

**DETERMINANTS OF SKILLED BIRTH SERVICE UTILIZATION AMONG WOMEN
IN DELTA STATE****Dr. Funmilayo Grace Ojo**

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Abstract

Reducing maternal morbidity and mortality remains a critical public health challenge in low- and middle-income countries, particularly in sub-Saharan Africa, where maternal deaths are disproportionately high. Skilled birth attendance (SBA) has been shown to improve maternal and neonatal outcomes by ensuring competent management of normal deliveries and timely identification or referral of complications. Despite its proven benefits, the utilisation of SBAs in Nigeria is uneven, with significant geographic, socio-economic, and sociocultural disparities influencing access to facility-based childbirth services. Barriers such as limited knowledge, perceived low need, financial constraints, gender norms, and mistrust of health facilities continue to limit demand, even where physical access to primary healthcare facilities exists. Understanding the socio-demographic and health factors that shape SBA utilisation is essential for designing targeted interventions to increase coverage and reduce inequities. This study explores these determinants in Delta State, Nigeria, providing insights to inform policy and programmatic strategies aimed at improving maternal health outcomes.

Keywords: Skilled birth attendance, maternal health, Utilisation, Socio-demographic factors, Nigeria

INTRODUCTION

Reducing maternal morbidity and mortality remains a central public health priority across low- and middle-income countries, with sub-Saharan Africa bearing a disproportionate burden despite steady global gains in survival (World Health Organization, 2023; Alkema et al., 2016). Within this context, childbirth with a skilled birth attendant (SBA), a trained midwife, nurse, or physician competent to manage normal deliveries and identify, manage, or refer complications has consistently been associated with improved maternal and neonatal outcomes (Tunçalp et al., 2015). Yet, coverage gaps and persistent inequities in the utilisation of SBAs remain pronounced across Nigeria, where geographic, socio-economic, and sociocultural gradients shape women's access to, and experiences of, facility-based care (National Population Commission & ICF, 2019; Fagbamigbe et al., 2020). Nigeria's progress toward universal health coverage has been uneven, with striking subnational differences in the prevalence of facility births and SBA use (Umar & Kabir, 2019; Adedokun & Uthman, 2019). Even in communities where physical access to primary health care (PHC) facilities exists, demand-side barriers such as knowledge, perceived need, costs, gender dynamics, and trust continue to shape delivery choices (Eze et al., 2020; Ogu et al., 2021). The 2018 Nigeria Demographic and Health Survey documents a persistent urban-rural divide, with lower coverage in rural areas and among women with less education and lower wealth (National Population Commission & ICF, 2019). These patterns mirror broader regional evidence that utilisation is not explained by

supply alone; women's socio-demographic characteristics and their experiences (or expectations) of care quality strongly influence where they deliver (Moyer & Mustafa, 2013; Ezeh et al., 2014).

Quality, including interpersonal quality, is a powerful determinant of utilisation. A robust body of research has documented disrespect and abuse during facility-based childbirth, eroding trust and prompting some women to seek care from traditional or faith-based providers perceived as more respectful or supportive (Bohren et al., 2015; Bohren et al., 2021). Conversely, where women report positive, dignified interactions and continuity of care, demand for skilled attendance increases (Afulani et al., 2017; Kruk et al., 2018). These relational dimensions intersect with structural constraints such as distance, costs, and social norms to inform women's choices in complex ways (Doctor et al., 2018; Doctor et al., 2019). In Nigeria's south-south region, including Delta State, sociocultural pluralism and the co-existence of formal and informal providers create both opportunities and tensions in the maternity care landscape (Ofili & Okojie, 2020; Ogu et al., 2021).

Educational attainment consistently emerges as a strong predictor of SBA use. Women with secondary or higher education tend to have greater health literacy, stronger autonomy in decision-making, and enhanced capacity to navigate health systems, which collectively translate to higher odds of facility delivery (Fagbamigbe et al., 2020; Eze et al., 2020). Education can also shape perceptions of risk and benefits, women who better understand the danger signs of pregnancy and labor are more likely to value the clinical safety associated with skilled attendance (Doctor et al., 2019). In contrast, limited schooling is associated with reduced care-seeking, particularly when compounded by poverty or residence in underserved areas (Adedokun & Uthman, 2019; Umar & Kabir, 2019). These gradients underscore the importance of demand-generation strategies and community health education that communicate the value of skilled care while addressing prevalent myths and fears.

Marital status and household dynamics also matter. In many Nigerian settings, husbands and senior family members (e.g., mothers-in-law) influence delivery decisions, including when to leave for the facility and whether to pay for services (Chukwuma et al., 2017; Osubor et al., 2006). Married women may benefit from partner support such financial and logistical that facilitates timely access to SBAs, while unmarried women may confront stigma or resource constraints that hinder facility use (Ononokpono & Odimegwu, 2019). At the same time, normative expectations within marriage can either encourage facility delivery or reinforce preferences for traditional birth attendants (TBAs) and faith-based providers, particularly where these providers are perceived as more accessible, kinder, or spiritually aligned (Darteh et al., 2020; Adatarata et al., 2018). These social influences suggest that interventions must extend beyond the woman to engage partners, families, and community leaders in promoting safe delivery practices.

Age and parity exhibit more nuanced associations with SBA uptake. Younger, primiparous women may be more likely to seek facility care due to anxiety about a first birth or stronger adherence to ANC recommendations, whereas older or multiparous women may feel confident in home delivery based on prior uncomplicated experiences (Moyer & Mustafa, 2013; Ezeh et al., 2014). However, these patterns are not uniform and often interact with education, socioeconomic status, and perceived quality of care (Fagbamigbe et al., 2020). Where respectful, competent care is reliably available and affordable, even high-parity women demonstrate high uptake

of SBAs; conversely, negative experiences can deter subsequent facility births across parity groups (Bohren et al., 2015; Afulani et al., 2017). This complexity reinforces the need for context-specific analyses that disentangle the relative contribution of socio-demographic factors within local health system realities.

Religious affiliation and spirituality further shape childbirth decisions in southern Nigeria, where Christian and African traditional beliefs are salient (Darteh et al., 2020; Ofili & Okojie, 2020). Faith-based providers, including pastors and spiritual mothers, may offer psychosocial support, prayer, and perceived protection from spiritual harm, services that women value alongside, or sometimes in place of, biomedical care (Chigbu et al., 2021; Ogu et al., 2021). While such support can complement facility care, exclusive reliance on unskilled providers carries risks when complications arise. Emerging models that build respectful referral linkages between TBAs, faith leaders, and PHC facilities show promise in bridging these worlds, particularly when paired with community education and transport solutions (Doctor et al., 2018; Shiferaw et al., 2020).

At the health-system level, availability, readiness, and continuity of respectful maternity care remain foundational. Unreliable staffing, stock-outs, unofficial fees, and poor communication can undermine trust and suppress demand for SBAs even where facilities are geographically near (Kruk et al., 2018; National Population Commission & ICF, 2019). Conversely, midwifery-led models that emphasise companionship, continuity, and culturally sensitive communication have been associated with improved experiences and higher satisfaction, which can translate into stronger community endorsement of facility births (Bohren et al., 2021; Afulani et al., 2017). For local governments in Delta State, sustaining such improvements requires investment in human resources for health, mentorship on respectful care, and community accountability mechanisms.

Ethiopia West Local Government Area presents a useful case for examining these dynamics given its mix of rural and semi-urban communities, the presence of PHC facilities, and a pluralistic provider landscape that includes TBAs and faith-based actors. Prior work in Delta State highlights both awareness of safe motherhood and persistent gaps in practice that reflect affordability, perceptions of staff attitudes, and cultural preferences (Ofili & Okojie, 2020). A local analysis that foregrounds the lived experiences of pregnant women can illuminate which socio-demographic characteristics such as age, marital status, education, and parity, most strongly correlate with SBA uptake in this setting, and why.

This study therefore aims to investigate the factors influencing the uptake of SBAs among pregnant women in Ethiopia West Local Government Area of Delta State, Nigeria. Specifically, it examines the relationship between SBA utilisation and selected socio-demographic characteristics such as age, marital status, educational level, and parity while attending to the broader context of quality and acceptability of care. The anticipated contribution is a set of context-specific insights that can inform integrated strategies such as health education and male engagement, respectful maternity care training, community–facility referral linkages, and financial or transport supports to increase SBA use and advance maternal and newborn health in Ethiopia West.

Ultimately, achieving sustained gains in SBA coverage will require aligning the supply of competent, respectful services with the diverse expectations of women and families. Evidence from Nigeria and comparable contexts shows that when women trust providers, perceive value in the service, and can overcome logistical and financial

barriers, they choose skilled care (Fagbamigbe et al., 2020; Eze et al., 2020). The aim of the study is to investigate the factors influencing uptake of skilled birth attendant among pregnant women in Ethiope West LGA, Delta State. The study specifically examine the relationship between the uptake of skilled birth attendants and selected socio-demographic characteristics of respondents, including age, marital status, educational level, and parity.

In view of the objectives of the study, four hypotheses were formulated to guide the study: **Ho 1:** There is no significant relationship between the uptake of skilled birth attendants and the age of the respondents.

Ho 2: There is no significant association between the uptake of skilled birth attendants and the marital status of the respondents.

Ho 3: There is no significant association between the uptake of skilled birth attendants and the educational level of respondents.

Ho 4: There is no significant relationship between the uptake of skilled birth attendants and parity.

METHODS AND MATERIALS

The study adopted a descriptive cross-sectional research design to explore the factors influencing the uptake of skilled birth attendants among pregnant women in Ethiope West Local Government Area (LGA) of Delta State, Nigeria. A descriptive cross-sectional design was deemed appropriate as it allowed for the collection of data at a single point in time from a population of interest, enabling the researcher to assess relationships between sociodemographic factors and uptake of skilled birth attendants without manipulating variables. This method provided a comprehensive understanding of the prevalence and patterns of maternal healthcare choices among the population. The study was conducted in Ethiope West, an LGA with its headquarters in Ogharefe, covering an area of 536 square kilometres with a population of over 200,000 as at the 2006 census. The area is culturally rich and predominantly inhabited by the Urhobo-speaking tribe, known for fishing, salt production, and lumbering. It is divided into eleven wards and named after the famous River Ethiope. The socio-economic and cultural characteristics of the study area were considered significant in shaping women's health-seeking behaviour, particularly in maternal healthcare.

The study population comprised pregnant women attending antenatal clinics (ANC) in selected health centres within Ethiope west, namely Ogharefe, Oghareki 1, Oghareki 2, Jesse, and Mosogar. Each of these health centres recorded an average weekly attendance of forty pregnant women, amounting to 200 attendees per week across the centres. Data spanning six months, from October 2018 to March 2019, were reviewed to assess attendance and delivery outcomes. The cumulative attendance was 1,321 across the health centres, with 128 deliveries recorded, providing a robust pool of participants for the study. For instance, Ogharefe Primary Health Centre (PHC) recorded the highest ANC attendance at 505 women over six months, while Jesse Town PHC had the highest number of deliveries (38). Inclusion criteria focused on pregnant women registered for ANC in the LGA who consented to participate, while exclusion criteria eliminated non-pregnant women, health workers, or those unwilling to continue participation. Based on Taro Yamane's formula (1967), the sample size was calculated to be approximately 184; however, 200 questionnaires were administered to ensure a sufficient response rate.

A convenient sampling technique was employed to recruit participants, allowing the researcher to access respondents based on their availability and willingness to participate. Although nonprobability in nature, this method was suitable given the focus on women attending ANC within the LGA. Data collection was conducted using a structured questionnaire divided into three sections: Section A covered socio-demographic data, Section B examined uptake of skilled birth attendants, and Section C explored the influence of age, marital status, education, and parity. To ensure validity, the instrument underwent scrutiny by the supervisor and a statistician, confirming face and content validity. The administration of questionnaires was facilitated by trained research assistants, including qualified nurses from the participating health centres. The research objectives were clearly explained in English and the local dialect to ensure understanding, and the process spanned six months to achieve comprehensive data coverage.

Ethical considerations were strictly observed in line with research standards. Ethical approval was obtained from the Ethiopie West LGA authorities before commencement of the study. Verbal informed consent was sought from each participant after providing a clear explanation of the study's purpose, ensuring that participation was voluntary, confidential, and free from coercion. Respondents were assured of anonymity, and they retained the right to withdraw at any point without consequence. Data analysis was performed using SPSS version 20.0, where descriptive and inferential statistics were employed. Frequencies, percentages, means, and standard deviations were computed, while chi-square tests assessed relationships between socio-demographic factors and uptake of skilled birth attendants. Results were presented in tables, pie charts, and bar graphs. Statistical significance was set at $p \leq 0.05$.

RESULTS

Table 1: Demographic data of respondents

Demographic factors	Frequency	Percentage
Age		
< 20	3	1.5
20 – 29	37	18.5
30 – 39	98	49.0
40 and above	62	31.0
Marital status		
Single	11	5.5
Married	137	68.5
Divorced	28	14.0
Widow	24	12.0
Religion		
Christianity	129	64.5
Islam	6	3.0

African traditional	Educational status	65	32.5
None		7	3.5
Primary		29	14.5
Secondary		103	51.5
Tertiary		61	30.5

The demographic characteristics of respondents indicate that the majority (49%) were aged 30–39 years, followed by 31% aged 40 years and above, suggesting that most respondents were within their active reproductive age. A large proportion were married (68.5%), reflecting the cultural norm of childbearing within marriage, while a smaller number were divorced (14%) or widowed (12%). In terms of religion, Christianity was most predominant (64.5%), with African traditional worshippers also significantly represented (32.5%), and only a few identified as Muslims (3%). Educationally, over half (51.5%) had completed secondary education, 30.5% attained tertiary education, while a smaller percentage had only primary education (14.5%) or no formal education at all (3.5%). These findings suggest that the respondents are relatively literate, predominantly Christian and married, with the majority being women in their thirties, characteristics that could influence their maternal delivery choices

Table 2: Subvariable mean and Standard Deviation

	Age	Marital Status	Educational Level	Parity	Uptake of skilled birth attendant
Mean	13.473	13.672	13.771	13.963	22.045
Standard Deviation	2.282	2.084	1.985	1.794	2.903

The results from the sub-variable mean and standard deviation show that among the measured factors, the uptake of skilled birth attendants recorded the highest mean score (22.045) with a standard deviation of 2.903, indicating a relatively strong tendency among respondents to utilise skilled delivery services, though with some variation across the population. Educational level (mean = 13.771, SD = 1.985) and parity (mean = 13.963, SD = 1.794) also had relatively high mean values, suggesting that these factors play a significant role in influencing delivery choices, with lower variability among respondents. Marital status (mean = 13.672, SD = 2.084) and age (mean = 13.473, SD = 2.282) had slightly lower mean scores, indicating that while these factors are relevant, their influence on skilled birth attendant uptake may not be as pronounced as education and parity. Overall, the data suggest that educational attainment and parity are key determinants of maternal delivery choices, while marital status and age exert a moderate effect.

Test for Hypotheses

Ho 1: There is no significant relationship in the uptake of skilled birth attendants and age of the respondents.

Table 3: Chi – square test result of hypothesis

Value	df	Asymp. Sig. (2-sided)
Person Chi-Square	4.303(a)	3
Likelihood Ratio	4.408	3
Association	.517	1
N of Valid Cases	200	

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 1.31.

Result: $X^2(3) = 4.303, p = 0.231$

The chi-square test result shows that there is no significant relationship between the uptake of skilled birth attendants and the age of respondents, as the Pearson Chi-Square value of 4.303 with 3 degrees of freedom yielded a p-value of 0.231, which is greater than the 0.05 significance threshold. This indicates that age does not play a statistically meaningful role in influencing whether women utilise skilled birth attendants during delivery. The result therefore upholds the null hypothesis, suggesting that maternal delivery choices regarding skilled attendants are influenced more by other factors such as education, parity, or marital status rather than age.

Ho2: There is no significant association in the uptake of skilled birth attendants and marital status of the respondents.

Table 4: Chi – square test result of hypothesis

Value	df	Asymp. Sig. (2-sided)
Person Chi-Square	8.630(a)	3
Likelihood Ratio	8.672	3
Linear-by-Linear Association	4.089	1
N of Valid Cases	200	

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 4.79 Result: $X^2(3) = 4.630, p = 0.035$

The chi-square test results indicate a statistically significant association between the variables under investigation, as evidenced by the Pearson Chi-Square value of 8.630 with 3 degrees of freedom and a p-value of 0.035, which is below the 0.05 significance threshold. Similarly, the likelihood ratio (8.672, $p = 0.034$) and the linear-by-linear association (4.089, $p = 0.043$) confirm this relationship, suggesting that the observed differences are unlikely due to chance. With 200 valid cases analysed, the results imply that the independent variable has a meaningful influence on the dependent variable, although the note that one cell (12.5%) had an expected count below 5 suggests some caution in interpretation due to potential limitations in cell distribution. Overall, the findings confirm the hypothesis that there is a significant association between the studied variables.

Ho 3: There is no significant relationship in the uptake of skilled birth attendants and educational level of respondents.

Table 5: Chi – square test result of hypothesis

	Value	df	Asymp. Sig. (2-sided)	Likelihood Ratio	
Person Chi-Square	22.427(a)	3	.000	23.728	3
Linear-by-Linear Association	19.754	1	.000		
N of Valid Cases	200				

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 3.05.

Result: $X^2(3) = 22.427, p = 0.000$

The chi-square test result shows a statistically significant relationship between the uptake of skilled birth attendants and the educational level of respondents, as indicated by the Pearson Chi-square value of 22.427 with 3 degrees of freedom and a p-value of 0.000, which is less than the 0.05 threshold. This means the null hypothesis, which states that there is no significant relationship, is rejected. The result implies that educational level strongly influences whether women choose to use skilled birth attendants during delivery. In other words, higher educational attainment is associated with greater utilisation of skilled delivery services. Although 2 cells (25.0%) had expected counts less than 5, the overall model remains robust, and the significant p-value underscores the importance of education in maternal healthcare decisions.

Ho 4: There is no significant relationship in the uptake of skilled birth attendants and parity. **Table 4.7:** Chi –

square test result of hypothesis

	Value	df	Asymp. Sig. (2-sided)	Likelihood Ratio	
Person Chi-Square	3.311(a)	5	.652		
Likelihood Ratio	3.317	5	.651		
Linear-by-Linear Association	.9681		.325		
N of Valid Cases	200				

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is .87. Result: $X^2(3) = 3.311, p = 0.652$

The chi-square test result shows no significant relationship between parity and the uptake of skilled birth attendants, as indicated by the Pearson Chi-Square value of 3.311 with 5 degrees of freedom and a p-value of 0.652, which is well above the 0.05 level of significance. Similarly, the likelihood ratio (3.317, $p = 0.651$) and the linear-by-linear association (0.968, $p = 0.325$) further confirm the lack of statistical significance. This implies

that the number of children a woman has (parity) does not significantly influence her decision to utilise skilled birth attendants during delivery in the study population.

DISCUSSION

The finding that age does not significantly influence the uptake of skilled birth attendants (SBA) is consistent with several studies in sub-Saharan Africa. In this study, the chi-square analysis yielded a p-value of 0.231, indicating no significant association between maternal age and SBA utilisation. This suggests that women across different age groups may face similar constraints or enabling factors in accessing skilled delivery care. Similar results were reported by Fekadu et al. (2018), who found that maternal age had no statistically significant effect on SBA use in Ethiopia, with factors such as education and socio-economic status playing stronger roles. Likewise, Doctor et al. (2019) in Nigeria observed that age alone is not a determinant, as cultural norms and healthcare access override age-related influences. However, some contrasting evidence exists; Tiruneh et al. (2021) noted that younger mothers were slightly more likely to use SBA due to exposure to modern health information, though the effect diminished when adjusted for education and parity. The lack of significance in this study highlights that age, while an important demographic variable, may not independently predict health-seeking behaviour unless moderated by other socio-demographic factors. Therefore, public health interventions should avoid age-exclusive targeting and instead focus on structural determinants such as education and service accessibility that cut across all age groups (Adedokun et al., 2017). This finding aligns with the growing consensus that maternal healthcare choices are multifactorial, with age serving only a secondary role compared to socioeconomic and educational influences.

The study demonstrated a statistically significant association between marital status and the uptake of skilled birth attendants, with a p-value of 0.035, rejecting the null hypothesis. This indicates that marital status meaningfully shapes maternal health-seeking behaviour in Ethiopia West. Married women may have greater support, both emotionally and financially, which facilitates the decision to deliver under skilled care. This is consistent with the findings of Basha (2014) in Ethiopia, where married women were more likely to use SBA compared to their unmarried counterparts, often due to spousal encouragement. Similarly, Anyait et al. (2012) in Uganda found that husbands often play decisive roles in healthcare utilisation, particularly in rural settings. In Nigeria, Akinyemi et al. (2016) also reported that marital status was positively correlated with the likelihood of skilled delivery use, as married women often benefit from household financial stability and joint decision-making. Conversely, unmarried women may face stigma or reduced family support, thereby limiting their ability to seek skilled care during delivery (Doctor et al., 2019). The implication is that marital status indirectly influences maternal health outcomes through household dynamics and socio-cultural expectations. However, the caution raised about some cells having expected counts below five highlights the need for larger samples to strengthen generalisability. Overall, this finding underscores the importance of involving spouses and household members in maternal health education and policies, as family structures continue to play a critical role in shaping maternal health-seeking behaviour in Nigerian contexts (Adedokun et al., 2017).

Education emerged as a strong and statistically significant determinant of skilled birth attendant uptake, with a chi-square result of $X^2(3) = 22.427, p = 0.000$. This finding affirms the well-documented relationship between maternal education and healthcare utilisation. Educated women are more likely to understand the importance of professional care during delivery, interpret health information, and navigate healthcare systems effectively. A study by Fekadu et al. (2018) confirmed that higher maternal education was directly associated with greater SBA use in Ethiopia, while Tiruneh et al. (2021) observed that women with at least secondary education were nearly twice as likely to deliver with skilled personnel compared to those without formal education. In Nigeria, Akinyemi et al. (2016) found that maternal education consistently predicted utilisation of modern maternal health services, outweighing variables such as income or residence. Similarly, Anyait et al. (2012) in Uganda argued that education empowers women to make autonomous healthcare decisions, even in contexts where cultural or financial barriers exist. The robust significance in this study underscores education as both a direct enabler and an indirect influencer by shaping women's socio-economic status and autonomy. Conversely, low literacy perpetuates reliance on traditional birth attendants, as women may undervalue or misunderstand the benefits of skilled care (Doctor et al., 2019). This finding highlights the urgent need for policy interventions that not only promote girl-child education but also integrate maternal health literacy programs into antenatal care. Education thus remains one of the most potent drivers of skilled delivery service uptake in sub-Saharan Africa.

The absence of a significant relationship between parity and uptake of skilled birth attendants in this study ($X^2(5) = 3.311, p = 0.652$) suggests that the number of children a woman has does not independently determine her choice of delivery care in Ethiopia West. This contrasts with findings in other African settings where parity was a significant factor. For instance, Anyait et al. (2012) found that women with higher parity were less likely to utilise SBA, often due to overconfidence in prior delivery experiences or resource constraints. Similarly, Tiruneh et al. (2021) reported a decline in skilled delivery utilisation among multiparous women in Ethiopia, as many shifted preference to home births after successful previous deliveries. However, the absence of significance in this study may reflect the effectiveness of antenatal education programs in Ethiopia West, where multiparous women are continually encouraged to use skilled services regardless of prior experiences. Fekadu et al. (2018) also observed that parity loses predictive power when controlled for education and socio-economic factors, which may explain the findings here. The implication is that while parity is often linked to delivery choices, its influence is not universal but rather context-dependent. Importantly, multiparous women should not be neglected in maternal health campaigns, as complacency can still pose risks in subsequent pregnancies. Instead, continuous community-level sensitisation is needed to reinforce the benefits of SBA use across all parity groups, ensuring that maternal healthcare behaviour remains consistent regardless of reproductive history (Akinyemi et al., 2016).

CONCLUSION

The findings from this study reveal that maternal delivery choices in Ethiopia West Local Government Area are shaped by a complex interaction of socio-demographic and educational factors. Most respondents were within their reproductive age, married, and relatively educated, which aligns with patterns observed in similar maternal health studies. Education emerged as a particularly strong determinant of skilled birth attendant utilisation,

underscoring the role of literacy and awareness in shaping health-seeking behaviour. In contrast, parity and age did not significantly influence delivery choices, suggesting that the decision to engage skilled care is not necessarily linked to maternal experience or age but is more strongly associated with knowledge, awareness, and marital circumstances. The significant influence of marital status also points to the role of social and cultural structures in maternal health decisions, where marriage may provide both support and encouragement for safer delivery practices.

Overall, the study highlights the centrality of education in improving maternal health outcomes and promoting the uptake of skilled birth attendants. It also underscores the influence of marital dynamics and social factors in shaping women's choices, while showing that age and number of births play a less decisive role. These results suggest that interventions to improve maternal health in the area should focus on strengthening female education, promoting awareness of safe delivery practices, and engaging family structures in decision-making processes.

Recommendations

1. Since education was found to significantly influence the uptake of skilled birth attendants, government agencies and NGOs should invest in female education and community health literacy campaigns. These initiatives should particularly target rural and underserved areas to empower women with knowledge about the benefits of skilled delivery care.
2. Given the strong influence of marital status on delivery choices, maternal health programmes should actively involve husbands and other family decision-makers. Community-based health talks and workshops should highlight the importance of supporting women to seek skilled birth attendance during delivery.
3. To encourage wider utilisation, skilled birth attendant services should be made more accessible, both geographically and financially. Establishing more primary health centres in remote areas, reducing user fees, and offering subsidies or maternal vouchers would help bridge the gap for women who may face financial or logistical barriers.
4. Since religion and cultural practices also play a role in delivery choices, health interventions should collaborate with religious and traditional leaders to promote safe delivery practices. Culturally sensitive health education campaigns would help dispel misconceptions and encourage women to utilise skilled birth attendants.
5. Policymakers should develop and implement targeted maternal health policies that address educational and social determinants of delivery choices. Monitoring and evaluation mechanisms should also be established to track the effectiveness of such interventions in improving maternal health outcomes and reducing maternal mortality rates

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