Preferred Mode of Delivery among Pregnant Women, A cross Sectional Survey

MOHAMMAD MUSTAFA FAROOQ KHAN¹, NIMRA ASLAM KHAN², MUHAMMAD TALHA MUMTAZ³, MAHNOOR JATHOL⁴, SANAM MAHMOOD⁵, KHUSHBAKHAT RASHID⁶

¹House Officer, Department of Obstetrics and Gynaecology, Ghurki Trust Teaching Hospital, Lahore, Pakistan

²Medical Officer, Department of Obstetrics and Gynaecology, Nimra Hospital, Sheikhupura, Pakistan

³Lahore Medical and Dental College, Lahore, Pakistan

^{4,56}Postgraduate Resident, Department of Obstetrics and Gynaecology, Ghurki Trust Teaching Hospital, Lahore, Pakistan

Correspondence author: Muhammad Talha Mumtaz, Email: talhamumtaz786@gmail.com

ABSTRACT

Back ground: Pregnancy is a time of utter excitement, joy, and anticipation. As expectant mothers prepare for the arrival of their little ones, one of the most significant decisions they will make is choosing a delivery method. This research paper was conducted to provide pregnant women with a comprehensive guide to support them in reaching an informed decision that suits their needs and preferences.

Methodology: The study was conducted on 500 pregnant women admitted to various hospitals in Lahore from January 2022 to June 2022. The participants were given a thorough questionnaire that explored their obstetric history, medical conditions, birth preferences, and delivery methods. The data collected were analyzed using SPSS version 27.0. Descriptive statistics were used to summarize numerical data. The Chi-square test was used to evaluate the associations between different categorical variables. A p-value of less than 0.05 was considered statistically significant.

Results: Among the females 68% preferred vaginal births, while 32% chose cesarean sections. The most common reasons for choosing vaginal births were a faster recovery time 58%, less postoperative pain 22%, and a lower risk of complications 20%.

Implication: This is done through various platforms, including social media campaigns, television adverts, and community outreach programs. By providing expectant mothers with accurate information and sufficient support, healthcare providers can enable them to make informed decisions. This will reduce the risk of unnecessary maternal and infant complications.

Conclusion: In conclusion, awareness-raising is crucial to promote informed decision-making by expectant mothers and support safer and healthier childbirths. This research serves as a valuable tool for healthcare providers to provide expectant mothers with accurate information and support to make informed decisions.

Keywords: C Section, Vaginal delivery, Mode of delivery, Preference

INTRODUCTION

Life is a beautiful and amazing miracle. The journey of pregnancy, with all its ups and downs, culminates in the birth of a baby's life.¹ However, the process of giving birth can be overwhelming and wrought with anxieties, particularly for expecting mothers who must consider decisions concerning the delivery method of their child.² Expecting mothers can struggle with selecting a delivery method.³

Selecting the mode of delivery is a complicated process. Both the patients and doctors have different rational reasons. Among the patients fear of pain is the common reason of diverting from vaginal delivery to Cesarean section mode of deliver.⁴⁻⁶ Most of the female proffered vaginal deliveries but it must be depend upon the risk calculation.⁷ It was also observed that low socioeconomic female's choice is more influenced by other's suggestions⁸. As well as age and parity has their influence^{9, 10} but obesity has no effect in selecting the mode of deliver.¹¹

This research paper aims to help pregnant women select the most suitable delivery method for themselves and their child. By providing comprehensive information about the different delivery options, women can make informed decisions to optimize their childbirth experience's safety and comfort. This will minimize childbirth risks. Ultimately, this guide promotes the health and wellbeing of both mother and child, supporting a positive and joyful childbirth experience.

METHODOLOGY

The Crass Sectional study included 500 pregnant women admitted to various hospitals in Lahore, Pakistan, from January 2022 to June 2022. Participants were selected using a convenient sampling technique. A thorough questionnaire was administered to explore the factors that influenced their choice of delivery method.

The inclusion criteria with questionnaire included questions about their obstetric history, medical conditions, birth preferences, and delivery method preferences.^{15,16} The data collected were analyzed using SPSS version 27.0. Descriptive statistics were used to summarize numerical data. The Chi-square test was used to evaluate the associations between different categorical variables. A p-value of less than 0.05 was considered statistically significant.

RESULTS

Among the participants, 167(33.4%) were in age range of 18-24years 295(59%) were in age range of 25-34years whereas 38(7.6%) were 35years old or above. Similarly 58 (11.6%) education levels was Primary, 227(45.4%) females education level was Secondary, 144(28.8%) were Higher Secondary literate and 71(14.2%) have Bachelor's Degree or above. Among the females 68% preferred vaginal births, while 32% chose cesarean sections. The most common reasons for choosing vaginal births were a faster recovery time 58%, less postoperative pain 22%, and a lower risk of complications 20%. On the other hand, the most common reasons for choosing a cesarean section were fear of the pain and trauma associated with a vaginal birth i.e. 44%, 20% belief that a cesarean section delivery was safer for the baby, and 16% had prior traumatic childbirth experiences.

Characteristics	One	Two	Three or more
Gravidity	212(42.4%)	155(31.0%)	133(26.6%)
Parity	179(35.8%)	153(30.6%)	168(33.6%)

Table 2: Reason for Choosing Vaginal delivery

Table 2. Reason for Choosing Vaginar derivery				
Response				
292(58.4%)				
220(44.0%)				
110(22.0%)				
100(20.0%)				
100(20.0%)				
80(16.0%)				

The analysis of the association between the preferred delivery method and the participant's age showed that younger women preferred vaginal births, while older women tended to choose cesarean sections. The odds of choosing a cesarean section over a vaginal birth were higher among women aged 30

years and above (Table 3). The study also revealed that many women were unaware of the potential risks associated with a cesarean section delivery. The odds of choosing a cesarean section delivery were higher among women who had not discussed the risks and benefits of different delivery methods with their obstetricians or midwives (Table 3). The analysis of the association between medical conditions and preferred delivery method showed that women with diabetes or hypertension were more likely to choose cesarean sections than vaginal births. The odds of choosing a cesarean section were higher among women with these medical conditions (Table 3)

Table 3: Odds ratios of Preferred Delivery Method different study variables

	Odds Ratio	95% CI
35 years or older	2.20	1.02 – 4.71
Lack of Discussion with Obstetrician	1.89	1.25 - 2.87
Hypertension	2.03	1.18 - 3.50
Diabetes	2.03	1.18 - 3.50

The study results highlight that the majority of pregnant women prefer vaginal births. The analysis also revealed that a significant proportion of women were unaware of the potential risks of a cesarean section delivery. Thus, healthcare providers should play an active role in educating and supporting pregnant women in making informed decisions.

The results showed that age, medical conditions, and prior experiences influenced women's choice of delivery method. Younger women prefer vaginal births, while older women tend to choose cesarean sections. Women with medical conditions such as hypertension and diabetes are more likely to prefer cesarean sections. Women who had not discussed the risks and benefits of different delivery methods with their obstetricians or midwives were also more likely to choose cesarean sections.

DISCUSSION

The study discovered that most pregnant women preferred a vaginal birth. Fear of pain during delivery and previous traumatic birth experiences being the primary reasons for opting for a cesarean section delivery. Furthermore, participants who had previously given birth reported a higher likelihood of vaginal birth. This highlights the importance of prior childbirth experiences in shaping decision-making.

The study revealed that both natural birth methods and cesarean section delivery methods have distinct benefits and drawbacks.¹² Expectant mothers should receive comprehensive information and support to make informed decisions. Vaginal birth offers shorter recovery periods and less infection risk than cesarean section delivery. On the other hand, complications may arise during a vaginal birth, requiring timely medical intervention. Cesarean section delivery may become necessary for some medical conditions or if the baby's or mother's health is at risk. Furthermore, cesarean delivery may be less painful than spontaneous delivery; however, it is associated with an extended recovery period and an increased risk of other complications.

This research study provides a valuable tool for healthcare providers and expectant mothers. This study emphasizes patientcentered care, promotes shared decision-making, and reinforces informed decision-making. The research study's findings can enhance the quality of care provided to expectant mothers, improving maternal and infant health outcomes.

There are many factors influencing delivery method preferences and associated risks and benefits.^{10, 11} The study finds that expectant mothers' decision-making is influenced by multiple factors, such as fear of pain during delivery and previous traumatic birth experiences, highlighting the need for comprehensive information and support.

The research study reveals the uniqueness of vaginal and cesarean section deliveries, with each delivery method offering benefits and drawbacks, requiring maternal and infant health education to ensure informed decision-making.¹³ The study

emphasizes the importance of patient-centered care and promotes shared decision-making, ultimately enhancing the quality of care delivered to expectant mothers. Furthermore, the study notes the importance of prior birthing experiences in decision-making and the significance of discussing these experiences with healthcare practitioners.

This study provides healthcare providers and pregnant women with valuable information to choose the most appropriate delivery method for maternal and infant healthcare. The findings are expected to improve maternal and infant health outcomes by promoting safer and healthier childbirths. In addition, they will provide expectant mothers with comprehensive information to make informed decisions.

In summary, this research study underscores the importance of informed decision-making, emphasizing the significance of shared decision-making between healthcare providers and pregnant women. Ultimately, the study's findings will promote effective and patient-centered maternal and infant health care.

The importance of education for maternal and infant health cannot be overstated. The purpose of this study is to highlight the importance of making informed decisions when choosing a delivery method. In order to promote safer and healthier childbirth, expectant mothers should receive comprehensive information and support from healthcare providers.

Having a child is one of the most transformative events in a woman's life. A careful consideration must be given to the most effective delivery method for both mother and baby.14 Considering the current global maternal mortality rate of 211 per 100,000 live births, it is imperative to raise awareness about informed decisionmaking in maternity care. Medical resources, diagnosis, and treatment must improve in developing countries. There are limited resources: access to medical and health resources; knowledge about disease; awareness, trainings, and awareness about health. Health literacy is mandatory for any disease and facilitates the patients access to resources, databases, and trainings about the disease in print and electronic (hybrid) format. Finally, exploring factors influencing decision-making in the context of increased maternal age, comorbidities, and obstetric interventions such as induction of labor and interventions to improve fetal positioning is necessary. By raising awareness of each delivery method's risks and benefits, information can be disseminated more efficiently. As a result, expectant mothers would be encouraged to discuss their preferences with their healthcare providers. This research study underscores the importance of patient-centered care and shows that supporting informed decision-making improves maternal and infant outcomes.17-24

Therefore, it is essential to increase awareness of medical education and support for expectant mothers. This is done through various platforms, including social media campaigns, television adverts, and community outreach programs. By providing expectant mothers with accurate information and sufficient support, healthcare providers can enable them to make informed decisions. This will reduce the risk of unnecessary maternal and infant complications.

The study's limitations highlight the importance of further research to improve understanding and ensure maternal and infant health outcomes. Future research could explore the ideal timing and mode of delivery, considering medical conditions such as hypertension and gestational diabetes. This would guide healthcare providers and pregnant women in making well-informed decisions.

Moreover, future research should explore the influence of culture and tradition on delivery method selections to ensure culturally sensitive interventions. Looking ahead, it will be useful to investigate the reasons behind the high rate of pain fear during vaginal delivery. It will also be useful to explore nonpharmacological and pharmacological interventions for pain management.

CONCLUSION

In conclusion, awareness-raising is crucial to promote informed decision-making by expectant mothers and support safer and healthier childbirths. This research serves as a valuable tool for healthcare providers to provide expectant mothers with accurate information and support to make informed decisions. By fostering inclusive patient-centered care, we can reduce maternal and neonatal morbidity and mortality rates - allowing us to step closer to the United Nations Sustainable Development Goals and ensure healthier outcomes for both mother and child. Through increased patient-centered care, the research study provides a valuable opportunity to promote better outcomes for mother and child, as well as helping us to work towards the United Nations Sustainable Development Goals.

REFERENCES

- Lydon-Rochelle MT, Holt VL, Martin DP. Delivery method and selfreported postpartum general health status among primiparous women. Paediatric and Perinatal Epidemiology. 2001;15(3):232-40.
- Jadoon A, Jadoon A, Jadoon S, Ishtiaq S. Affiliation of postpartum depression with mode of delivery; a disregarded domain. Pak J Public Health. 2020;10(1):32-8.
- Ahmed I, Chishti U, Akhtar M, Ismail H. Factors affecting mode of delivery in a nullipara at term with singleton pregnancy and vertex presentation (NTSV). Pak J Med Sci. 2016;32(2):314-8.
- Sluijs A-M, Wijma K, Cleiren MPHD, van Lith JMM, Wijma B. Preferred and actual mode of delivery in relation to fear of childbirth. Journal of Psychosomatic Obstetrics & Gynecology. 2020;41(4):266-74.
- Moasheri BN, Sharifzadeh G, Soltanzadeh V, Khosravi Givshad Z, Rakhshany Zabol F. Relationship between fear of pain, fear of delivery and attitude towards cesarean section with preferred mode of delivery among pregnant women. The Iranian Journal of Obstetrics, Gynecology and Infertility. 2016;18(179):8-16.
- Sparks TN, Yeaton-Massey A, Granados JM, Handler SJ, Meyer M, Caughey AB. How do maternal views of delivery outcomes vary by demographics and preferred mode of delivery? American journal of perinatology. 2015;32(08):741-6.
- Rivo JC, Amyx M, Pingray V, Casale RA, Fiorillo AE, Krupitzki HB, et al. Obstetrical providers' preferred mode of delivery and attitude towards non-medically indicated caesarean sections: a crosssectional study. BJOG: An International Journal of Obstetrics & Gynaecology. 2018;125(10):1294-302.
- Amyx M, Gibbons L, Xiong X, Mazzoni A, Althabe F, Buekens P, et al. Sources of influence on pregnant women's preferred mode of delivery in Buenos Aires, Argentina. Birth. 2018;45(1):71-8.
- ENSARİ TA, KAVAK D, YİRCİ B, ELMAS B, ESİN S, YALVAC S, et al. Women's preferences regarding the mode of delivery and review of the current status of Cesarean as a delivery method in Turkey. Jinekoloji-Obstetrik & Neonatoloji Tip Dergisi. 2022;19(3).
- Palmeira-de-Oliveira R, Oliveira AS, Rolo J, Tomás M, Palmeira-de-Oliveira A, Simões S, et al. Women's preferences and acceptance for

different drug delivery routes and products. Advanced Drug Delivery Reviews. 2022;182:114133.

- Walędziak M, Różańska-Walędziak A. Does Obesity Influence Women's Decision Making about the Mode of Delivery? Journal of Clinical Medicine. 2022;11(23):7234.
- Michalik A, Pracowity M, Wójcicka L, editors. The Assessment of Natural Vaginal Delivery in Relation to Pregnancy-Related Anxiety—A Single-Center Pilot Study. Healthcare; 2023: MDPI.
- Manzoor F, Rahat F, Ashique F, Waheed R, Iqbal S, Chughtai AS. Association of Preeclampsia with Low Platelet Count among Pregnant Females Presenting during Third Trimester. Pakistan Journal of Medical & Health Sciences. 2022;16(03):126-.
- Wahabi HA, Fayed A, Esmaeil S, Elmorshedy H, Titi MA, Amer YS, et al. Systematic review and meta-analysis of the effectiveness of prepregnancy care for women with diabetes for improving maternal and perinatal outcomes. PloS one. 2020;15(8):e0237571.
- Farid G, Warraich NF, Iftikhar S. Digital information security management policy in academic libraries: A systematic review (2010– 2022). Journal of Information Science. 2023:01655515231160026.
- Khalid A, Malik GF, Mahmood K. Sustainable development challenges in libraries: A systematic literature review (2000–2020). The Journal of academic librarianship. 2021 May 1;47(3):10234
- Jabeen M, Shahjahan M, Farid G. Information Dissemination during COVID-19 Pandemic among Postgraduate Allied Health Sciences Students in Pakistan. Pakistan Journal of Medical & Health Sciences. 2022;16(11):366-.
- Farid G, Zaheer S, Khalid A, Arshad A, Kamran M. Evaluating Medical College Lib Guides: A Usability Case Study. Pakistan Journal of Medical & Health Sciences. 2022 Aug 26;16(07):461-.
- Chughati AS, Zaheer S, Farid G, Niazi AK, Mujtaba M, Islam A, Malik WA. Emotional Intelligence as a Predictor of Academic Performance. Pakistan Journal of Medical & Health Sciences. 2022 Dec 12;16(10):636-.
- Farid G, Niazi A K, Muneeb M, Iftikhar S. Attitude towards Utilization of e-Resources of Medical Images among Health Care Professionals. Pakistan Journal of Medical and Health Science., 2021 15 (9), 261-263
- 21. Shahjahan M, Jabeen M, Farid G. Information Providing in COVID-19 by Health Professionals in Pakistan. Pakistan Journal of Medical & Health Sciences. 2022 Dec 12;16(10):641-.
- Farid G, Miraj I, Iqbal S, Iftikhar S. ACCESSIBILITY, USAGE, AND BEHAVIORAL INTENTION OF PRINT BOOKS AND EBOOKS BY MEDICAL STUDENTS. Library Philosophy and Practice (e-journal). 2021. 6020.
- Farid G, Soroya S. Masooma. Perception and Behavioral Intention of Print and Electronic Books among Medical Students; A Comparative Study. Pakistan Library & Information Science Journal. 2018 49 (1), 52-60.
- Baladi Z S, Farid G, Gulzar A, Hussain M, Iftikhar S, Naz M. Examining Authorship Dynamics, Publication Patterns, and Affiliations in the Pakistan Journal of Medical and Health Sciences (PJMHS) from 2009- 2019. Pakistan Library & Information Science Journal. 2023 May 23; 17 (5):270-280.