

Exploring Antenatal Women Choices Regarding Her Preferred Mode of Delivery

Antenatal
Women Choices
Regarding Mode
of Delivery

Beenish Samreen Hamid, Isma Rauf, Hina Khan, Saira Aslam, Bushra Nabi and
Fareeha Khan

ABSTRACT

Objective: To explore the preferences and factors affecting the choice of delivery mode among pregnant women seeking antenatal care.

Study Design: Cross-sectional study

Place and Duration of Study: This study was conducted at the Department of Obs/Gynae, DHQ Hospital & Medical College, Bannu KPK from 1st January 2023 to 28th February, 2024.

Methods: Participants were categorized based on their preferred mode of delivery, and sociodemographic data were collected through structured interviews. Factors influencing the choice of delivery mode were analyzed using descriptive statistics and inferential tests.

Results: Majority of antenatal women tend to favor vaginal delivery due to its traditional acceptance, family influence, perceived safety, quicker recovery time, early return to work and minimal adverse effects. Various sociodemographic factors influence a woman's decision to opt for a specific mode of delivery including educational attainment, occupation & income, later age at marriage, anxiety about the baby's well-being, low pain tolerance, fear of lengthy and arduous labor, desire for large family size, previous birth experience, influence of decision makers. Preference for a scheduled birth, desire to maintain sexual health.

Conclusion: The research underscores how sociodemographic factors and individual preferences interact in shaping pregnant women's decisions regarding mode of delivery. Healthcare providers must actively involve women in antenatal care, addressing their concerns, providing accurate information, and facilitating informed decision-making regarding delivery options.

Key Words: Mode of delivery, Pregnant women, Antenatal care, Normal vaginal delivery, Cesarean section, Sociodemographic factors.

Citation of article: Hamid BS, Rauf I, Khan H, Aslam S, Nabi B, Khan F. Exploring Antenatal Women Choices Regarding her Preferred Mode of Delivery. Med Forum 2025;36(4):49-54. doi:10.60110/medforum.360411.

INTRODUCTION

Childbirth is a pivotal event in a woman's life, marked by profound physiological, emotional, and social changes. Central to this experience is the decision-making process surrounding the mode of delivery, whether it is vaginal birth or cesarean section (CS). This decision is influenced by a myriad of factors that intersect with individual preferences, medical considerations, cultural norms, and healthcare practices.

Department of Obstet and Gynae, Bannu Medical College, Bannu, KPK.

Correspondence: Dr. Beenish Samreen Hamid, Assistant Professor Department of Obs and Gynae, Bannu Medical College, Bannu, KPK.

Contact No: 0317-9662233

Email: dr_beenishhamid@yahoo.com

Received: December, 2024

Reviewed: January, 2025

Accepted: February, 2025

Research has shown that pregnant women's preferences for delivery mode are multifaceted and dynamic, influenced by a variety of factors. Socio-demographic characteristics such as age, education, socioeconomic status, and parity have been identified as important determinants of delivery mode preference.^{1,2}

Furthermore, previous birth experiences play a significant role in shaping women's preferences for specific mode of delivery. Women who have had positive vaginal birth experiences may express a preference for a similar mode of delivery in subsequent pregnancies, while those who have encountered complications or traumatic experiences during childbirth may lean towards elective cesarean sections.³ Medical considerations, including obstetric risk factors, maternal health conditions, and fetal well-being, also play a crucial role in determining the appropriate mode of delivery. Women with certain medical conditions or obstetric complications may have limited options and may be advised by healthcare providers to undergo cesarean delivery to mitigate risks to maternal or fetal health.⁴

Cultural beliefs and societal norms surrounding childbirth also shape women's preferences for specific birthing option. In some cultures, there may be a strong preference for vaginal birth as the natural and traditional method of delivery, while in others, cesarean section may be perceived as safer or more convenient.⁵ This trend has raised concerns among healthcare professionals, policymakers, and researchers regarding potential overuse and its implications for maternal and neonatal outcomes.^{6,7} Understanding the factors driving this trend and its impact on maternal health disparities is essential for developing strategies to promote evidence-based maternity care and reduce unnecessary interventions. This article aims to explore in-depth the preferences and factors influencing the choice of delivery method among pregnant women seeking antenatal care.

METHODS

This study employed a cross-sectional design to explore the preferences and factors influencing the choice of birthing method among pregnant women seeking antenatal care. Cross-sectional studies are well-suited for capturing a snapshot of attitudes, beliefs, and behaviors at a specific point in time, making them valuable for investigating complex phenomena such as childbirth decision-making.

Participants were categorized into three groups based on their stated preferences for delivery mode. Patients Opting for Normal Vaginal Delivery (NVD): 508 Participants who expressed a clear preference for NVD. Patients Opting for Cesarean Section (C-section): 92 Participants who clearly stated a preference for C-section. Patients Undecided or Confused to Decide: 14 participants who expressed uncertainty or confusion regarding their choice of delivery mode..

Quantitative data were analyzed using descriptive statistics to summarize the demographic characteristics of the sample and the distribution of preferences for delivery mode. Chi-square tests or logistic regression analysis were employed to explore associations between socio-demographic factors, previous birth experiences, and preferences for delivery mode. Qualitative data from open-ended questions were analyzed using thematic analysis to identify common themes and patterns in participants' responses.

RESULTS

Table 1 presents the sociodemographical characteristics of the participants. Regarding age distribution, the majority of participants fell within the 25-30 age range (56.8%), followed by those below 24 (35.1%), while a smaller proportion were 31 years old and above (8.1%). In terms of education level, a significant portion of participants had completed primary school (56.6%), with a substantial number also having a high school education or higher (46.1%). Similarly, the majority of

participants' husbands had a high school education or higher (56.8%). Most participants were housewives (86.8%), with a smaller percentage employed as government employees (10.6%) or in the private sector (2.6%). Regarding income, the majority reported a monthly income below PKR 50,000 (68.3%), with smaller proportions falling into the 50,000-100,000 PKR bracket (20.1%) and above 100,000 PKR bracket (11.6%). Concerning the age of marriage, the majority married between the ages of 20 and 33 (78.1%), followed by those below 19 (18.1%), with a smaller percentage marrying at 34 years old and above (3.8%).

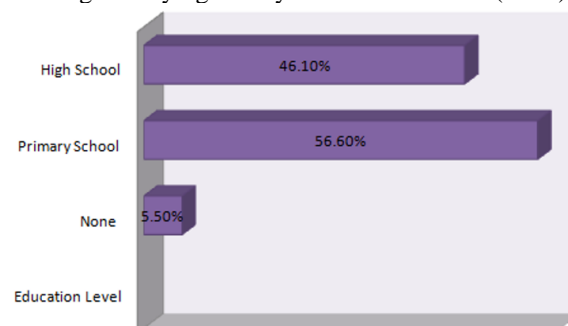


Figure No.1: Distribution of Education Levels among Study Participants

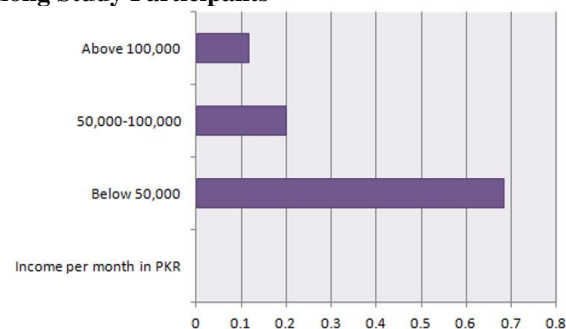


Figure No.2: Distribution of Monthly Income among Study Participants

Table 2 presents the characteristics of study subjects according to their preferred delivery type. The majority of participants opting for vaginal delivery were aged between 25 and 30 years (49.7%), residing in urban areas (64.2%), and had completed primary school education (44.3%). Additionally, a significant proportion of them reported a monthly income below PKR 50,000 (55.0%), were housewives (71.7%), married above the age of 19 (65.2%), and had experienced two or more pregnancies (58.2%). Conversely, participants opting for cesarean delivery were more likely to have husbands with a high school education or higher (56.8%), earn a monthly income above PKR 100,000 (2.5%), be government employees (3.0%), and have undergone a previous cesarean section (27.5%). Confused patients were more prevalent among those with illiterate educational status (1.2%), a monthly income below PKR 50,000 (1.3%), and a marriage age below 18 years (0.8%). These findings

suggest significant associations between sociodemographic factors and preferred delivery type among participants.

Table 3 outlines the reasons for selecting preferred delivery types among the study subjects, categorized into vaginal birth and cesarean section. Among the 508 participants who opted for vaginal birth, the leading motivation, as indicated by 74.8% of respondents, was the influence of in-laws or family since in Pashtun culture, the desire for a large family size and the preference for male babies was expressed as influential factors in opting for vaginal delivery. Other factors contributing to the preference for vaginal birth included the perception of it being healthier or better (10.8%), the desire for quick recovery and early discharge (6.8%), and the belief in childbirth as a natural process (7.8%).

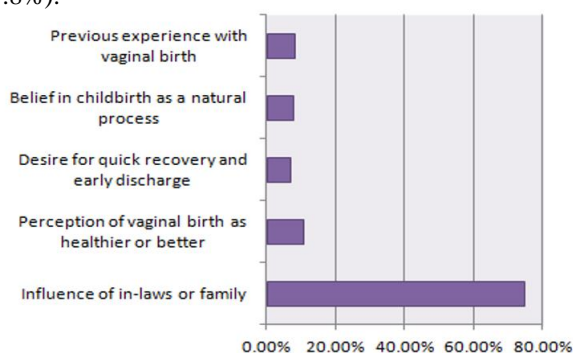


Figure No.3: illustration of the bar chart showing distribution of reasons for selecting preferred delivery types among the study subjects who opted for vaginal birth.

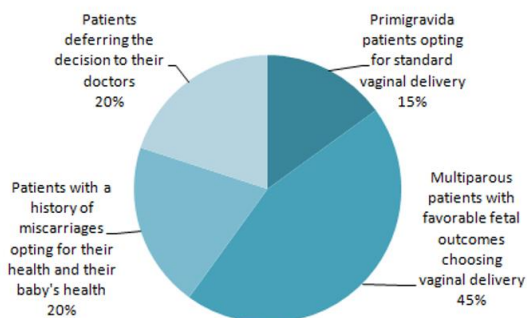


Figure No.4: Illustration of a pie chart showing delivery mode decisions among patients with

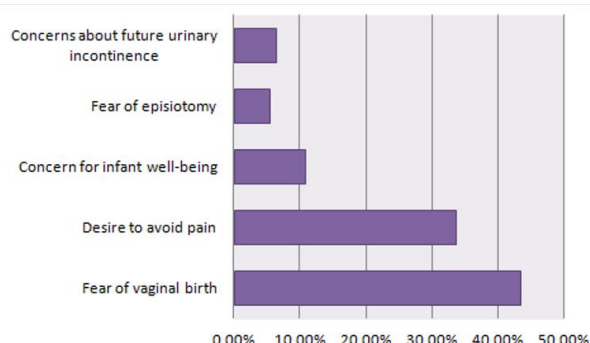


Figure No.5: illustration of the bar chart showing distribution of reasons for selecting preferred delivery types among the study subjects who opted for cesarean section

Table No.1: Sociodemographic Characteristics of Participants

Characteristics	n (%)
Age	
- Below 24	210 (35.1%)
- 25-30	341 (56.8%)
- 31 and above	49 (8.1%)
Level of Education	
- None	33 (5.5%)
- Primary school	340 (56.6%)
- High school or higher	227 (46.1%)
Husband's Education Level	
- None	9 (1.6%)
- Primary school	250 (41.6%)
- High school or higher	341 (56.8%)
Occupation	
- Housewife	521 (86.8%)
Government employee	64 (10.6%)
Private employee	15 (2.6%)
Income per month in PKR	
Below 50,000	410 (68.3%)
50,000-100,000	121 (20.1%)
Above 100,000	69 (11.6%)
Age of Marriage	
- Below 19	109 (18.1%)
- 20-33	468 (78.1%)
- 34 and above	23 (3.8%)

Table No. 2: Characteristics of Study Subjects For Preferred Delivery Type

Characteristics	Vaginal Delivery	Cesarean Delivery	Confused Patients	p-value
Age of Subjects in Years				
- Below 24	125 (20.8%)	15 (2.5%)	8 (1.3%)	0.210
- 25-30	298 (49.7%)	89 (14.8%)	4 (0.7%)	
- Above 31	49 (8.2%)	10 (1.7%)	2(0.3%)	
Participant Residing Area				
- Urban	385 (64.2%)	68 (11.3%)	10 (1.7%)	0.428
- Rural	115 (19.2%)	18 (3.0%)	4 (0.7%)	
Level of Education				

- Illiterate	28 (4.7%)	4 (0.7%)	7 (1.2%)	0.035
- Primary School	266 (44.3%)	59 (9.8%)	3 (0.5%)	
- High School or Higher	188 (31.3%)	41 (6.8%)	4 (0.7%)	
Monthly Income of Subjects (PKR)				
Less than 50,000	330 (55.0%)	58 (9.7%)	8 (1.3%)	0.003
50,000-100000	126 (21.0%)	8 (1.3%)	4 (0.7%)	
Above 100000	49 (8.2%)	15 (2.5%)	2 (0.3%)	
Occupation				
- Housewife	430 (71.7%)	77 (12.8%)	5 (0.8%)	0.03
Government Employee	42 (7.0%)	18 (3.0%)	5 (0.85)	
Private Employee	10 (1.7%)	9 (1.5%)	4 (0.7%)	
Age of marriage				
- Below 19	85 (14.1%)	15 (2.5%)	9 (1.5%)	0.004
- 20-33	396 (66%)	69 (11.5%)	3 (0.5%)	
- 34 and above	5 (0.83%)	16 (2.6%)	2 (0.3%)	
'Planned Pregnancy'				
Yes	383 (63.8%)	76 (12.7%)	10 (1.7%)	0.993
No	110 (18.3%)	17 (2.8%)	4 (0.7%)	
'Total Pregnancies'				
1	167 (27.8%)	26 (4.3%)	5 (0.8%)	0.034
≥ 2	349 (58.2%)	44 (7.3%)	9 (1.5%)	
'Number of Births'				
0	110 (18.3%)	24 (4.0%)	3 (0.5%)	0.032
≥ 1	356 (59.3%)	96 (16.0%)	11 (1.8%)	
'Previous C-section'				
Yes	58 (9.7%)	165 (27.5%)	6 (1.0%)	0.002
No	344 (57.3%)	19 (3.2%)	8 (1.3%)	
'Trimester'				
1st	84 (14.0%)	20 (3.3%)	2 (0.3%)	0.285
2 nd	184 (30.7%)	44 (7.3%)	4 (0.7%)	
3 rd	218 (36.3%)	36 (6.0%)	8 (1.3%)	
'Miscarriage'				
Yes	65 (10.8)	78 (13%)	9 (1.5%)	0.048
No	443 (73.8)	14 (2.3%)	5 (0.8%)	

Table No.3: Reasons for Preferred Delivery Type Among Study Subjects

Reasons Given	Vaginal Birth (N=508)	Cesarean Section (N=92)
'Reasons for Choosing Vaginal Birth'		
In Laws/Family influence	380 (74.8%)	
It is healthier or better	55 (10.8%)	
Vaginal birth previously	43 (8.4%)	
It is a natural process	40 (7.8%)	
Quick recovery and going home	35 (6.8%)	
Surgery anxiety	20 (3.9%)	
Early Breastfeeding	15 (2.9%)	
Fear about risk of infection	12 (2.3%)	

'Reasons for Choosing Cesarean Section'		
Vaginal birth Anxiety		40 (43.4%)
Avoidance of pain		31 (33.6%)
Avoidance of risk to the fetus		10 (10.8%)
Fear of episiotomy with vaginal birth		5 (5.4%)
Fear of future urinary incontinence		6 (6.5%)

Table No.4 presents the sources from which study subjects obtained information about delivery. The most commonly utilized source was a gynecologist, with 160 participants (26.6%) reporting consulting a gynecologist for information. Following closely behind, family doctors was also a significant source of information, with 120 participants (20%) relying on

them for guidance. Nurse-midwives were consulted by 102 participants (17%), indicating their importance in providing information and support during pregnancy. The internet emerged as a popular source, with 88 participants (14.6%) using online resources for information about delivery. Older family members were consulted by 65 participants (10.8%), suggesting the influence of familial advice in decision-making.

Table No.4: Study Subjects' Sources of Information About Delivery

Sources of Information	No. (%)
'Gynecologist'	160 (26.6%)
'Family Doctor'	120 (20%)
'Nurse-Midwife'	102 (17%)
'Internet'	88 (14.6%)
'Older Family Members'	65 (10.8%)
'Friends'	32 (5.3%)
'Newspaper, Television'	24 (4%)
'Neighbor'	11 (1.8%)
'Books, Encyclopedia'	8 (1.3%)

DISCUSSION

Several studies have investigated the factors influencing women's preferences for delivery mode. Consistent with our findings, a study by Stoll et al. (2019) found that women often choose NVD due to perceptions of safety, shorter recovery times, and lower costs associated with this mode of delivery.⁽⁸⁾ Similarly, a meta-analysis by Chaillet and Dumont (2007) identified fear of labor pain as a significant factor influencing women's preference for cesarean section (C-section), highlighting the importance of addressing women's concerns and providing adequate support and pain relief during labor.⁹

The role of sociodemographic factors in shaping delivery preferences has also been explored in previous research. Our study found that educated women from higher socioeconomic backgrounds were more likely to opt for C-section, a finding supported by studies conducted in various countries.^{10,11} Additionally, the influence of previous childbirth experiences on delivery mode preferences, particularly among women with a history of cesarean delivery, has been well-documented.^{12,13}

Addressing misconceptions and providing comprehensive antenatal education are essential components of efforts to promote informed decision-making regarding delivery options. Studies emphasized the importance of evidence-based strategies for reducing unnecessary C-sections and preventing the first cesarean delivery, highlighting the need for collaborative efforts among healthcare providers, policymakers, and pregnant women.

Furthermore, our study identified a concerning trend among women with a history of cesarean delivery, who were more likely to opt for repeat cesarean section. This

finding underscores the need for comprehensive counseling and support for women considering vaginal birth after cesarean (VBAC), as VBAC is associated with lower maternal morbidity and shorter recovery times compared to repeat cesarean delivery.¹⁴

CONCLUSION

In conclusion, our study highlights the prevailing preference for vaginal delivery among pregnant women seeking antenatal care, with only a minority opting for cesarean section. The decision-making process regarding birthing options is influenced by a myriad of factors, including sociodemographic characteristics, previous childbirth experiences, and perceptions of safety and risk. Majority of antenatal women tend to favor vaginal delivery due to its perceived safety, the influence of decision makers (husband or mother-father in laws), quicker recovery time, and minimal adverse effects.

By understanding the complex interplay of factors influencing preferred mode of delivery, healthcare providers can tailor their care to meet the diverse needs of pregnant women, ultimately improving maternal and neonatal health outcomes. Further research is warranted to explore the long-term implications of specific delivery choices on maternal and infant health and to inform evidence-based strategies for optimizing obstetric care.

Author's Contribution:

Concept & Design or acquisition of analysis or interpretation of data:	Beenish Samreen Hamid, Isma Rauf, Hina Khan
Drafting or Revising Critically:	Saira Aslam, Bushra Nabi, Fareeha Khan
Final Approval of version:	All the above authors
Agreement to accountable for all aspects of work:	All the above authors

Conflict of Interest: The study has no conflict of interest to declare by any author.

Source of Funding: None

Ethical Approval: No. 41 /BMC/ERC/2022
Dated 20.12.2022.

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