

KNOWLEDGE AND PRACTICE OF MOTHERS REGARDING NEWBORN CARE IN A RURAL COMMUNITY LAHORE, PAKISTAN

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Abstract: Pakistan had an infant mortality rate of 56.88 per 1,000 live births in 2022. According to the World Health Organization, Neonatal mortality is about 45% of all under-five deaths. This study aimed to determine the infant care knowledge and habits of mothers in rural Lahore, Pakistan. A structured questionnaire was used to gather information for a community-based cross-sectional investigation. A straightforward random method was used to determine who each survey respondent was. A grading method was used to determine the mother's level of expertise and actual practice in caring for their newborns. A basic random procedure was used to choose 98 participants. The umbilical cord was reportedly severed by a modern blade in 78% of the cases, while traditional chemicals were reportedly applied to the cord in 12%. While 66 percent of women said that colostrum should be given to their babies, 88 percent of moms knew that breastfeeding should begin within an hour of the baby's birth and that neonates should receive the exclusive feed. Only 5% of moms were unaware that newborns are completely immunized, and 95% had received all their recommended vaccinations. According to the study, it was common practice to apply traditional substances to the umbilical cord, throw away colostrum, delay starting nursing, and feed neonates exclusively. Particularly in rural areas, the Maternal Child Health (MCH) programs and healthcare delivery systems must focus urgently on preventing harmful care behaviors and adopting healthy practices.

Keywords: Knowledge, Practice, Newborn Care

Introduction

In Pakistan, there were 56.88 infant deaths for every 1000 live births in 2022. According to the World Health Organization, Neonatal fatalities account for 45 percent of deaths among children under five. In the first month of life, 2.4 million children worldwide perished in 2020. Approximately 6700 newborns die per day, which accounts for 47% of all child fatalities under the age of five, up from 40% in 1990. Just 10 nations are responsible for more than 65 percent of all newborn deaths worldwide. These nations are primarily Asian. Among these ten, Pakistan comes in third. According to estimates, the nation loses over 300,000 newborns annually (Abdullah et al., 2021).

Pakistan, rated third, is one of the top 10 countries with the highest rate of neonatal fatalities. According to the growing body of evidence, newborn mortality and morbidity are impacted by early newborn practices. The burden of neonatal death and morbidity can be lessened by providing basic baby care. In Pakistan, mothers are the primary caregivers for newborns. Hence, the treatment standard is mostly determined by their experience and practices with newborn care. Numerous studies demonstrate that home visits by professionals prepared for straightforward, efficient treatments can enhance crucial infant care behaviors, care, and seeking and decrease newborn death in high-mortality setting (Ahmed et al., 2019).

Tracking growth, providing proper care at home, taking part in activities that prevent sickness, and seeking medical help when problems arise are all aspects of newborn care that are seen and practiced. However, there are still few efficient

methods. Appropriate prenatal care, family planning methods, and avoiding physical aggression may all lead to a considerable drop in neonatal mortality (Ayele et al., 2022). In developing countries, where 99 percent of deaths occur in resource-poor conditions, newborn mortality rates are six times greater. The main causes of newborn deaths are preterm birth, severe infections, hypoxia, and neonatal tetanus. The World Health Organization advises important infant care procedures such as early breastfeeding initiation, cord care, thermoregulation, and management of low birth weight neonates to combat this. To increase survival rates, it is essential to put these strategies into practice.

This study aims to evaluate mothers' practices and knowledge of newborn care in a rural area of Lahore, Pakistan.

Methodology

The study used a quantitative descriptive cross-sectional study to evaluate mothers' knowledge and practices toward newborn care. The study was conducted in the rural community of Malikpur, which is located on the periphery of the Lahore province of Punjab. The study population consisted of mothers of newborns residing in rural areas. Purposive sampling techniques were used to collect data gathered by the researchers through an adapted closed-ended questionnaire from "Knowledge, attitude, and Practice among Mothers about newborn care in Sindh, Pakistan" by Javed Memon in 2017. The collected data was analyzed using the Statistical Package for Social Sciences

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(SPSS) version 23, and descriptive statistics were used. The data was analyzed by descriptive analysis techniques such as calculating frequencies, means, and percentages.

Results

The total population was 130, of which 98 voluntarily participated in our research study. The study was conducted on mothers. The percentage of mothers aged between 18-25 was 33.0%, 49.0% were aged between 26-35, and 18.0% were aged between 36-45. The percentage of matric level education was 41.0%, and the intermediate level was 7. The graduate level was 7.0%, and the uneducated were 45.0%. The mothers who were housewives had a percentage of 87.0%, and those who were working women had a percentage of 13.0%. The percentage of family type includes 39.0% nuclear family and 61.0% joint family.

Table 1: Demographic of the study population:

Age	Frequency	Percentage
18-25	33	33.0
26-35	49	49.0
36-45	18	18.0
Qualification		
Matric	41	41.0
Intermediate	7	7.0
Graduate	7	7.0
Uneducated	45	45.0
No. of children		
1-3	63	63.0
4-7	37	37.0
Occupation		
Housewife	87	87.0
Working woman	13	13.0
Family type		
Nuclear	39	39.0
Joint	61	61.0

Table 2: Assessment of knowledge and practices of mothers regarding newborn care in a rural

Questions	Yes (n)	No (n)	Do not know (n)
Do you think you should use sterile material for cord cutting?	78.0% (78)	12.0% (12)	10.0% (10)
Do you know when breastfeeding starts in a newborn?	88.0% (88)	10.0% (10)	2.0% (2)
Do you think immunization prevents the newborn from many diseases?	96.0% (96)	4.0% (4)	-
Have you used traditional substances for newborn care?	93.0% (93)	7.0% (7)	-
Have you given exclusive breastfeeding to your newborn?	72.0% (72)	23.0% (23)	5.0% (5)

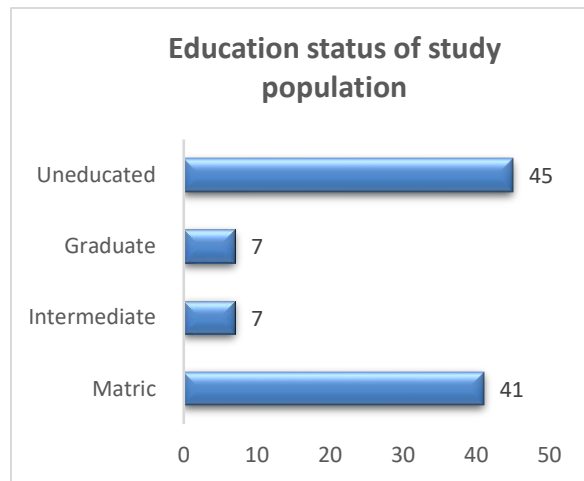


Figure 1: Education status of Mothers in the study population

Most participants, constituting 78.0% (78 respondents), believed in the importance of using sterile materials for cord cutting in newborns. This indicates a strong adherence to recommended aseptic procedures. However, 12.0% (12 respondents) held a contrary view, suggesting they may not consider sterile materials necessary. Additionally, 10.0% (10 respondents) remained uncertain, answering "Do not know." This uncertainty could be due to a lack of knowledge or information about this practice.

Regarding awareness of when breastfeeding should begin in newborns, 88.0% (88 respondents) indicated they are well-informed about the timing. This demonstrates a

commendable understanding of breastfeeding practices. However, 10.0% (10 respondents) acknowledged not knowing when breastfeeding starts, revealing potential gaps in knowledge or information. Furthermore, 2.0% (2 respondents) remained uncertain, marking "Do not know" as their response, signifying their uncertainty about the timing of breastfeeding initiation.

A staggering 96.0% (96 respondents) strongly believed in the preventive role of immunization in safeguarding newborns from various diseases. This resounding support highlights a collective trust in the benefits of immunization for infants. On the other hand, a very small minority, constituting 4.0% (4 respondents), held the contrary opinion, expressing skepticism about the effectiveness of immunization in disease prevention.

The use of traditional substances in newborn care was prevalent among the participants, with 93.0% (93 respondents) confirming their utilization. This underscores the significant role traditional practices play in their newborn care routines. In contrast, 7.0% (7 respondents) opted for non-traditional or modern practices in newborn care. In terms of exclusive breastfeeding, 72.0% (72 respondents) adhered to the recommended guidelines, providing exclusive breastfeeding to their newborns during the initial months of life. This reflects a positive practice contributing to the infant's health and well-being. However, 23.0% (23 respondents) did not adhere to the exclusive breastfeeding guidelines, suggesting that a significant proportion may have introduced other feeding methods alongside breastfeeding. Additionally, 5.0% (5 respondents) expressed uncertainty or marked "Do not know," implying a lack of clarity or knowledge about the specific practices related to exclusive breastfeeding (Table 2)

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Discussion

The care of newborns involves a delicate topic called the umbilical cord. The WHO emphasizes cleanliness when handling the cord and using chlorhexidine, particularly in areas with higher infant mortality rates. Tetanus and sepsis, two of the main causes of maternal and newborn sickness and death, are brought on by unhygienic births and hazardous cord-cutting and care practices (Bhattarai et al., 2021). In the current study, 78.0 percent of respondents said that a new blade was used to cut the umbilical cord, and 12.0 percent said that conventional substances were used on the cord. However, these results did not align with a study carried out in a rural part of Sindh. A new blade was utilized in 65.4 percent of the deliveries, whereas 269 percent of the mothers took conventional drugs. The observed discrepancy could result from the study's surroundings and the participant's different sociocultural background (Eluri et al., 2022).

The WHO states that breastfeeding is the best approach to feeding infants and giving them the nutrients they need for healthy growth and development. Regarding breastfeeding awareness, our study indicated that 88.0 percent of moms knew it should begin within an hour of the baby's birth. 66.0 percent said colostrum should be given to their babies, and 23.0 percent knew neonates should get exclusive nutrition. These numbers don't align with those from a study conducted in Sindh, where the respondents had less breastfeeding knowledge (Jahan and Islam, 2022). In that study, 54.6 percent of respondents said breastfeeding should begin within the first hour of birth, 57.5 percent said exclusive feeding shouldn't be given to newborns, and 55.6 percent said that colostrum should be given to babies.

Ninety-five percent of newborns were fully inoculated, according to the survey, and only 5 percent of moms were not aware of the value of immunization. According to the national immunization schedule, 97 percent of youngsters in similar research in Lucknow, Uttar Pradesh, received all necessary immunizations (Memon et al., 2019).

The study does, however, have certain shortcomings. Given that it is a cross-sectional study, showing a causal connection between the dependent and independent variables may not be possible (Monebenimp et al., 2013). Mothers who gave birth more than a year ago were asked about their knowledge, attitudes, and practices about newborn care, which could have contributed to recall bias and lowered the data's quality. The results might not apply to other Pakistani rural groups since the study was carried out in a limited rural area (Singh et al., 2019).

Conclusion

The study identified a discrepancy between what is theoretically known and the care provided to neonates. The high-risk factors responsible for this discordance, such as the use of traditional substances on the umbilical cord, the discarding of colostrum, and the practice of exclusive feeding for newborns, must be addressed by MCH programs in rural areas of Lahore. The research also revealed several sociodemographic factors that significantly affect mothers' knowledge and practices regarding newborn care, such as their level of education and place of residence. The collected data can be used as a starting point to design effective and

long-lasting campaigns promoting behavioral change and education.

Declarations

Data Availability statement

All data generated or analyzed during the study are included in the manuscript.

Ethics approval and consent to participate

Approved by the department concerned.

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Consent for publication

Approved

Funding

Not applicable

Conflict of interest

The authors declared the absence of conflict of interest.

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