

Colostrum Avoidance Practices at Rural Areas of Islamabad

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Abstract

Objective: To know frequency of colostrum avoidance practices at rural areas of Islamabad.

Methodology: A descriptive cross-sectional study of 200 lactating mothers at rural areas of Islamabad was conducted, during August to October 2022. Questions regarding colostrum avoidance practices were asked from housewife mothers that were selected through convenient sampling by using a structured questionnaire. Data was collected with the help of lady health workers & nurses employed in maternity homes and clinics. A pre tested structured questionnaire was used, which was in English. The analysis of the data was done by using SPSS version 26.

Results: This study shows that 43% mothers avoided colostrum. Pre-lacteal feed was given frequently because of their cultural practices. This study also shows that during antenatal Care visits minimum number of participants received counseling on colostrum feeding. The majority of mothers are aged 26-35 (63%), with 43% having secondary schooling and 31.5% having higher schooling.

Conclusion: Current study shows colostrum feeding practices in rural areas of Islamabad is not as satisfactory as recommended by world Health Organization. There is need of promoting health education program to community regarding nutritional benefits of Colostrum feeding practices to neonate on electronic & print media, along with mandatory counseling during Ante natal care visits about positive impact of colostrum feeding on neonatal health.

Key words: Colostrum, Mortality, Morbidity, Prolacteal feed, Ante Natal Care visits.

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Introduction

Colostrum avoidance practices entails wastage of milk at least once during initial three days of neonate's life. Literature shows that colostrum avoidance practices are not only common in Pakistan but it is a worldwide problem. Studies have shown that 92% women in Utarkhand city of India, 16.5% in Nepal, 16% in Burkina Faso & 27.9% in Pakistan denied colostrum to their neonates. Variation in results in mentioned countries could be due to participants varied socio demographic profiles and religious convictions. ^{1, 2} The United Nations International Children's Emergency Fund (UNICEF), and World Health Organization (WHO)

recommend colostrum feeding as soon as the baby is born.³ It is the first milk that the mammary glands secrete in the later stages of pregnancy and in the early postpartum period, it makes an invaluable nutritional contribution especially in first 12 months & to the rest of neonate's life. It is thin, sticky and clear to yellowish in coloration than usual breast milk. It contains more antibodies than mature breast milk. ⁴ It is sometimes referred to as the passport of life. ⁵ It is essential for a neonate's healthy growth, development and reduces the likelihood of early life malnutrition. ⁶ It contains growth factors (platelet-derived growth factor (PDGF), epidermal growth factor (EGF)) that aid in the

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development of the intestine and are essential for the maturity of the neonate's gut.⁷ Furthermore, colostrum contains a mild laxative effect that helps to pass feces. It helps preventing from developing jaundice by removing bilirubin from the body of neonate.⁸ Early colostrum feeding promotes the release of oxytocin hormone which causes uterine contraction and minimizes postpartum hemorrhage.⁹ Despite the fact that colostrum has been shown to be healthy for neonates, research have shown that lactating mothers herself and her family members avoid to offer this nourishing meal. Myth behind the avoidance is that it is unclear, poisonous & unhygienic for neonates.¹⁰ The aim of current study is by knowing the frequency of colostrum avoidance practices in rural areas of Islamabad. Policy makers can be able to do favorable interventions to reduce malnutrition, morbidity, mortality in neonates by controlling colostrum avoidance practices at community basis.

Methodology

A quantitative research design was the foundation of current study. A cross sectional study centered in the community was carried out in rural areas of Islamabad for three months duration (August to October 2022). Sample size was 200 mothers, which was calculated on the basis of following assumptions: 10% non-response rate, 2.5% precision, 3% frequency (derived from the pilot study), and 95% confidence interval. Housewife mothers were chosen through simple random technique. To minimize bias regarding the history of colostrum feeding, we included those mothers having neonates up to age of 15 days. The details of the sample are reported in Table No: i. Mothers that had serious illness during late pregnancy or after birth or their neonate had any kind of malformations and mothers who refused to participate in the study were not included.

Data was collected with the help of lady health workers & nurses employed in maternity homes and clinics. A pre tested structured questionnaire was used, which was in English. It was adapted and modified from various sources.^{1, 3, 9} Sociodemographic information, use of maternal health services and sample characteristics were main components of questionnaire. Questions were asked in urdu language for the convenience of the mothers, then questionnaire was filled in English by me. Institutional ethical committee approved the current study. The study's objective, value, and purpose were effectively

conveyed to the participants and informed consent was taken. The study was noninvasive with no risk to the participant's health & data was used only for study purpose. Individual research participant was not benefited directly but the community and country will get benefit in the long run.

After completion of data collection, information was reviewed to make sure that it is accurate and full according to questionnaire and then complete data was entered into SPSS version 26 for statistical analysis.

Results

Based on Table I, the majority of mothers are aged 26-35 (63%), with 43% having secondary schooling and 31.5% having higher schooling. Fathers show similar educational patterns, with 43% having secondary schooling and 33% having higher schooling. Most families consist of 3-8 members (80%) and live in joint family structures (54.5%). The index children are nearly equally split between males (47.5%) and females (52.5%).

Table I: Sociodemographic Information of Participant.

Variable		N(%)
Maternal Age (year)	15–25	45 (22.5%)
	26–35	126 (63%)
	36- 46	29 (14.5%)
Educational Status of Mother	Lack of Schooling	43 (21.5%)
	Basic Schooling	8 (4%)
	Secondary Schooling	86 (43%)
	Higher Schooling	63 (31.5%)
Educational Status of the Father	Lack of Schooling	42 (21%)
	Basic Schooling	6 (3%)
	Secondary Schooling	86 (43%)
	Higher Schooling	66 (33%)
Family Size	3- 8 Members	160 (80%)
	9- 14 Members	3 (1.5%)
	15-20 Members	30 (18.5%)
Family Structure	Joint	109 (54.5%)
	Nuclear	91 (45.5%)
Sex of Index Child	Male	95 (47.5%)
	Female	105 (52.5%)

Based on Table II, most deliveries occurred in hospitals (96.5%) with a nearly equal distribution between cesarean sections (47.5%) and spontaneous vaginal deliveries (52.5%). All participants attended antenatal care (100%), but only 9% received breastfeeding counseling. Postnatal care was attended by 61% of participants, and birth spacing was more than two years for 53% of them.

Table II: Information Regarding Hospital Visits. (N = 200)

Variable		N(%)	
Place of Delivery	Hospital	193 (96.5%)	
	Home	7 (3.5%)	
Mode of Delivery	Cesarean Section	95 (47.5%)	
	Spontaneous Vaginal Delivery	105 (52.5%)	
Attending Natal Care	Yes	200 (100%)	
	No		
Breast Feeding Counseling	Yes	18 (9%)	
	No	182 (91%)	
Post Natal Care	Yes	122 (61%)	
	No	78 (39%)	
Birth Spacing	< Two years	94 (47%)	
	> Two years	106 (53%)	

Table III: Sample Information.

Colostrum Avoided (200)	Yes	86 (43%)	
	No	114 (57%)	
Pre-lacteal Feeding (200)	Yes	155 (77.5%)	
	No	45 (22.5%)	

Discussion

This community based cross sectional study of 200 mothers, shows that 43% mothers discarded colostrum and only 57% mothers feed colostrum to their neonates. Result of current study is different from the study conducted in Khos tribal community of Uttarkund-India in which 92% colostrum avoidance practices were seen among children.⁷ The frequency of colostrum avoidance practices of this study is also different from study conducted in Jinka town Ethiopia which shows that 10.9% mothers discarded colostrum.¹⁰ Another study conducted by Chaterjee, at Motta town, Northwest Ethiopia, which shows 96.4% of newborns received colostrum.¹¹

From literature review, I have found that there is no many studies conducted on colostrum avoidance practices in recent years at national level. The finding of current study is inconsistent with the studies taken place in North of Sindh province, in Pakistan, which shows that 27.9% mothers discarded colostrum.¹² Another study carried out in the of Lahore division's rural areas, which shows 35.3% neonates feed colostrum, and 64.7% discarded colostrum.¹³ A study conducted in Military Hospital Rawalpindi of Pakistan by Aisha R et al, they found that 15% of total mothers discarded colostrum.¹⁴ The inconsistencies between these studies could be due to the variation in community attitude, behaviour & practices towards colostrum avoidance practices in ethnic groups. Other factors can be related to the study's different year. The mother's educational background and area of residence may also play a role. From the findings of this study, it

has been assumed that at rural areas of Islamabad the colostrum feeding is not optimal as WHO recommendation. Colostrum rejection is a traditional belief practice that was thought to be unhygienic & infectious and required to be discharged out before the actual milk secreted, as the current study has also highlighted. Current study also found that during antenatal care visits, very less no of mothers received counseling on colostrum feeding. This study shows that doctors & paramedical staff did not give significant knowledge regarding colostrum feeding practices before and after delivery. It was seen that those mothers who went Health facility after delivery for minor problems like for removing stitches and back pain, colostrum avoidance practices were frequent, than those mothers who did not visit health facility. It means in mothers who delivered their baby through C/S, frequency of colostrum avoidance practices were more frequent in these mothers.

Advantage of this study is that it provides community based data on the frequency of colostrum avoidance practices. This data may be utilized to establish policies and interventions at the community level as well as for future research regarding colostrum avoidance practices.

Limitation: Limitation of this study is that the current study design is cross sectional. Self-report data was primarily collected from rural area of Islamabad. This data does not represent the actual situation regarding colostrum avoidance practices in the province or country as a whole.

Recommendation: Health promotion and awareness to the community regarding importance of colostrum on electronic & print media.

Educational institutions may promote awareness regarding harmful effects of colostrum avoidance practices in neonates to girls of reproductive age group.

NGOs should focus on MCH services and encourage counseling on colostrum and breast-feeding practices.

Conclusion

The study reveals that colostrum feeding practices in rural areas of Islamabad are suboptimal, with 43% of mothers avoiding colostrum. Despite the known benefits, cultural practices and a lack of antenatal counseling contribute to colostrum avoidance. There is a critical need for health education programs and mandatory counseling during antenatal care visits to

promote the nutritional benefits of colostrum feeding to improve neonatal health outcomes.

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