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Original Article

Exploring The Medicalization of Childbirth And Its Effects on Postnatal Health Outcomes In Rural Areas Of Arifwala, Pakistan

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Abstract: Background: In rural Pakistan, childbirth has shifted significantly from home-based traditions to hospital-centered medical care. This transition raises concerns regarding its impact on maternal and infant health in resource-limited settings. **Objective**: To examine the extent of childbirth medicalization and its impact on postnatal health outcomes in rural Arifwala, Pakistan. **Methods:** This study employed a qualitative phenomenological design. Sixteen women (aged 18–40) who delivered in healthcare facilities in the Arifwala and Pakpattan districts were recruited via purposive sampling from three Basic Health Units and one Tehsil Headquarters Hospital. Semi-structured interviews were conducted in Punjabi or Urdu, and data were analyzed using Braun and Clarke's thematic analysis. **Results:** Cesarean sections accounted for 68.8% of deliveries, a rate significantly exceeding international recommendations. Primary drivers included maternal anemia, fear of labor pain, family influence, trust in healthcare providers, and improved facility access. Postnatal outcomes frequently included prolonged physical recovery, psychological distress, and anxiety regarding infant health. Women's attitudes toward medicalization ranged from acceptance to regret, often shaped by their previous birth experiences. **Conclusion:** Medicalized childbirth is prevalent in rural Arifwala, driven by a complex mix of health, social, and structural factors. While medical intervention is vital for complications, the current high rates contribute to negative physical and psychological outcomes. Recommendations include strengthening prenatal care, providing culturally sensitive counseling, integrating mental health support, and enforcing evidence-based guidelines to reduce unnecessary surgical deliveries.

Keywords: Medicalization of Childbirth, Cesarean Section, Postnatal Health, Maternal Healthcare

1. Introduction

Childbirth is a universal human event, yet the way it is managed has changed considerably over time. In recent decades, childbirth has increasingly shifted from traditional, community-based practices to medically managed procedures conducted in institutional settings. This shift is commonly described as the medicalization of childbirth, referring to the growing dependence on medical technology, clinical supervision, and interventions during labor and delivery (Benyamini et al., 2017). Although this trend is observed worldwide, traditional birthing practices remain common in many developing regions.

In rural Pakistan, childbirth was historically managed at home with the support of traditional birth attendants or experienced female family members. These practices were closely linked to cultural values, social relationships, and community support systems (Sarker et al., 2016). Over time, however, rural areas have experienced a noticeable movement toward institutional and medically supervised births. Improvements in healthcare infrastructure, increased availability of trained medical staff, and changing perceptions of safety and modern healthcare have contributed to this transition (Khan et al., 2019; World Health Organization, 2021).

Both governmental and non-governmental organizations have played a significant role in promoting hospital-based deliveries and medical interventions as safer alternatives to traditional childbirth practices (Shaikh et al., 2017). Through awareness campaigns and outreach programs, healthcare professionals have influenced community beliefs, gradually increasing acceptance of medicalized childbirth (Howard et al., 2017). At the same time, concerns about complications

during home births have encouraged families to seek institutional care, often viewing medical intervention as a necessary measure to protect the health of mothers and newborns (Sheikh et al., 2016).

While medical intervention can be essential in managing childbirth complications, concerns have been raised about the increasing use of unnecessary procedures, particularly Cesarean sections, which may not always be medically justified (Nazir, 2015). Such practices may contribute to the gradual loss of traditional birthing knowledge and community-based support systems. These concerns are particularly important in rural settings, where healthcare resources remain limited and unevenly distributed. Women in these areas continue to face significant health risks, including postpartum hemorrhage, infection, hypertension, and anemia, often due to inadequate antenatal care and limited access to emergency obstetric services (Thiels et al., 2015).

The rural setting of Arifwala presents distinct challenges that influence maternal and neonatal health outcomes. Many remote areas experience shortages of healthcare facilities, trained staff, and essential medical services (Ahmed et al., 2022). As a result, women often receive insufficient prenatal care and face delays in accessing emergency treatment during labor, which can negatively affect postnatal health. Limited access to health information further compounds these challenges, particularly regarding maternal nutrition, danger signs during pregnancy, and postnatal care practices (Gibore et al., 2020).

Cultural and religious traditions continue to shape childbirth practices and postnatal care in rural communities. While these traditions provide emotional and social support, they do not always ensure hygienic or safe birth conditions (Byrne et al., 2016). Traditional beliefs also influence newborn care, feeding practices, and maternal recovery after childbirth. Socioeconomic constraints such as poverty, lack of clean water, inadequate sanitation, and transportation difficulties further worsen maternal and infant health outcomes (Khan et al., 2020).

Gender inequality remains a major barrier to maternal healthcare in rural Pakistan. Limited decision-making power, restricted mobility, and dependence on male family members often prevent women from seeking timely antenatal care or choosing appropriate birth settings (Omer et al., 2021). Understanding how these social, economic, and cultural factors interact with the medicalization of childbirth is essential for developing effective and inclusive maternal health policies.

The effects of medicalized childbirth in rural areas are complex. Women continue to experience high rates of postnatal complications, including infection, anemia, hypertension, and excessive bleeding, largely due to gaps in skilled care and emergency services (Patra et al., 2018). Infant mortality also remains high, driven by poor sanitation, inadequate nutrition, limited healthcare access, and insufficient knowledge of newborn care. Common causes include premature birth, birth asphyxia, and neonatal infections (Zakar et al., 2018). Malnutrition among mothers and infants further increases health risks, leading to low birth weight, delayed growth, and greater vulnerability to illness. Inadequate access to family-planning services contributes to closely spaced pregnancies, placing additional strain on maternal and infant health and increasing mortality risks (Anwar et al., 2023).

Problem Statement

The medicalization of childbirth in rural Arifwala, Pakistan, is an emerging issue whose implications for postnatal health outcomes remain insufficiently explored. Understanding these effects is essential for improving maternal and infant health and ensuring that healthcare practices meet the needs of rural populations (Atif et al., 2017). Factors such as access to healthcare facilities, availability of trained medical personnel, and the presence of essential medical equipment strongly influence the extent of medicalized childbirth in rural settings (Mahmood et al., 2022).

Traditional childbirth practices in rural areas relied heavily on midwives, family members, and community support networks. The increasing shift toward medicalized childbirth has disrupted these systems, sometimes reducing the emotional and social support available to women during labor and delivery (Jabeen et al., 2020). Although medical interventions can prevent serious complications, they may also lead to unnecessary procedures and adverse outcomes when used without clear medical need (Alianmoghaddam et al., 2017).

Socioeconomic conditions, including education, income level, and local cultural norms, play a key role in shaping childbirth practices and postnatal health outcomes in Arifwala. These factors influence women's access to healthcare, their ability to make informed decisions, and their preferences regarding place and mode of delivery (Hameed et al., 2018). A detailed examination of the relationship between childbirth medicalization and postnatal health is therefore necessary to inform healthcare planning and policy development in rural Pakistan.

Rationale and Significance

This study addresses important gaps in existing research on maternal healthcare in rural Pakistan. While the medicalization of childbirth is widely documented in global literature, limited attention has been given to how this process unfolds in low-resource rural settings such as Arifwala

(Rai et al., 2019). By focusing on this specific context, the study identifies the factors driving medicalized childbirth and examines its effects on postnatal health outcomes.

Understanding the relationship between medicalization and postnatal health can guide improvements in maternal healthcare delivery (Haq, 2017). The findings will assist healthcare professionals and policymakers in identifying weaknesses in current systems and developing strategies that improve the quality of maternity and newborn care in rural areas (Tripathy, 2020).

This study also addresses methodological gaps in previous research, which has largely focused on urban or higher-income populations. By concentrating on rural Arifwala, the research provides locally grounded evidence that reflects cultural practices, economic conditions, and healthcare access barriers specific to the area (Iqbal et al., 2017). The findings offer practical insights that can inform policy decisions, healthcare training, and resource allocation while respecting local traditions and community values. In addition, the study contributes to broader discussions on maternal health in low-resource settings, offering lessons applicable to similar rural contexts in other developing countries.

Aim and Objectives

Research Aim

To examine the medicalization of childbirth in rural areas of Arifwala, Pakistan, and assess its effects on postnatal health outcomes.

Research Objectives

- To examine the extent and characteristics of medicalized childbirth in rural Arifwala.
- To identify factors influencing the medicalization of childbirth in the study area.
- To explore women's experiences and perceptions of medicalized childbirth.
- To assess postnatal health outcomes among women who experienced medicalized childbirth in rural Arifwala.

Research Questions

- To what extent is childbirth medicalized in rural Arifwala, Pakistan?
- What factors contribute to the medicalization of childbirth in this area?
- How do women perceive and experience medicalized childbirth?
- What postnatal health outcomes are associated with medicalized childbirth in rural Arifwala?

2. Materials and Methods

Research Design and Study Setting

This study employed a **qualitative phenomenological approach** to examine the medicalization of childbirth and its effects on postnatal health outcomes within the rural context of Arifwala, Pakistan. The phenomenological design was specifically selected to capture the **lived experiences** of women, aiming to understand their perceptions and interpretations of undergoing medicalized childbirth. The research was conducted in and around **Arifwala**, a town located in the Pakpattan district of Punjab. This region serves as a characteristic rural setting in Pakistan where long-established, traditional childbirth practices exist alongside an increasing shift toward formal medical care. The area is defined by limited healthcare infrastructure, a predominantly agricultural economy, and a strong influence of cultural beliefs that continue to shape local birthing practices.

Study Population and Sampling

The study population was women between the ages of 18-40 years with a recent history of delivering in healthcare facilities in the district. The sampling frame was three Basic Health Units (BHUs) of Arifwala and one Tehsil Headquarters (THQ) Hospital of Pakpattan, as they are the major institutional childbirth service providers for rural women.

Purposive sampling strategy was used to select the participants who were able to give detailed information about their experiences related to medicalized childbirth. Participants were recruited using facility-based recruitment with the help of gatekeepers at each location. The researcher drew women from different socioeconomic backgrounds, levels of education, and experiences in childbirth in order to have a range of perspectives.

A total of 16 women were included in the investigation with the sample size determined by data saturation. By the same time in the fourteenth interview, recurring themes had been noticed, and it was confirmed in interviews number fifteen and sixteen that no significant new information was forthcoming.

Inclusion criteria: Females between the ages of 18-40 years at the time of discharge in the selected facilities who reside in District Pakpattan, Tehsil Arifwala and are capable of providing an informed consent.

Exclusion criteria: Females not in the specified age range, females who delivered outside institutional settings and those living outside the study area.

Data Collection Tools and Procedure

A semi-structured interview guide was built up that included 4 sections: demographic information, knowledge about local practices and perception, access to maternal healthcare, experiences of medicalization and postnatal outcome. The semi-structured design provided flexibility in probing while maintaining consistency among interviews.

Open-ended, semi-structured face-to-face interviews in Punjabi or Urdu were carried out with the participants. All interviews were audio recorded with permission and lasted from 30-60 minutes. The researcher used techniques of active listening and probing questions to get in-depth responses.

Pilot testing was done with three women who met the inclusion criteria, but did not participate in the final sample. Feedback resulted in small changes to the form of questions and the question sequence and helped the researcher learn appropriate rapport building skills for the cultural context.

Data collection took one week at DHQ Pakpattan and three BHUs of Arifwala. Following permission from the authority and the identification of potential participants by staff at the ward, the researcher approached women who had recently delivered. Interested participants were provided with detailed information regarding the study and given informed consent forms. Interviews were carried out in individual areas within the facilities to maintain the confidentiality of the information.

Ethical Considerations

Ethical standards were strictly observed throughout the research process. Approval was obtained from the relevant departmental ethics committee, and permission for data collection was granted by the Medical Superintendent of DHQ Pakpattan. All participants provided informed consent after being informed about the study's purpose, procedures, and their right to withdraw at any stage. Confidentiality was maintained by anonymizing all data and using pseudonyms in reporting. Participant privacy and well-being were prioritized at every stage of the study in accordance with established ethical guidelines.

Data Analysis

Data analysis followed Braun and Clarke's (2006) six-step thematic analysis approach:

Step 1: Familiarisation - All the audio recordings were transcribed word by word in Urdu/Punjabi within 48 hours. The researcher read all of the transcripts several times, taking notes on patterns of the data and emerging ideas.

Step 2: Generating Codes - A systematic coding approach was employed to identify meaningful segments in the dataset, utilising both inductive and deductive techniques. Sample codes were "fear of normal delivery," "trust in doctors," "financial constraints", and "cultural beliefs."

Step 3: Searching for Themes - Codes were grouped into potential themes by examining relationships and patterns among codes, with related codes grouped under broader thematic categories.

Step 4: Reviewing Themes - Themes were reviewed with respect to coded data, to ensure adequate representation of the experiences of participants, as well as adequate data support.

Step 5: Defining Themes - Each theme was clearly labeled and defined using short description labels. Subthemes have been identified in order to capture nuances in the experiences of participants.

Step 6: Producing the Report - Illustrative quotations were used to exemplify each theme to link findings with research questions and existing research.

To increase rigor, an audit trail was kept, reflexive journaling was performed and emerging themes were discussed with the research supervisor.

Field Challenges

Several difficulties were encountered during fieldwork work. Gynecologists were either unavailable or unwilling to participate because of demanding work loads, which meant it is necessary to be exclusive in women's experiences. Many of the participants were from lower socioeconomic strata and had low health literacy; it was assured by simply using simpler language and local terminology. Interview durations varied significantly on the basis of communication styles of participants. As a young unmarried researcher, one way of overcoming initial cultural resistance was by complying with cultural norms, including gatekeepers, and emphasizing the academic purpose of the study. Despite all these obstacles, rich and detailed data were successfully obtained

3. Results

This section outlines some of the findings from sixteen in-depth interviews with women who had recently given birth in healthcare facilities in rural Arifwala, Pakistan. Four major themes emerged following the thematic analysis: extent of medicalization, factors contributing to medicalization, postnatal health outcomes and women's perceptions and experiences.

3.1. Degree of the Medicalization of Childbirth

The interviews showed rampant use of medical interventions during childbirth in rural Arifwala. Eleven of sixteen participants (68.8%) had telescased sections, indicating high rates of

surgical deliveries. Three subthemes emerged: prevalence of medical interventions, health problems causing medicalization and psychological consequences.

3.1.1. Prevalence of Medical Interventions

Participants said there was routine use of induced labour, epidural anaesthesia and caesarean sections at local health facilities. Medical interventions were often posed as a matter of practice and not an exception.

"Small clinics and hospitals on nearly every corner are the factors that are responsible for the medicalization of childbirth in the rural settlements of Arifwala. Fear of the 'normal' pain childbirth has an impact on women's decisions to opt for medicalized childbirth. (Participant 2)

This quote shows how medicalization of birth through the proliferation of healthcare facilities has become normal and fear of pain is a major factor in why medical intervention is accepted.

3.1.2. Health Complications That Drive Medicalization

Several participants referred to maternal health issues, specifically anaemia, as reasons for medicalized delivery. Such complications often require surgical interventions.

"I had a severe anaemia during my whole pregnancy and with this I had difficulty. And I think anaemia is one of the reasons that why women have medicalized childbirth. Diet and resources affect the process of recovery and overall well-beings of women in the postnatal period." (Participant 1)

This finding implies the intersection between the pre-existing health conditions and medicalization and indicates that poor maternal health could predispose women to requiring more intensive medical interventions.

3.1.3. Psychological Impacts

Women displayed high levels of anxiety and fear surrounding childbirth, which affected their acceptance of medicalization.

"There should be a system to facilitate the insecurities of women regarding the childbirth process because it is a nightmare for women." (Participant 5)

The use of the word "nightmare" to describe childbirth indicates the psychological burden that women bear, and this may make them more receptive to medical interventions that offer greater control and safety.

3.2. Contributing Factors to Medicalisation

Four subthemes emerged including cultural and family influences, monetary considerations, infrastructure and healthcare status, and trust in medical professionals.

3.2.1. Cultural and Familial Influences

Family members, especially in-laws, had important roles in the decision to give birth. Cultural expectations tended to clash with women's preferences.

"Cultural and normative responsibilities make it more difficult. I have been through constant anxiety. I was culturally induced for a normal child birth and there is lots of women in our society do what their in-laws think is good for them." (Participant 6)

This quotation illustrates how cultural pressures limit women's independence in childbirth choices as family expectations are often placed above personal preferences.

3.2.2. Financial Considerations

Financial factors had complex ways of influencing decisions. Some of the participants considered medicalised childbirth more costly, while others followed the recommendations of doctors, regardless of cost.

"Money factors play an important role in decision-making. Women tend to do what their doctor says, and place more importance on professional advice than on traditional influences." (Participant 4)

On the other side of the coin, another participant was skeptical:

"In my opinion, there is a financial motive involved in surgeries, and I am of the opinion that women can successfully give birth by the natural method." (Participant 5)

These discordant views explain divergent perceptions of the relationship between financial rewards and medical advice.

3.2.3. Healthcare Infrastructure

Expansion of healthcare facilities contributed to an increased medicalization with medical interventions becoming more accessible.

"I think doctors play a significant role in influencing people to a medicalized childbirth." (Participant 4)

This statement suggests that healthcare providers are actively involved in shaping the community perceptions in which medicalized childbirth is the preferable option.

3.2.4. Beliefs about the Medical Professionals

Most participants had high levels of trust in healthcare providers, whom they perceived as authoritative in their recommendations.

"We have faith that doctors know better and have greater expertise than common women in our villages when it comes to giving birth to a child." (Participant 10)

This trust in medical authority helps to make these interventions easy to accept, partly because of the trust they have in the authority of the expert.

3.3: Postnatal Health Outcomes

Three subthemes emerged: physical recovery issues, psychological impact and infant health issues.

3.3.1. Difficulties in Physical Recovery

Women who did have cesarean sections said they had long recovery periods and problems doing daily activities.

"Medicalized childbirth impacts a lot, especially spinal anesthesia that can impact you a lot, and it also has long term side effects; you can't do regular day to day functions." (Participant 3)

This assertion underscores the physical burden from surgical interventions, especially on women in rural settings who lack a proper source of postnatal support.

3.3.2. Psychological Effects

Several of the subjects suffered psychological distress after medicalized childbirth, such as anxiety and depression.

"The experience has seriously affected my psychological health, causing me to have existential crises. I was under a lot of pressure from my mother-in-law to go the way of a normal delivery, but my doctor said it was safer to have the C-section. (Participant 15)

The tension between family expectations and medical recommendations caused psychological tension, and it remained postpartum.

3.3.3. Infant Health Concerns

Some participants had concerns regarding the long-term impact of medicalized childbirth for their babies, though most reported healthy babies.

"I can't say anything about children; medicalization affects the health and development of kids who are born by medical assisted childbirth." (Participant 9)

This uncertainty reflects gaps in the health information given to mothers about the possible effects of interventions on newborns.

3.4. The Perceptions and Experiences of Women

Two subthemes emerged: various attitudes to medicalization and the role of personal experiences.

3.4.1. Diverse Attitudes to Medicalization

Participants had different opinions about medically assisted childbirth. Some adopted it because it was safer, whereas others favored traditional methods.

"In our society, there is a prevalence of operations, but, in my opinion, normal deliveries are safer. I was given the pressure, by the culture and society, to go for C - section but I refused and went for normal childbirth willingly. My experience was positive." (Participant 8)

This participant's resistance to medicalization shows that despite the trends, some women still have a preference for natural childbirth on the basis of their personal beliefs.

In contrast another participant said: *"My first born has mental disability due to the normal child born and he is bed-ridden. This experience has turned me into a believer in C - sections. While the cultural standards in our village might discourage medically assisted childbirths, my husband and I believe in their safety."* (Participant 10).

This account shows how negative experiences of traditional childbirth can turn drastic notions for preference of medicalization, in opposition to cultural norms.

3.4.2. Interference of Personal Experiences

Previous experiences of childbirth, both positive and negative, had great influence on further decisions.

"Both my babies are healthy, and I feel that C-sections are more a better option than having a baby normally." (Participant 15)

Positive experiences reinforced a liking of medicalized approaches while negative experiences with one of these methods influenced future choices. These findings show that the medicalization of childbirth in Arifwala is influenced by a variety of intersecting factors, including health conditions, cultural pressures, financial considerations, and healthcare infrastructure. Women's experience and perception are highly diverse, illustrating the complicated balancing act women make between traditional practice and modern medicine in this rural context.

4. Discussion

This study examined the medicalization of childbirth and its impact on postnatal health outcomes among women living in rural areas of Arifwala, Pakistan. The findings indicate a high level of medical intervention during childbirth, particularly the frequent use of Cesarean section, alongside multiple social and health-related factors influencing this trend. Women's experiences and

perceptions further reveal how medicalized childbirth shapes both physical and emotional outcomes in the postnatal period. These findings are discussed in relation to existing research and their implications for maternal health policy and practice.

High Prevalence of Medicalized Childbirth

A striking finding of this study is the very high rate of Cesarean deliveries among participants, with 68.8% reporting surgical births. This figure is far above the range of 10–15% recommended by the World Health Organization as medically necessary (World Health Organization, 2021), indicating a substantial level of childbirth medicalization in the study area.

Participants frequently linked the decision for Cesarean delivery to pre-existing maternal health conditions, particularly severe anemia. Women described anemia as a common concern during pregnancy and often perceived it as a condition that made normal delivery unsafe. This highlights a direct relationship between poor maternal health and increased reliance on surgical intervention during childbirth.

These findings are consistent with national data showing a steady rise in Cesarean section rates across Pakistan (Nazir, 2015; Rai et al., 2019). Similar patterns have been observed in other low-resource settings, where limited access to quality antenatal care and widespread nutritional deficiencies increase the likelihood of complications during labor, leading to greater use of medical interventions (Harrison, 2023; Huot et al., 2019). The high prevalence of anemia among the women in this study points to the need for improved prenatal nutrition, early screening, and effective anemia prevention strategies in rural areas.

Beyond physical outcomes, the emotional impact of medicalized childbirth was clearly expressed by participants. Many women described their childbirth experience as frightening and distressing, often using strong language to convey feelings of fear and loss of control. These experiences reflect findings from other South Asian studies, where social narratives surrounding childbirth risk contribute to anxiety and reinforce the acceptance of medical intervention as the safest option (Hassan et al., 2019; Yunus & Ahmad, 2021). The psychological burden seems to increase women's openness to interventions claimed to provide better control and safety for them, even when it is unclear if they are clinically necessary.

Multifaceted Forces of Medicalization

Four interconnected factors were the agents that caused medicalization: people and family factors, money, medical care infrastructure and trust in the medical profession. The salient influence of in-laws in the childbirth decision-making process is part of broader trends of limited female autonomy in Pakistani rural communities (Omer et al. 2021; Ali et al. 2023). Women reported that family expectations outweighed personal preferences, which would demonstrate how patriarchal family systems limit reproductive agency.

This finding aligns with international literature on gender dynamics in decision making on maternal health (Ford, 2020; Singh et al., 2021), who often have family members (male) at the peak of childbirth decision making. The pressure of families and the expectation to conform to family preferences, medicalized or traditional deliveries, cause psychological stress which can continue into their post-partum period. Clinicians should therefore take into account these dynamics when counselling women about their birth options.

Financial factors had a paradoxical role. While some participants respected physicians recommendations regardless of cost, if perceived medical expertise is authoritative, others indicated a plasticity of attitudes towards physician recommendations in the context of perceived financial motivations for recommending surgery. This divergence is part of larger discussions of medicalization in the region and its potential impact worldwide where worries about unecessary foray of profit-seeking treatments and the need for genuine medical need are concomitant (Jeon, 2020; Khalil, 2021; Jeon et al., 2021). The financial cost of cesarean delivery especially falls on lower income families, which could worsen health inequities.

The expansion of healthcare infrastructure which was originally meant to contribute to greater accessibility contributed to normalising medicalised childbirth. Participants ascribed the growth of clinics and hospitals as making surgical interventions more available and socially acceptable (Miani et al., 2022; Espinosa et al., 2022). Studies from comparable settings highlight how unequal power relationships between healthcare providers and patients contribute to the overuse of medical interventions during childbirth (Prosen et al., 2019; Mangindin et al., 2023).

Postnatal Health Outcomes

Women who underwent Cesarean section reported longer physical recovery, ongoing pain, and difficulty returning to routine activities. These challenges were more pronounced among women with limited postnatal support, underscoring the added burden of surgical childbirth for rural women. Similar patterns have been documented in studies showing longer recovery periods and higher complication rates following Cesarean delivery compared to vaginal birth (Antoine & Young, 2021).

The psychological effects of medicalized childbirth were also evident. Several participants described feelings of anxiety, emotional distress, and symptoms of postpartum depression, often linked to tension between family expectations for normal delivery and medical advice favoring Cesarean section. These findings support existing evidence that conflicting decision-making during childbirth can negatively affect women's mental well-being (Zhang & Hanser, 2021; Elliott et al., 2020).

Although concerns about infant health were expressed, most women perceived their newborns as healthy. This perception may reflect limited communication from healthcare providers about possible longer-term effects of medical intervention. Similar gaps in maternal health information and informed consent have been reported in other low-resource settings (Fantaye et al., 2019; Asadi et al., 2020).

Diverse Perceptions and Personal Experiences

Women held varied views on medicalized childbirth. While some regarded it as a safer and more reliable option, others still expressed a preference for natural delivery. Critically, women with a history of complications during previous home or traditional births were more likely to favor medicalized care. This indicates that negative past experiences strongly drive shifts in birthing preferences toward institutional settings. On the flip side, women who had successful natural delivery despite societal pressure to have cesarean sections reported that they were satisfied with their choices and were skeptical of medicalization. This observation demonstrates the need to support diverse birthing preferences rather than... International literature supports these results, showing that antecedent birth experiences have a decided influence on subsequent choices and the need to encourage positive birthing experiences in all modalities (Becker, 2019; Prosen et al., 2019).

Study Limitations

Several limitations need to be acknowledged. First, only women who gave birth in healthcare facilities were included in the study, which may have excluded women who gave birth at home, excluding those perspectives who may live completely outside the medicalized system. Second, the lack of availability of gynecologists for interviews prevented discussion of the perspectives of healthcare providers on the causes of medicalization. Third, the cross-sectional structure captured experiences at a single point in time, which limited the information we could gain about the growth of perceptions. Fourth, there was a possibility that social desirability bias influenced the way participants answered questions, particularly in terms of their satisfaction with the care received. Finally, the focus on one rural district limits the applicability of results to other parts of Pakistan with different cultures or healthcare systems.

Implications for Policy and Practice

These findings have substantive implications for the improvement of maternal healthcare in rural Pakistan. First, comprehensive prenatal care programmes need to address nutritional deficiency, particularly anaemia, identified as a main cause of surgical deliveries. Provision of iron supplementation, nutritional counselling and monitoring in the continuing research could mitigate the problem of complications requiring cesarean sections. Second, healthcare providers need training in culturally sensitive counselling methods that are sensitive to family dynamics whilst supporting women's autonomy in childbirth decisions. Involvement of family members in prenatal education may support congruence of familial expectations and evidence-based care. Third**,** postnatal care services require significant enhancement, specifically regarding psychological support. Women recovering from medically assisted childbirth often face anxiety or depression; therefore, integrating mental health screenings and counseling into routine postnatal visits is essential to address this critical gap. Fourth**,** health infrastructure development must prioritize the *quality* of care over simple expansion. Existing facilities should focus on providing evidence-based services rather than increasing the volume of unnecessary interventions. Establishing clear clinical guidelines for Cesarean sections , combined with regular auditing of institutional rates, can help reduce inappropriate medicalization.. Fifth, community education initiatives should provide balanced information about the benefits and risks of different birthing options, empowering women to make informed choices based on their preferences and circumstances.

5. Conclusion

This study examined the medicalization of childbirth and its implications on the postnatal health outcomes in rural Arifwala, Pakistan, using qualitative and phenomenological research methodology on sixteen women who had recently delivered in healthcare facilities. This study highlights the extensive medicalization of childbirth in rural Arifwala, Pakistan, evidenced by a Cesarean section rate of 68.8%—a figure significantly higher than international recommendations. This trend is driven primarily by maternal health issues, notably severe anemia, alongside a cultural shift toward trusting medical professionals and a fear of labor pain. However, women's autonomy remains constrained by familial decision-making, particularly the influence of in-laws, and financial considerations vary, with some families accepting interventions regardless of cost, while others

question their necessity. While improved access to institutional care has normalized medical interventions, the consequences are mixed. Women with histories of birth complications valued the safety of medical care; conversely, those with positive home birth experiences often preferred traditional practices. The postnatal impact was significant: many respondents reported prolonged physical recovery, persistent pain, and psychological distress, including anxiety and depression. This emotional strain was often exacerbated when medical advice conflicted with family expectations.

Recommendations

In light of these findings, we propose the following actions: (1) implementation of mandatory nutritional screening and supplementation programmes during prenatal care; (2) establishment of clinical audit systems to monitor the rates and the indications of caesarean section; (3) training of healthcare providers regarding shared decision-making approaches that respect women's autonomy; (4) development of maternal health education materials that are culturally appropriate for and sensitive to different levels of healthcare literacy; (5) integration of mental health services into maternal healthcare; (6) conduct of further research on the long term outcomes of medicalised compared with traditional childbirth in rural settings; (7) exploring healthcare providers' perspectives on medicalization drivers and potential solutions.

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References

Ahmed, K.A., Grundy, J., Hashmat, L., Ahmed, I., Farrukh, S., Bersonda, D., Shah, M.A., Yunus, S., & Banskota, H.K. (2022). An analysis of the gender and social determinants of health in urban poor areas of the most populated cities of Pakistan. *International Journal for Equity in Health, 21*(1), 1–11. https://doi.org/10.1186/s12939-022-01657-w

Ali, S. S., Ali, T. S., Adnan, F., Asif, N., Memon, Z., Barkat, S., Soofi, S., Hussaini, A. S., & Karmaliani, R. (2023). Safe motherhood: A hidden reality in Pakistan. *Midwifery, 119*, 103624. https://doi.org/10.1016/j.midw.2023.103624

Alianmoghaddam, N., Phibbs, S., & Benn, C. (2017). Resistance to breastfeeding: A Foucauldian analysis of breastfeeding support from health professionals. *Women and Birth, 30*(6), 281–291.https://www.sciencedirect.com/science/article/abs/pii/S1871519216302219

Anwar, J., Torvaldsen, S., Morrell, S., & Taylor, R. (2023). Maternal mortality in a rural district of Pakistan and contributing factors. *Maternal and Child Health Journal, 27*, 902-915. https://link.springer.com/article/10.1007/s10995-022-03570-8

Antoine, C., & Young, B.K. (2021). Cesarean section one hundred years 1920–2020: The good, the bad and the ugly. *Journal of Perinatal Medicine, 49*(1), 5–16. https://www.degruyter.com/document/doi/10.1515/jpm-2020-0305/html

Asadi, M., Noroozi, M., & Alavi, M. (2020). Factors affecting women's adjustment to postpartum changes: A narrative review. *Iranian Journal of Nursing and Midwifery Research, 25*(6), 463-470. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7968582/

Atif, N., Krishna, R.N., Sikander, S., Lazarus, A., Nisar, A., Ahmad, I., Raman, R., Fuhr, D.C., Patel, V., & Rahman, A. (2017). Mother-to-mother therapy in India and Pakistan: Adaptation and feasibility evaluation of the peer-delivered Thinking Healthy Programme. *BMC Psychiatry, 17*(1), 1–14. https://bmcpsychiatry.biomedcentral.com/articles/10.1186/s12888-017-1244-z

Becker, J. (2019). *Traditional music in modern Java: Gamelan in a changing society.* University of Hawaii Press. https://books.google.com.pk/books ?hl=en&lr=&id=b1rGDwAAQBAJ

Benyamini, Y., Molcho, M.L., Dan, U., Gozlan, M., & Preis, H. (2017). Women's attitudes towards the medicalization of childbirth and their associations with planned and actual modes of birth. Women and Birth, 30(5), 424–430. https://www.sciencedirect.com/science /article/abs/pii/S1871519217300471

Byrne, A., Caulfield, T., Onyo, P., Nyagero, J., Morgan, A., Nduba, J., & Kermode, M. (2016). Community and provider perceptions of traditional and skilled birth attendants providing maternal health care for pastoralist communities in Kenya: A qualitative study. *BMC Pregnancy and Childbirth, 16*, 1–12. https://link.springer.com/article/10.1186/s12884-016-0828-9

Espinosa, M., Artieta-Pinedo, I., Paz-Pascual, C., Bully-Garay, P., García-Álvarez, A., & Ema-Q Group (2022). Attitudes toward medicalization in childbirth and their relationship with locus of control and coping in a Spanish population. *BMC Pregnancy and Childbirth, 22*(1), 2-13. https://link.springer.com/article/10.1186/s12884-022-04748-2

Fantaye, A.W., Gunawardena, N., & Yaya, S. (2019). Preferences for formal and traditional sources of childbirth and postnatal care among women in rural Africa: A systematic review. *PLOS One, 14*(9), 1-31. https://journals.plos.org/plosone/article?id=10.1371/journal. pone.0222110

Ford, A.L. (2020). Purity is not the point: Chemical toxicity, childbearing, and consumer politics as care. *Catalyst, 6*(1), 1-21. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7614496/

Gibore, N.S., & Bali, T.A. (2020). Community perspectives: An exploration of potential barriers to men's involvement in maternity care in a central Tanzanian community. *PLOS One, 15*(5), 1-27. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0232939

Hameed, W., & Avan, B.I. (2018). Women's experiences of mistreatment during childbirth: A comparative view of home- and facility-based births in Pakistan. *PLOS One, 13*(3), e0194601. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0194601

Haq, A.N. (2017). *Mother and child health in Swat, Pakistan: A qualitative study.* https://swatreliefinitiative.org/wp-content/uploads/2021/12/ Dr-Ambreen-Dissertation.pdf

Harrison, J.M. (2023). Medical surveillance in perinatal care: Negotiating constraints, constructing risk, and the elusive goal of mental health integration (Doctoral dissertation, UCSF). https://escholarship.org/uc/item/9rc52563

Howard-Grabman, L., Miltenburg, A.S., Marston, C., & Portela, A. (2017). Factors affecting effective community participation in maternal and newborn health programme planning, implementation and quality of care interventions. *BMC Pregnancy and Childbirth, 17*(1), 1–18. https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-017-1443-0

Huot, S., Ho, H., Ko, A., Lam, S., Tactay, P., MacLachlan, J., & Raanaas, R.K. (2019). Identifying barriers to healthcare childbirth and access in the circumpolar north. *International Journal of Circumpolar Health, 78*(1), 1571385. https://www.tandfonline.com/doi/full/10.1080/22423982.2019.1571385

Iqbal, S., Maqsood, S., Zakar, R., Zakar, M.Z., & Fischer, F. (2017). Continuum of care in maternal, newborn and child health in Pakistan. *BMC Health Services Research, 17*(1), 1–15. https://doi.org/10.1186/s12913-017-2111-9

Harrison, J. M. (2023). *Medical surveillance in perinatal care: Negotiating constraints, constructing risk, and the elusive goal of mental health integration* [Doctoral dissertation, University of California, San Francisco]. https://escholarship.org/uc/item/9rc52563

Huot, S., Ho, H., Ko, A., Lam, S., Tactay, P., MacLachlan, J., & Raanaas, R. K. (2019). Identifying barriers to healthcare childbirth and access in the circumpolar north: Important insights for health professionals. *International Journal of Circumpolar Health, 78*(1), 1571385. https://www.tandfonline.com/doi/full/10.1080/22423982.2019.1571385

Hassan, S. M., Leavey, C., & Rooney, J. S. (2019). Exploring English-speaking Muslim women's first-time maternity experiences: A qualitative longitudinal interview study. *BMC Pregnancy and Childbirth, 19*(1), 1–10. https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-019-2302-y

Jabeen, S., Haq, S., Jameel, A., Hussain, A., Asif, M., Hwang, J., & Jabeen, A. (2020). Impacts of rural women's traditional economic activities on household economy: Changing economic contributions through empowered women in rural Pakistan. *Sustainability, 12*(7), 2731. https://www.mdpi.com/2071-1050/12/7/2731

Jeon, D. (2021). *A historical, social, and medical analysis on the medicalization of labor and childbirth in the United States* [Doctoral dissertation, Baylor University]. Texas Digital Library.

Khalil, M., Carasso, K. B., & Kabakian-Khasholian, T. (2022). Exposing obstetric violence in the Eastern Mediterranean region: A review of women's narratives of disrespect and abuse in childbirth. *Frontiers in Global Women's Health, 3*, 850796. https://doi.org/10.3389/fgwh.2022.850796

Khan, M., Kasmi, J., Saboor, A., & Ali, I. (2020). A comparative analysis of the government and NGOs in delivering quality services for the rural people of Pakistan: Community perspectives. *Asia-Pacific Journal of Rural Development, 30*(1–2), 203–225. https://journals.sagepub.com/doi/pdf/10.1177/1018529120977260

Mahmood, S., Hameed, W., & Siddiqi, S. (2022). Are women with disabilities less likely to utilize essential maternal and reproductive health services? A secondary analysis of Pakistan Demographic and Health Survey. *PLOS One, 17*(8), e0273869. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0273869

Mangindin, E. L., Stoll, K., Cadée, F., Gottfreðsdóttir, H., & Swift, E. M. (2023). Respectful maternity care and women's autonomy in decision making in Iceland: Application of scale instruments in a cross-sectional survey. *Midwifery, 123*, 103687. https://www.sciencedirect.com/science/article/pii/S0266613823000906

Miani, C., Wandschneider, L., Batram-Zantvoort, S., Covi, B., Elden, H., Nedberg, I. H., Drglin, Z., Pumpure, E., Costa, R., Rozée, V., & Otelea, M. R. (2022). Individual and country-level variables associated with the medicalization of birth: Multilevel analyses of IMAGINE EURO data from 15 countries in the WHO European Region. *International Journal of Gynecology & Obstetrics, 159*, 9–21. https://obgyn.onlinelibrary.wiley.com/doi/full/10.1002/ijgo.14459

Nazir, S. (2015). *Determinants of cesarean deliveries in Pakistan.* Pakistan Institute of Development Economics. https://file.pide.org.pk/pdf/Working%20Paper/WorkingPaper-122. pdf

Omer, S., Zakar, R., Zakar, M. Z., & Fischer, F. (2021). The influence of social and cultural practices on maternal mortality: A qualitative study from South Punjab, Pakistan. *Reproductive Health, 18*(1), 1–12. https://reproductive-health-journal.biomedcentral.com/articles/10.1186/s12978-021-01151-6

Patra, J. K., Das, G., Fraceto, L. F., Campos, E. V. R., Rodriguez-Torres, M. D. P., Acosta-Torres, L. S., Diaz-Torres, L. A., Grillo, R., Swamy, M. K., Sharma, S., & Habtemariam, S. (2018). Nano-based drug childbirth systems: Recent developments and future prospects. *Journal of Nanobiotechnology, 16*(1), 1–33. https://jnanobiotechnology.biomedcentral.com/articles/10.1186/s12951-018-0392-8

Prosen, M., & Krajnc, M. T. (2019). Perspectives and experiences of healthcare professionals regarding the medicalisation of pregnancy and childbirth. *Women and Birth, 32*(2), e173–e181. https://www.sciencedirect.com/science/article/abs/pii/S187151921730505X

Rai, S. D., Poobalan, A., Jan, R., Bogren, M., Wood, J., Dangal, G., Regmi, P., van Teijlingen, E., Keshar Bahadur, D., Badar, S. J., & Shahid, F. (2019). Caesarean section rates in South Asian cities: Can midwifery help stem the rise? *Journal of Asian Midwives, 6*(2),4-22. https://aura.abdn.ac.uk/bitstream/handle/2164/15258/Dhakal_et_al_JAM_CaesareanSectionRatesIn_VoR.pdf

Singh, D., & Bhandari, D. S. (2021). Legacy of honor and violence: An analysis of factors responsible for honor killings in Afghanistan, Canada, India, and Pakistan. *SAGE Open, 11*(2), 21582440211022323. https://journals.sagepub.com/doi/full/10.1177/21582440211022323

Thiels, C. A., Aho, J. M., Zietlow, S. P., & Jenkins, D. H. (2015). Use of unmanned aerial vehicles for medical product transport. *Air Medical Journal, 34*(2), 104–108. https://www.sciencedirect.com/science/article/abs/pii/S1067991X14003332

Tripathy, P. (2020). A public health approach to perinatal mental health: Improving health and wellbeing of mothers and babies. *Journal of Gynecology Obstetrics and Human Reproduction, 49*(6), 101747. https://www.sciencedirect.com/science/article/abs/pii/S2468784720300817

World Health Organization. (2021). Stories of change in four countries: Building capacity for integrating mental health care within health services across humanitarian settings. https://apps.who.int/iris/bitstream/handle/10665/349939/9789240037229-eng.pdf

Yunus, A., & Ahmad, K. (2021). Childbirth experiences of primiparous mothers: A phenomenological study. *Pakistan Journal of Social Research, 3*(4), 549–558. https://doi.org/10.52567/pjsr.v3i4.317

Zakar, R., Zakar, M. Z., Zaheer, L., & Fischer, F. (2018). Exploring parental perceptions and knowledge regarding breastfeeding practices in Rajanpur, Punjab Province, Pakistan. *International Breastfeeding Journal, 13*(1), 1–12. https://internationalbreastfeedingjournal.biomedcentral.com/articles/10.1186/s13006-018-0171-z

Zhang, Y., & Hanser, A. (2023). Be the mother, not the daughter: Immigrant Chinese women, postpartum care knowledge, and mothering autonomy. *Sociology of Health & Illness, 45*,1028-1045. https://doi.org/10.1111/1467-9566.13631