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Prelacteal Feeding Practice and Associated Factors Among Mothers Attending Immunization Clinic in Tripura Medical College & Dr Bram Teaching Hospital, Hispania, Tripura

Medical Science

KEYWORDS : Prelacteal Feeding, Infant, Exclusive Breastfeeding, Mothers

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ABSTRACT

Background: Breast feeding will have the intended outcome when it is initiated timely and exclusive for the first six months. Introducing prelacteal feeding and inadequate amount of breast milk contributes to over a million avoidable infant deaths each year in developing countries. The purpose of this study was to assess prelacteal feeding practice and associated factors among mothers attending immunization clinic in Tripura medical college & Dr BRAM Teaching Hospital.

Methods: An institutional based cross-sectional study design was conducted among 500 mothers and infants attending ten public health facilities. Systematic random sampling method was used to select the study participants. An exit interview using pretested structured questionnaire was conducted about their experience on prelacteal feeding. Logistic regressions with OR and 95% confidence interval were computed. Result: One hundred and ninety one mothers gave prelacteal liquids to their infants. The common pre-lacteal foods include sugar or glucose water 121 (43.5%) followed by milk other than breast milk 70 (25.1). Conclusion: The prevalence of prelacteal feeding was relatively high in the area. Failure to attend ANC, giving birth at home, late initiation of breast feeding and influence of friends and relatives to give prelacteal feeds for their new born infants were found to be positively associated with prelacteal feeding.

1. Background

Prelacteal feeding is giving liquids or foods other than breast milk prior to the establishment of regular breastfeeding. It deprives the child valuable nutrients and exposes the newborn to the risk of infection [1]. Furthermore, prelacteal liquid is given with a finger or a spoon often while the child is asleep or crying, and there is a danger of aspirating the fluid into the air passages and lungs. Thus, this feeding process reduces the practice of exclusive breast feeding which can be dangerous to the child and may even result in death [2]-[4]. A lack of exclusive breastfeeding contributes to over a million avoidable child deaths each year. Globally, less than 40% of infants less than six months of age are exclusively breastfed [5] [6]. Every day, 3000 – 4000 infants die in the developing world from diarrhea and acute respiratory infections because they are given inadequate amounts of breast milk and were introduced to prelacteal feeding [7]. Breastfeeding has the potential to save neonatal, infant and young child lives and to reduce morbidity [8]. It is ranked as one of the safest and most efficient health interventions to achieve the millennium development goal 4 (MDG4) to reduce childhood mortality [9]. Although breast-feeding is almost universal across Ethiopian ethnic groups and geographical areas, it does not always meet WHO/UNICEF recommendations [10]. Data from the Ethiopian Demographic Health Survey of 2011 Report showed that 27% of infants were given prelacteal feedings within the first three days of life [11]. However, there is a paucity of information on social and environmental factors associated with pre-lacteal feeding. Thus, the objectives of this study were to determine the prevalence of pre-lacteal feeding practices and associated factors among mothers attending immunization clinics in Tripura medical college & Dr BRAM Teaching Hospital.

2. Method

Study area and period: The study was conducted from 15/1/2015 to 15/3/2015

Study design, population and sampling: Institution based cross sectional study was conducted among mothers visiting immunization clinic. The sample size was calculated using single population proportion formula: the proportion of mothers who practice prelacteal feeding was assumed to be 50% [12], Z value is 1.96, 4% marginal error, and 10% none response rate, a total of 500 mothers - infant were required for the study. The sampling unit was taken from each of the 10 public health institutions based on their predetermined client flow rate. To allocate the study subjects, first the average numbers of clients who visit the immunization department daily was estimated by referring client registration book/record for two months prior to data collection. Proportional allocation was made based on the possible number of patients that would be expected during the study period. Systematic random sampling was employed to identify study participants. Sampling interval was determined by dividing the expected patient within the study period by allocated sample size to each facility.

Data collection: Data were collected by client exit interview from mothers of infants who attended immunization clinics using a structured questionnaire. Structured questionnaire prepared in English.

Data quality control: Structured questionnaire was translated from English to local languages and responses were translated back to English. A pretest was conducted in 32 (5%) mothers, to assess the content and approach of the questionnaire. Three supervisors were recruited, and training was given to data collectors and supervisors for two days on the objective, relevance of the study, confidentiality of information, respondent's right, importance of pre-test, informed consent and techniques of interview.

Data analysis, presentation and interpretation. Data were first checked manually for completeness, coded, entered, and cleaned using Epidata version 3.11 and exported to SPSS version 16.0. Descriptive analysis was used to describe the percentages and number distributions of the respondents by socio-demographic characteristics. Variables which showed an association with dependent variable in the bivariate analyses at alpha = 0.05 were entered into multivariate logistic regression model. Adjusted Odds ratios (OR) with corresponding 95% confidence intervals were used to analyze and interpret study results.

3. Results

From 500 participating mothers—infant, 500 completed the study and were included in the analysis. Three hun-

dred twenty eight (65.6%) mothers were from rural areas and 172 (34.4%) were from urban areas. Among the participants, 71 were Muslims, and 417 were Hindus. Thirty nine were illiterate while 461 mothers had education above 12 grades. Poor (170), Middle class (n=285),U/middle & above(n=55).Out of the total 500 respondents, **191** of mothers gave prelacteal liquids to their infants. The common pre-lacteal food includes sugar or glucose water 121 (43.5%) followed by milk other than breast milk 70 (25.1%) . About 26% of mothers with infants didn't receive ANC service at least once and 47% of them gave birth at home. Nearly half of the mother (46%) didn't initiate breastfeeding immediately after delivery. In the bivariate analysis, birth weight, gender, education, place of delivery, type of family, birth order, mothers' and fathers' educational level, knowledge, and influence to give pre-lacteal feeding were significantly associated with prelacteal feeding ($p < 0.05$). In the multivariate logistic regression analysis, ANC follow up, place of delivery, breast feeding initiation time and influence to give prelacteal feeding were found to be associated with of prelacteal feeding. The odds of prelacteal feeding were 2.62 times higher for mothers who didn't attend ANC follow up compared to their counterpart (AOR = 2.62, 95% CI: 1.47 - 4.6). The odds of prelacteal feeding were 3.42 times higher for infants delivered at home compared to infants delivered at the public health facility (AOR = 3.42, 95% CI: 2.0 - 5.87)

4. Discussion

This study showed that the prevalence of pre-lacteal feeding was **45.4%.** Gender, place of delivery, late breast feeding initiation and others' influence on mothers to give prelacteal feeds for their new born infants were found to be associated with prelacteal feeding. In this study, we found that, **278 (45.4%)** of the mothers gave pre-lacteal liquids to their infants. Other studies conducted in rural Northern Ethiopia [12], Kuwait [14], India and Ethiopian Demographic and Health Surveillance of 2011Report [11] [15] reported slightly higher rates of pre-lacteal feeding. In the present study, mothers who didn't receive ANC service were 2.6 times more likely to give prelacteal liquid for their infants than mothers who received ANC at least once (AOR = 2.6, 95% CI: 1.47 - 4.68). These results are consistent with those reported from a study conducted in India [15]. Mothers who gave birth at home were 3.42 times more likely to practice prelacteal feeding than mothers who give birth at the public health facility (AOR = 3.42; 95% CI: 2.00 - 5.88). This odds ratio is similar with the ratio reported from studies conducted in Pakistan and Uganda [16]. Regarding the time of breast feeding initiation, mothers who started breast feeding a few hours after birth were 5.3 times more likely give prelacteal liquids for their infants compared to those who started breast feeding immediately after birth (AOR =5.33, 95% CI: 3.18 - 8.93). This finding is similar to the study done in Uganda [17]. Mothers with infants who are influenced to give prelacteal liquid for their newborn were 2.87 times more likely to practice giving prelacteal liquids for their infants compared to their counterparts (AOR = 2.87, 95% CI: 1.80 - 4.58). This is consistent with a study conducted in western Uganda and King Edward Medical University/ Mayo Hospital, Lahore [17] [18].

5. Conclusion

This study showed that the prevalence of prelacteal feeding was high in good birth weight babies, multiplegestation,big families,. Multi specialty hospital delivery, late breastfeeding initiation and influence by friends and relatives were associated with prelacteal feeding. We recommend that health education should be provided on avoiding prelacteal feeding at the healthcare facilities and community levels.

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