occupational distribution of the mother		
	Skilled	11	2.4
	Semi-Skilled	428	95.1
	Unskilled	11	2.4
7.	Socioeconomic status score for urban (Kuppusamy scale) [n=231]		
	Upper middle	37	16
	Lower middle	74	32
	Upper lower	120	51.9
8.	Socioeconomic status score for rural (B. G. Prasad Scale) [n=219]		
	Upper	109	49.8
	Upper middle	93	42.5
	Lower middle	15	6.8
	Upper lower	2	0.9

The health problems and risk factors during antenatal period are given in Table 2. About 33 (7.4%) mothers had antenatal health problems like hypothyroidism (4.9%), wheezing (0.7%) and congenital heart disease (0.7%). Regarding the presence of risk factors, 11.1% of mothers had anaemia, 4.9% of mothers had pregnancy-induced hypertension, 3.3% of mothers had gestational diabetes and 0.7% of mothers had placenta praevia. About 0.9% had both pregnancy induced hypertension and gestational diabetes.

Table 2: Health problems and risk factors present during the antenatal period.

S. No	Characteristics	Frequency	%
1.	Antenatal problems [n=33]		
	Hypothyroidism	22	4.9
	Wheezing	3	0.7
	Congenital heart disease	3	0.7
	Others	5	1.1
2.	Risk factors identified during antenatal period [n=99]		
	Anaemia	50	11.1
	Pregnancy induced hypertension	22	4.9
	Gestational diabetes	15	3.3
	Pregnancy induced hypertension and gestational diabetes	4	0.9
	Anaemia & gestational diabetes	2	0.4
	Placenta previa	3	0.7
	Anaemia & Pregnancy induced hypertension	2	0.4
	Anaemia & Placenta previa	1	0.2

Table 3: Delivery particulars of the study participants.

S. No	Characteristics	Frequency	%
1.	Birth order of the child		
	1 st	169	37.6
	2 nd	241	53.6
	3 rd	40	8.8
2.	Term of delivery		
	Pre term	7	1.6
	Term	437	97.1
	Post term	6	1.3
3.	Mode of delivery		
	Normal	216	48.0
	Caesarean	234	52.0
4.	Time of delivery		
	7:00 a.m-2:00 pm	198	44.0
	2:00 pm-7:00 pm	82	18.2
	7:00 pm-7:00 am	170	37.8
5.	Complications during delivery		
	Foetal distress	18	4.0
	Meconium stain	11	2.4
	Meconium stain with foetal distress	6	1.3
	None	415	92.2
6.	Assistance adopted in normal delivery [n=216]		
	Episiotomy	172	79.6
	Episiotomy & Forceps	21	9.7
	None	23	10.6

The delivery particulars of the study participants are given in Table 3. Regarding birth order of the child 169 (37.6%) mothers gave birth to first child, 241 (53.6%) mothers gave birth to second child. Out of 450 deliveries, 437 (97.1%) were term deliveries and 234 (52%) were caesarean section deliveries. In 450 deliveries, 44% of the deliveries happened between 7 am to 2 pm (shift 1). Regarding complication during delivery, 92.2% of newborns had no complications. Out of 216 normal deliveries, 23 deliveries were conducted without any assistance.

Table 4: Characteristics regarding the new born.

S. No	Characteristics	Frequency	%
1.	Birth weight of the child (in kg)		
	<2	17	3.8
	2.1 – 2.5	92	20.4
	2.5 – 4.0	338	75.1
	>4.1	3	0.7
2.	APGAR score		
	Good (>7 points)	423	94.0
	Poor (4-6 points)	25	5.6
	Very poor (<4 points)	2	0.4
3.	Complications of neonate		
	Low birth weight	17	3.8
	Respiratory distress	24	5.3
	Jaundice	17	3.8
	Others	4	0.9
	No complications	388	86.2

The particulars regarding the new-born are given in Table 4. Regarding birth weight of the child, 3.8% of the babies were low birth weight babies (i.e., less than 2 kilograms) and 20.4% babies were between 2.1 - 2.5 kilograms. Out of 450 new-borns, APGAR score was above 7 points in 94% of the babies. Complications of neonate found in this study were respiratory distress (5.3%), low birth weight (3.8%), jaundice (3.8%), and other unspecified medical problems (0.9%).

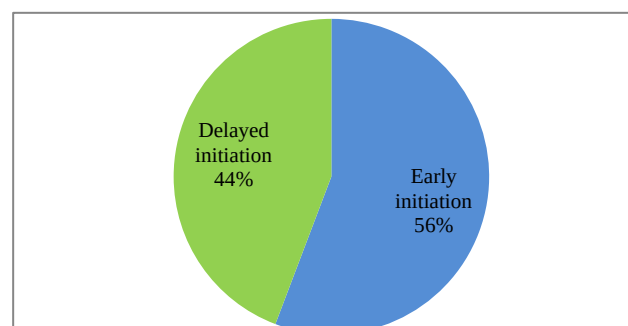


Figure 1: Prevalence of early initiation of breast feeding among the study participants.

The prevalence of early initiation of breastfeeding is given in Figure 1. The overall prevalence of early

initiation of breastfeeding in this study was 56% with the range between 51.1 and 60.3 (95% CI).

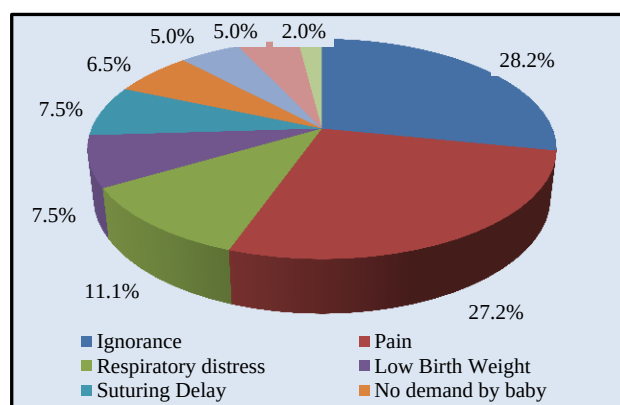


Figure 2: Reasons for delay in initiating breastfeeding among the new-born.

Out of 450 mothers, 199 mothers delayed initiation of breastfeeding (Figure 2) by one hour after delivery, due to ignorance (28.2%), pain in the mother (27.2%) and respiratory distress (11.1%) as the most common causes. The mean hours of delay in early initiation of breast feeding among normally delivered mothers was 3.7 ± 7.4 hours and that of caesarean delivered mothers was 10.6 ± 19.1 hours. The overall hours delayed by all the mothers were 8.4 ± 16.7 hours.

Table 5: Breast feeding practices among the study participants.

S. No	Characteristics	Frequency	%
1.	Suckling reflex after initiation of breast feeding		
	Immediately	443	98.4
	Delayed	7	1.6
2.	Suckling started after initiation of breast feeding		
	0-5 Hours	445	98.8
	6-10 Hours	1	0.2
	11-15 Hours	2	0.4
	>15 Hours	2	0.4
3.	Pre-lacteal feeds given		
	Sugar solution	18	4
	Water	34	7.5
	Sugar solution and water	12	2.6
	Formula milk	3	0.7
	Cow's milk	16	3.5
	Others	4	0.9
	No feeds given	363	80.7

The breastfeeding practices among the study participants are given in Table 5. Suckling reflex of babies was good among 98.4% babies whereas 1.6% of the babies felt it difficult. Out of 450 babies, 87 babies were fed with pre-

lacteal feeds. 7.5% of babies were fed with lukewarm water, 6.6% of babies were fed with sugar solution, 3.5% of babies were fed with Cow's milk, 0.9% of babies were

fed with others which include tea and donkey's milk and 0.7% of babies were fed with formula milk.

Table 6: Association between certain characteristics and early initiation of breastfeeding.

S. No	Characteristics	N=450	Delayed initiation of breast feeding		Chi-square	P value	OR	95% CI
			N	%				
1.	Age of mother (years)							
	≥26	141	79	56	13.6	0.01*	2.0	1.3 -3.0
	≤25	309	120	38.8				
2.	Place of residence							
	Urban	231	116	50.2	6.9	0.01*	1.6	1.1 -2.4
	Rural	219	83	37.9				
3.	Risk factors in antenatal period							
	Present	99	63	63.6	19.4	0.01*	2.8	1.7 -4.4
	Absent	351	136	38.7				
4.	Place of delivery							
	Tertiary Health Centre	150	96	64	36.0	0.01*	3.4	2.3 -5.1
	Primary/Secondary Health Centre	300	103	34.3				
5.	Mode of delivery							
	Caesarean	234	137	58.5	40.6	0.01*	3.5	2.4 -5.2
	Normal	216	62	28.7				
6	Breast symptoms							
	Present	16	10	62.5	2.3	0.10	2.2	0.8- 6.1
	Absent	434	189	43.5				

Table 7: Association between neonatal factors and early initiation of breastfeeding among the study participants.

S. No	Characteristics	N=450	Delayed initiation of breast feeding		Chi-square	P value	OR	95% CI
			N	%				
1.	Birth order of child							
	First child	169	95	56.2	15.8	0.01*	2.2	1.5- 3.2
	>One child	281	104	37				
2.	Birth weight of child							
	< 2.5 kg	61	30	49.2	0.7	0.40	1.3	0.7- 2.2
	≥2.5 kg	389	169	43.4				
3.	Complication in neonate							
	Present	62	41	66.1	14.0	0.01*	2.8	1.6- 4.9
	Absent	388	158	40.7				
4	Donor's milk							
	Donor's milk given	59	50	84.7	23.1	0.01*	5.3	2.5-11.0
	Donor's milk not given	391	201	51.4				
5	Pre-lacteal feed							
	Pre-lacteal feed given	87	49	56.3	0.01	0.90	1.0	0.6 - 1.7
	No pre-lacteal feed given	363	202	55.6				

The association between the socio-demographic and maternal risk factors on early initiation of breast-feeding is given in Table 6. Regarding the age of the mother and early initiation of breast-feeding, there is a significant association between the both. Among the mothers aged ≥26 years, there was a delay in initiation of breastfeeding with an odds ratio of 2.01 (1.34-3.0), which is statistically

significant ($\chi^2=13.6$ and $p=0.01$). There was a significant association between the place of residence and early initiation of breastfeeding ($\chi^2=6.9$, $p=0.01$) with odds ratio of 1.6 (1.1–2.4).

The risk factors during antenatal period of the mother had a significant effect on early initiation of breastfeeding.

The association was found statistically significant with odds ratio of 2.8 (1.7–4.4) ($\chi^2=19.4$, $p=0.01$). It was identified that early initiation of breast-feeding in primary and secondary health centres had a positive results and also found to be statistically significant ($\chi^2=36.0$, $p=0.01$). The mode of delivery had seen to influence the early initiation of breast-feeding among mothers. About 28.7% of normally delivered and 58.5% of caesarean delivered mothers initiated breast-feeding after one hour of delivery, which was statistically significant ($\chi^2=40.6$, $p=0.01$).

The association between neonatal factors and early initiation of breastfeeding is given in Table 7. Birth order of the child and early initiation of breast-feeding had a significant association ($\chi^2=15.8$, $p=0.01$). In this study, there was a significant association between complication in neonate and delay in early initiation of breast-feeding with an odds ratio of 2.8 (1.6–4.9), which is statistically significant ($\chi^2=14.0$, $p=0.01$). The babies who were fed with donor's breast milk also delayed the initiation of breast-feeding, and was found to be statistically significant ($\chi^2=23.1$, $p=0.01$).

DISCUSSION

The prevalence of early initiation of breastfeeding among mothers in this study reveals several interesting factors. The main findings of this study are discussed here in relation to similar studies conducted in India as well as outside India.

This study reveals that the mothers aged ≤ 25 years initiated the breastfeeding within 1 hour, whereas the mothers aged ≥ 26 years delayed the initiation of breast-feeding which is found to be statistically significant. This study was supported by a study done by Mallik showing that increasing age of mothers had a negative influence on early initiation of breastfeeding. Knowledge score was good in 80.5% mothers below 20 years, 89.8% between 20-25 years, 91.2% between 26-30 years and 100% in mothers above 30 years. It also coincided with the result of adverse effects of early initiation of breastfeeding below 20 years of age.¹⁹

About 37.9% of mothers from rural areas and 50.2% of mothers from urban areas delayed early initiation of breastfeeding. It is a statistically significant finding. This study shows a better prevalence among rural mothers than urban mothers, which coincide with NFHS-3 data of Tamil Nadu. According to which the prevalence of early initiation of breast-feeding among rural mothers is 52.3% and urban mothers is 58.8%.¹⁴

This study shows that there is a significant association between mode of delivery and initiation of breastfeeding. This study was supported by the study done by Motee et al which reveals that 42.6% of normally delivered mothers and 23.9% of caesarean delivered mothers had initiated breast feeding within one hour.²⁰ For caesarean

delivered mothers, management of pain along with support of family members and health care providers, helps in early initiation of breast-feeding.

The birth order of the child and early initiation of breastfeeding had no significant association. Among the mothers with first child, 43.8% of the mothers initiated breastfeeding within one hour and 56.2% of the mothers after one hour of delivery respectively. Whereas among the mothers with more than one child, 63% of the mothers initiated breast feeding within one hour and 37% of the mothers after one hour of delivery respectively. But according to a study conducted by Tori Sutherland, Pierce the results were in reverse showing an increasing trend of non- initiation with increasing birth order.²¹

Regarding birth weight of the child and early initiation of breast feeding, 50.8% of children weighing < 2.5 kilograms and 56.6% of children weighing ≥ 2.5 kilograms were breast fed within one hour of delivery whereas 49.2% of children weighing < 2.5 kilograms and 43.4% of children weighing ≥ 2.5 kilograms were breast fed after one hour of delivery. This finding was supported by the study done by Emel Örün et al, which showed that birth weight had no effect on early initiation of breastfeeding.²²

About 33.9% of neonates with complications and 59.3% of neonates without complications were able to breast feed within one hour of delivery. This study correlates with the study done by Anaiappan showing the influence of neonatal complications on early initiation of breast-feeding.¹¹

Pre-lacteal feeds had no influence on early initiation of breast-feeding. 56.3% of mothers who practiced pre-lacteal feeds didn't initiated breast-feeding within one hour of delivery. It is statistically not significant. The study done by Yadavannavar, Shailaja showed that, 91.6% of mothers gave pre-lacteal feeds to their children.¹³ In India and other developing countries pre-lacteal feeds (feeds given to neonates before the initiation of lactation) are very common and are an important factor in delaying the initiation of breast feeding.²³

This study was conducted to estimate the prevalence of early initiation of breastfeeding among postnatal mothers in selected health centres. In this study the prevalence rate is 55.8%, which is more or less similar to the state prevalence of 58.8% (NFHS-3) and the study done by Anaiappan showing a prevalence rate of 54.4%.¹¹ Awareness among mothers and the family members is important to achieve higher rate of prevalence in early initiation of breast-feeding.

Limitations

Only the mothers who were admitted in the government hospitals were included in the study. Socio-cultural variations between government and private hospitals

could not be addressed. This study shows a lower prevalence of early initiation of breastfeeding for mothers delivered in tertiary care hospitals. This may not reveal the actual situation in the community because tertiary care centres receive complicated cases for delivery and postnatal care.

CONCLUSION

In this study the breastfeeding practices and prevalence of early initiation of breastfeeding were estimated. Factors like age of mother, place of residence, risk factors during antenatal period, place of delivery, mode of delivery, birth order of the child and complications in the neonate had a significant effect on early initiation of breast feeding. Some of the reasons for delay including problems faced during nursing like pain in suture site, ignorance of the mother and rooming-in delay can be overcome by providing pain management services, health educating mothers and measures like initiation of breast feeding in the labour or recovery room and early rooming-in of mother and child respectively. Also, complications in mother and neonate can be reduced to some extent by regular antenatal check-up. In caesarean delivered mothers, early initiation of breastfeeding can be made better by the positive attitude of the mother and encouragement of the family members.

Knowledge about the advantages of breastfeeding practices, particularly importance of early initiation of breastfeeding may improve the current status of early initiation of breastfeeding. The support system available and the recommendations of the hospital and health professionals may play a major role in early initiation of breast feeding by not only creating awareness regarding the right practices, but also efforts to abolish cultural taboos associated with breastfeeding. Multi-pronged approach is needed to enhance the knowledge and practice of early initiation of breastfeeding, which will help to reduce neonatal and infant mortality in the long run. Baby Friendly Hospital Initiative should be universalized in all the public and private hospitals in the country along with the RCH program.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Shalini S, Gopalakrishnan S. Breastfeeding practices of nursing mothers in Tamil Nadu: a hospital based cross sectional study. *Int J Community Med Public Health* 2018;5:4441-9.