

Exclusive Breastfeeding and Weaning Practices -Prevalence and Determinants In Thiruvallur District Of Tamilnadu

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Abstract: A cross sectional study on breastfeeding in Thiruvallur district showed overall prevalence of exclusive breastfeeding (EBF) of 65.5% and 76% among the mothers in the semi urban area and 55% in the rural village. EBF is higher (56.5%) among mothers 25 years of age and above; 77.1% in Hindu mothers; 97.7% in lower income group. EBF was higher among those who had normal vaginal deliveries (66.4%) and those who had male babies it was (55.0%). Those who fed colostrum had an EBF prevalence of 99.2% and who did not give pre-lacteal feeds, women were breastfed their babies within one hour and Those who received breastfeeding awareness from healthcare professionals practiced EBF more. The most common morbidity of the mother (85%) that impacted on exclusive breastfeeding was delivery by caesarean section. Early weaning was seen in 20.5% of the mothers and this is because they wanted their babies to gain more weight. Despite many efforts, EBF and weaning after 6 months are not universal and need focus and health system strengthening.

Keywords: Exclusive breastfeeding, religion, colostrum, pre lacteal feeds, weaning, breastfeeding education,

I. Introduction

Optimal breastfeeding of infants under two years of age has the greatest potential impact on child survival of all preventive interventions, with the potential to prevent over 800,000 deaths (13 per cent of all deaths) in children under-five in the developing world (Lancet 2013). Exclusive breastfeeding can be defined as a practice whereby the infants receive only breast milk and not even water, other liquids, tea, herbal preparations, or food during the first six months of life, with the exception of vitamins, mineral supplements, or medicines [1]

The World Health Organization (WHO) recommends that infants be exclusively breastfed for the first six months, followed by breastfeeding along with complementary foods for up to two years of age or beyond [2]. Breastfed children have at least six times greater chance of survival in the early months than non-breastfed children. An exclusively breastfed child is 14 times less likely to die in the first six months than a non-breastfed child, and breastfeeding drastically reduces deaths from acute respiratory infection and diarrhoea, two major child killers (Lancet 2008). The potential impact of optimal breastfeeding practices is especially important in developing country situations with a high burden of disease and low access to clean water and sanitation. In the UK Millennium Cohort Survey, six months of exclusive breast feeding was associated with a 53 decrease in hospital admissions for diarrhoea and a 27 decrease in respiratory tract infections.

Only 39 per cent of children less than six months of age in the developing world are exclusively breastfed and just 58 per cent of 20-23 month olds benefit from the practice of continued breastfeeding. A growing number of countries are demonstrating that significant and rapid progress is possible, with 25 countries showing increases of 20 percentage points or more of exclusive breastfeeding [3]

Objectives of this study

1. To study the prevalence of exclusive breastfeeding and its determinants in the community belonging to the field practice area- Parivakkam (rural/ semi urban)) and Adayalampatu (urban)
2. To understand the reasons for early weaning in the same population

II. Methodology

This is a cross sectional study in 3 villages within the field practice area of a medical college. With purposeful sampling- all 200 mothers of children below 3 years of age were interviewed using a Pre tested Questionnaire. Findings was analyzed using bivariate analysis.

III. Findings

Figure 1 Socio demographic details of the study population

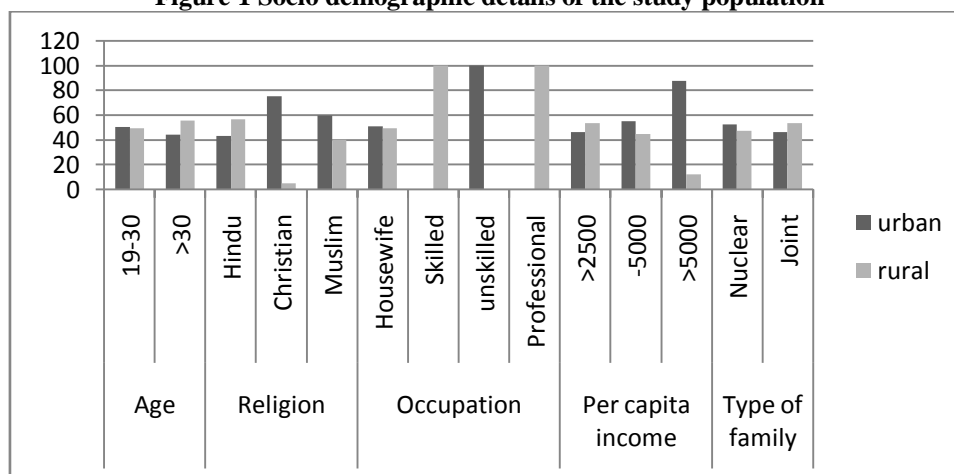


Table 1 Urban Rural differences in exclusive breastfeeding

| | EBF | NEBF | Total |
|-------|-----------|----------|-----------|
| urban | 76 (76) | 24 (24) | 100 (100) |
| rural | 55 (55) | 45 (44) | 100(100) |
| Total | 131(65.5) | 69(34.5) | 200(100) |

$\chi^2= 8.85$ $p=0.002$, OR 2.59 *Figures in parenthesis are percentage

EBF was prevalent in 65.5% of the total population. In the urban area it was 76% and in the rural area it was only 55%. This difference was statistically significant.

Table 2 Demographic factors and EBF

| | Variable | EBF | Non EBF | Chi sq | P value | CI | |
|----|-----------------------|-----------------|------------|-----------|---------|-------|-----------|
| 1. | Age of mother | 18-24 | 57(43.5) | 23(33.3) | 1.88 | 0.169 | 1.8-2.9 |
| | | 25 and above | 74(56.5) | 46(66.7) | | | |
| 2. | Religion | Hindu | 101 (77.1) | 54(78.3) | 0.001 | 0.99 | 0.46-1.8 |
| | | Non Hindu | 30(22.9) | 15(21.7) | | | |
| 3. | Per capita income INR | < 5000 | 128(97.7) | 64(92.8) | 1.74 | 0.18 | 0.77-14.3 |
| | | > 5000 | 3(2.3) | 5(7.2) | | | |
| 4. | Type of house | Kucha+ | 68 (51.9) | 22(31.9) | 6.53 | 0.01 | 1.2-4.2 |
| | | Pucca | 63(48.1) | 47(68.1) | | | |
| 5. | Type of delivery | Normal vaginal+ | 87 (66.4) | 42(60.9) | 0.38 | 0.53 | 0.69-2.3 |
| | | Cesarean | 44 (33.6) | 27((39.1) | | | |
| 6. | Gender of child | Male | 72 (55.0) | 25(36.2) | 5.6 | 0.017 | 1.17-3.91 |
| | | Female | 59 (45.0) | 44(63.8) | | | |
| 7. | Parity of mother | Primi | 70 (53.4) | 33(47.8) | 0.36 | 0.54 | 0.69-2.2 |
| | | Multi | 61 (46.6) | 36(52.2) | | | |

*Figures in parenthesis are percentage

EBF is higher (56.5%) among mothers 25 years of age and above; among Hindus it was 77.1%, in mothers belonging to income less than 5000 Rupees per month it was 97.7%; among those living in kutchha houses it was 51.9%, among those who had normal vaginal deliveries it was 66.4%, in those who had male babies it was 55.0% and among primipara it was 53.4%.

Table 3. Neonatal practices affecting EBF

| | variable | | EBF | Non EBF | Chi sq | P value | CI |
|----|-------------------------------------|---------------------------|------------|-----------|----------------------------------|-----------------------------------|-----------|
| 1. | Colostrum | Given | 130(99.2) | 62(89.9) | 8.05 (fisher exact 0.0027) | 0.0045 (fisher exact 0.002) | 1.7-121.9 |
| | | Not given | 1(0.8) | 7 (10.1) | | | |
| 2. | Pre lacteal feeds | Given | 39(42.4) | 25 (36.2) | 0.59 | 0.44 | 0.4-1.38 |
| | | Not given | 92 (57.6) | 44 (63.8) | | | |
| 3. | Time of Initiation of breastfeeding | < 1 hr | 81 (61.8) | 43 (62.3) | 0.007 | 0.93 | 0.5-1.7 |
| | | > 1 hr | 50(39.2) | 26(37.7) | | | |
| 4. | Breast feeding education source | Health care professionals | 100 (76.3) | 51 (73.9) | 0.042 | 0.836 | 0.58-2.2 |
| | | Others | 31(23.7) | 18(26.1) | | | |

*Figures in parenthesis are percentage

EBF was prevalent among 99.2% in those who gave colostrum to babies in comparison to those who did not. This difference was statistically highly significant. When pre lacteal feeds were not given, the prevalence of EBF was higher (57.6%). Those women were breastfed their babies within one hour had a higher rate of EBF (61.8%). Those who received breastfeeding awareness from healthcare professionals had a higher incidence of EBF (76.3%).

Table 4 Type of morbidity that interfered with EBF (n=20)

| Type of morbidity | Number |
|------------------------|----------|
| Caesarean section | 17 (85) |
| Surgical sterilization | 1 (5) |
| Postpartum hemorrhage | 1 (5) |
| Seizures | 1 (5) |
| Total | 20 (100) |

*Figures in parenthesis are percentage

The most common condition (85%) that impacted on exclusive breastfeeding was delivery by caesarean section.

Table 5 Reasons for weaning before 6 months (n =41)

| Reasons for early weaning | Number |
|---------------------------|------------|
| For baby's weight gain | 6 (14.6) |
| Inadequate milk secretion | 24 (58.5) |
| No milk secretion | 5 (12.2) |
| Others | 4 (9.8) |
| Not sucking properly | 2 (4.9) |
| Total | 41 (100.0) |

*Figures in parenthesis are percentage

Inadequate milk secretion was the reason for early weaning for 58.5% of mothers; 14.6% did it for weight gain for babies and 12.2% felt milk secretion had stopped.

IV. Discussion

A study on the Global trends in exclusive breastfeeding by UNFPA reveals that although considerable improvements have been made in some regions in the world, the prevalence of exclusive breastfeeding remains far too low in many areas of the developing world. Their review of data from 66 countries covering 74% of the developing world population observed suboptimal coverage of exclusive breastfeeding, with less than 40% of infants younger than six months of age estimated to be exclusively breastfed in 2010. This is far below the widely accepted "universal coverage" target of 90% coverage and suggests the need for an urgent acceleration

of efforts to scale up effective programs in promoting exclusive breastfeeding. UNICEF statistics indicate the national prevalence of EBF to be 46%. In this study the prevalence of exclusive breastfeeding in this study population was 65.5%. It was higher in the urban area (76%) compared to the rural area (55%). This difference was statistically significant. Predictors of breastfeeding and weaning practices vary between and within countries. Urban or rural difference, age, breast problems, societal barriers, insufficient support from family, knowledge about good breastfeeding practices, mode of delivery, health system practices, and community beliefs have all been found to influence breastfeeding in different areas of developing countries [4][5].

In our study EBF is higher (56.5%) among Mothers 25 years of age and above. It was 77.1% in mothers of Hindu families. In lower income (<5000 INR per month) families it was 97.7% in comparison with others. Mothers living in Kutcha Houses had marginally higher prevalence of EBF 51.9% compared to others. EBF was higher among those who had normal vaginal deliveries (66.4%) than the others. Similarly in those mothers who had male babies it was (55.0%). These differences were not statistically significant.

Among primipara EBF was 53.4%. Studies done in the United Kingdom [6][7] and in Bangladesh [8] affirmed that breastfeeding duration increases with increasing parity which might be related to previous breastfeeding experiences. Nevertheless, in another study [9] it was asserted that parity had no significant influence on duration of breastfeeding. Pre lacteal feeds and time of initiation of breastfeeding have been shown to relate to EBF. EBF was seen in 99.2% of those who gave colostrum to babies in comparison to those who did not. This difference was statistically highly significant. When pre lacteal feeds were not given, the prevalence of EBF was higher (57.6%). Those women who breastfed their babies within one hour had a higher rate of EBF (61.8%).

The practice of exclusive breastfeeding depends on various factors related to both mothers and their environment, including the services delivered by health professionals. It is known that support and counseling by health professionals can improve rates, early initiation and total duration of breastfeeding, particularly exclusive breastfeeding. Mothers' decisions are influenced by health professionals' advice. [10] In our study those who received education on breastfeeding from doctors and nurses, had a higher incidence of EBF compared to those who were taught by Anganwadi workers and others. This points to the fact that the mothers in these villages tend to follow instructions from doctors and nurses than from others.

A study on the Constraints to exclusive breastfeeding practice among breastfeeding mothers in Southwest Nigeria [11] revealed that maternal health problems were responsible for 26% of the reasons why babies were not breastfed. In our study 20 mothers reported postpartum morbidities that impacted on exclusive breastfeeding. Among those, the most common was delivery by caesarean section (85%). It has been shown that between 1985 and 2011 the study countries in southern Asia experienced a much greater rise in caesarean delivery rates than the countries that we investigated in sub-Saharan Africa. [12]

Forty one out of 200 mothers had weaned their babies before 6 months of age and the commonest reason was that they felt that additional food was necessary to make the babies gain more weight. In a Tehran study [13] a total of 74% of mothers who used supplementary formula and 39% of those who had completely stopped breast-feeding blamed milk insufficiency, although 67% of these mothers had reached this conclusion only because their infants cried or were irritable.

V. Conclusion

This study reiterates that prevalence of exclusive breastfeeding of babies is still low and needs the health system's focus and attention. Mothers tend to wean their babies earlier as they feel that breastfeeding alone is inadequate for weight gain. Delivery by caesarean section has increasingly become a hindrance to breastfeeding and is steadily increasing. Health education, awareness of breastfeeding practices and continued support to the mothers should form an important continuum of care during pregnancy and later in order to protect the babies from malnutrition and related morbidities.

We acknowledge the support provided by Dean and Prof KK Dutta Gupta, Dr. Susila Samuel, and the cooperation of the target communities in conducting this study.

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