



Prevalence of exclusive breastfeeding among mothers of rural Tamil Nadu- A cross-sectional Study

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Abstract

Introduction: Breastfeeding plays an important role in providing nutrition to the infant's healthy growth and development. Worldwide prevalence of exclusive breastfeeding in the first six months of life is only 35%. In India, according to NFHS-4, the prevalence of early initiation of breastfeeding is as low as 41.6% and exclusive breastfeeding is 54.9%.

Materials and Methods: Community based cross sectional study was carried among 250 women having children between the age group 6 months and 2 years attending rural health center, Poonjeri. Convenient sampling method and a semi-structured questionnaire which includes age, sex of the children, duration of exclusive breastfeeding, initiation of breastfeeding after birth and the reasons for non-exclusive breastfeeding practices by the mothers was used. A brief explanation about the importance of exclusive breastfeeding was given to them.

Results: In the current study, the prevalence of exclusive breastfeeding for 6 months was found to be 41.6% and initiation of breastfeeding within an hour of birth was 38.4%. Majority of mothers reason for non-exclusive breastfeeding was due to work and their job which was 31.5% followed by difficulty in breastfeeding (20.5%), insufficient breast milk (14.4%), force from the family members to adopt bottle-feeding (13.7%), unable to satisfy baby hunger (12.3%) and belief of bottle-feed more nutritious than breastfeeding (7.6%).

Conclusion: The prevalence of exclusive breastfeeding was found to be low in the study population. So, health education must be intensified among all child bearing age group women from their antenatal checkups must be done.

Keywords: Colostrum, bottle-feeding, cancer, infections.

Introduction

Breastfeeding plays an important role in providing nutrition to the infant's healthy growth and development. As a public health measure, WHO recommended early initiation of breast feed and exclusive breast feeding for 6 months, which can be extended upto minimum of 2 years ⁽¹⁾. Early initiation of breastfeeding is tremendously significant for providing 'Colostrum' to the neonate and beginning of successful lactation. Preferably, the neonate should be breastfed in all possible cases within one hour of birth. Exclusive breastfeeding means that infants are given only breast milk and nothing else – no artificial milk, food, drinks and not even water excluding medications in the first 6 months of life. It is vital to guarantee exclusive breastfeeding of all the babies, as it protects them from diarrhoea, pneumonia and also helps in reducing the ear infections, risk of attacks of asthma and allergies ⁽²⁾.

Globally from August 1st to 7th of every year is celebrated as world breastfeeding week to cheer breastfeeding and to improve the health conditions of infants. In August 1990, Innocenti declaration was signed by government policy makers, WHO, UNICEF and other organizations to improve, safeguard and support of breast feeding. ⁽¹⁰⁾

Worldwide prevalence of exclusive breastfeeding in the first six months of life is only 35% ⁽³⁾. The position of breastfeeding practices is very miserable in India. According to NFHS-4, the prevalence of the early initiation of breastfeeding in India is as low as 41.6% and Exclusive breastfeeding is 54.9% ⁽⁴⁾.

There are wide range of causes including poor educational qualification, lack of awareness about the advantages of breast feeding and cultural taboos etc. for improper breast feeding practices. The importance of exclusive breastfeeding to mother like prevention of ovarian cancer and premenopausal breast cancer is unknown to many ⁽⁵⁾.

The primary objective for the present study was to find out the prevalence of early initiation of breast

feed and prevalence of exclusive breastfeeding among mothers of rural area. Secondary objective was to generate awareness among mothers about exclusive breastfeeding and also to find out the reasons behind non-exclusive breastfeeding practices among them.

Methodology

This community based cross sectional study was carried out among mothers of children aged between 6 months and 2 years attending outpatient services of a rural health center, Poonjeri, Kancheepuram district Tamil Nadu which is a field practicing area of a private medical college. Data collection was done during January 2016 to May 2016. Mothers who are not willing to participate in the study were excluded from the study.

Sample size calculation was done based on the prevalence of exclusive breast feeding in Tamil Nadu which was found to be 34% in a study conducted by Shankar et al ⁽⁶⁾. So, using the prevalence 34% with a precision of 16% of P at 95% confidence interval, applying the formula $4PQ/L^2$ the sample size was found to be 239. After rounding off 250 sample size was obtained. All the eligible participants were recruited by convenient sampling technique was used.

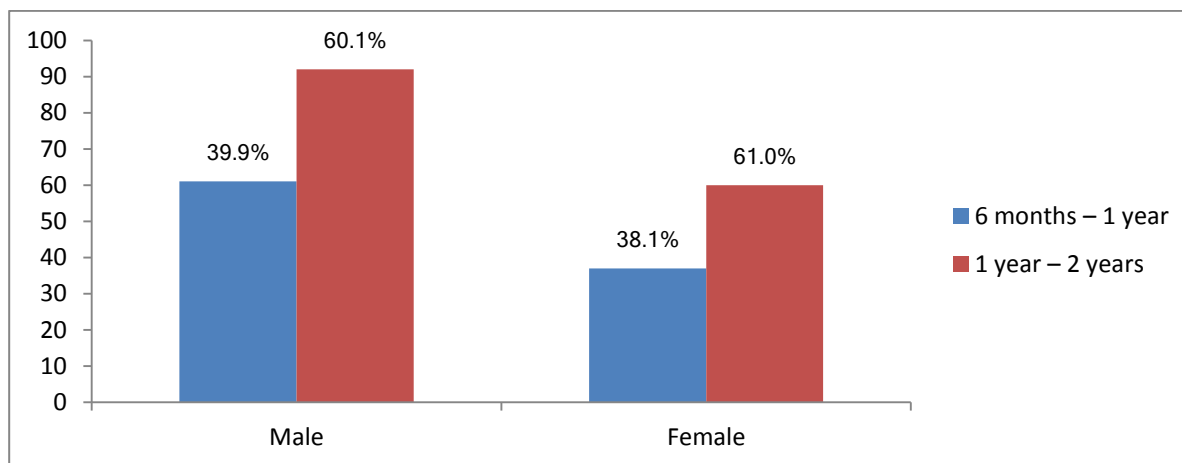
The semi-structured questionnaire which includes the age, sex of the children, duration of exclusive breast feeding, initiation of breast feeding after birth and the reasons for non-exclusive breast feeding practices by the mothers was used. After obtaining the informed consent from the mothers' face to face interview was conducted. After the interview a brief explanation about the importance of exclusive breast feeding in the growth and development of infants was given to them.

Data analysis: After completion of data collection, data was entered in Microsoft excel spreadsheets and frequency of all variables were checked for completeness, data entry mistakes in data appropriate corrections was done. Data was then analyzed with the help statistical package for the social sciences software (SPSS) for windows

version 21. Results was then designated in percentages and proportions and then showed in appropriate tables and figures.

Results

A total of 250 participants were included in the final analysis. In the current study, male children (61%) were much higher than female children (49%).



Graph 1: Distribution of age and sex among the study population

In the current study the prevalence of exclusive breast feeding for 6 months was found to be 41.6% and duration of exclusive breast feeding less than 1 month was found among 8.8%.

Table 1: Duration of exclusive breast feeding among the study population

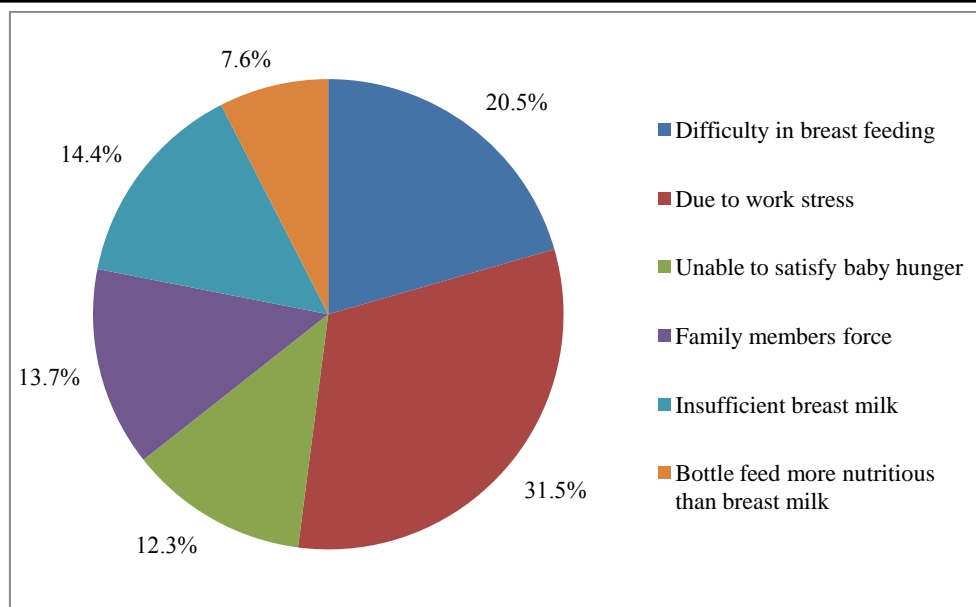
Duration	Frequency (n=250)	Percentage
< 1 month	22	8.8
1-2 months	18	7.2
2-3 months	24	9.6
3-4 months	28	11.2
4-5 months	54	21.6
≥6 months	104	41.6

The prevalence of initiation of breast feeding within an hour of birth in the current study was 38.4% and prevalence of initiation of breast feeding after 12 hours of birth was 12%.

Table 2: Duration of initiation of breast feeding after birth among the study population

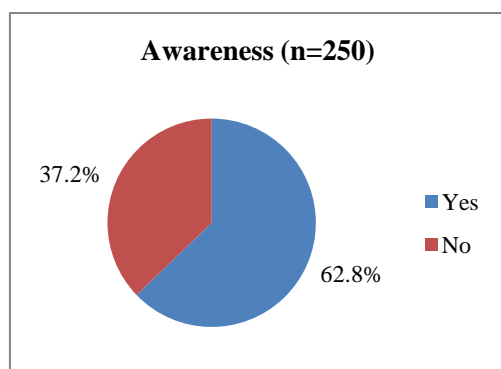
Duration	Frequency (n=250)	Percentage
<1 hour	96	38.4
1-3 hours	49	19.6
3-6 hours	42	16.8
6-12 hours	23	9.2
>12 hours	30	12.0

Various reasons were reasons were reported by mothers for non-exclusive breast feeding for 6 months of age were varied by the mothers. Majority of the mothers’ reason was due to work and their job (31.5) and difficulty in breast feeding (20.5%). Other reasons for bottle feed than breast feeding was insufficient breast milk(14.4%), force of the family members to adopt bottle feeding (13.7%), unable to satisfy the baby hunger(12.3%) and a belief that bottle feeding is much nutritious than breast feed(7.6%).



Graph 2: Reasons for non-exclusive breast feeding among the study population.

The prevalence of awareness about exclusive breast feeding among the study mothers was found to be 62.8%.



Graph 3: prevalence of awareness among the study mothers.

Discussion

The prevalence of exclusive breastfeeding among mothers of rural Tamil Nadu was 41.6% which was found to be much high than the studies done by S. Radhakrisnan et al in Salem(34%) and by Joshi et al in Bangladesh(36%)⁽⁷⁾. This may be due to health measures such as increased institutional deliveries, improved Primary health care resulting from execution of National Rural Health Mission in Tamil Nadu. But the prevalence of the current study is less than the prevalence found in a study by S Gunasekarari et al (46.4%)⁽⁸⁾ which may due to rapid urbanization

and modernization leading to wild advertising of formula feeds.

In the current study, only 38.4% initiated breast feeding within 1 hour of birth. About 12% of the study population didn't start breast feeding for more than 12 hours after birth. This may be due to lack of awareness about early initiation of breast feeding or may be due to delay in handing over the baby to the mother which has to be sidestepped.

The awareness about exclusive breastfeeding and its advantages was found to be 62.8% in the present study which was found to be much less than the study by Vijayalakshmi P et al⁽¹¹⁾ which showed 85% but in a study done by Maheswari Ekambaram et al⁽¹²⁾ in puducherry showed only 38%.

In the current study 68.4% of mothers stopped exclusive breastfeeding due to many reasons. The most common reason was unable to breastfeed due to their jobs and going to work leaving the baby at home (31.5%). Other important reasons for bottle feeding is difficulty in feeding (20.5%), insufficient breast milk (14.4%), force by the family members to adopt bottle feed(13.7%), fear of unable to satisfy hunger of the baby(12.3%) and misconception that bottle-feed is more nutritious than breast milk(7.6%). In a study done by Sachdev HP et al conveyed that the fear of

insufficient production of breast milk secondary from the baby's cry as chief cause for starting of artificial feeding⁽⁹⁾. The commonest feed supplemented instead of breast milk is cow's milk by the mothers to their children. In a study conducted by Chandrasekhar S et al stated that 71% of mothers living in rural parts of south India stopped exclusive breastfeeding within 3 to 5 months of age of their children as 90% of them sensed cow's milk as a perfect supplement. In the present study, only 62.8% of the study mothers are aware of benefits and importance of exclusive breastfeeding. But due to maternal employment and many myths many discontinue exclusive breastfeeding before 6 months of age of their children.

Conclusion

In the present study, the prevalence of exclusive breastfeeding and early initiation of breastfeeding was very low. The important reasons for non-exclusive breastfeeding practices are maternal employment, insufficient breast milk production, unable to satisfy hunger of the baby, difficulty in breastfeeding and force of the family members to adopt bottle feeding. The awareness of exclusive breastfeeding among all mothers was found to be less.

The current study highlighted low prevalence of exclusive breastfeeding inspite of many health programmes. So health education must be intensified among all child bearing age group women from their antenatal checkups. Initiation of breast feeding must be encouraged as soon as possible after birth which is the first step to future of exclusive breast feeding by the health workers. Health education must also be given to all the members of family so that breastfeeding can be made fruitful and can minimize both maternal and infant morbidities.

Limitations

Major limitation of the study was recall bias as the data concerning breast feeding practices was collected more than 12 months after delivery from

some mothers and mothers who lost their child before completion of six months of breast feeding were not included in the present study.

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