CULTURAL BELIEFS, LOCAL PERCEPTIONS AND PRACTICES REGARDING IMMEDIATE NEONATAL CARE: A MIXED METHOD STUDY IN RAWALPINDI

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ABSTRACT

Background: In the global perspective, plenty of efforts are being made to reduce the under-five mortality that is occurring despite of evidence-based health care strategies. The duration from the time around the birth till 28 days (neonatal period) is most crucial for the survival, growth and development of the child born. Out of the ten major contributors towards increasing the neonatal mortality rates Pakistan lies at the third rank accounting for 7% of total newborn deaths.

Objective: To understand the cultural beliefs, local perceptions and practices of women regarding immediate neonatal care in Rawalpindi.

Study Design: Cross sectional descriptive study.

Place and Duration of Study: AFPGMI Rawalpindi, from Mar to Aug 2018.

Material and Methods: It was focusing on low to middle socioeconomic strata to understand local perceptions and practices regarding the quality of care for the newborns. As per the qualitative approach, in-depth interviews were conducted with the women who have delivered in the last 40 days to explore their cultural beliefs and local perceptions resulting in the quality of their care practices for the neonates.

Results: The cultural beliefs of the mothers regarding immediate neonatal care had a visible influence on their practices. The use of mustard oil for cord care, considering colostrum bad milk and avoiding it, feeding prelacteals e.g. ghutti with honey and late initiation of breastfeeding were some of the poor-quality practices among the mothers of the neonates.

Conclusion: Newborn are fragile so they need proper trained care. Poor care makes its newborn prone to morbidity and lifelong disability

Keywords: Breastfeeding, Cord care, Neonatal care, Infection, Neonatal mortality, Prelacteal feed.

INTRODUCTION

On the January 1, 2019 an estimated 395, 072 births globally and 15,112 births in Pakistan took place thus bringing a lot of joy to the parents and families[1]. From pregnancy to childbirth and then the experience of motherhood is overwhelming as well as a great responsibility for a woman[2]. This continuum of care gets started as soon as a girl reaches her puberty. From nutrition of a young girl to the apparent changes in her body, everything plays a vital role in determining her journey of safe motherhood. The antenatal period where mother nurtures her child in her womb to the birth of a newborn, it is a woman's right to be provided with an environment that respects her, can powerfully affirm woman's rights and social status without jeopardizing the health of both, mother and the baby[3]. This enabling environment and the journey of safe motherhood depends on the care and attention given to the pregnant women and their newborns by families and communities thus ensuring the continuum of care. Along with this, the acumen of skilled birth attendant, availability and accessibility of the adequate health-care facilities, equipment, and medicines and provision of emergency care when and where needed is essential[4].

Each year across the globe, 2.9% of total deaths occur during the neonatal period of life. About 36% of the newborn mortality occurs within 24 hours of birth; whereas about three

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quarter of mortalities occurred in the first week of life in 2017[5].

Globally, the prime reported causes of neonatal mortality are preterm births, neonatal sepsis, asphyxia at birth, hypothermia, and other causes like late initiation of breastfeeding.

Preterm birth is quite challenging in the low-income developing countries. UNICEF reports Pakistan to lie at the 4th number out of 10 countries with reported 748,100 total preterm births whereas it lies at the 8th number out of the 10 countries with 15.8 preterm births per 100 live births in year 2018[6]. A study from Karachi reported the potential risk factors associated with the preterm birth to be low maternal weight, multiple previous preterm deliveries, periodontal diseases, maternal anemia, physical and emotional stress among the participants from the local population delivering atthe tertiary care governmental hospital in Karachi, Pakistan[7]. A study 'The association of cerebral palsy (CP) with birth asphyxia: A definitional quagmire' conducted a review of 23 studies thus reporting that proportion of CP varied from less than 3% to over 50% with birth asphyxia as a precursor. It is important to highlight that the current data does not evidently support the belief that birth asphyxia can be recognized consistently and precisely and that CP is potentially due to birth asphyxiaonly[8]. In the developing countries, an estimated 30-50% of the total neonatal deaths i.e. 1.6 million deaths occur annually[9]. A study from 2005, highlights the burden of neonatal sepsis in the developing countries. Neonatal sepsis around the time of birth is contributed by the careless cord handling. The clamping of cord stump separates the newborn from placenta and is crucial in the third stage of labor i.e. from around the time of birth of the baby and placental shed off[10]. Cord stump handling varies as per policy and protocol of the delivery system, but early cord stumping is thought to be associated to lower risk of neonatal sepsis and postpartum hemorrhage. To reduce the child mortality in order to achieve the SDGs target 3.2, exclusive breastfeeding is considered the most effective intervention. As reported in Pakistan Demographic and Health Survey (PDHS) 2017-18, only 48% of children age 6 months and below are breastfed with a mean duration of exclusive breastfeeding being 1 month[11]. In addition to this, bathing of the neonates within one hour of birth leading to hypothermia, is a potential risk to neonatal morbidity and mortality. Neonatal care around the time of birth has to be properly timed and sequenced to ensure immediate thermoregulation thus reducing the risk of neonatal mortality[12].

MATERIAL AND METHODS

It is a descriptive cross-sectional qualitative study carried out through purposive sampling technique. Targeted study population were primary caregivers of the neonates, mostly mothers who have delivered in last 40 days.

For an in-depth understanding of the quality of care around the time of birth and the experience of care provision of the caregivers (mostly mothers), qualitative interviews through a structured interview guide were conducted. The study revolved around exploring the cultural beliefs and local perceptions of the mothers about the immediate neonatal care. These beliefs vary from area to area and the rationale behind them too. Hence for a through understanding of the perspective of the mothers and the underlying reasons to these perceptions, an in-depth interview seemed an appropriate choice.

The mothers fulfilling the inclusion criteria were traced from the health facility records and were requested to engage in an interview with the researcher as per their feasibility of time and place. The inclusion of participants in the study were confined to the women who delivered in the last 40 days among the women in the reproductive age group. Whereas, sick mothers were excluded from the sample. The defining criteria of 'sick' mothers was the post-partum fever bleeding and post-partum depression.

After taking the consent of the participants, they were interviewed using a structured inter-view guide in order to explore their cultural

beliefs and perceptions about providing the quality care to the newborns. The responses were later analysed by thematic analysis and reported descriptively. A total of 07 documented in-depth interviews were carried outtill the saturation point was met.

The interview responses were subjected to the thematic content analysis. Main themes, categories and sub-categories were identified. Thematic framework analysis was done as follows:

Familiarization

1. Identifying recurring themes
2. Devise a conceptual framework (index)
3. Sorting index under smaller number of "Main themes"
4. Indexing (Applying index to raw data)
5. Refinement of index
6. Sorting

RESULTS

Sociodemographic Characteristics of Participants

The detailed view of the sociodemographic profiling of the enrolled participants is reflected.

Age

As per the requirement of the study, the women in the reproductive age group (15-49 years) were purposively targeted. Out of the total 7 mothers, most of the women belonged to the 20-25 years age group.

From the bar chart, it can be appreciated that the Respondent 1, at the age of 19 years is mother of two infants and holds an intermediate level degree. Whereas, the Respondent 7 at an age of 26 years holds a primary level certified education and is mother of one infant. Therefore, we can plausibly say that no observable influence of age of respondent occur on the parity and education.

Education

The participant mothers in the study had education levels from primary to intermediate.

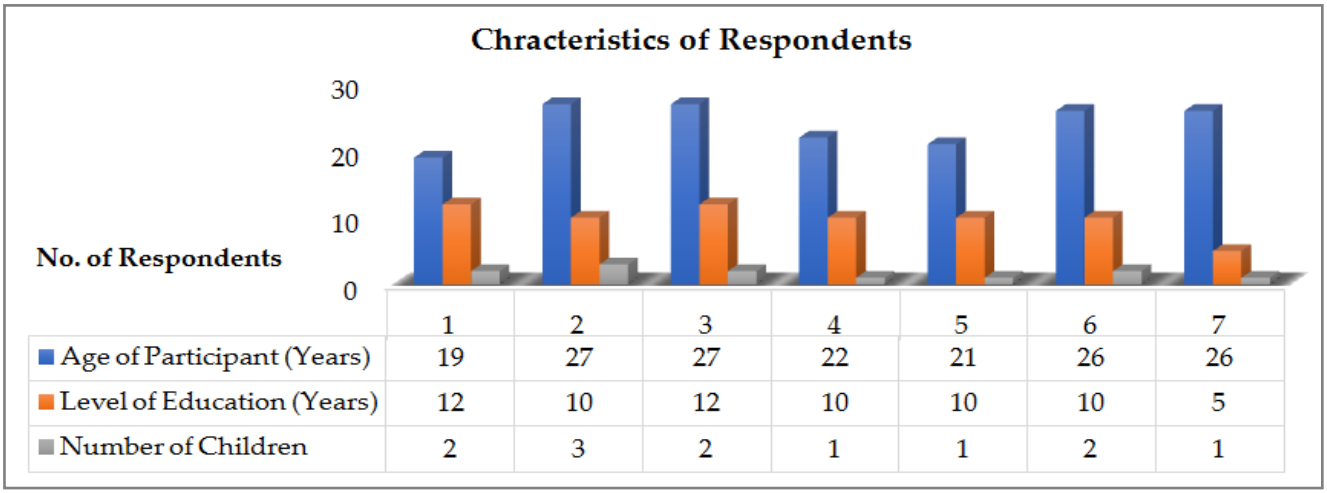

Figure-1: Bar chart representing the Age, Educational Level and Parity of the mothers.

Out of total 7 mothers recruited for the in-depth interviews, 14% had primary level education, 575 had done matriculation while 29% had studied till F.sc/Intermediate.

Family Structure

The respondents were questioned about their family set-up to observe if there was any effect of the family structure of the respondents on their knowledge, belief, health practices and support during antenatal and postnatal duration.

The responses were categorised as either being part of a 'Joint family' if they lived with their parents, in-laws or extended family members. Nuclear families were described as only the husband, wife and their children being

the primary members of the household. From the responses, it was concluded that 80% of the women lived in the joint families with 20% lived in the nuclear set up.

Most of the women came from low socioeconomic backgrounds with an average monthly income ranging from PKR 15,000 to 18,000. Most of the women reported to have a negligee say in the money matters at home. Thus, women are left with less choices of seeking care and decision making in such settings.

Qualitative Results -In depth Interviews with Mothers

Cultural Beliefs regarding Neonatal Care

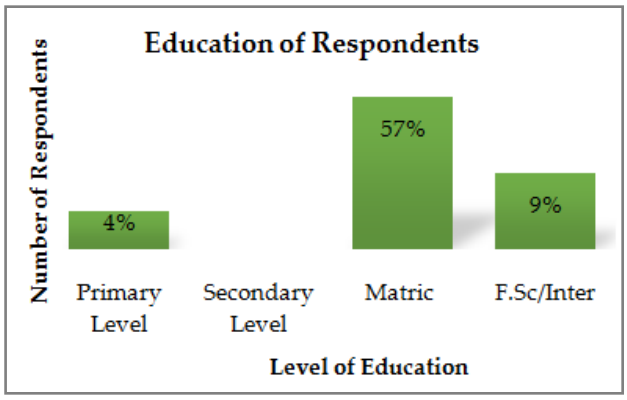

Figure-2: Bar chart representing the level of education of the mothers.

The study aimed to in depth explore the cultural beliefs and resultant practices of the mother during the provision of care to their newborns. The mothers, who were identified as the primary care giver of the neonates, were asked questions about five key areas for care provision. The absence of care in these areas has been identified as risk factor for increasing burden of neonatal mortality in the literature; cord care accounting for neonatal sepsis, prelacteal feed, perception about colostrum and late initiation of breastfeeding, bathing patterns accounting for hypothermia in neonates, and knowledge about skin to skin contact especially for preterm babies. These areas primarily captured the focus of interviews.

Cord Care

All the seven mothers were questioned 'What did you apply on the cord of the baby?' To this, mostly the mothers reported application of spirit on the umbilicus, some reported mustard oil application whereas few of the mothers reported to have used warm turmeric powder as an antiseptic to dry and shed the cord. Whereas, mothers reported to have a poor knowledge about 4% chlorhexidine gel and its use in cord care.

One of the mothers stated,

'While I was recovering from the stitches of my c-section my mother in law took care of my newborn. She used to clean up the baby, massage him with warm oil (ghee). Initially we provide the warmth of heated oil but then after a day started applying spirit on the cord to dry it.'

Another mother on being asked about the cord care regime she adopted quoted,

'Mustard oil is very effective. It took 5 days for cord to dry out and to heal without causing any infection. Doctors told us about applying the spirit, but we preferred using mustard oil as its already experienced in my family through generations.'

The participant mothers were asked if they are aware of usage of chlorhexidine gel for cord care or if their health care provider told them about it. Surprisingly, none of the mothers had a clue about chlorhexidine and its use. A mother stated,

'I do not know about this gel. My mother in law told me to apply slightly warm turmeric powder and later clean it with spirit. After this, I apply oil to make the umbilicus soft so that it doesn't ache'.

Prelacteal Feed

Among the 7 mothers, majority reported to have fed ghutti with honey to their newborns, some reported to have fed their newborns with drops of gripe water whereas some reported to have used some other sweet edibles as ghutti e.g. the soft pulp of dates, sugar water etc. In this

study no mother reported the use of teas or kahwa as prelacteal.

On probing, mothers stated that they do not know the origin of this practice but have witnessed it through generations in their families hence they practice it too. They further added that the belief holds whoever makes the newborn taste something sweet, the baby takes the reflection of that person in his/her nature and behavior. A mother while talking about practicing prelacteal feed quoted,

'I was told that to take three dates and recite qur'anic verses on it. During the first labor eat one date, on the second labor eat another date, this way the process of birth becomes easy for the mother. So, I followed this religious belief and the third date was used to give 'Ghutti' to my newborn by my mother in law. A piece of date pulp was touched to his pallet'.

Another mother commented on the same subject, as:

'Honey was given to both my babies on birth. The significance of this practice is just cultural as making the newborn taste anything sweet is considered a good omen'.

Early and Exclusive Breastfeeding

On being questioned about the breastfeeding, all the mothers informed that they were counselled about the importance of breastfeeding during their antenatal care visits. They further added that the doctors strictly told them to show compliance with the breastfeeding unless there was some medical condition of mother or the newborn that brought hindrance. Despite this, almost one third of the mothers reported to have started breastfeeding after 1 day of birth as they had cesarean section and did not physically feel competent to carry out breastfeeding right away. While two third of the respondents established the breastfeeding within 4 hours of the birth of their baby. As per WHO guidelines of initiating breastfeeding within 1 hour of birth, none of the mothers reported this practice.

Respondents were further probed for their knowledge and belief about colostrum (first mother milk). One of the respondents quoted,

'My mother in law told that the first milk is unclean as it appears pale yellow and thick sodiscard it. I discarded the first milk and then fed my baby the clean white liquid milk'.

Whereas, another respondent firmly stated,

'Yes, I discarded the first milk. Everyone told me that it is bad milk. The white liquid that appears after it is the good milk'.

Whereas, a mother informed that she had no knowledge about colostrum being good or bad hence she did not take any extra measures and fed the baby right away, she quoted;

'I didn't waste first milk instead fed it to my baby. I did not have knowledge about it being good or bad neither my doctor told me'.

Among these, one of the mothers on the basis of her experience and learning through health care providers improved her practice, and as she quoted,

'Fed colostrum to my younger one who is a few days old but in case of my elder one I discarded colostrum because I was told to remove this milk. But now I know that it is healthy for my baby'.

Thermoregulation

Mother's care practices in terms of maintaining the baby's temperature and keeping the newborn safe from thermal shock was an important component to explore. In this regard, mothers had the knowledge of protecting the baby from cold and they were practicing the measures of regulating the optimum temperature.

Bathing of Newborns

On being questioned about the bathing patterns for the newborns that mothers adopted, one of the mothers quoted,

'We bathed the child with Luke warm water on the 3rd day of birth as I came home that day. Earlier there was no place in the hospital to bathe

the child. My mother in law told me aboutcounselling from the doctors that baby born is too warm so do not bathe him immediately. Therefore, on her advice we bathed the child on the third day'.

Most of the mother's reported bathing their child on the 3rd day of birth, a few reported it to be on the 7th day.

Kangaroo Mother Care (Skin-to-skin Contact)

Mothers did not report to have any knowledge about skin to skin contact or Kangaroo Mother Care. None of the mothers were informed about maintaining skin to skin contact with the newborn even in the case of preterm births. Knowledge and practice about this care practice was negligible.

DISCUSSION

An important dimension of the quality of care is the experience of the mothers which was explored through in-depth interviews. It wouldn't be wrong to say that the mother belonging to low socioeconomic quantile, coming from joint family structure and having low-levels of education had a compromised quality of care experience. The level of satisfaction from the user end was low for these mothers.

The study mainly highlighted the cultural beliefs and practices of the mothers who are the primary care givers of their newborns. The lack of knowledge of mothers about proper cord handling, initiation of breastfeeding, maintaining thermal regulation and importantly the significant practice of feeding prelacteal to the newborns lead to poor quality of care provision to the newborns.

Evidence from the studies suggests that chlorhexidine skin care is found to be effective in reducing risk of omphalitis and neonatal sepsis as compared to dry cord care[10]. From the responses obtained, it could be inferred that all the mothers had no knowledge about 4% chlorhexidine gel in cord care. Their practice involving the use of mustard oil was highly influenced by cultural belief whereas the use of spirit was mostly as per the guidance of health care providers.

Literature reports an avoidance of colostrum among the mothers and the primary care givers of the newborn. A study from 2015 reported that 14%of mothers having children <24 months showed reluctance towards colostrum[9]. In this study the response to colostrum was same. The significant factors associated to this behavior were home delivery, women in charge of households, lack of knowledge about colostrum and its importance. From the verbatim of the mothers quoted earlier, it could be inferred that mothers know that the importance of prelacteal is nothing more than a cultural or religious belief. But the influence of their mothers, mothers in law or families is quite significant that forces them to practice this ritual. The cultural and religious belief regarding cord care and prelacteals appreciably influenced the practices of the mothers.

Neonatal care around the time of birth must be properly timed and sequenced to ensure immediate thermoregulation reducing the risk of neonatal mortality[12]. Literature shows that low cost evidence-based interventions like kangaroo mother care (skin-to-skin contact) prove beneficial to reduce the burden of morbidity and mortality among the neonates[13]. In this study mothers report little or no knowledge about the kangaroo mother care probably because no guidelines of skin to skin contact were provided by the health care providers.

CONCLUSION

The newborns are fragile individuals, and this imparts a great responsibility of their health and wellbeing on the quality of care given to them around the time of birth. Poor care makes the newborn prone to potential risks of morbidity, lifelong disability thus making them deprive to reach their full potential or may even cause the risk of mortality. Hence, the importance of the matter should be acknowledged by the health care providers, mothers as primary caregiver and relevant stakeholders from the

community to make a collective effort to achieve quality of care for the newborns.

CONFLICT OF INTEREST

This study has no conflict of interest to be declared by any author.

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