

Factors Contributing to Low Exclusive Breastfeeding Rates in Rural Areas of Punjab Pakistan and Their Impact on Infant Health

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Author's Contribution

^{AZ} Conception and design, Collection and assembly of data, ^{MA}Analysis and interpretation of the data, Statistical expertise, JR Final approval and guarantor of the article

Article Info.

Received: Mar 11, 2024

Acceptance: Apr 15, 2024

Conflict of Interest: None

Funding Sources: None

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A B S T R A C T

Background: Pakistan has a high infant morbidity and mortality rate. Despite of high mortality rates exclusive breastfeeding up to the age of 6 months is only 37.7%.

Objective: Current study aimed to find the different factors associated with decreased practice of exclusive breastfeeding.

Result: A total of 81 mothers, 75 mothers-in-laws and 79 fathers were included in the study. 79% of mothers did not practice exclusive breastfeeding for 6 months. Most of the respondents (71%) belonged to rural areas of Punjab. Exclusive breastfeeding practices were found to be better in mothers belonging to the middle-income class. Fathers of infants who were exclusively breastfed had better educational status, 60% of the fathers had at least a primary school level of education and the employment rate was 89%. Mothers' education level did not affect their willingness to breastfeed. 49% of the mothers who supplemented formula/cow milk to their infants perceived that their milk supply was insufficient, 26% had short intervals between births, and 12% claimed that diluted cow milk promotes weight gain in infants. 11% of the mothers could not breastfeed due to cesarean section and improper positioning.

Conclusion: The lack of support and guidance for mothers in Pakistan leads to the failure of exclusive breastfeeding practices, increasing the risk of infant mortality.

Keywords: Breastfeeding, Improper feeding practices, Formula milk, Low birth weight

Introduction

South Asian regions have alarming rates of malnutrition, stunting, respiratory tract infections and developmental delays. Despite of high prevalence of malnutrition and infectious diseases rate of exclusive breastfeeding in this region is quite low¹. Artificial feed, over diluted formulas or over diluted cow's milk are fed to neonates and infants in South Asian countries. Artificial feed exacerbates malnutrition and increases burden of infectious diseases.² Exclusive breastfeeding is considered to be an essential tool against infectious diseases.³

Pakistan has high rate of infant and childhood mortality. Exclusive breastfeeding significantly reduces the risk of infant and childhood mortality. Moreover, exclusive breastfeeding prevents frequency and severity of pneumonia and diarrhea.⁴ Despite of all these known benefits, breastfeeding practices are very poor in Pakistan. Statistically, 48% of women initiate breastfeeding in Pakistan at birth while only 37.7% women continue exclusive breastfeeding till the age of 6 months. There are several reasons that contribute to low rate of exclusive

breastfeeding. Socio-economic and cultural factors are the most common among them.⁵

Peer and maternal counselling are most important in Pakistan to increase the rate of exclusive breastfeeding. Government of Pakistan should impose ban on promotion of formula milks whereas awareness about negative impacts of formula and diluted cow milk should be given to individuals⁶. In spite of vigorous efforts by health care professionals in this field, rate of breastfeeding still remained extremely low in the country leading to devastating long term effects.⁷

In such situation, it is important to correlate statistically the myths and barriers associated with decline in successful breastfeeding practices in Pakistan. Some important factors include lack of proper education and awareness related to breastfeeding, lack of professional help, myths associated with breastfeeding and family pressure to initiate cow milk or formula feedings. In current study, we identified different factors and myths associated with breastfeeding and analyzed these

factors using regression model to compare the impact of each factor on exclusive breastfeeding rate across the country.

Methodology

The study was conducted in outpatient department of a tertiary care hospital of Punjab. This qualitative exploratory research included mothers, fathers and mother in laws belonging to the rural backgrounds with at least one child under 2 years of age. The mothers who did not exclusively breastfeed their babies were included to assess barriers and myths associated with exclusive breastfeeding. Informed consent was taken from all the participants included in the study. Confidentiality of each participant was maintained.

Duration of the study was 3 months, April 2024 to July 2024. A team of trained nutritionists collected the data. Demographic data was collected individually including age, education level, profession, number of kids. Education up to fifth class indicated completion of primary school whilst up to matriculation was considered as completion of secondary school. Intermediate or higher level of qualification was considered as higher education.

Focused group discussions with mother in law, spouses and mothers were conducted separately by a trained practitioner. All the discussions were audio recorded. Free flow of discussion was encouraged and all points and non-verbal gestures were noted.

Data was analysed using SPSS version 23. For estimation of parameters logistic regression model was used. To analyze the association between different variables chi-square test was used.⁸

Results

81 mothers, 75 mothers in law and 79 father were included in the study. Mean age of the mothers was 28.34 years, 69.14% of the mothers were illiterate 23.46% had passed primary school. In the case of mother in laws mean age was 54 years and 68% were illiterate whilst 22.6% completed primary school. None of the mother in laws had intermediate or higher education. Mean age for fathers was 37 years and 26% of them were illiterate. 8 fathers completed intermediate or higher education. Chi-square analysis showed a statistically significant association between age, education level and occupation of the respondents and the rate of breastfeeding practices.

79% of mother did not practice exclusive breastfeeding for 6 months. Most of the respondents (71%) belonged to rural areas of Punjab. 59% of the mothers among these went to private doctors for their antenatal care. Descriptive statistics showed

that most of the mothers preferred private hospitals to government hospitals. 50% of the mothers had normal delivery.

Table I: Demographic factors of selected population.

Factors	Mothers (n = 81)	Fathers (n= 79)	Mother in laws (n=75)	Chi- square analysis (P- value)
Age	28.34 ± 4.8	37 ± 8.2	54 ± 13.21	0.000
Education level				
Illiterate	56	21	51	0.000
Primary school	19	12	17	
Secondary school	5	38	7	
Intermediate and above	1	8	-	
Occupation				
Housewife/unemployed	59	16	66	0.000
Labourer	9	47	1	
Cleaner	11	5	-	
Farmer	2	8	8	
Landlord/business	-	3	-	

Mothers that practice exclusive breastfeeding were seen to be from the middle class, 60% of the fathers had primary level of qualification and 89% of them were employed. Mothers education level was not related to their decision to breastfeed whereas most (67%) of the mothers that exclusively breastfed their babies watched TV and were unemployed (98%). Mother in laws and the mothers who exclusively breastfed also watched TV (88%) whilst education level of mother in law was not linked to exclusive breastfeeding.

Majority of the mothers, around 49%, who fed formula/cow milk to their baby were of the opinion that their milk supply was insufficient. 26% of the mothers had short intervals between births and were unable to continue breastfeed with consecutive pregnancies. 12% of the mothers and mother in laws (59%) were of the opinion that diluted cow milk is good to promote weight gain in babies. 11% of the mothers were unable to breastfeed due to caesarean section and improper positioning.

Around 47 mothers had low birth weight babies. Rate of breastfeeding was only 13% in low birth weight babies as the mothers and their families considered that formula milk or cow milk will be more beneficial for their baby. Regression model showed strong association with low birth weight and reduced practice of exclusive breastfeeding.

Chi-square test depicted that positive association was seen in views of mother in laws and its impact on rate of exclusive breastfeeding, however, views of husbands did not affect the decision of breastfeeding. Locality, TV watching and employment status of husbands were also associated positively with exclusive breastfeeding. Education level of mothers and mother in laws was not associated with rates of breastfeeding.

Discussion

Rates of exclusive breastfeeding are alarmingly low in Pakistan. In this study we highlighted common barriers associated with exclusive breastfeeding. Certain factors such as education level of mother, other family members, socio-economic status, cultural values such and social norms influence breastfeeding practices. Some myths associated with breastfeeding include reduced weight gain, breastfeeding cannot be continued during the next pregnancy, formula causes weight gain, breastmilk can only be given in sitting position and post caesarean section mothers cannot breastfeed their babies due to overburden of medicines.

Studies showed that breast milk is a gold-standard infant nutrition. Breastmilk has the perfect blend of nutrients that support healthy growth and development of a child but most infants still do not receive full benefits of breastfeeding especially in south Asian countries like Pakistan.⁹ Current study showed that knowledge regarding breastfeeding is poor among the mothers and many of them do not receive the support required to continue it. Similar findings were reported in another study showing that influence of mother in laws and poor educational status of mothers and fathers make it difficult to practice breastfeeding in our culture where cow milk is considered as gold standard instead of breastmilk.¹⁰ These issues are more common in rural settings, community-based programs can help in raising awareness among people. Not only mothers but other influential members of the family should also be invited to attend such programs.¹¹

In our study majority of the mothers were illiterate and approximately 50% of the fathers had primary education or less. Most of them had poor socioeconomic status. A study conducted in Nepal showed that mother's and father's education level has a positive association with early initiation of breastfeeding. A literate mother can better understand the benefits of breastfeeding her child.¹² There are certain issues that require medical help and are beyond the control of mothers. Mastitis, perceived inadequate supply of mother milk and mother's sickness often result in discontinuation of breastfeeding. Mothers often lack information about how to overcome challenges such as latching difficulties or increasing milk supply. Healthcare workers should be given lactation training to overcome this problem.¹³

In Pakistan closely spaced pregnancies is another major issue. Repeated pregnancies place significant physical demands on mother's health and it becomes very difficult for her to continue breastfeeding. There should be a certain gap between

pregnancies so that maternal and child health can be improved in developing countries. High incidence of caesarean section and lack of lactation support afterwards also result in low rates of breastfeeding in Pakistan.¹⁴

Conclusion

The decline in the rate of exclusive breastfeeding in Pakistan can be attributed to the myths surrounding the use of diluted cow's milk and the widespread availability of infant formula milk. Most of the mother in laws influenced the decision of breastfeeding for their grandchild. Moreover, lack of awareness and proper guidance to mothers leads to failure of exclusive breastfeeding in the long run.

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