

Practices and perceptions influencing maternal health in rural Sindh, Pakistan: A qualitative study

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Abstract

Objective: To assess the status of maternal health awareness and use of antenatal care among young married women.

Method: The qualitative study was conducted from August 05 to September 17, 2023, in six villages of northern Sindh after approval from the ethics review board of Shah Abdul Latif University, Khairpur, Pakistan. Data was collected using face-to-face interviews with women who were married and had experienced childbearing in adolescence. The data was subjected to thematic analysis, leading to codes and themes.

Results: Of the 37 women, 20(54%) were aged 19-20 years, followed by 9(24%) aged 15-16 years and 8(22%) aged 17-18 years. Age at first pregnancy was 15-16 years in 20(54%) cases and 17-18 years in 17(46%). The participants lacked knowledge about maternal health and antenatal coverage: 18 (49%) women received no antenatal information during the first pregnancy. Social and cultural factors, e.g., age at marriage or lack of education, led to a knowledge gap and posed as barriers to women's understanding of the importance of antenatal care. Among the participants, 27(73%) reported that their first pregnancy was unplanned. Only 12(32.4%) subjects met the minimum recommended visits of antenatal care, whereas 8(22%) did not have any antenatal care check-ups throughout the pregnancy. Further, 15(40.5%) subjects received health information during the first pregnancy, while the rest relied on intergenerational family guidance based on the belief that pregnancy and childbirth are routine life events. Resultantly, they did not use multivitamins, blood tests or 18 (49%) did not have scans to ensure a healthy pregnancy, and experienced unplanned pregnancy, anaemia, fatigue, weakness, weight-loss and anxiety.

Conclusion: Deficient knowledge about the importance of maternal health, particularly during pregnancy, among the subjects was a barrier to smooth antenatal care uptake. There is a need for community-based interventions, particularly in rural areas.

Keywords: Maternal health awareness, Antenatal care, Pregnancy, Rural areas, Pakistan. (JPMA 76: 1874 2026)

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Introduction

Maternal health (MH) includes women's overall health and wellbeing during and after pregnancy. Despite a significant global emphasis and equitable access, MH is still a serious challenge in low- and middle-income countries (LMICs).¹ Globally, around 287,000 women died in 2020 during pregnancy and childbirth complications, of which almost 95% occurred in LMICs.² Many women in LMICs die in their prime age prematurely due to neglect and preventable circumstances during pregnancy, childbirth and postpartum period.³ These deaths are preventable if complications are detected timely.

Several factors impede the successful implementation of MH programmes in LMICs, including social, cultural,

economic and health-related dynamics. Lack of awareness about MH services is the most dominant barrier to the use of such services.⁴ Women with limited education in LMICs are not aware of MH, and, therefore, they are unwilling to access the services available to them.⁵ A study posits that educated women are more likely to understand these services and have better awareness about MH.⁶ In rural communities, women have restricted access to education and scarce opportunities for health education, which have a detrimental impact on their lives. Limited knowledge of MH and a lack of general knowledge about health are significant obstacles to utilising MH services in LMICs.⁴ Education enhances women's decision-making power in the family and enables them to make better choices for themselves and their babies.⁷ Literate women are less inclined towards home-based delivery and are more likely to understand the messages related to health education, which eventually results in better and improved health decisions.⁸

South Asia experiences an abysmal state of maternal and child health as the region falls behind in terms of reducing maternal and neonatal mortality. South Asia and Sub-

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Saharan Africa account for 87% of the global maternal mortality ratio (MMR).⁹ In the South Asian region, Pakistan has one of the highest MMRs, with 186 deaths per 100,000 live births, which is 26% higher in rural areas.¹⁰ The incidence of adolescent pregnancy is higher in rural Sindh, Balochistan and Khyber Pakhtunkhwa (KP) provinces of Pakistan. In these regions, adolescent girls with marginalised backgrounds, limited social support and malnourishment are likely to experience serious health consequences, such as severe anaemia during pregnancy, preterm birth, obstructed labour, low-birth neonates and many others.^{11,12}

The province of Sindh has poor maternal and child health indicators. It has been documented that the timing and coverage of antenatal care (ANC) have a strong correlation with quality care during pregnancy.¹³ However, women's access to healthcare services in Sindh is poor, and they go for ANC uptake only when they experience any sign of complications, for instance, heavy bleeding or headache.¹⁴ The province contains a higher MMR, which is 224 per 100,000 live births, and pregnancy-related death is the fate for 345 per 100,000 live births.¹⁵ Illiteracy, low literacy and poor socioeconomic status (SES) among women in rural Sindh are key barriers to MH. Resultantly, more pregnant women prefer home-based deliveries.¹⁶

The current study was planned as an extension of the previous study which explored the causes and consequences of adolescent pregnancy and motherhood^{17,18} and aimed at assessing the level of MH knowledge and awareness and ANC uptake among women in rural Sindh.

Subjects and Methods

The qualitative study was conducted from August 05 to September 17, 2023, in six villages across Sukkur and Khairpur districts in northern Sindh after approval from the ethics review board of Shah Abdul Latif University (SALU), Khairpur, Pakistan. The study used an interpretivist approach to collect data and interpret the experiences of participants.¹⁹ This approach assumes that social reality is constructed through cultural meanings and lived experiences, and is useful in understanding the complexity of perceptions about MH. The approach helps identify the pattern of meaning that evolves from the narratives of the participants rather than mentioning pre-existing theoretical categories.

All ethical protocols were followed, including informed consent by the guardians and the participants, maintaining confidentiality, and anonymising all identifiable data.

Those included were women who were married and had

experienced childbearing in adolescence. The rest were excluded.

We developed semi-structured interview guide keeping in view the WHO recommendations on ANC for a positive pregnancy experience and relevant qualitative studies which explore maternal health care practices, health seeking behaviour and barriers women face to access maternal healthcare utilization in low and middle income countries.^{1,4,13,14,20} Questions about the participants' and their husbands' job status, household income and type of house they resided in were also included to determine SES and the affordability of healthcare services. The guide was further pilot-tested, and revisions were made regarding questions about how uptake of ANC was influenced by local beliefs and perceptions like some women avoiding the use of multivitamins because they considered them harmful to the foetus.

All interviews were conducted in the native Sindhi language in the participants' houses. Data saturation ascertained the sample size. The trustworthiness and consistency of the process were ensured through qualitative criteria strategies of credibility, dependability, confirmability and transferability.²¹ Credibility was maintained through iterative probing and the researchers continued to engage with the participants during interviews to clarify meanings and ongoing comparison of interpretations with the original transcripts. Dependability was ensured through comprehensive audit trail documenting methodological decisions, theme development, coding evaluation and analytic reflections to maintain transparency, replicability and refinement of themes. Confirmability was improved through reflexive memo writing during data collection and analysis. To critically examine emerging interpretations and to minimise the influence of individual bias, a peer debriefing was conducted which helped ensure credibility, strengthened deeper reflection and further improved the conclusions as the researchers were able to observe whether or not the answers from the participants were influenced by the dominating male power or the prevalent family structure. Moreover, transferability was facilitated by giving detailed and contextualised description of rural settings, sociocultural environment of the participants and MH issues. The researchers' positionality helped address the issues of access. The primary researcher was culturally and linguistically familiar with the environment and had a partial insider position that facilitated rapport and provided a rich and analytical interpretation of the participants' experiences and perceptions.

The interviews were audio-recorded and transcribed verbatim in Sindhi. Subsequently, the transcripts were

translated into English, and a cross-check of translations was ensured to maintain contextual accuracy. Inductive reflexive thematic analysis was used for data analysis.²²

Results

Of the 37 women, 20(54%) were aged 19-20 years, followed by 9(24%) aged 15-16 years and 8(22%) aged 17-18 years. Age at first pregnancy was 15-16 years in 20(54%) cases and 17-18 years in 17(46%). There were 6(16.2%) women with intermediate education, and 2(5.4%) were graduates (Table).

Thematic analysis led to the generation of two themes. The first of theme was knowledge and awareness about MH. The results demonstrated that 23(62%) participants lacked basic knowledge about the legal age of marriage, 21(57%) had no information about the harmful impacts of underage marriage and adolescent maternity. About 27(73%) subjects had no knowledge of family planning upon marriage; and thus 27(73%) respondents' first pregnancy was unplanned, as they had never discussed pregnancy prevention with any elder. Sexual or reproductive health information was taboo for young girls. One participant said: "Our parents did not consider such information good for

unmarried girls nor allowed us to get such types of information of getting pregnant or family planning. They believed that we would learn everything gradually on our own, this is not well for unmarried girls".

The women who had some knowledge about family planning were reluctant to practice it as the prevalent beliefs regarding family planning discouraged these women and made them believe that disrupting the natural process is a sin. One respondent said: "My husband did not like family planning and believed that it was sinful. I know about family planning medicine and other protection, but we do not follow it. This is sinful. Allah will not forgive us. My husband will be annoyed if I ask him for this."

Extended family was a norm in the villages, and majority of the respondents lived in extended families with their mother-in-law, father-in-law, husband's brothers, their wives and children. The participants were either uneducated or had limited education. Therefore, they were unable to read or understand any written information. The participants were influenced by older women who guided them with their own traditional experiences of pregnancy and childbirth. One participant said: "At teenage, I did not know about pregnancy, but my mother and mother-in-law gave me information about antenatal care as food like desi ghee, milk or eggs are best for pregnant women."

Local food rich in fats and protein was considered the best for pregnant women. However, affordability was the main issue due to which 14(37%) women could not consume it during their pregnancy and postpartum period.

The second theme was ANC practices in the villages. There were 12(32.4%) respondents who met the minimum recommended visits of ANC, while 8(21.6%) did not have any ANC check-up throughout the pregnancy. Among the participants, 15 (40%) women received health information during the first pregnancy, while others remained unaware of the basic recommended protocols. The inadequate use of ANC was also reflected in the number of scans and use of multivitamins during the pregnancy, with 18(49%) women having had no scans, and no history of using multivitamins during the pregnancy. The use of medicines during the pregnancy was surrounded by various beliefs considering multivitamins to be useless during the pregnancy or staying away because of their perceived side-effects. One woman said:

"I did not use any multivitamins during pregnancy. My mother said this medicine will make you fatty and raise your body temperature."

It is worth noting that the women accepted the elders' advice without questioning its credibility, and refrained

Table: Sociodemographic characteristics of the participants (n=37).

	n (%)
Age (years) of the respondents	
15-16	09 (24)
17-18	08 (22)
19-20	20 (54)
Age (years) at marriage	
13-14	07 (19)
15-16	22 (59)
17-18	08 (22)
Age (years) at the first pregnancy	
15-16	20 (54)
17-18	17 (46)
Education level	
None	16 (43)
Primary	08 (22)
Secondary	03 (8)
Higher Secondary	02 (5)
Intermediate	06 (16)
Graduate	02 (5)
Family type	
Nuclear	04 (11)
Extended	33 (89)
Monthly income of husband (in PKR)	
5000-10,000	09 (24)
11,000-15,000	12 (32)
16,000-20,000	07 (19)
21,000-25,000	03 (8)
26,000-30,000	04 (11)
30,000 and above	02 (5)

PKR: Pakistani rupee.

from asking for advice from a medical professional. One woman said: *"My husband said that medicine is not good for me and my baby's health. So, whenever I felt sick I used Panadol only."*

The prevalent knowledge based on local beliefs that medicines are harmful for the foetus was likely to discourage women from regular ANC visits. This also resulted in women ignoring the warning signs during pregnancy.

The respondents also reported experiencing a tough pregnancy and facing issues like severe headaches, nausea, allergies, dizziness, weakness and anxiety. Yet, they were consoled and told that it was normal and that every woman has to go through these conditions. One respondent said: *"As a woman, whatever difficulties I faced (the pain and all that), I was told that I am not the only woman who is bearing such pain, health-related difficulties or delivering a baby. You have to learn this and have faith in Almighty Allah."*

Thus, women came to terms with these conditions, considered normal by the family elders. This shaped knowledge gaps and ANC practices were largely based on local knowledge. The women's ANC visits were also conditional upon the older women's knowledge of ANC and availability to take the younger women to the clinics. Normal deliveries at home were preferred and 18 (49%) respondents delivered their first baby at home. Delivery by traditional 'dais' or skilled birth attendants was encouraged because access to public hospitals was economically and physically difficult for the villagers. Older women were consulted for postnatal care. One participant said: *"I did not consult about postnatal care with any doctor. Older women told me to refrain from any sexual contact with my husband for 40 days after the delivery."*

In the villages, pregnancy and childbirth were considered normal and natural processes that did not require any outside intervention. Therefore, women did not receive much relief from their household responsibilities when they were pregnant. The women experiencing these life events gradually learned from their own experiences and then informed other women younger than them.

Discussion

The findings highlighted women's lack of ANC utilisation. Since many of the respondents had little or no formal education, MH awareness was low. Female family elders were the main source of MH awareness among the women, and the information they provided was deprived of medical knowledge. The study highlighted the deeply rooted extended family system in which married adolescents find

themselves at the bottom of the power hierarchy. The decisions about their ANC check-ups, deliveries and follow-ups were influenced by older women in the family.

A study in Sindh highlighted that the timing of the first ANC check-up had a strong association with the quality of care pregnant women received as these women were more likely to receive the services recommended by the World Health Organisation (WHO).¹³ However, these visits are strongly correlated with smaller household size, urban residence, better household income, higher female education level, and flow of information through health workers, mothers-in-law/friends and midwives.^{23,24} The sample of the current study was drawn from rural settings where women had poor household income, no or low education levels, and limited local knowledge of MH. Such predictors are likely to impact the outcome of a pregnancy and affect women's wellbeing. For example, some of the participants shared their experiences of stillbirth, miscarriage and deaths of other women in the family during childbirth. This could have been prevented if women had proper knowledge about the timing and number of ANC check-ups and proper follow-ups.

The husband's level of education and awareness have a positive correlation with the wife's use of maternal health services. Women whose husbands have limited or complete knowledge of ANC, childbirth and postpartum complications are more likely to benefit from MH services.²⁵ This has also been reflected in the current study as most of the men had no or limited literacy. The women hugely relied on local information and believed that ANC uptake, like using multivitamins during the pregnancy and having blood tests and scans, was not necessary if there were no apparent symptoms of complications. These findings have also been confirmed by other studies, where women and families despite the knowledge of the availability of ANC facilities in their vicinity, lacked awareness about the benefits of ANC visits.⁵

Delayed health-seeking behaviour was also evident for home-based deliveries in the current study, with many participants having delivered their first babies at home. These women's access to professional gynaecologists was not common, and only nine deliveries were handled by professional doctors. Most of the participants had poor statuses, and affordability was the main issue in accessing hospitals for childbirth. Delayed health-seeking behaviours along with reduced accessibility to reproductive healthcare services are considered significant risk factors causing maternal mortality.²⁶

In the light of the findings, it is essential to adopt comprehensive strategies to improve MH and reduce MMR

through health education and awareness programmes. Exploring the major barriers to effective MH can provide insights to address these barriers. Empowering families with MH education and awareness, in the context of rural Pakistan will augment MH behaviour and awareness among women and contribute to better health outcomes. Interventions through mobile applications can improve MH awareness and behaviours. Such applications can function as an educational instrument. Studies show that mobile health applications can have a positive impact on the status of MH despite low educational attainment.^{27,28} The lives of pregnant women can be saved through awareness and implementation of ANC. To improve the quality of ANC and its application, healthcare professionals must engage with local communities to guide them about regular antenatal nutrition, maternal and foetal diagnoses, and common physiologic symptom management during pregnancy. This can significantly improve the quality of ANC and its utilisation.

The current study contributes to the existing knowledge of literature about how young women are unaware of legal and scientific knowledge regarding marriage and childbearing. However, the current study has limitations as it was conducted in selected rural districts of northern Sindh with a small sample. The findings, as such, reflect the sociocultural dynamics particular to the study area only. The prevalent beliefs and perceptions regarding MH and ANC practices are influenced by local cultural norms, kinship structures and access to healthcare services which may vary across regions. Moreover, the study documented only women's perspectives, whereas decision-making regarding MH involves husband, mother-in-law and other family members. Future research must include other key family decision-makers and extend the universe of research to diverse geographical settings to have a better understanding of the issue, and explore if these patterns exist beyond rural northern Sindh.

Conclusion

MH awareness and ANC utilisation among young married women in rural northern Sindh were shaped by limited health knowledge, reliance on intergenerational family guidance, and constrained decision-making power. The participants and their families lacked health literacy and, thus, pregnancy was commonly perceived as a routine life event that required medical care only when complications occurred, leading to delayed or inconsistent ANC uptake. Community-based interventions are needed in these areas to improve maternal health outcomes and address community specific challenges.

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NA & RDR: Concept, design, data acquisition, analysis, interpretation, drafting, revision, final approval and agreement to be accountable for all aspects of the work.