

**RESEARCH PAPER****Factors affecting the Choice of Delivery among the Rural Women of Khyber Pakhtunkhwa Pakistan****¹Shaista Naz ²Musfira Ayub ³Muhammad Jamil Afridi**

1. Assistant Professor, Department of Rural Development, Amir Muhammad Khan Campus Mardan, The University of Agriculture, Peshawar, KP, Pakistan
2. Graduate, Women Medical College Abbottabad, KP, Pakistan
3. Lecturer, Department of Pakistan Study, Amir Muhammad Khan Campus Mardan, The University of Agriculture, Peshawar, KP, Pakistan

***Corresponding Author:** shaista@aup.edu.pk**ABSTRACT**

The current study investigated factors affecting the choice of delivery among rural women in Khyber Pakhtunkhwa, Pakistan. The reason behind the election of this research study lies in the high rates of maternal mortality which is due to the various barriers or challenging factors which limit the access of women to healthcare services during childbirth. The study used thematic analysis for the data collected through key informant interviews from lady health workers and doctors. Various socioeconomic, distance and transport, financial, and patriarchal factors were identified as responsible for the preference of home delivery among women in the study area. The study suggested for women's economic empowerment, promotion of gender equality, improvement in affordability and accessibility of healthcare services, strengthening of healthcare infrastructure, enhancing transportation options, and raising awareness about facility-based deliveries.

KEYWORDS Choice of Delivery, Distance and Transport, Financial Constraints, Patriarchy, Rural Women, Socioeconomic Characteristics**Introduction**

Globally, maternal mortality remains a significant public health concern, with approximately 810 maternal deaths occurring every day, despite the fact that the majority of these deaths are preventable (WHO, 2020). In 2017, a total of 295,000 women lost their lives due to complications during childbirth and pregnancy-related issues, primarily in low- and middle-income countries (LMICs). South Asia and Sub-Saharan Africa accounted for 86% (254,000) of these maternal deaths, with South Asia alone representing about one-fifth (58,000) of the total deaths (WHO, 2019).

Among the various South Asian countries, Pakistan is one who is facing the issue of maternal mortality since long (Naz et al., 2022b). Over the past decade, Pakistan has experienced a gradual decline in its maternal mortality ratio, dropping from 276 to 186 deaths per 100,000 live births. Despite this progress, the country still has a long way to go to reach the Sustainable Development Goal target of 70 deaths per 100,000 live births by 2030 (Muzaffar, et al. 2018; Ameer et al., 2022).

One notable disparity in Pakistan is the difference between urban and rural areas in terms of the location or setting of deliveries. In Sindh, for example, 42% of childbirths occur at home in rural areas, while only 28% take place in central cities or urban areas. In urban areas across Pakistan, approximately 81% of deliveries occur in hospitals, but in rural areas, this proportion drops to 50% (Asghar et al., 2020).

In 2017, approximately 300,000 women lost their lives due to pregnancy-related complications. The majority of these deaths occurred in countries with limited resources,

accounting for 94% of the total fatalities (Bongaarts, 2016). The low gender status of women and the dominant status of men in society have adverse effects on women's maternal health (Khan et al., 2009). Pakistan, being a patriarchal society, often sees men making decisions regarding household and financial matters. Women, particularly those living in rural areas and urban shanty towns, are often considered secondary and have limited or no say in personal and family issues (Naz and Chaudhry, 2012).

The factors mentioned above, such as low gender status, male dominance, and limited decision-making power for women, have a significant impact on rural women's healthcare decisions, particularly when it comes to selecting the place for childbirth (Sadia et al., 2022). These issues have been highlighted in various studies conducted in developing countries, however there is scarcity of literature in this regard in Pakistan (Pathak et al., 2014; Ameer et al., 2022) as mentioned in the upcoming section of this paper.

Literature Review

The issue of maternal mortality is of global in nature and has caught attention in the various development discourses like Millennium Development Goals (MDGs) Sustainable Development Goals (SDGs). In the former development effort (1990 to 2015) aimed to reduce maternal and child mortality by 75%, significant progress was made, resulting in a global reduction in the maternal mortality rate by 38% (WHO, 2020). The SDG 3 now aims to further reduce the MMR to less than 70 deaths per 100,000 live births by 2030. This ambitious target emphasizes the importance of continued efforts to improve maternal health globally (Ashraf et al., 2021). However, it is important to acknowledge that the gains achieved during the MDG era were not evenly distributed across the world. There are still significant challenges and unfinished agendas that need to be addressed, particularly in the developing countries, to ensure equitable access to quality maternal healthcare and further reduce maternal mortality rates worldwide (Rahman et al., 2021).

In many developing countries, it is observed that over a third of pregnant women do not have access to or seek healthcare services before giving birth, and 57% of births occur without the presence of a skilled birth attendant (Coeytaux et al., 2011). The place of delivery is a crucial determinant that significantly impacts the health of both the mother and newborn (Feyissa and Genemo, 2014). According to the World Health Organization (WHO), receiving immediate and effective skilled care during delivery can mean the difference between life and death for women and their newborns (Prasad et al., 2015).

While the debate on the safety and women's decision-making regarding home delivery versus facility-based delivery continues in developed countries, the consequences of home delivery in developing nations have been concerning (Pathak et al., 2014). Choosing to give birth at home in such contexts may lead to increased risks and complications due to the lack of skilled healthcare providers, emergency facilities, and necessary medical interventions (Sadia et al., 2022).

The available literature emphasized on the fact that main factors contributing to high maternal mortality in these regions are the low utilization of facility delivery services and the lack of skilled birth attendants during childbirth (Hasnain et al., 2018). These factors highlight the importance of providing accessible and skilled care during pregnancy and childbirth to reduce maternal mortality (Ameer et al., 2022). However, in the case of Pakistan, and specifically in the Khyber Pakhtunkhwa province, there is a lack of exploration regarding the factors that contribute to the choice of delivery among rural women and how these factors can be addressed to reduce maternal mortality rates (Husnain et al., 2018; Naz et al., 2022b; Sadia et al., 2022; Ameer et al., 2022). It is crucial to conduct research in order to understand the underlying factors influencing the decision-making process of rural women when it comes to childbirth. By identifying these factors, appropriate measures can be taken to tackle the issue of maternal mortality in the study area (Sadia et al., 2022).

Exploring the contributing factors can provide valuable insights into the barriers and challenges faced by rural women in accessing healthcare services during childbirth. Factors such as socio-economic status, cultural beliefs, geographical accessibility, availability of healthcare facilities, and the influence of family and community play significant roles in determining the choice of delivery location. Understanding these factors will help in developing targeted interventions and policies that address the specific needs and concerns of rural women, with the aim of improving maternal healthcare and reducing maternal mortality rates in the study area.

Based on the rationale presented, the present research study was conducted to investigate the factors that influence the decision-making process of rural women regarding the choice of delivery in Khyber Pakhtunkhwa, Pakistan. The study aimed to explore and understand the various factors that play a role in shaping the decisions of rural women when it comes to selecting the place of childbirth. By examining these factors, the research aimed to provide insights into the challenges and barriers faced by rural women in accessing appropriate maternal healthcare services. Ultimately, the study sought to contribute to efforts aimed at improving maternal health outcomes and reducing maternal mortality rates in the region.

Material and Methods

The study was conducted in the two main districts i.e. Mardan and Nowshera, of Khyber Pakhtunkhwa-Pakistan. The province is located in the northwestern region of the country and bordered with Afghanistan. The reasons behind the selection of these districts were the geographical location and the relevance to the research study objectives. Qualitative research method was applied in the current research study and for data collection Key Informant Interviews (KIIs) were conducted. This method of data collection has been largely used in the field of social sciences (Naz et al., 2023; Naz et al., 2022a; Naz et al., 2022b). A total of 20 key informant interviews were conducted comprising lady health workers (10) and doctors (10). The lady health workers are basically the community health workers who had specifically trained for the provision of primary healthcare services to women and children in the rural areas. The inclusion of lady health workers in this study can provide gainful insights from their experiences and interactions with rural women. Additionally, doctors were also interviewed to obtain their perspectives and expertise on the subject matter. The inclusion of both the groups of lady health workers and doctors aimed to gather a comprehensive and diverse perspectives on the factors influencing the choice of delivery among rural women in the study area. For the analysis of data, NVivo software as used and thematic analysis were carried out. The type of analysis has been widely used in the field of social sciences for the analysis of qualitative data and the identification of patterns, categories, and themes within the data (Naz et al., 2022a; Naz et al., 2022b; Naz et al., 2021). Through thematic analysis, the researchers aimed to identify recurring themes and patterns related to the factors influencing the choice of delivery among rural women of the study area.

Results and Discussion

Thematic analysis has presented with several key themes or factors which influence women's choice of delivery in the rural areas of the study. These factors included socioeconomic characteristics, Patriarchy, Transport and distance, and financial issues. Due to these factors, rural women prefer to deliver at home. Each of the factor affecting rural women's choice of delivery has been discussed as follow;

Socioeconomic characteristics

Various socioeconomic characteristics like education, occupation, and income has emerged as the significant factors affecting women's choice of delivery in the rural areas of the study area. These socioeconomic characteristics are explained as follow;

Education: According to the lady health workers and doctors as respondents of this study, rural women with lower levels of education were more likely to opt for home deliveries as compared to the highly educated women who preferred to deliver within a healthcare facility due to their awareness level. It shows that low levels of education among rural women is associated with the low levels of awareness about the importance of skilled birth attendance. Moreover, lack of awareness about the availability of healthcare facilities within the study area contribute towards the women's preference or choice of delivery within the home premises. Additionally, limited education was further linked to the lack of knowledge about the potential risks associated with home deliveries among the rural women. Both the groups of respondents were of the view that low levels of education is strongly affecting women's choice of delivery.

Income: The income level of rural women was identified as a key determinant of rural women's choice of delivery in the study area. The low levels of income among rural women affect women's decision making regarding place of delivery. Due to the income issues, rural women cannot afford to deliver within a healthcare facility as the healthcare system in the country is expensive. Women in rural areas are uneducated and thus less involve in income generating activities thus mostly depend on their spouses. Thus, financial constraints may lead them to choose home deliveries as a more cost-effective option (Ashraf et al., 2021).

Occupation: Rural women's occupation was also found as the influencing factor of their decision-making regarding the place of delivery. It has been found that rural women engaged in agricultural and manual labor occupations may face challenges in taking time off work or arranging transportation to reach a healthcare facility. It shows that the nature of their work and associated responsibilities may make it more convenient for them to opt for home deliveries as compared to visiting a healthcare facility. Hence, the occupation can largely influence women's choice of delivery in a rural area. Rural women engaged in formal occupations like teaching and health sectors often opt a healthcare facility due to their earning from the occupation and awareness about the importance of delivery within a healthcare facility.

Patriarchy

The patriarchy in general is embedded in the Pashtun society of the Khyber Pakhtunkhwa Pakistan which has shaped its cultural and societal norms and thus affecting women's choice of delivery as well. Patriarchy had left less room for women's education and their importance at community and family levels which affect their health status especially during pregnancy and thus contributing towards high rates of maternal mortality in the province and country (Naz et al., 2022b).

Cultural and social norms: According to the doctors and lady health workers, the cultural and social norms play a significant role in shaping women's decision-making regarding childbirth. In the rural communities, women are subjected to seek permission from their husbands or other family members like Mother-in-Law before making decisions about healthcare, including the choice of delivery place. This may lead to delay in healthcare seeking and thus count towards the high rates of maternal mortality (Naz et al., 2022b). Moreover, the traditional gender roles and power dynamics within families significantly limit women's autonomy in accessing healthcare services as well. These findings have been confirmed in the literature across the country (Naz et al., 2023).

Lack of awareness and education: According to healthcare professionals, patriarchy is significantly contributing towards the lack of awareness and education among rural women and thus they have to seek permission from their male heads before any healthcare decisions. Due to their unawareness, lack of education, and low levels of education, rural women are mostly unaware about the importance of skilled birth attendants and therefore they prefer to birth within their home settings. The limited knowledge of these women about the potential risks associated with home deliveries may lead families to underestimate the importance of accessing healthcare facilities and thus contribute significantly towards the higher rates of maternal mortality in the province.

Transport and Distance Issues

Transport and distance to healthcare facility are important issues which affect significantly women's choice of delivery within the rural areas.

Distance to healthcare facilities: most of the rural areas are not equipped with the healthcare facilities and thus to avail a healthcare facility women for child birth women have to travel long distance. The issue of long distance become barrier for women along with the available less options then the available and affordable transport options. All these issues aroused due to the long distance which affect women's decision-making regarding of transportation and cost. The long distance to a healthcare facility requires permission from elders and especially male elders, then the accompanied male member availability. The nexus of problem affect the women's decision-making and thus they are compelled to opt for home deliveries. Additionally, the long distances along with the inadequate transport facilities, make it costly and inconvenient for women to reach a healthcare facility in a timely manner which results in high rates of maternal mortality in the province.

Inadequate transport facilities: to access a healthcare facility in the rural areas and especially in the far flung rural areas, women have to travel long distances, for which they require transport facilities. However, in the rural areas the transport facilities are inadequate. The low income of the people made them compel to use rickshaws and motorcycles, however in case of emergencies and for child birth these transport options cannot be used. The unavailability or limited access to the transport options in the rural areas further complexes the issue of accessing healthcare facilities for women. The unreliable modes of transportation make it challenging for women to access healthcare facilities for child birth. Therefore, women prefer to deliver at home in the rural areas due to the inadequate transport facilities. Additionally, the private transportation facilities are costly due to the poor road networks as discussed below.

Cost and logistical challenges: The inadequate transport facilities and poor road networks compel the rural dwellers to opt for the private transport facilities which are costly and mostly unavailable. The situation became even worse in the case of emergencies and during the unexpected child births. The costly transportation burdensome the families. Moreover, due to the associated cost of transportation influences women's decision-making regarding their child births. The expenses incurred in transport arrangements like in vehicle hiring or payment for fuel burdensome rural families. Additionally, the logistical challenges, such as unpaved roads or difficult terrain, may further hinder women from reaching healthcare facilities easily. Therefore, these women prefer to deliver at home.

Concerns about traveling alone: Another aspect that emerged from the responses in this study was the concern about women traveling alone to a healthcare facility, especially in the conservative or socially restrictive settings of the province. The cultural and societal norms of the province (Patriarchy) discourage and restrict women from traveling alone, which limits women's access to healthcare facility during child birth as well. Women are not allowed mostly to travel alone. They must be accompanied with a male family member and thus in the case of unavailability of the male family member, women cannot seek or travel

to access healthcare. Thus, the not travelling alone compel women to choose or opt home deliveries which further aggravated the issue of maternal mortality in the country.

Financial Constraints

The various financial constraints like high cost of healthcare services, transportation expenses, and lack of health insurance and financial support also affect the women's choice of delivery in the rural areas as explained below;

High costs of healthcare services: Healthcare professionals highlighted that the high costs associated with healthcare services, including hospital fees, consultation charges, and the need for additional supplies such as medications or surgical instruments, can pose a significant financial burden on rural women and their families. Limited financial resources and lack of insurance coverage make it challenging for women to afford the expenses associated with delivering at a health facility. The deep rooted poverty in our country and specifically in the province pose serious constraints towards the choice for place of delivery. The mentioned financial constraints compel rural women to opt home deliveries and thus counted towards the high rates of maternal mortality because of the associated risks.

Transportation expenses: The need for transportation to reach a healthcare facility was identified as another financial challenge for rural women as discussed earlier. In remote areas, access to transportation services can be limited and expensive. Families of these women may have to bear the costs of hiring vehicles or paying for public transportation to reach a hospital or clinic, which can be a significant financial barrier, especially for those with limited incomes and thus home delivery became the most affordable option for them.

Lack of financial support and health insurance: Respondents highlighted the absence of sufficient financial support mechanisms and health insurance coverage for rural women in the country and specifically in the province. Lack of access to social welfare programs or financial assistance schemes adds to the financial constraints faced by women and their families when making decisions about the place of delivery.

These responses indicate that financial limitations significantly affect rural women's choice of delivery. The high costs associated with healthcare services, transportation expenses, opportunity costs, and lack of financial support contribute to the preference for home deliveries among rural women. Addressing these financial barriers and implementing measures to reduce the financial burden of accessing healthcare, such as improving insurance coverage, providing subsidies, and strengthening social welfare programs, can help encourage more women to choose health facilities for safe deliveries.

Conclusions

In conclusion, the factors identified through thematic analysis highlight the complex dynamics that influence the choice of delivery among rural women. Socioeconomic characteristics, patriarchy, distance and transport issues, and financial constraints were found to be significant factors shaping women's decision-making regarding the choice for place of delivery. To address these challenges and improve maternal healthcare outcomes in rural areas, several recommendations can be considered such as women's economic empowerment, promotion of gender equality, improvement in affordability and accessibility of healthcare services, strengthening of healthcare infrastructure, enhancing transportation options, and raising awareness about facility-based deliveries. By implementing these recommendations, it is possible to improve access to healthcare facilities, reduce financial barriers, and enhance the overall maternal healthcare experience for rural women. This can contribute to a significant reduction in maternal morbidity and mortality rates in the study area.

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