A study of causes of lactation failure in children under six months of age with severe acute malnutrition

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ABSTRACT

Objective: To evaluate causes of lactation failure in children less than six months of age with severe acute malnutrition.
Study Design: A cross section at descriptive study.
Place and Duration: 1st January 2015 to 1st June 2015 at Nutritional Stabilization Center for Malnourished Children, Children Hospital Complex and Institute of Child Health Multan.
Methodology: Malnourished children both male and females, that were not receiving exclusive breastfeeding or was on top feeding were included in this study**.** Mothers were questioned regarding feeding practices of their child, whether the child was breastfed or on top feed, reasons for introducing top feed, neonatal admission and maternal perception of milk production and myths regarding breast feeding and their answers were recorded.
Results: Total 100 children were enrolled for study out of which only 20% babies were partially breastfed and 80% were totally bottle fed. The commonest cause of lactation failure was baby's hospital admission at the time of birth due to Neonatal illness (45%) followed by maternal perception of insufficient milk production (40%). Among these, 45% babies were delivered in home while 55% were born via hospital deliveries. Almost 85% of the mothers were illiterate.
Conclusion: The neonatal admissions, morbidity rates and lack of education to mothers regarding breastfeeding are contributing factors in the lactation failure.
Keywords: Infant lactation failure causes, Breastfeeding, Malnourished children, Severe acute malnutrition, Morbidity

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INTRODUCTION

Breast milk supports health, boosts immunity, reduces the risk of diseases and lessens the hospitalization costs and over all upbringing expenditures of baby [1,2].WHO infant feeding practices guideline recommends ,exclusive breast feeding up to first six months of life to reduce infant mortality and morbidity rates. According to Pakistan demographic and Health survey 2012-2013 just 37% of children below 6 months are breastfed and rate of early initiation of breast feeding is just 28%[3,4] Although most of the health personnel encourage breast feeding, still many, knowingly or unknowingly also promotes infant formula milk to supplement or substitute breast milk[5].
"Lactation failure or deficiency, also known as agalactia or agalactorrhea, as well as hypogalactia or hypogalactorrhea, is a medical condition in which lactation is insufficient or fails completely due to an inadequacy of breast milk production and/or a failure of the milk let-down reflex in response to suckling. "The most common reasons of lactation failure includes insufficient milk as perceived by mothers, literary status, financial status, religion and demographic variables[6].Certain socio-economic factors such as the lack of suitable facilities outside the home, inconveniences, conflicts at work, family pressure and ignorance were found to adversely affect the willingness of women to practice exclusive

breastfeeding[7].The myth that breast milk production is low and insufficient for the baby is often because of mother's misconception and insecurity to satisfy her baby's needs and degrading remarks of associated persons and family members[8]. There is dire need to evaluate causes of lactation failure. These factors are important for the implications of intervention policies to improve the breastfeeding practices and to prevent malnutrition in order to reduce mortality. Severe acute malnutrition interferes with successful exclusive breast feeding and to tackle those causes and factors on priority bases to somewhat decrease the dilemma of lactation failure. We conducted this study with an objective to evaluate the causes and factors affecting lactation failure in children less than six months with severe acute malnutrition.

METHODOLOGY

This cross section and descriptive study was conducted from 1st January 2015 to 1st June 2015 at Nutritional Stabilization Center for Malnourished Children, Children Hospital Complex and Institute of Child Health Multan. The project was approved by hospital ethical committee, an open ended questionnaire/performa was designed, and including the parameters of study and Informed consent was taken from parents. Mothers were interviewed regarding the primary and secondary variables of the study and their answers were recorded on a Performa by the hospital staff and nutritionists.

A total 100 cases of malnutrition children of both genders, less than 6 months of age that were not receiving exclusive breast feeding or was on top feeding were included in this study**.** All children with congenital face defects like cleft palate, severe asphyxia, neurodegenerative diseases and chronic illnesses were excluded from this study. All patients fulfilling the inclusion criteria were included in this study.

Demographic data, socioeconomic status, birth history, feeding pattern and anthropometry was recorded for patients. The primary variables were factors affecting lactation failure, initiation of breastfeeding, partially breastfeeding, bottle feeding, complimentary feeding and causes of cessation of breastfeeding. The questionnaire also included secondary variables as number of children, literacy status of mother, employment and financial status of family.

Data Analysis: The data was tabulated and analyzed statistically by SPSS version 20.This is a descriptive study, no statistical tests were applied to analyze the data. Percentages and frequencies were evaluated of causes of lactation failure, hospital admissions, initiation of breastfeeding etc.

RESULTS

A total of 100 infants were included in study. The mean infant's age was three months+-1 month. There were 60(60%) males and 40(40%) females out of total 100.Mean monthly income was 5000 ± 1000rs. Out of total 70 (70%) belong to rural areas and only 30 (30%) came from urban areas. Out of 100, 85 (85%) mothers were illiterate and 15 (15%) were literate. Out of these 100, 45(45%) babies were delivered in home while 55 (55%) were born via hospital deliveries. Only 20 (20%) babies were partially breastfed and 80 (80%) were totally bottle fed out of total sample. The commonest cause of lactation failure was baby's hospital admission at the time of birth due to Neonatal illness 45 (45%) followed by maternal perception of insufficient milk production 40 (40%) out of total.

Table-I: Frequency of different Reasons of failure of exclusive breastfeeding (N=100)

Reasons for lactation failure	Frequency
Hospitalize at neonatal age	45%
Insufficient milk production	40%
Misconception of mothers that breastmilk became poisonous for infants	11%
Working mother	1%
Twin babies	1%
Chronic illness of mother	2%

DISCUSSION

Pakistan is a country with neonatal mortality rate of 46/1000 live births and infant mortality rate is 79/1000 live births. Malnutrition and infections are one of the most important contributing factor to mortality[9].

Lack of breastfeeding for infants, wrong clinical practices and repeated infections are responsible for malnutrition and early death. There is no debate regarding the benefits of exclusive breastfeeding in contrast to bottle/artificial feed for child `growth and development. According to NNS 2011, the prevalence of exclusive breastfeeding is just 38%[10], similar results were obtained by this study that showed prevalence of exclusive breastfeeding is just 20 %, up to age of 6 months.

In a local study conducted in Karachi, it was concluded that illness of child and mother was an important factor for lactation failure[11]. Similar results were shown in our study that 45 % of neonates were admitted in neonatal units at births and it is the main reason that breastfeeding was not effective as they were provided artificial feed at intensive care/ neonatal wards. Prematurity and low birth weight babies (24.6%) and sepsis 19.9 % are common causes of early admission after birth and preventable causes of neonatal mortality too. Introducing expressed breast milk and encouraging mothers to feed babies during hospital admissions can also significantly improve breastfeeding.

In a study conducted by Afzal et al and Shaheen et al, insufficient milk is the most common reason for lactation failure[12,13] while in our study maternal misconception of insufficient milk production was the second most dominant cause of lactation failure and initiating formula feed in children as the mothers thought that introducing formula will make baby more healthy and helps in growth and development. According to Ibrahim et al, and Aslam et al, prevalence of early failure of breastfeeding 41.9 % and main causes evaluated were lack of proper knowledge and insufficient amount of breast milk as well mother's literacy rate and socioeconomic status[14,15].

Compared to other intervention and national studies, we found new factors that prevents/hinder babies from exclusive and

early initiation of breastfeeding. Admission of hospital at neonatal age.

CONCLUSION

The neonatal admissions, morbidity rates and lack of education to mothers regarding are contributing factors in the lactation failure.

RECOMMENDATIONS

Mothers must be counselled during pregnancy and after delivery to establish and continue breastfeeding. Baby friendly hospital initiative must be introduced in all public and private hospitals to promote and sustain breastfeeding.

CONTRIBUTION OF AUTHORS

Khan S: Conceived idea, Designed research methodology
Aziz T: Literature review, Manuscript writing
Ammara U: Data collection, Statistical analysis
Arshad R: Manuscript final reading and approval, Manuscript writing
Ishfaq K: Final approval

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