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Cultural practices of rearing preterm infants: A qualitative study in a tertiary care hospital, Karachi, Pakistan

Salima Sulaiman Gulamani
*University of Toronto, Ontario, Canada*

Ambreen Tharani
*Aga Khan University, ambreen.tharani@aku.edu*

Sharifa Bashir Lalani
*Aga Khan University, sharifa.lalani@aku.edu*

Kiran Shaikh
*Aga Khan University, kiran.shaikh@aku.edu*

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INTRODUCTION

A cultural practice is an important aspect that needs to be considered by health care providers in order to deliver quality maternal and child health care services. Studies have shown the association between cultural practices, its belief and norms and family behaviors that influence attaining maternal and child health care (Ali & Howden-Chapman, 2007; Owoo & Lambon-Quayefio, 2013). Importantly cultural practices would have an effect on the utilization of advanced health care practices which would not be utilized by families to make proper decisions. Many cultural norms are inherited in the family without knowing its significance or harmful effects on infants and mothers. For example, Taiwanese mothers are abide to follow several cultural rituals on their preterm infants imposed on them during the postnatal period (Lee, et al., 2009). Similarly, living with extended family has a greater influence on practicing cultural norms religiously. For instance, Latino mothers preferred to live in or near the home of their own parents to receive advice on preterm baby care from family members. Also, these mothers often seek help from family members in child care (Neu & Robinson, 2008). Though the culture is considered as a significant contributor towards infants feeding and rearing practices, scarce researches are available to understand these diversifications. The most vulnerable from cultural practices are the preterm infants.

Preterm infants are the most vulnerable population. Preterm infant is defined as birth before completion of 37 weeks of gestation (World Health Organization, 2014). Each year around 15 million babies are born preterm and their survival chances vary dramatically around the world (Blencowe, et al., 2012). All resource regions: high, middle, and low report varying degrees of preterm birth rates (Beck, et al., 2009), ranging from 5% in developed countries to 25% in developing countries (Goldenberg, et al., 2008). The estimated global preterm birth is 9.6% (Beck, et al., 2009). The rate of preterm birth in Pakistan is 15.7% (Lawn, et al., 2010). Preterm infants are at higher risk of adverse health outcomes than healthy, full term infants (Kair, et al.,...
2015). Preterm infants are high risk of experiencing respiratory distress, hypoglycemia, temperature instability, and feeding difficulties than term infants (Engle, et al., 2007; Kramer, et al., 2000; Natalie, et al., 2014; Vohr, 2013). Therefore, cultural based practices and norms contribute significantly in the prevention and treatment of these associated health risks.

Breastfeeding has many health benefits for preterm infants like decreased infection and allergies (American Academy of Pediatrics, 2012). Preterm infants benefit more from breastfeeding than term infants. It is fundamental for infant's survival, growth, and development (Joseph, et al., 2013). WHO recommends exclusive breastfeeding of all infants until 6 months (WHO, 2014). In spite of all efforts, deployed as information, education, or training campaigns to promote mothers milk for the infants, the prevalence of exclusive breastfeeding is low (Li, et al., 2005). The probable reason could be that the psychosocial and cultural barriers exist to early breastfeeding (Garg, et al., 2010). According to (World Health Organization, 2014) non-exclusive breastfeeding includes prelacteal feeding is an important cause of infant morbidities. Also, there are other contributing factors for infection like improper and inadequate weaning foods and unhygienic feeding practices like bottle feeding.

Apart from feeding practices, there are certain other rearing practices which also influence the health of preterm infants and are widely prevalent among families and communities. These are oil massaging the baby, application of oil into eyes and ears, burping the baby, application of black carbon into the eyes, trimming of nails (Joseph, et al., 2013). Familiarity with these rearing practices is of considerable significance to a health worker serving the community. Specifically, in immigrant population, knowledge of cultural practices help health providers to provide efficient and accepted care to their client. (Steinman, et al., 2010) explored the feeding beliefs of Somali immigrants and identified the practice of discarding colostrum, as it is believed that it makes baby sick. Therefore, for promotion of infant health, the health care providers must identify the beneficial innocuous and harmful rearing practices. Also, it is important to explore the practices in preterm infant care before initiating any intervention plan. However, to date, no literature is available which appraises the cultural practices of rearing a preterm infant in Pakistani culture. Pakistan is a home country of several ethnic groups (e.g., Punjabi, Sindi, Baloch, Pushhton, etc.). This diverse cultural composition is depicted in every aspect of their lives and is most likely to vary in their preterm infant rearing practices. Thus, the purpose of the study was to explore the rearing practices of preterm infant in the Pakistani context. However, the present paper will describe the feeding and hygienic practices performed by Pakistani mothers that could impact on health status of preterm.

**Aims of the Study**

The aims of the study is to explore, a) the early parental experiences of mothers following the birth of preterm infant, b) the challenges of a mother in the early period following the birth of preterm infant, and c) the common cultural practices in the early period following the birth of the preterm infant.

**Objectives for the study**

- To explore the experiences of mothers in the early period following the birth of a preterm infant.
- To examine, the challenges of mothers in the early period following the birth of the preterm infant.
- To investigate, the common cultural practices of rearing a preterm infant in the early period.

**Research Methods**

**Study Design**

The study utilized the qualitative descriptive-exploratory design (Brink, 1998) to explore the early parental experiences, cultural practices, and challenges of mothers having a preterm infant.

**Study Setting**

The study was carried out in a largest government tertiary care hospital in Karachi, Pakistan. The hospital is located in the central hub of the city. The facility is utilized by the largest number of population and caters around two million patients annually, mostly from lower and lower-middle population of patients.
Study Sampling

Purposive sampling was utilized in the study to obtain cases deemed information-rich for the purpose of the study (Sandelowski, 2000). To receive meaningful input from study participants, purposefully 10-15 mothers who delivered preterm birth at the hospital, and were attending the pediatric outpatient clinic for follow up with a baby between two to three months was included (Polit, et al., 2001). Mothers who were able to speak and understand Urdu (national language) and/or Sindhi (provincial language) were recruited. However, the data was collected from 17 mothers who were meeting the above mentioned inclusion criteria until data saturation was reached.

Ethical Consideration

The study was approved by the Aga Khan University Hospital’s Ethics Research Committee (ERC). Permission was taken from the Medical Superintendent (MS) of the data collection site. The mothers fulfilling the eligibility criteria were recruited. Participant’s confidentiality and anonymity were maintained throughout the study. Anonymity was ensured by coding participants’ identity while handling the data (Polit and Beck, 2010). All manual data and tapes were kept in lock and key in a secure place with research team. Electronic voice recorded interviews and data in soft copy were password protected and accessible only by the researchers.

Data Collection

Informed consent in Urdu/Sindhi was obtained from the mothers. Prior to the interview, a demographic data form was filled by the researchers to have baseline information of the participants. Interviews were conducted with the help of a structured interview guide (Polit and Beck, 2010). The interview guide was piloted on two mothers to ensure validity and reliability of the tool. The interview guide was modified based on the feedback received on pilot testing. Each interview lasted for approximately 45-60 minutes.

Data Analysis

(Morse, 1994), qualitative data analysis processes were applied within the descriptive-exploratory design. The interview guide consist of three major focus areas consisting, 

- Experiences of mothers.
- Challenges.
- Common cultural practices in the early period following the birth of preterm infant.

The data analysis was proceeded by,

- Transcribed interview of the participants coded for analyzing data.
- Identified emerging themes in the data.
- Labeled the themes with significant code words.
- Codes were clustered and labeled using broader themes and sub themes throughout analytic process.
- The thematic strands were weaved together into an integrated picture of phenomena under investigation. The qualitative content analysis was used as analytic method.

Rigor and Trustworthiness

(Lincoln and Guba, 1985) suggested four criteria for ensuring the trustworthiness of a qualitative research.

- Credibility or internal validity.
- Dependability, reliability, or stability.
- Confirmability or objectivity.
- Transferability, external validity, or generalizability.

In this study, credibility was also ensured by covering the data through categories (Graneheim & Lundman, 2004). Member check was done following the interviews, to correct the errors of interpretation. Dependability can be met through the obtaining credibility of the findings. Confirmability was ensured by confirming an audit trail. Therefore, the record of raw data (interview transcript) and the data reduction notes (theoretical notes) was kept by the researcher. Transferability was ensured by documenting a thick description of the findings could be transferable or applicable in other settings (Guba & Lincoln, 1989).

Findings

The study participants encompassed 17 mothers aged between 20-38 years. Nearly 82% (n=14) of the mothers were housewives and remaining were either self-employed or labors. In terms of educational status, almost 52% (n=9) of the mothers were illiterates, whereas the rest of the
mothers (48%) had primary (n=3) or secondary (n=5) level of education. All the mothers were permanent resident of Pakistan, representing various cultures, including Sindhi, Punjabi, Kaachi, Balochi, Mahajir, Pathan, and Bengali. However, able to understand and speak Urdu and/or Sindhi. The family income of 65% (n=11) of mothers participated in this study ranged PKR 5000-20000. Whereas, five mothers (45%) were not ready to reveal their family monthly income. Unexpectedly, one of the participants informed family income less than PKR 5000.

The study unveiled various cultural, feeding, and hygiene practices being performed by mothers to foster health and well-being of their preterm babies. In addition, rich data were obtained regarding fears and stresses encountered by mothers in rearing their preterm. Also, the role of the family was identified as instrumental by mothers to manage their preterm. As mentioned earlier, the current paper will elaborate the findings of feeding and hygiene practices undertaken by mothers of preterm in Pakistani context.

Feeding Practices

Findings suggested cultural dimensions of various feeding practices of mothers of preterm babies. Welcoming a newborn with ‘honey’ is reported as a common practice among mothers in Pakistan. They strongly felt that this is a traditional practice that is necessary to be done. They also affirmed that the baby will shadow the person who gives honey to him/her during their welcome ritual. As one of the participants stated:

"In our culture we believe that child will shadow person who will first feed honey to him. We give diluted form of honey with water until the child turns three months” (p7).

One of the mothers only gave honey water for three months and did not breastfeed her baby. Absence of breastfeeding can lower the immunity and develop illnesses in an infant, She said,

"I was giving him honey for consecutive 3 days and did not feed him milk and till 3 months I was giving honey and water” (p9).

However, few of the participating mothers reported opposing the cultural norm of feeding honey as to them it may have a negative impact on baby as being preterm. As a mother stated:

“I don't want him to become ill (as he is already weak) … so I didn't give him honey or anything else besides breastfeed” (p16).

In the same line, few of the participants shared feeding with herbal tea and water is also practiced, instead of honey, to babies at the time of birth. Some of the mothers still practice feeding these herbal remedies frequently to maintain babies' digestion. These herbs have been usually homemade like ‘wawrine’, ‘wakomba’, and ‘ghutki’ (locally available herbs). Whereas, some of the mothers were using the available form of prepared herbs like ‘naunehal’ (an herbal water prepared by a pharmaceutical company).

"She had constipation. So I gave her ‘Jiwanghutki’ (herbal remedy) daily till she is 2 months old. I still give it to her when needed to ensure her digestion and prevent from colic” (p14).

Almost 90% of the mothers (n=15) were breastfeeding their babies along with top feed, cow’s milk and weaning diet. Mothers reported their struggle in feeding preterm babies as to them, they were weak, as a mother shared:

"Every time when I gave her milk, her breathing gets blocked. Then I put her on my shoulder and give a small portion of milk slowly. I continuously rub her back so that the milk moves down in her stomach and she does not vomit it out” (p1).

The practices of weaning were reported as early as at the age of one month. However, some of the mothers were strictly following the doctor's advice on the cost of their cultural practices. The common weaning diet included flour, dalya (ground wheat), semolina (sooji), sajo (sabudana), prepared powdered cereal (wheat based cerelac), and biscuits. While explaining the method of preparing diet, a mother stated:

"First we make flour red and then add water, milk and sugar in it. We cook for a little while and then feed to a child once cold” (p9).

Interestingly, one of the mothers reported that she administered juice to baby to treat diarrhea, as she reported:
“He had diarrhea since 10-15 days, so I gave him orange juice. Now whenever he gets diarrhea, I feed him with tetrapack juice” (p3).

Hygiene Practices

The majority of the mothers reported that they haven't given bath to the newborn after birth. The first bathing time varies from 3 days to 1 month and mothers were able to rationalize it with the fragility of the newborn. Therefore, they commonly clean the newborn with cloth soaked in water and lotion, till they gave first bath. Bathing babies with delicacy is reported by mother as one of the mothers narrated her experience as:

“First I warm the water. Then hold the baby in my hand and apply soap slowly. After that, I pour little bit amount of water and prevent his nose and ear from water. Then I turned him back and give a bath” (p2).

The variation in practices of using soap was also noted. As many of the mothers were using locally available antiseptic soaps ‘Dettol’ and ‘Safeguard’ to bath their newborns. As one of the mothers stated:

“On second day of his birth, I gave him bath with Dettol soap so he is clean and free from all infections” (p6).

Interestingly, most of the mothers reported bathing newborn on their legs as they feel it will prevent them from falling. As one of the mothers narrated:

“I put the baby on my legs and then give bath. In this way my baby will feel secure and will not cry because she can see me. I don’t pour water on her face; I just put on her head….” (p11).

As part of bathing ritual, mothers usually massage babies’ body with lotion and various oils, including mustard, rose, fish, and coconut oil before bath. The prime purpose of massaging infant with oil is to give muscle strength. As a mother narrated:

“I use mustard oil and rose oil to massage my baby. I also use fish oil so that baby can get strength and can easily hold his neck and stand on his foot soon” (p10).

Less than one third of the mothers reported rare practice of cleaning newborn’s umbilical cord with coconut oil and consider that it fosters healing.

“I applied coconut oil on his cord and cleaned with cotton, I do it daily so that his cord stays clean and prevent from infection” (p17).

Following the bath, a common practice of grooming newborn was reported by application of black carbon (kajal) in their eyes. The purpose of the application of kohl was to improve their eyesight, prevent from bad evil, and beautification of the newborn.

“I groom my child by applying kajal after bath. I gave him first bath on fifth day after his birth and applied kajal too. My mother in law always says that it will prevent child from evil eye and child will never get sick” (p1).

Mothers often prepare khol at home, as one of the mothers shared the steps of preparing khol as:

“We first put coconut oil in a spoon, then wrap a piece of cloth and put sesamoids oil in it. Than prepare khol (kajal) from it which is chemical free and safe for baby. Then we apply it to baby daily” (p1).

Discussion

Rearing preterm infants form an important aspect of community practices. Cultural health beliefs and practices are still strongly practice, especially among developing countries. Health care workers need to be sensitive with cultural practices among the population they served. Some may be harmful and some may be beneficial for preterm infants. Different cultural practices related to feeding and hygiene were highlighted in this study. Study findings suggest that majority mothers were breastfeeding infants which is consistent with others studies (Steinman, et al., 2010; Mohammed, 2014). Also, the study highlights that infants were provided with top feed which include cow milk, weaning, guthi, etc. The findings are consistent with the literature that has found that infants were breastfeed (Joseph, et al., 2013; Memon, et al., 2006) along with a combination of animal milk, formula milk, semi-solids, solid diet (Joseph, et al., 2013), butter, ghuuti, tea (Memon, et al., 2006), glucose water (Sreedevi & Rao, 2015). Findings indicate usage of prelacteal food with its belief rooted in the culture. For example, usage of honey in infancy have been seen in the study. Similar findings have been reported in a study that has found practice of pre-lacteal feeding of honey, water, butter, ghuuti, and tea, due to various reasons such as maternal illness, pain at operative sites,
generalized weakness, and perception that milk will come
in 2-3 days, were the major reasons for delay in
breastfeeding for 2 to 3 days as well, whereas honey was
preferred to be given as it is considered hot (Memon, et al.,
2006); while the purpose of these food supplements in the
present study was different. Honey was used as it is believed
that the person introducing honey in the baby's mouth is
transferring his/her qualities to the baby. Herbal tea and
juice was used to improve digestion and treat diarrhea,
respectively. Present study reported that weaning was
started at one month of age, which is consistent with the
findings which also reported that supplementary milk was
started at 2-4 weeks or earlier than 6 months of the infant's
age (Memon, et al., 2006; Mohammed, 2014).

Hygiene practices were another important area where
mothers found to face many variations in practices and
were challenging. The study findings, highlight differences in
the time period of baby bath given to the preterm ranging
from 3 days to 1 month. The findings are consistent with the
study, which also reported delays initiation of bath after 1
week (Joseph, et al., 2013). Whereas, bathing occurred soon
after delivery in Nigerian, but was delayed for several hours or
until the next day for most Tanzanian and Ethiopian narrative
mothers (Adejuyigbe, et al., 2015). Present study also showed
the ritual of massage which is consistent with finding of the
study which also emphasized the practice of oil massage
before bath by mothers (Joseph, et al., 2013). It also
suggested application of carbon (kajal) in preterm eye
where the literature highlights the practice of oil application
to the eyes or ears of infants (Joseph, et al., 2013).
Interestingly, the finding indicates application of coconut oil
at umbilical for cleaning, in contrast, whereas, Sultan and
Berkat (2014) reported that the majority of the participants
didn't apply traditional ingredient or alcohol for umbilical
cord care.

Limitations
This study provides useful insights into several practices of
cultures which serve as the determinants of newborn
nutrition and health status, therefore understanding these
rituals are important especially when they are preterm.
However, there were some limitations of the study. The study
was conducted in a government hospital where people
from various places visited the facility and mothers were
speaking many different languages, however, mothers
who spoken Urdu and Sindhi were recruited due to
language barrier.

Recommendations
This paper examines the feeding and hygiene practices of
preterm infants, further exploration of other cultural
practices is needed. Also, the data were primarily
collected in the hospital setting, further investigation is
therefore needed in exploring the rearing practices of
preterm infants in a community setting. Due to the limited
research on preterm infants, a qualitative study that
investigates the effects of cultural practices on preterm
infants seem quite logical. A final recommendation
includes a comparison study between the cultural
practices of term and preterm infants to identify the
differences in the rearing practices.

Conclusion
Rearing practices of preterm infants described many
cultural rituals which focus on feeding and hygiene
practices of infants. These customs have its own meaning
in the prescribed culture that provides an insight for the
health care professionals; therefore, an exploration of
cultural practices is important before the initiation of any
intervention.

Conflict of Interest
The authors declare that there is no conflict of interest in
regards to the research, authorship, and publication of this
paper.

References
[1]. Adejuyigbe EA, Bee MH, Amare Y, Omotara BA, Iganus
RB, Manzi F et al. (2015). "Why not bathe the baby today? A
qualitative study of thermal care beliefs and practices in
Services and the Role of the Traditional Birth Attendant,
Bidan Kampong, in Rural Malaysia". Journal of Public
statement breastfeeding and the use of human milk".


RESEARCH PAPERS


ABOUT THE AUTHORS

Salima Sulaiman is currently receiving her PhD from University of Toronto, Ontario, Canada. She completed her Masters of Science in Nursing from the Aga Khan University School of Nursing and Midwifery, Karachi, Pakistan. Her area of interest is to understand the Mental Health of Pregnant Women and Postpartum Women Caring for Infants.

Ambreen Tharani is currently working as an Assistant Professor at Aga Khan University School of Nursing and Midwifery, Karachi, Pakistan. She completed her BSc Nursing from the Aga Khan University and Masters in Education, Health Promotion and International Development from the IOE, University College of London. Her research interest focuses on Mental Health Promotion and Educational Challenges.

Sharifa Lalani is currently working as an Assistant Professor at Aga Khan University School of Nursing and Midwifery, Karachi, Pakistan. She received her Master’s of Science in Nursing from the Aga Khan University School of Nursing and Midwifery. Her area of interest is Maternal and Child Health. Her recent work identifies the social determinants that affect Mental Health of Pregnant Women and Develop Strategies that consider the Needs of Pregnant Women.

Kiran Shaikh is currently working as an Assistant Professor at Aga Khan University School of Nursing and Midwifery, Karachi, Pakistan. She received her Master’s of Science in Nursing from the Aga Khan University School of Nursing and Midwifery. Her area of interest is Maternal and Child Health. Her recent research work is on the Psychosocial Health of Pregnant Women in Karachi.