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INVESTIGATING THE IMPACT OF CULTURAL PRACTICES ON MATERNAL AND NEONATAL OUTCOMES IN HOSPITAL SETTINGS IN PAKISTAN

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ABSTRACT

This research examines the impact of cultural practices on maternal and neonatal health outcomes in rural Pakistan, where traditional beliefs significantly influence healthcare decisions and outcomes. Despite ongoing initiatives to reduce maternal and neonatal mortality, rural regions continue to face elevated mortality rates, largely driven by entrenched cultural practices. These include reliance on traditional birth attendants, home births, restrictive dietary practices, and the avoidance of medical care. A qualitative research design was employed, involving interviews, focus group discussions, and surveys with pregnant women, mothers, healthcare providers, and traditional birth attendants from rural Punjab. Thematic content analysis was used to identify prevalent cultural practices and their conflicts with medical recommendations. Key harmful practices identified include the preference for herbal remedies over prescribed medications and the avoidance of prenatal care. The findings suggest that while medical complications are a primary driver of healthcare decisions, cultural factors also significantly shape the choices made by individuals. Certain cultural practices, such as delayed breastfeeding and unsterilized cord care, are linked to serious health risks. The study concludes that culturally sensitive healthcare interventions, which respect local traditions while integrating evidence-based medical practices, are essential to improving maternal and neonatal health outcomes in rural Pakistan. It calls on policymakers and healthcare providers to address these cultural practices to improve the health and well-being of mothers and newborns.

Keywords: *Cultural practices, maternal health, neonatal outcomes, rural Pakistan.*

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INTRODUCTION

Cultural practices in rural Pakistan significantly influence maternal and neonatal health outcomes, despite ongoing efforts to reduce mortality rates (Omer, Zakar, Zakar, & Fischer, 2021). Pakistan continues to experience high maternal and neonatal mortality, with a maternal mortality ratio of 186 per 100,000 live births and a neonatal mortality rate of 42 deaths per 1,000 live births, particularly in rural regions (Anwar, Torvaldsen, Morrell, & Taylor, 2023). These elevated mortality rates are strongly linked to cultural beliefs and practices related to pregnancy, childbirth, and postpartum care, which are deeply rooted in the traditions of rural communities. Practices such as home births, reliance on traditional birth attendants, and dietary restrictions during pregnancy often contradict established medical guidelines, leading to adverse health outcomes for mothers and their newborns (Sawyer, 2024). The effect of these cultural practices on maternal and neonatal health is profound but remains insufficiently examined, particularly in rural areas. While certain cultural practices provide social support and emotional well-being during pregnancy and childbirth, others, such as food taboos and the use of untrained birth attendants, can directly harm both maternal and neonatal health (Acire, Bagonza, & Opiri, 2023). These traditional practices frequently clash with modern medical recommendations, resulting in complications that could be avoided or managed in healthcare facilities. Although previous research has highlighted the need for a deeper understanding of cultural influences on health behaviors, there is a notable lack of studies specifically focused on rural populations in Pakistan, where cultural practices are more deeply ingrained and their impact more pronounced. This research aims to explore the role of cultural practices in shaping maternal and neonatal health outcomes in rural Pakistan. By identifying harmful cultural practices and understanding the beliefs that underpin them, the study seeks to offer evidence-based recommendations for culturally sensitive healthcare interventions (Yan, Chan, Chow, Xiao, & Li, 2023). Through qualitative research, the study will assess the impact of cultural behaviors on health outcomes and contribute to the development of effective, culturally appropriate health strategies. The findings will provide valuable insights for policymakers and healthcare providers, ultimately leading to improvements in maternal and neonatal care in rural Pakistan.

METHODOLOGY

STUDY DESIGN

This research adopted a qualitative approach to investigate the influence of cultural practices on maternal and neonatal health outcomes in rural Pakistan. This design facilitated an in-depth exploration of the cultural behaviors that shape health-related decisions and their subsequent impact on maternal and neonatal health.

STUDY AREA

The study was conducted in rural regions of Punjab, including Islamabad, areas where cultural practices surrounding pregnancy, childbirth, and postpartum care are firmly rooted in local traditions.

POPULATION AND SAMPLING

The study targeted pregnant women, mothers of newborns, healthcare providers, and traditional birth attendants. A purposive sampling technique was employed to select 15 participants, ensuring the inclusion of individuals directly involved in maternal and neonatal health practices.

DATA COLLECTION

Data were collected using a combination of self-administered questionnaires, in-depth interviews, and focus group discussions, enabling a thorough exploration of cultural practices and their effects on maternal and neonatal health. Self-administered questionnaires were distributed to mothers and healthcare providers to gather information on the cultural beliefs, practices, and behaviors related to pregnancy and neonatal care. Semi-structured in-depth interviews were conducted with mothers, traditional birth attendants, and healthcare providers, providing valuable insights into their personal experiences and perspectives on how cultural factors influence health outcomes. Additionally, focus group discussions were held to encourage the sharing of ideas and viewpoints among participants, further enhancing the understanding of how cultural practices impact maternal and neonatal health. This multi-faceted approach allowed for a comprehensive and well-rounded understanding of the research topic.

DATA ANALYSIS

The collected data were analyzed using thematic content analysis. This method focused on identifying recurring cultural practices, beliefs, and behaviors that influence maternal and neonatal health. Key themes, such as the conflict between traditional cultural practices and medical advice, were identified. The analysis also highlighted the socio-cultural pressures that affect maternal behaviors, including

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the reliance on traditional birth attendants and the avoidance of medical interventions.

EXPECTED OUTCOMES

The study aimed to identify harmful cultural practices that negatively affect maternal and neonatal health. The findings were intended to provide evidence-based recommendations for culturally sensitive healthcare interventions. The insights gained will assist policymakers and healthcare providers in addressing the unique challenges faced by rural populations, thereby guiding the development of more effective, culturally appropriate healthcare strategies.

ETHICAL CONSIDERATIONS

Ethical approval was obtained from the relevant institutional review boards. Informed consent was secured from all participants, ensuring they understood the study's purpose and their right to confidentiality. Participant anonymity was maintained by removing personal identifiers from the data.

RESULTS AND DISCUSSION

Prevalence of Cesarean Sections

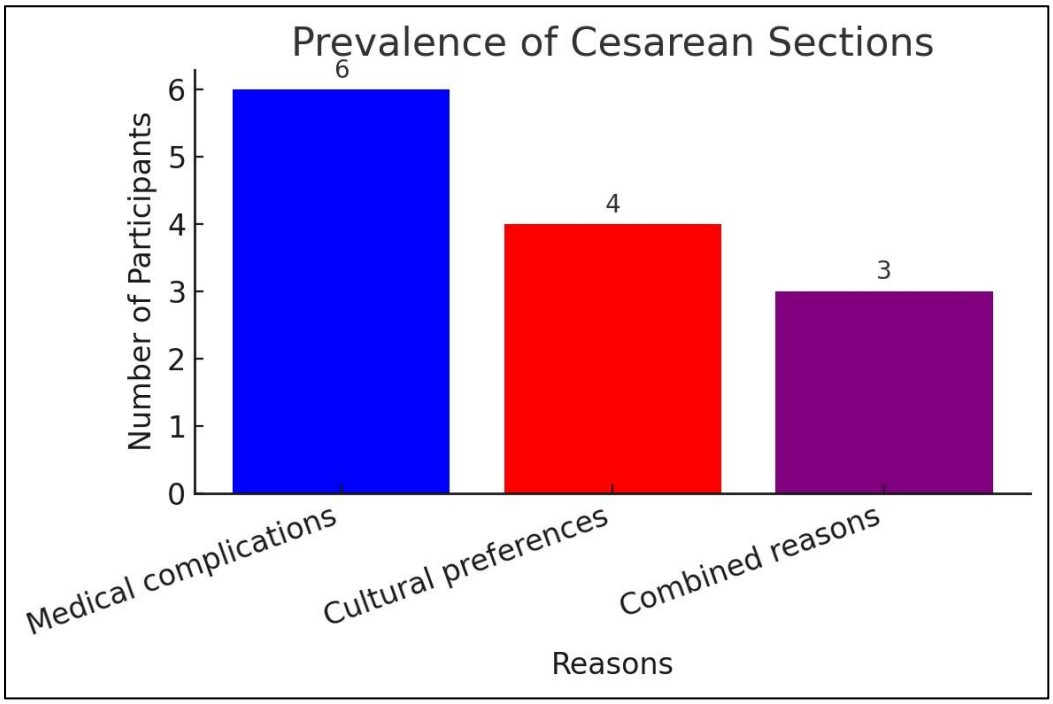

Figure 1 presents a bar chart illustrating the reasons for Cesarean sections among the study participants. The most frequently reported reason for undergoing a Cesarean section was medical complications (represented by the blue bar), accounting for six participants. Cultural preferences (denoted by the red bar) were cited as the reason for four participants, while a combination of both medical and cultural factors (represented by the purple bar) was reported by three participants. The distinct color coding effectively distinguishes between the different motivations, with blue indicating medical reasons, red signifying cultural factors, and purple representing instances where both factors were involved. This visual representation underscores that medical complications were the predominant factor driving the decision for Cesarean births, although cultural influences also played a significant role.

The most frequently cited reason for opting for a Cesarean section was medical complications, as represented by the blue bar, which accounted for six participants. This indicates that health-related concerns, such as complications involving the fetus or mother, were the primary drivers behind the decision to undergo a Cesarean delivery. Cultural preferences, marked by the red bar, were mentioned by four participants, highlighting the influence of cultural beliefs and practices in shaping healthcare decisions. Three participants reported that a combination of both medical and cultural factors (depicted by the purple bar) influenced their choice to undergo a Cesarean section. The color coding in the chart

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effectively distinguishes between the various reasons for Cesarean births, with medical complications as the dominant factor (blue), followed by cultural preferences (red), and a combination of both (purple). This visualization underscores that while medical complications were the leading factor driving Cesarean births, cultural influences also played a significant role, reflecting the complex interaction between medical necessity and cultural considerations in maternal healthcare decisions.

2. NEONATAL CARE PRACTICES

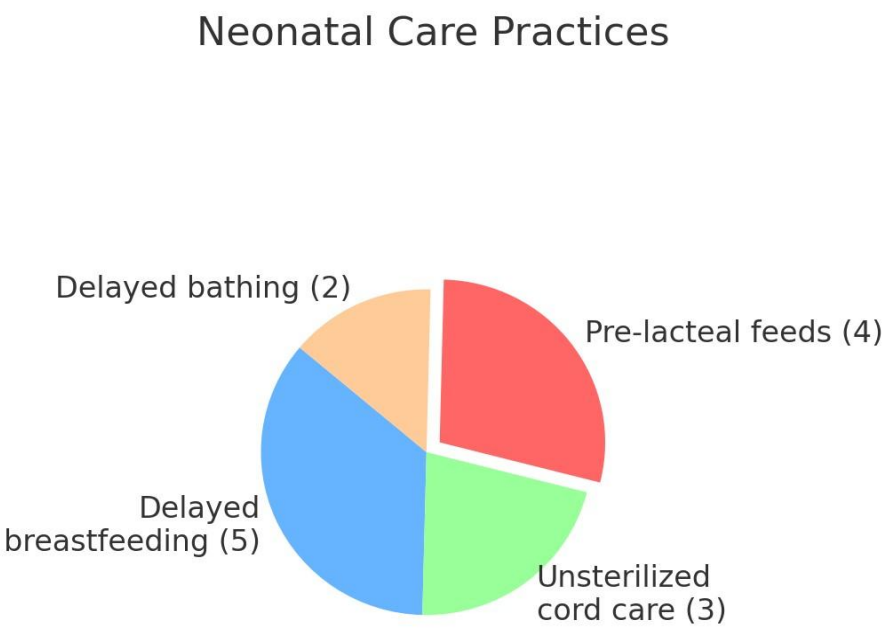

Figure 2 presents a pie chart depicting the prevalence of various neonatal care practices reported by the study participants. Each segment of the chart is labeled with the specific practice and the corresponding number of mothers who reported it: delayed breastfeeding (5), unsterilized cord care (3), pre-lacteal feeds (4), and delayed bathing (2). High-risk practices are highlighted through bold coloring, with the pre-lacteal feeds segment marked in bright red to underscore its particular concern. The chart reveals that delayed breastfeeding was the most commonly reported practice among the participants, while delayed bathing was the least frequently reported. The clear labeling of each segment allows for an immediate visual understanding of the distribution of neonatal care practices across the sample.

The chart categorizes four key practices: delayed breastfeeding (reported by five mothers), unsterilized cord care (three mothers), pre-lacteal feeds (four mothers), and delayed bathing (two mothers). The practice of pre-lacteal feeds is notably highlighted in bright red to emphasize its higher associated risks for neonatal health. The chart indicates that delayed breastfeeding was the most frequently reported practice, with five participants noting this behavior, suggesting a common delay in the initiation of breastfeeding. On the other hand, delayed bathing was the least frequently reported practice, with only two mothers adopting this approach. The use of color coding and clear labeling facilitates a straightforward visual understanding of the distribution of these neonatal care practices. This chart underscores that while practices like delayed breastfeeding are relatively common, other practices, such as unsterilized cord care, present significant health risks, particularly when not managed appropriately. Overall, the chart highlights the need for targeted interventions to address high-risk neonatal care practices, particularly in rural areas where such behaviors may be more prevalent, ultimately aiming to improve neonatal health outcomes.

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3. CONFLICT BETWEEN CULTURAL PRACTICES AND MEDICAL ADVICE

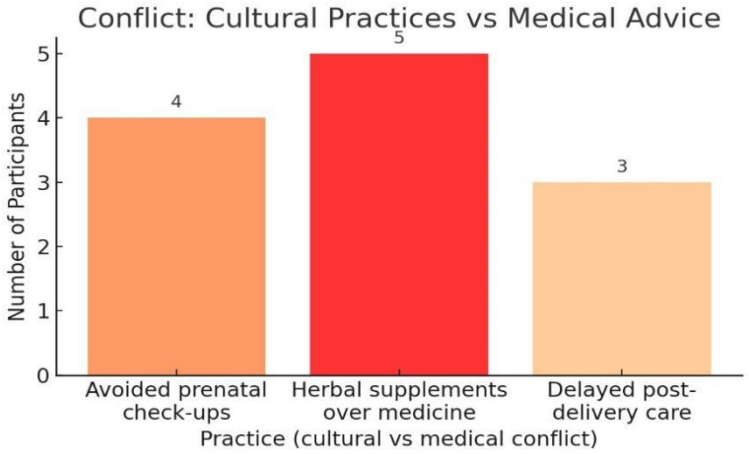

Figure 3 illustrates a bar chart depicting the frequency of cultural practices that conflicted with medical advice. The chart presents three distinct bars representing specific behaviors: four participants avoided prenatal check-ups, five relied on herbal supplements instead of prescribed medications, and three delayed post-delivery medical care. Each bar is color-coded with an orange-to-red gradient to emphasize the associated risk, with the tallest bar (representing the use of herbal supplements over medicine) shaded in the deepest red. This visual representation highlights that the preference for herbal remedies over prescribed medications was the most prevalent conflict with medical recommendations, while delaying postnatal care was less commonly reported among participants.

The chart identifies three key behaviors: avoidance of prenatal check-ups, reliance on herbal supplements instead of prescribed medications, and delay in post-delivery medical care. The most common conflict was the use of herbal supplements in place of prescribed medications, reported by five participants. This is represented by the tallest bar, shaded in deep red, signifying a higher risk associated with this practice. The second most frequent behavior was the avoidance of prenatal check-ups, which was reported by four participants. This is depicted by a bar in a lighter red, indicating a moderate level of risk. The least commonly reported conflict was the delay in post-delivery medical care, mentioned by three participants, and is represented by a bar in orange, reflecting a lower associated risk. The color gradient from orange to red effectively highlights the varying degrees of risk linked to these cultural practices, with the use of herbal supplements presenting the highest potential health risk. This chart underscores the significant influence of cultural beliefs on healthcare decisions, often leading to practices that deviate from established medical recommendations. It emphasizes the need for targeted education and awareness campaigns to address cultural practices and align them more closely with medical guidelines, particularly in the context of improving maternal and neonatal health outcomes.

4. SOCIOCULTURAL PRESSURES

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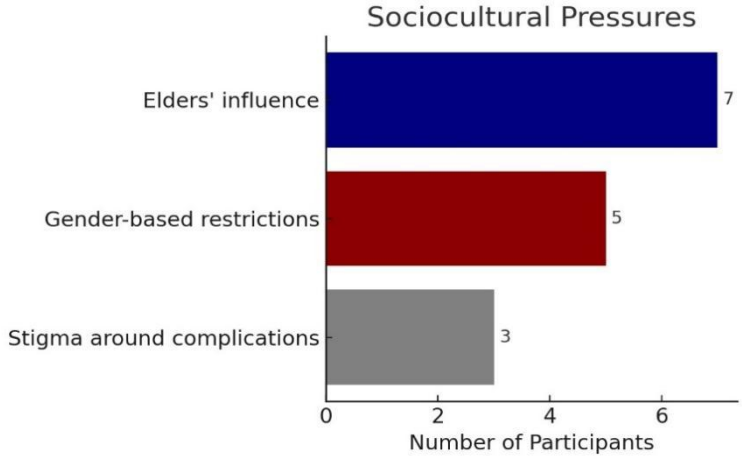

Figure 4 presents a horizontal bar chart illustrating the key sociocultural pressures experienced by mothers in the study. The chart shows that seven participants reported experiencing the influence of elders, five reported gender-based restrictions, and three cited stigma surrounding complications. The bar representing elders' influence is the longest and is shaded in navy blue, highlighting it as the most dominant sociocultural pressure. In contrast, the bars for gender-based restrictions and stigma are represented in dark red and gray, respectively. This visualization clearly indicates that the influence of elders was the most pervasive sociocultural pressure among participants, surpassing other factors such as gender roles and stigma related to complications.

Figure 4 presents a horizontal bar chart depicting the primary sociocultural pressures experienced by mothers in the study. The chart identifies three key influences: pressure from elders, gender-based restrictions, and stigma associated with complications. The influence of elders was reported by seven participants, making it the most significant sociocultural pressure. This is represented by the longest bar, shaded in navy blue, highlighting its dominance over the other factors. Gender-based restrictions were reported by five participants and are shown by a bar shaded in dark red, indicating a moderate level of influence. The least reported pressure was stigma surrounding complications, mentioned by three participants, and is represented by a gray bar, signifying a lower level of impact compared to the other two pressures. The chart clearly illustrates that the influence of elders was the most pervasive sociocultural factor shaping maternal behavior, likely due to traditional cultural norms where elders hold substantial authority and their opinions strongly influence decision-making (Matriano, Ivers, & Meedya, 2022). While gender-based restrictions were also significant, they were less frequently reported and were overshadowed by the influence of elders. Stigma surrounding complications, though important, had the least impact among participants (Meyers-Pantele et al., 2024; Vu, Manalel, Nyhan, Wang, & Monin, 2024). Overall, this chart highlights the significant role of cultural norms and family dynamics in shaping maternal health decisions, underscoring the need for targeted interventions that address these sociocultural pressures to improve maternal health outcomes.

5. COMPLICATIONS LINKED TO CULTURAL PRACTICES

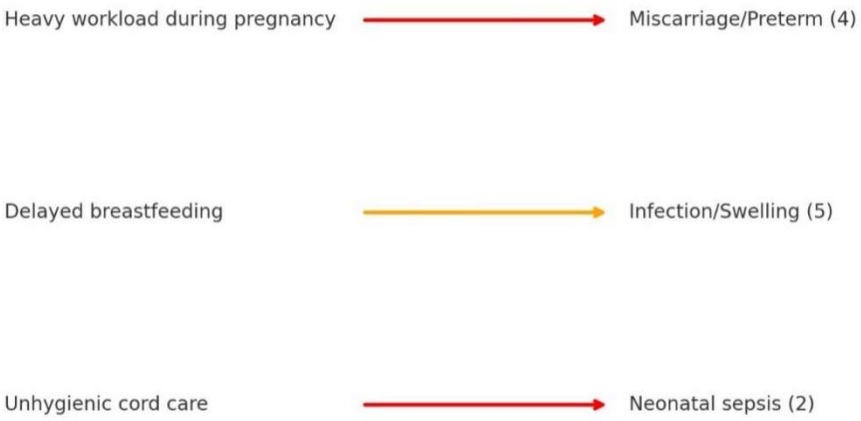

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Figure 5 presents a flow diagram that illustrates the relationship between specific cultural practices and their associated maternal or neonatal complications. Each practice is positioned on the left, with arrows linking them to the resulting health outcomes on the right, along with the number of affected cases. For example, heavy workload during pregnancy is associated with miscarriage or preterm birth in four cases. An orange arrow highlights that delayed breastfeeding led to infant infection or breast swelling in five cases. The red arrows emphasize the highest-risk connections, such as the association between heavy workload and miscarriage or preterm birth, as well as the link between unhygienic cord care and neonatal sepsis, which affected two cases. This diagram clearly visualizes the direct cause-and-effect relationships, with color-coded arrows used to underscore the severity of each connection, emphasizing particularly dangerous practices.

Above figure displays a flow diagram that illustrates the connections between specific cultural practices and the maternal or neonatal complications they cause. Each practice is positioned on the left, with arrows pointing to the associated health outcomes on the right, alongside the number of cases affected. For instance, a heavy workload during pregnancy is linked to miscarriage or preterm birth, impacting four participants (Quenby et al., 2021). Delayed breastfeeding, shown with an orange arrow, led to infant infection or breast swelling in five cases. Red arrows are used to highlight the highest-risk associations, such as the connection between heavy workload and miscarriage or preterm birth, and the relationship between unhygienic cord care and neonatal sepsis, which affected two participants. These red arrows emphasize the particularly dangerous nature of these practices, which pose substantial risks to both maternal and neonatal health. The color-coded arrows serve to visually differentiate the varying levels of risk associated with each practice, providing a clear representation of the direct cause-and-effect relationships between cultural practices and health outcomes. This diagram underscores the need to address these high-risk cultural practices to mitigate maternal and neonatal health risks and enhance overall health outcomes.

6. DEMOGRAPHIC PROFILE

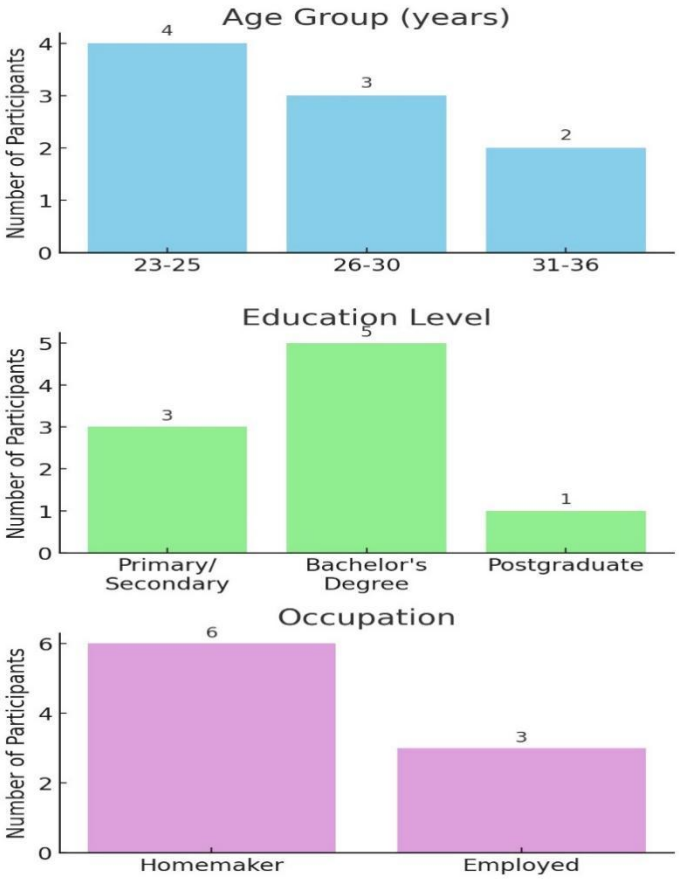

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Figure 6 presents grouped bar charts summarizing the demographic characteristics of the study participants, including age, education level, and occupation. The first chart (top) illustrates the age distribution, with the majority of participants (4) falling within the 23–25 years age range, followed by 3 participants in the 26–30 years range, and the fewest (2) in the 31–36 years range. The second chart depicts the education levels of the participants, where the largest group (5 participants) held a bachelor's degree, followed by 3 participants with primary or secondary schooling, and only one participant had a postgraduate education. The third chart represents the occupation of the participants, with the majority (6) being homemakers and the remaining 3 participants employed. Each chart uses soft color tones blue for age, green for education, and purple for occupation—to enhance readability, with each bar clearly labeled for clarity. Together, these visuals provide context about the sample, revealing a relatively young demographic with diverse educational backgrounds, the majority of whom are homemakers.

Figure 6 presents grouped bar charts summarizing the demographic characteristics of the study participants, specifically focusing on age, education level, and occupation. The first chart depicts the age distribution, revealing that the majority of participants (4) were in the 23–25 years age group, followed by 3 participants in the 26–30 years range, and the fewest (2) in the 31–36 years group. This suggests that the sample is predominantly young, with a significant concentration in the younger age brackets. The second chart illustrates the educational background of the participants, with the largest group (5 participants) holding a bachelor's degree, 3 participants having completed primary or secondary education, and only one participant holding a postgraduate degree. This indicates that most participants were relatively well-educated, with the majority having at least secondary-level education. The third chart outlines the participants' occupations, where the majority (6 participants) were homemakers, and the remaining 3 participants were employed outside the home. This suggests that a substantial portion of the sample was not formally employed, possibly reflecting a greater focus on domestic responsibilities (Siltanen, 2021). The charts are color-coded blue for age, green for education, and purple for occupation improving readability and facilitating an easier interpretation of the demographic profile of the study sample.

CONCLUSION

The study highlights the significant impact of cultural practices on maternal and neonatal health in rural Pakistan. Traditional practices, such as reliance on untrained birth attendants and avoidance of medical care, contribute to adverse health outcomes. Sociocultural pressures, particularly from elders, influence healthcare decisions, often conflicting with medical advice. The research underscores the need for culturally sensitive healthcare interventions to align traditional practices with modern medical guidelines. By providing evidence-based recommendations, the study aims to improve maternal and neonatal care, particularly in rural areas, enhancing health outcomes for mothers and their newborns.

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