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TO ESTIMATE THE PREVALENCE OF EARLY INITIATION OF BREASTFEEDING AND DETERMINANTS OF DELAYED INITIATION

Dr.Chinna Ramanna Nikitha[1], Dr.S.Anita[2], Dr.Padma[3]

1(Department of OBS-GYN, Postgraduate, Osmania Medical College, India)

2(Department of OBS-GYN, Professor, Niloufer Hospital, Osmania Medical College, India)

3(Department of OBS-GYN, Associate Professor, Niloufer Hospital, Osmania Medical College)

Abstract:
Background *:In* India *1.2 million children aged 0-59 months die yearly. An estimated 58% of them occur during this neonatal period. Early initiation of breastfeeding was associated with a 44% lower risk of neonatal mortality. Therefore, supporting mothers to initiate breastfeeding within 1 hr. Of delivery is a proven high-impact intervention for neonatal survival.*
Since 2006, the government of India the and Indian state government with technical support from UNICEF and other partners has implemented a multipurpose strategy, building the capacity of clinicians, midwives and nurses, and community front-line workers in positive behavior and social changes on breast feeds. In 2014 national surveys show 81.1% of deliveries were attended by a skilled health provider while only 44.6% of newborns were breastfed within 1 hour.
Early initiation of breastfeeding is defined as the provision of Mothers breast milk to infants within the first hour of birth and ensures that the newborns receive Colostrum , a yellowish liquid containing crucial nutrients and antibodies to newborn acts as first feed and first immunization. It creates a bonding between the infant and the mother which enhances cognitive development and reduces the risk of developing non-communicable diseases.
Purpose:*To estimate the prevalence of early initiation of breast feeding and to find out the determinants of delayed initiation of breast feeding and to enhance prolonged breastfeeding, as early initiation of breastfeeding decreases mortality and morbidity in younger ones and enhances immune response in newborns.*
Material and Methods: *This is a retrospective observational study conducted for 6 months from Dec 2022-May 2023 among all the parturient mothers who were delivered in Niloufer hospital during the period of study.*
Result:
The median breastfeeding initiation time was 90 minutes (interquartile range, 30–180 minutes). Overall, 77% of the mothers practiced EIBF. The reasons for breastfeeding delays included preterm deliveries where babies require SNCU admissions causing delay in breastfeed initiation(denoting red stamp) and some babies are keep for observation in SNCU(denoting blue stamp)and other causes like extended recovery time from spinal anaesthesia, maternal lassitude, and uncomfortable breastfeeding position due to post-cesarean pain. In the multivariate analysis, a birth weight less than 2,500 g (adjusted odds ratio [aor], 4.33; 95% confidence interval [ci], 1.12–16.82; p*=0.03), cesarean section delivery (aor, 4.68; 95% ci, 1.57–13.92;* p*=0.005), and mother's poor knowledge of breastfeeding (aor, 4.61; 95% ci, 1.44–14.72;* p*=0.010) were likely to delay the initiation of breastfeeding.*
Keywords*: EIBF, Green/Red/Blue Stamps*

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I. INTRODUCTION

According to the world health organization (WHO) breastfeeding indicator, early initiation of breastfeeding is defined as the percentage of children born and who were put to the breast within 1 h after birth. WHO recommends that all mothers should be supported to initiate breastfeeding as soon as possible after birth, specifically within the first hour.

Evidence indicates Early initiation of breastfeeding (EIBF) decreases the risk of infection, neonatal mortality, and underweight. EIBF is associated with a 64% reduction in the incidence of non-specific gastrointestinal tract infections and otitis media by 23%. It also has short and long-term health benefits for the mother by decreasing postpartum blood loss and rapid involution of the uterus. A study from Indonesia has documented that 22% of neonatal deaths could have been prevented if all neonates were put on breastfeeding

within the first hour and around 16% of neonatal deaths would have been prevented if all neonates were breastfed from the first day. In India, 15% of all causes of neonatal mortality could have been prevented if all babies were exposed to early breastfeeding. On the other hand, children who didn't get an early initiation of breastfeeding were more likely to be stunted than those who were breastfed early. The reason behind this is the fact that early milk is enriched in antibiotics, immune and growth factors that help to ensure infant survival.

EIBF stimulates breast milk production, produces antibody protection for the newborn and reduces postpartum maternal haemorrhage, and its practice determines the successful establishment and longer duration of breastfeeding. Several studies have shown that EIBF is associated with a lower risk of neonatal mortality.

Despite the known health benefits of EIBF, in many countries, a considerable proportion of newborns are not breastfed within 1 hour after birth in accordance with the WHO recommendation. The prevalence of EIBF ranges from 14% to 95% with an average of 64% in 128 countries, and one-half of these countries have a prevalence of less than 50%. Furthermore, existing studies were conducted in a single country or focused on individual factors only. A recent systematic review of the literature on EIBF in South Asia, which included 25 studies from 7 countries, revealed that EIBF is predominately associated with socio-economic, health-related and individual factors, and it highlighted the limited evidence on the health care system in relation to EIBF.

To address these gaps and promote EIBF, we need to acquire both data on EIBF coverage and a better understanding of the factors associated with delayed breastfeeding.

In this analysis, we aimed to determine the prevalence of EIBF and individual and health facility factors associated with delayed EIBF taking data from all the parturient mothers delivered in Niloufer Hospital during the period of study using a standardised questionnaire.

II. MATERIAL AND METHODS:

Study Design: This is a Retrospective Observational study

Study Loction: This was a tertiary care hospital based study conducted in Niloufer Hospital ,Hyderabad

Study Duration: For 6 months from Dec 2022-May 2023.

Sample Size: All the parturient mothers who were delivered in Niloufer Hospital during the period of study.

Selection Method &Inclusion and Exclusion Criteria: In the study data were available for all mothers and neonates from documents and case records in Niloufer Hospital. We initially selected all live births excluding deliveries at <22 weeks' gestational age, birth weight <500 g, stillbirths and deliveries with missing data on BFI. The study population was restricted to neonates and mothers considered able to initiate breastfeeding and excluded deliveries with certain maternal and perinatal complications, including congenital malformation, neonatal near-miss cases, women with severe maternal outcomes defined as the presence of any of the following conditions: eclampsia, blood transfusion, hysterectomy, admission to ICU and maternal death, women with any conditions suggesting HIV/AIDS and deliveries with general anaesthesia.

Variables:

EIBF was the main outcome (variable of interest of this analysis) of this study, and this outcome was designated as 'Yes' and all others were designated as 'No'. Additionally, to describe the time to BFI in the participating samples, we used the following three colour stamps to denote the time of initiation of breast feeding in our hospital.

GREEN STAMP-Denotes EIBF (<1 hour)
BLUE STAMP-Denotes delay of 2-3 hrs. when the baby is kept under observation at neonatology.
RED STAMP-Denotes Delayed initiation when baby is admitted to SNCU.

Data Analysis:

The collected data were obtained from documents and registers available in niloufer hospital and entered in software and analysed using IBM SPSS Statistics. Bivariate and multivariate analyses were done to find out the determinants of delay in EIBF. In the first stage, an association between the delayed initiation of breastfeeding (dependent variable) and 15 independent variables such as baby age, baby's sex, birth weight of the baby, mother's age, area of the respondent, mother's occupation, mother's education, family type, socioeconomic status, religion, birth order, delivery type, prelacteal feeds, rooming-in and breastfeeding knowledge in mothers were done using bivariate analysis. In the next stage, 11 variables, (4 variables with

higher odds ratio and 7 significant variables) obtained from bivariate analysis were included for multivariate logistic regression. The level of significance was set at 5% (P<0.05). The multiple coefficient of determinance (R^2) was used as a goodness-of-fit statistic for the model.

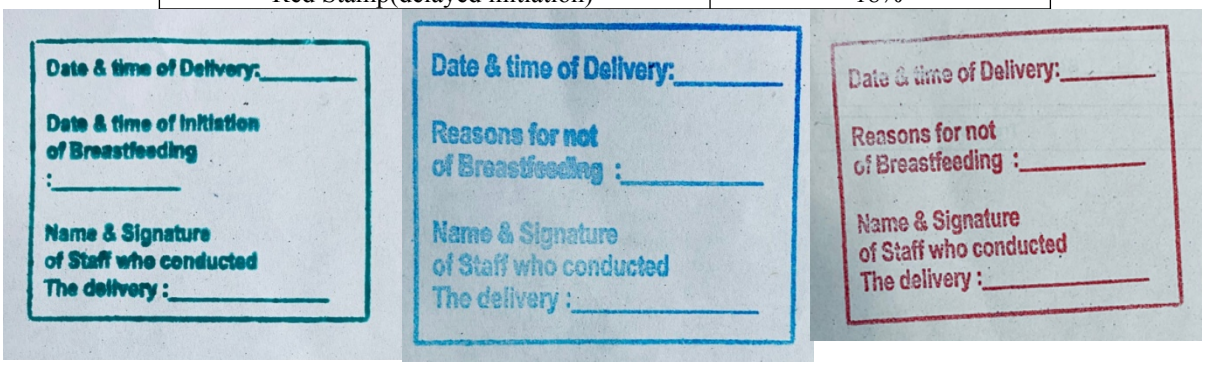
Ethical Clearance:

Ethical clearance was obtained from the Institutional Ethics Committee (IEC) of Osmania Medical College, HYD.

III. Results:

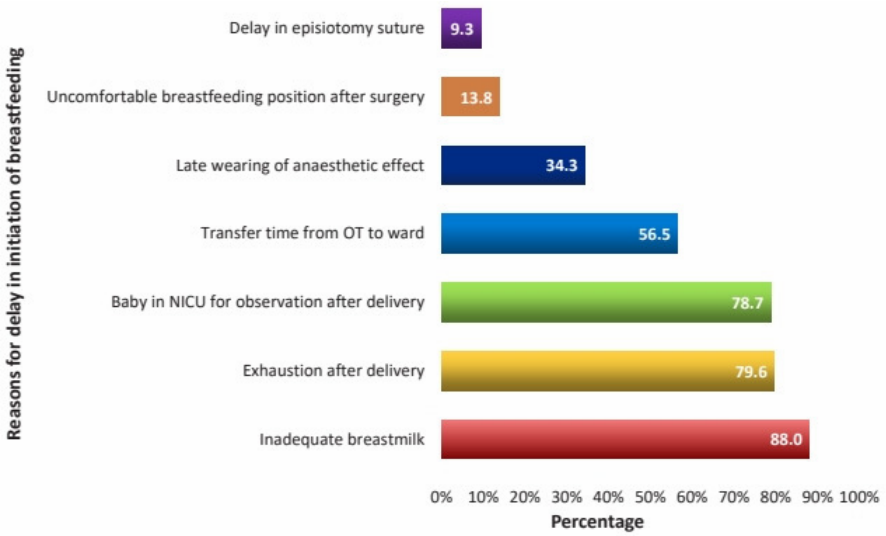
The results of study shows out of 100%,the total numbers of babies breast feed

Green Stamp(breast fed within 1 hr)	77%
Blue Stamp(delay of 2-3hrs)	5%
Red Stamp(delayed initiation)	18%



Reasons for delayed initiation of breastfeeding

Among 18% mothers who delayed initiation of breastfeeding, majority of them 95 (88.0%) stated that inadequate breast milk was the reasons for the delay. Other reasons stated by the mothers include that, about 86 mothers (79.6%) were exhausted after delivery, 37 participants (34.3%) said extended recovery time from anaesthesia (late wearing of anaesthetic effect), 15 mothers (13.8%) explained the uncomfortable breastfeeding position after cesarean section and 10 mothers (9.3%) stated that delayed in episiotomy suture. Added to that, 85 of mothers (78.7%) quoted that their baby was in NICU observation after delivery and 61 mothers (56.5%) said there was an increased time for the transfer of baby form NICU after observation to ward or transfer of mother from operational theatre to ward delayed the breastfeeding initiation,



Factors associated with delayed initiation of breastfeeding

In multivariate analysis, 3 variables emerged as significant predictors for the delay in EIBF. Mothers who had babies with a birth weight of less than 2,500 g had 4.33 times higher odds (95% confidence interval [CI], 1.12–16.82; P=0.034) in delayed initiation of breastfeeding when compared to babies with birth weight more than or equal to 2,500 g. Mothers who had a cesarean section (95% CI, 1.57–13.92; P=0.005) had 4.68

times higher odds of not initiating breastfeeding earlier than mothers who had a vaginal delivery. Similarly, the odds of delay in EIBF among mothers who had poor knowledge about breastfeeding was 4.61 times (95% CI, 1.44–14.72; *P*=0.010) higher when compared to the mothers with breastfeeding knowledge.

IV. Discussion:

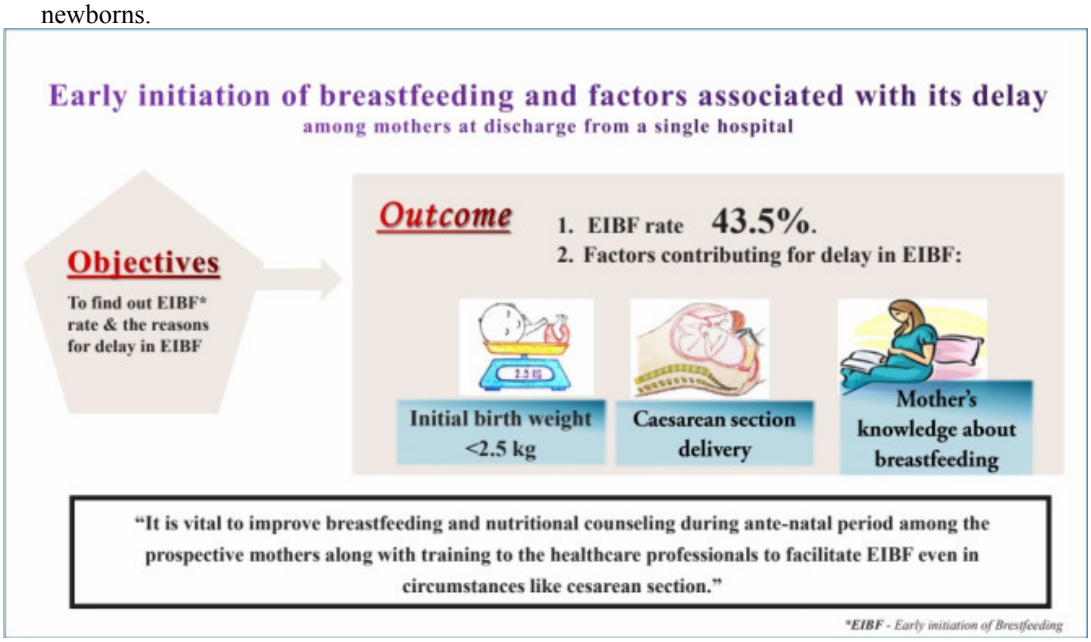
Early initiation of breastfeeding, specifically within 1 h of birth, refers to the best practice recommendation by the WHO. Increasing early initiation of breastfeeding will directly support progress towards achieving MDG 4 through reduced neonatal mortality as well as through improved childhood nutrition with associations reported with reduced moderate wasting and stunting prevalence, and the incidence of acute and persistent diarrhoea in children under 5 years.

The findings of this systematic review suggest that achieving more widespread practice of early breastfeeding initiation hinges on multisector interventions. For instance, access to universal primary education will resolve the negative impact that lack of education for mothers and fathers has on breastfeeding initiation. Similarly, promotion of gender equality and empowerment of women, lack of decision making power of mothers is a barrier to early initiation of breastfeeding and mothers-in-law are often decision makers on pregnancy and childbirth-related practices. Further, progress in maternal health and the promotion of maternal health services such as antenatal appointments, skilled birth attendance and postnatal check-up given their impact on a mother's decision and capacity to initiate breastfeeding within 1 h of delivery. This is pertinent particularly in South Asia where more than half of deliveries in several South Asian countries occur outside health facilities and home delivery was identified as a barrier to early initiation of breastfeeding. This association between home delivery and low use of antenatal check-up is also an observed barrier for delayed initiation. These consistencies confirm that promoting and facilitating the use of maternal health services should be prioritised to achieve progress on early initiation of breastfeeding. Actions targeting the factors and specific barriers identified in this review will have a synergistic effect on early breastfeeding initiation and achievement of other development goals.

Policies are in place to support recommended breastfeeding practices in South Asia. Filling the gap, identified in this review, in evidence concerning socio-economic and political context that influence breastfeeding practices may lead to better informed and more context-specific policies that impact more significantly. Further, the exploration of factors and barriers presented sheds light on the factors and barriers that undermine the effective implementation of policies at the individual level.

V. Conclusion:

Early initiation of breastfeeding, specifically within 1 h of birth, is the best method to practice for newborns.



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