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Original Research Article

Knowledge and decision making in the choice between caesarean section and vaginal delivery

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ABSTRACT

Background: The decision-making process regarding the choice between caesarean section (CS) and normal vaginal delivery (NVD) is influenced by various socio-demographic, cultural, and healthcare factors. This study aims to explore these factors among antenatal patients in Bangladesh.
Methods: This prospective observational study was conducted at the institute of child and mother health, Matuail, Dhaka, Bangladesh, from January 2023 to June 2023. A total of 200 antenatal patients attending the antenatal care (ANC) clinic were included. Data were collected through structured interviews and medical record reviews, focusing on socio-demographic variables, healthcare access, cultural influences, and perceived safety regarding delivery methods. Statistical analyses included descriptive statistics, chi-square tests, and logistic regression.
Result: The majority of participants were aged 21-30 years (68%), predominantly Muslim (93.5%), and from urban areas (62%). Most were homemakers (75%) with secondary (37.5%) or higher secondary education (28%). Economic status showed 78.5% had a monthly income of 10,001-50,000 BDT. Early marriage (≤18 years) was prevalent (44.5%), with 31% having their first pregnancy at or before 18 years. Most pregnancies were planned (80.5%) and spontaneous (89%), with 88% receiving regular antenatal care. Decision-making for delivery methods involved relatives alone (21%) and husbands alone (19%), with 78% preferring NVD and 22% preferring CS.
Conclusion: The study reveals that socio-demographic and cultural factors significantly influence delivery method preferences among pregnant women in Bangladesh. There is a need for educational interventions to promote informed decision-making and enhance maternal healthcare services.

Keywords: Antenatal care, Delivery methods, Socio-demographic factors, Decision-making, Bangladesh

INTRODUCTION

The decision-making process regarding the choice between caesarean section (CS) and vaginal delivery (VD) is a critical aspect of maternal healthcare, particularly in developing countries like Bangladesh. Globally, the rate of CS has risen significantly, surpassing the World Health Organization's recommended rate of 10-15% to a global average of 18.6% in 2014 and further projected to reach 28.5% by 2030.[1,2] This increasing trend is observed in various regions, with Latin America and the Caribbean exhibiting the highest rates at 40.5%, while Africa maintains the lowest at 7.3%.[2] In Bangladesh, the CS rate has escalated alarmingly from 4% in 2001 to approximately 31% in recent years, influenced by various socio-economic and healthcare factors.[3] In Bangladesh, the healthcare system significantly impacts delivery choices, with disparities observed between urban and rural areas. Urban women, often from higher socio-economic

backgrounds, have greater access to private healthcare facilities that tend to favor CS due to perceived safety and convenience.[4] Conversely, rural women, constrained by limited access to healthcare facilities and economic resources, predominantly opt for VD. Studies reveal that maternal age, urban residence, obesity, and private facility deliveries are associated with higher CS rates.[5] Moreover, cultural beliefs and traditional practices also play a pivotal role in shaping these decisions. In many rural areas, home deliveries are preferred due to cost considerations, cultural practices, and fear of surgical interventions, despite the risks associated with unskilled birth attendants.[6]

The rationale for this study stems from the evident knowledge gaps regarding the decision-making process for delivery methods in Bangladesh. Despite the rising CS rates, there is a lack of comprehensive understanding of the factors influencing pregnant women's choices between CS and VD. Existing literature highlights the need for further research to explore these factors and inform policy and educational interventions. For instance, a qualitative study among slum residents in Dhaka revealed that many mothers lacked detailed information and counselling, leading to uninformed decision-making regarding CS.[7] Additionally, socio-economic conditions, education levels, and healthcare provider influences are crucial determinants of delivery method preference.[8] Cultural and socio-economic factors significantly influence the choice of delivery method.

In Bangladesh, cultural beliefs often dictate a preference for VD, viewed as a natural process. However, socio-economic status can override these cultural norms, with wealthier women opting for CS due to perceived safety and better healthcare access.[3,9] The influence of healthcare providers also cannot be understated. Recommendations from doctors, often driven by logistical convenience and perceived medical necessity, heavily sway patient choices towards CS. Studies have shown that insufficient communication between physicians and patients can contribute to the high CS rates, emphasizing the need for improved physician-patient interactions.[10] The health implications of both CS and VD for mothers and babies are substantial, encompassing short-term and long-term effects. CS is associated with higher risks of postpartum complications for mothers, including headaches, hip pain, and difficulties in daily activities and breastfeeding.[11]

For babies, CS can lead to breathing problems, frequent illnesses, and delayed breastfeeding initiation, which can adversely affect their growth and development.[12] On the other hand, VD is generally associated with a quicker recovery for mothers and lower risks of neonatal complications, although it carries its own set of risks, such as uterine rupture in cases of VBAC.[13] Current policies and guidelines in Bangladesh emphasize the need for informed decision-making and the promotion of VD where medically appropriate. Educational programs aimed at increasing awareness of the benefits and risks associated with both delivery methods are crucial. Policies must also address the socio-economic barriers that limit access to healthcare services, particularly in rural areas. For instance, integrated demand- and supply-side interventions have been shown to significantly increase facility-based delivery rates in rural Bangladesh, highlighting the effectiveness of comprehensive strategies in improving maternal and neonatal health outcomes.[14]

In conclusion, the choice between CS and VD in Bangladesh is influenced by a complex interplay of cultural, socio-economic, and healthcare factors. There is a critical need for comprehensive studies to understand these influences better and to inform policy and educational interventions that support informed decision-making among pregnant women. This study aims to fill this gap by exploring the knowledge and decision-making processes of expecting mothers in Bangladesh, ultimately contributing to the development of targeted policies and educational programs that promote safe and informed delivery choices.

METHODS

Study type

This prospective observational study was conducted at the Institute of Child and Mother Health, Matuail, Dhaka, Bangladesh.

Study duration

The study duration was from January 2023 to June 2023. A total of 200 antenatal patients attending the antenatal care (ANC) clinic at the study hospital were included in the study.

Inclusion criteria

The inclusion criteria for participation were patients currently attending ANC, whether regular or irregular, and patients who had given informed consent for the study.

Exclusion criteria

Patients with extremely severe conditions or those requiring caesarean section as the only delivery method were excluded from the study.

Data collection

Data collection involved structured interviews and reviews of medical records to gather information on socio-demographic variables, healthcare access and quality, cultural and social influences, and perceived safety and medical advice regarding the choice of delivery method. Structured questionnaires were used to collect data on maternal age, education, economic status, employment, type of healthcare facility attended, and advice from healthcare providers. Additionally, participants were asked about their cultural beliefs, family and community

influences, fears related to labor pain, and previous birth experiences. Descriptive statistics were used to summarize the socio-demographic characteristics of the participants. The primary outcome measured was the preference for delivery method (NVD or C-section) and the factors influencing this preference.

Statical analysis

The data were analysed using statistical software to identify significant predictors of delivery method choice. Chi-square tests and logistic regression analyses were performed to examine the associations between socio-demographic factors, healthcare access, cultural influences, and perceived safety with the chosen method of delivery. Ethical approval for the study was obtained from the institutional review board of the institute of child and mother health, and all participants provided written informed consent before participation.

RESULTS

The study included 200 antenatal patients, with the majority (68%) aged between 21-30 years. A smaller percentage (22%) were below 21 years, 9.5% were aged 31-40 years, and only 0.5% were aged 41-50 years. Regarding religious affiliation, 93.5% of participants were Muslim, 5.5% were Hindu, and 1% identified with other religions.

Geographically, 62% of the participants were from urban areas, while 38% were from rural regions. In terms of occupation, a significant majority (75%) were homemakers, with the remaining 25% being employed. Educationally, 4% of the participants were illiterate, 26% had primary education, 37.5% had secondary education, 28% had higher secondary education, and 4.5% had postgraduate education.

The husbands of the participants had slightly higher educational attainment, with 2% being illiterate, 9.5% having primary education, 52.5% having secondary education, 20% having higher secondary education, and 16% holding postgraduate degrees. In terms of economic status, 17.5% of the families had a monthly income between 5001-10,000 BDT, the majority (78.5%) had an income between 10,001-50,000 BDT, and 4% had an income exceeding 50,000 BDT.

Among the 200 antenatal patients studied, the age at marriage showed that 44.5% were married at or before 18 years, while 55.5% were married between 19 and 34 years. Regarding the age at first pregnancy, 31% had their first pregnancy at or before 18 years, while 69% experienced their first pregnancy between 19 and 34 years. The duration of marriage varied, with 5% married for less than a year, 61.5% married for 1-5 years, 19.5% married for 6-10 years, 13% married for 11-20 years, and 1% married for over 20 years. Parity status among the participants indicated that 26% were nulliparous, 29% were primiparous, and 45% were multiparous. Additionally, 22% of the participants reported a history of abortion, whereas 78% had no such history. In the current study, 80.5% of the 200 antenatal patients reported that their pregnancy was planned, while 19.5% had unplanned pregnancies. Most of the pregnancies (89%) were spontaneous, with only 11% of participants having conceived after fertility treatment. Regarding antenatal care, 88% of the participants received regular antenatal care, whereas 12% had irregular antenatal care visits. The gestational age of the participants at the time of the study showed that 8% were in their first trimester (≤12 weeks), 29% were in their second trimester (13-26 weeks), and the majority (63%) were in their third trimester (27-40 weeks).

Table 1: Distribution of participants by baseline sociodemographic characteristics (n=200).

Baseline characteristics	N	%
Age (in years)		
<21	44	22.00
21-30	136	68.00
31-40	19	9.50
41-50	1	0.50
Religion		
Muslim	187	93.50
Hindu	11	5.50
Others	2	1.00
Region		
Rural	76	38.00
Urban	124	62.00
Occupation		
House maker	150	75.00
Working	50	25.00
Education		
Illiterate	8	4.00
Primary	52	26.00
Secondary	75	37.50
Higher secondary	56	28.00
Postgraduate	9	4.50
Education of Husband		
Illiterate	4	2.00
Primary	19	9.50
Secondary	105	52.50
Higher secondary	40	20.00
Postgraduate	32	16.00
Monthly family income		
5001-10,000	35	17.50
10,001-50,000	157	78.50
>50,000	8	4.00

The distribution of sources of knowledge regarding delivery methods among the 200 antenatal patients reveals diverse information channels. A significant proportion (32.5%) of participants received knowledge from friends and families. Physicians were also a primary source of information, with 26% of participants citing them as their

source. Health workers alone informed 10.5% of the participants, while a combination of health workers and friends and families was noted by 7.5%.

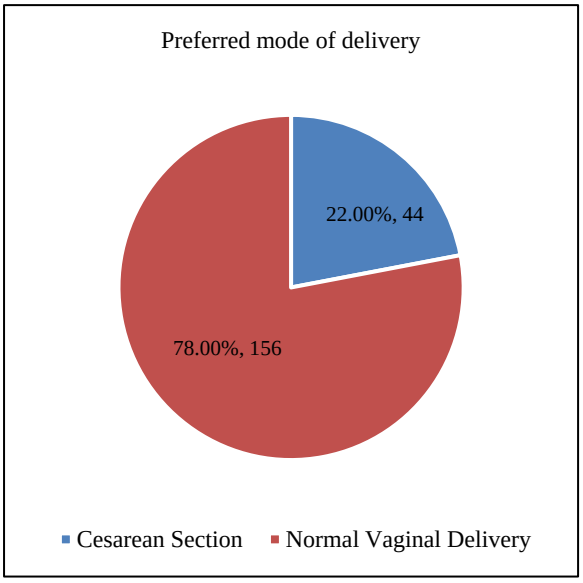

Figure 1: Distribution of participants by preferred mode of delivery for the current pregnancy (n=200).

Table 2: Distribution of obstetrics characteristics among the participants (n=200).

Obstetric history	N	%
Age at marriage		
≤18	89	44.50
19-34	111	55.50
Age at first pregnancy		
<=18	62	31.00
19-34	138	69.00
Married for (in years)		
<1	10	5.00
1-5	123	61.50
6-10	39	19.50
11-20	26	13.00
>20	2	1.00
Parity		
Nulliparity	52	26.00
Primipara	58	29.00
Multipara	90	45.00
History of abortion		
Yes	44	22.00
No	156	78.00

Additionally, 9.5% of participants obtained their knowledge from a combination of mass media and friends and families, while 3.5% cited mass media alone. Another 3.5% of participants received information from a combination of physicians and friends and families. Various other combinations of sources accounted for the remaining 7%.

Table 3: Distributions of participants by characteristics of the current pregnancy (n=200).

Variables	N	%
Planned pregnancy		
Yes	161	80.50
No	39	19.50
Type of pregnancy		
Conceived after fertility treatment	22	11.00
Spontaneous	178	89.00
Antenatal care		
Regular	176	88.00
Irregular	24	12.00
Gestational age (in weeks)		
≤12	16	8.00
13-26	58	29.00
27-40	126	63.00

Table 4: Distribution of source of knowledge regarding delivery methods among the participants (n=200).

Source	N	%
Friends and families	65	32.50
Health worker	21	10.50
Health worker and friends and families	15	7.50
Mass media	7	3.50
Mass media and friends and families	19	9.50
Physician	52	26.00
Physician, friends and families	7	3.50
Other combinations (each)	14	7.00

Table 5: Distribution of primary decision maker regarding method of delivery (n=200).

Decision maker for the type of delivery	N	%
Herself alone	31	15.50
Herself and husband	11	5.50
Herself, husband, and relative	17	8.50
Herself and relative	1	0.50
Husband alone	38	19.00
Husband and physician	3	1.50
Husband and relative	18	9.00
Husband, relative, and physician	2	1.00
Physician alone	17	8.50
Relative alone	42	21.00
Without previous decision	20	10.00

The study explored the primary decision makers regarding the method of delivery among the 200 antenatal patients. It was found that 15.5% of participants made the decision independently. Joint decision-making between the woman and her husband was reported by 5.5%, while 8.5%

included the woman, her husband, and a relative in the decision-making process. Only 0.5% involved the woman and a relative.

Decisions made solely by the husband accounted for 19% of cases. In some instances, the husband and physician (1.5%), the husband and a relative (9%), or the husband, a relative, and a physician (1%) were the decision makers. Physicians alone were the decision makers for 8.5% of the participants, whereas relatives alone made the decisions in 21% of cases. Additionally, 10% of participants reported not having made a previous decision regarding the method of delivery.

The preferred mode of delivery among the 200 antenatal patients was predominantly normal vaginal delivery (NVD), with 78% (156 participants) expressing a preference for NVD. In contrast, 22% (44 participants) preferred Caesarean Section (CS) as their mode of delivery.

DISCUSSION

The findings from this study provide a comprehensive overview of the sociodemographic, obstetric, and decision-making factors influencing the choice of delivery methods among antenatal patients in Bangladesh. The majority of our participants were aged between 21-30 years (68%), with a smaller proportion under 21 years (22%) and a minor group aged 31-40 years (9.5%). This age distribution is consistent with findings from a study conducted in East Africa, where a significant portion of women of reproductive age utilized antenatal care services, highlighting the importance of targeting this age group for maternal health interventions.[15]

The religious affiliation of our participants was predominantly Muslim (93.5%), with Hindu (5.5%) and other religions (1%) comprising the remainder. This demographic is reflective of the broader population trends in Bangladesh and aligns with similar studies in regions with a majority Muslim population, indicating cultural and religious factors may influence healthcare practices and decisions.[16]

Urban residency was more prevalent among our participants (62%) compared to rural residency (38%), which is indicative of better access to healthcare facilities in urban areas. This urban-rural disparity in healthcare access and utilization is supported by research conducted in Nigeria, which found that urban women were more likely to utilize antenatal care services due to better access and higher socioeconomic status.[17] A significant majority of the participants were homemakers (75%), while 25% were employed, suggesting that occupational status may play a role in healthcare access and decision-making. This is corroborated by a study in Nepal, where women's employment status was found to significantly influence their utilization of antenatal care services.[18] Educational attainment among the participants varied, with most having secondary (37.5%) or higher secondary education (28%). The education level of the participants' husbands was slightly higher, with the majority having secondary (52.5%) or higher secondary education (20%). This higher educational attainment among both women and their husbands is positively correlated with better antenatal care utilization, as seen in studies conducted in India and Zambia, which found that higher education levels were associated with optimal antenatal care visits.[19,20] The economic status of the families in this study showed that the majority had a monthly income between 10,001-50,000 BDT (78.5%), which aligns with findings from similar socioeconomic studies in Ethiopia, highlighting that higher household income improves access to and utilization of antenatal care services.[21]

Our study also found that a significant portion of participants were married at or before 18 years (44.5%) and had their first pregnancy at or before 18 years (31%). This early age at marriage and pregnancy is consistent with trends observed in South Asian countries, where cultural norms and socioeconomic factors contribute to early marriage and childbearing.[22] The duration of marriage among participants varied, with the majority being married for 1-5 years (61.5%), reflecting a relatively young cohort of married women.

Parity status revealed that 45% of participants were multiparous, which is similar to findings in various studies where multiparous women were more likely to utilize antenatal services due to previous pregnancy experiences.[23] Additionally, 22% of participants reported a history of abortion, underscoring the need for comprehensive reproductive health services. The majority of pregnancies in our study were planned (80.5%) and spontaneous (89%), with only 11% conceived after fertility treatment.

This high rate of planned pregnancies is comparable to findings in other studies where planned pregnancies were associated with better antenatal care utilization.[24] Regular antenatal care was reported by 88% of participants, a critical factor for positive maternal and neonatal outcomes, as evidenced by numerous studies emphasizing the importance of consistent antenatal visits.[25] Gestational age distribution showed that most participants were in their third trimester (63%), highlighting the need for targeted antenatal interventions during late pregnancy. This gestational age trend is consistent with other regional studies which emphasize the significance of late-pregnancy care.[26]

Sources of knowledge about delivery methods were primarily friends and families (32.5%), followed by physicians (26%), indicating the influential role of personal networks and healthcare providers in decision-making. This mirrors findings from a study in Buenos Aires, where lower socioeconomic status women were more influenced by personal networks and higher status women by healthcare professionals.[27] Decision-making

regarding delivery method predominantly involved relatives alone (21%) and husbands alone (19%), with only 15.5% of participants making decisions independently. This highlights the significant influence of family and cultural dynamics in delivery decisions, as also seen in studies from Northern Karnataka and Norway, where family members and past birth experiences played crucial roles in decision-making.[28,29] The preferred mode of delivery among our participants was normal vaginal delivery (NVD) (78%), while 22% preferred caesarean section (CS). This preference for NVD aligns with findings from various studies in regions with strong cultural preferences for vaginal births, such as Turkey and Ghana, where vaginal delivery was preferred due to perceptions of it being a more natural and safer option.[30,31] In conclusion, the decision-making process for delivery methods among antenatal patients in Bangladesh is influenced by a complex interplay of socio-demographic, cultural, and healthcare factors. The findings of this study align with global and regional trends, emphasizing the need for targeted educational and policy interventions to support informed decision-making and improve maternal and neonatal health outcomes.

Limitations of the study was that the study was conducted in a single hospital with a small sample size. So, the results may not represent the whole community.

CONCLUSION

In conclusion, this study highlights the complex interplay of socio-demographic, cultural, and healthcare factors influencing the decision-making process regarding delivery methods among antenatal patients in Bangladesh. The findings underscore the predominant preference for normal vaginal delivery (NVD) influenced by personal networks, healthcare providers, and socio-economic status. Early marriage and pregnancy, along with educational attainment and economic status, play significant roles in shaping these decisions. Furthermore, the substantial involvement of relatives and husbands in the decision-making process emphasizes the need for targeted educational interventions to empower women and promote informed choices. These insights are crucial for developing policies and programs aimed at improving maternal and neonatal health outcomes in Bangladesh.

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REFERENCES

1. Betran AP, Ye J, Moller AB, Souza JP, Zhang J. Trends and projections of caesarean section rates: global and regional estimates. BMJ Glob Health. 2021;6(6):5671.
2. Betrán AP, Ye J, Moller AB, Zhang J, Gülmezoglu AM, Torloni MR. The Increasing Trend in Caesarean Section Rates: Global, Regional and National Estimates: 1990-2014. PLOS ONE. 2016;11(2):148343.
3. Begum T, Nababan H, Rahman A, Islam MR, Adams A, Anwar I. Monitoring caesarean births using the Robson ten group classification system: A cross-sectional survey of private for-profit facilities in urban Bangladesh. PLOS ONE. 2019;14(8):220693.
4. Khan MN, Islam MM, Shariff AA, Alam MM, Rahman MM. Socio-demographic predictors and average annual rates of caesarean section in Bangladesh between 2004 and 2014. PLOS ONE. 2017;12(5):177579.
5. Rahman MM, Haider MR, Moinuddin M, Rahman AE, Ahmed S, Khan MM. Determinants of caesarean section in Bangladesh: Cross-sectional analysis of Bangladesh demographic and health survey 2014 Data. PLOS ONE. 2018;13(9):202879.
6. Islam MM, Shahjahan M. Exploring the reasons and factors influencing the choice of home delivery of births in rural Bangladesh: a community-based cross-sectional study. J Heal Res. 2021;36(3):503-14.
7. Sultana J, Sutradhar I, Rahman MJ, Khan ANS, Chowdhury MAK, Hasib E, et al. An Uninformed Decision-Making Process for Cesarean Section: A Qualitative Exploratory Study among the Slum Residents of Dhaka City, Bangladesh. Int J Environ Res Pub Health. 2022;19(3):1465.
8. Jisun TF, Kabir R. A comparative study on the preference for delivery process in Bangladesh. ABC J Adv Res. 2014;3(1):24-8.
9. Uddin J, Hossin MZ, Mahbub F, Hossain MZ. Healthcare-seeking behavior among the chakma ethnic group in Bangladesh: Can accessibility and cultural beliefs shape healthcare utilization? Int Q Community Health Educ. 2013;33(4):375–89.
10. Doraiswamy S, Billah SM, Karim F, Siraj MS, Buckingham A, Kingdon C. Physician–patient communication in decision-making about Caesarean sections in eight district hospitals in Bangladesh: a mixed-method study. Reproductive Health. 2021;18(1):34.
11. Rahman M, Khan N, Rahman A, Alam M, Khan A. Long-term effects of caesarean delivery on health and behavioural outcomes of the mother and child in Bangladesh. J Heal, Pop Nutr. 2022;41(1):45.
12. Saaka M, Hammond AY. Caesarean section delivery and risk of poor childhood growth. J Nutr Meta. 2020;2020(1):6432754.
13. O'Dwyer V, Turner MJ. Vaginal birth after caesarean section-how safe is it? Archives of disease in childhood-fetal and neonatal edition. 2012;97(1):88.
14. Rahman S, Choudhury AA, Khanam R, Moin SMI, Ahmed S, Begum N, et al. Effect of a package of integrated demand- and supply-side interventions on facility delivery rates in rural Bangladesh: Implications for large-scale programs. PLOS ONE. 2017;12(10):186182.
15. Raru TB, Ayana GM, Zakaria HF, Merga BT. Association of higher educational attainment on

antenatal care utilization among pregnant women in east Africa using demographic and health surveys (DHS) from 2010 to 2018: A multilevel analysis. IJWH. 2022;14:67–77.
16. Nisar N, White F. Factors affecting utilization of antenatal care among reproductive age group women (15-49 years) in an urban squatter settlement of Karachi. J Pak Med Assoc. 2003;53(2):47–53.
17. Adedokun ST, Yaya S. Correlates of antenatal care utilization among women of reproductive age in sub-Saharan Africa: evidence from multinomial analysis of demographic and health surveys (2010-18) from 31 countries. Archives of Public Health. 2020;78(1):134.
18. Awasthi MS, Awasthi KR, Thapa HS, Saud B, Pradhan S, Khatry RA. Utilization of antenatal care services in Dalit communities in Gorkha, Nepal: a cross-sectional study. J Preg. 2018;1:3467308.
19. Chopra I, Juneja SK, Sharma S. Effect of maternal education on antenatal care utilization, maternal and perinatal outcome in a tertiary care hospital. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2019;8(1):247–50.
20. Muyunda B, Makasa M, Jacobs C, Musonda P, Michelo C. Higher educational attainment associated with optimal antenatal care visits among childbearing women in Zambia. Front public health. 2016. Available at: https://www.frontiersin.org/journal.
21. Sui Y, Ahuru RR, Huang K, Anser MK, Osabohien R. Household socioeconomic status and antenatal care utilization among women in the reproductive-age. Front public health. 2021;9:724337.
22. Paul P, Chouhan P. Association between child marriage and utilization of maternal health care services in India: Evidence from a nationally representative cross-sectional survey. Midwifery. 2019;75:66–71.
23. Berhe K, Welearegay HG, Abera GB, Kahsay HB, Kahsay A. Assessment of antenatal care utilization and its associated factors among 15 to 49 years of age Women in Ayder Kebelle, Mekelle City 2012/2013. A cross-sectional study. Am J Adv Drug Del. 2014;2(1):62-75.
24. Rahman MM, Rahman MM, Tareque MI, Ferdos J, Jesmin SS. Maternal pregnancy intention and professional antenatal care utilization in Bangladesh: a nationwide population-based survey. PLOS ONE. 2016;11(6):157760.
25. Yeoh PL, Hornetz K, Shauki NIA, Dahlui M. Evaluating the quality of antenatal care and pregnancy outcomes using content and utilization assessment. Int J Qual Heal Care. 2018;30(6):466–71.
26. Bloom SS, Lippeveld T, Wypij D. Does antenatal care make a difference to safe delivery? a study in urban Uttar Pradesh, India. Health Policy and Planning. 1999;14(1):38–48.
27. 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.
28. Blanchard AK, Bruce SG, Jayanna K, Gurav K, Mohan HL, Avery L, et al. An exploration of decision-making processes on infant delivery site from the perspective of pregnant women, new mothers, and their families in Northern Karnataka, India. Matern Child Health J. 2015;19(9):2074–80.
29. Lindstad LEM, Nyland BM, Lukasse M, Schei B, Henriksen L. Women's preference for caesarean section and the actual mode of delivery-Comparing five sites in Norway. Sex Reprod Healthc. 2018;16:206-12.
30. Buyukbayrak EE, Kaymaz O, Kars B, Karsidag AYK, Bektas E, Unal O, et al. Caesarean delivery or vaginal birth: preference of Turkish pregnant women and influencing factors. J Obstet Gynaecol. 2010;30(2):155–8.
31. Adu-Bonsaffoh K, Tamma E, Seffah J. Preferred mode of childbirth among women attending antenatal clinic at a tertiary hospital in Ghana: a cross-sectional study. Afr Heal Sci. 2022;22(2):480–8.

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