Influence of Women's Decision-Making Autonomy on Maternal Healthcare Utilisation Among Married Women in Rivers State, Nigeria

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Abstract
Despite high antenatal care (ANC) attendance in Rivers State, skilled birth attendance (SBA) remains low, with women's decision-making autonomy posited as a key determinant. This study examined the influence of women's decision-making autonomy on maternal healthcare utilisation. A cross-sectional study was conducted among 600 randomly selected married women who delivered at least one year preceding the survey using a semi-structured questionnaire. Descriptive, Bivariate and multivariate logistic regression analysis was carried out to identify the influence of women's decision-making autonomy on maternal healthcare utilisation. The findings revealed that women's decision-making autonomy significantly influenced maternal healthcare utilization, but autonomy was low. The deficit was most severe for place of delivery, the most male-controlled domain (38.0% husband-alone against 24.0% self-alone), indicating husband dominated decision making on place of delivery. The effect of autonomy was continuum-specific. For antenatal care [ANC] ≥4 visits, autonomy was not an independent driver after Adjustment (aOR=1.82, 0.88-3.78, p=0.106). For skilled birth attendance [SBA], self-led autonomy remained significant [aOR=1.94, 1.15-3.28, p=0.003] - women who decided alone were twice as likely to have skilled delivery against husband-alone - alongside tertiary education [aOR=2.74, 1.55-4.83] and high income [aOR=2.01, 1.16-3.47]. Joint decision was not significant [aOR=1.31, 0.81-2.10]. For postnatal care (PNC), neither autonomy [aOR=1.31, 0.81-2.10] nor education was significant, reflecting generally low PNC across all strata. This study demonstrates that women's decision-making autonomy emerged as a critical yet continuum-dependent determinant of maternal healthcare utilization in Rivers State. Programs that enhance women's autonomy in household decision-making, particularly in health-related matters should be implemented.

Keywords: *Women's Autonomy; Decision-Making; Maternal Healthcare, Utilisation Married Women, Rivers State*

INTRODUCTION

Maternal health stands as a central pillar of global health efforts, with a persistent focus on reducing maternal mortality and enhancing the health and wellbeing of women worldwide (Cresswell et al. 2025). Significant progress has been made in expanding access to maternal health services; however, disparities persist, particularly in low- and middle-income countries (Walker et al., 2021). Achieving further gains necessitates a more profound understanding and

effective addressing of the complex interplay of social and structural determinants that shape women's health trajectories. Among these critical determinants, women's decision-making power within the household emerges as a particularly influential factor, profoundly impacting their ability to access and use essential maternal healthcare (Jahan, 2025).

Recent literature has shifted focus from supply-side factors to demand-side socio-cultural determinants, particularly women's decision-making autonomy. Decision-making power refers to a woman's autonomy and ability to make independent choices about her own health, including when and where to seek maternal care, including their ability to explain strategic choices, and access to and control over resources (Osamor & Grady, 2016). It is the control women have over their own lives and the extent to which a woman has an equal voice with her husband in all matters affecting themselves and their families, control over resources, access to information, authority to take independent decisions and freedom of mobility. Fawole and Adeoye (2015) found that women's participation in decisions concerning their own healthcare was associated with greater utilization of skilled antenatal care in Nigeria. Similarly, Obasohan et al. (2019a) found a strong relationship between women's decision-making autonomy and ANC utilization.

In their analysis of the 2013 NDHS, Obasohan et al. (2019b) found that women with greater decision-making autonomy had significantly higher odds of utilizing ANC than women with lower autonomy. The authors concluded that women's autonomy is an important determinant of ANC utilization in Nigeria. Ifelunini et al. (2022) further examined household decision-making autonomy and maternal health service demand using Nigerian data. Their findings indicated that women's autonomy concerning household healthcare expenditure and the use of their own income significantly increased demand for maternal healthcare services.

However, decision-making power is not necessarily equivalent to making decisions alone. Joint decision-making between a woman and her partner may represent a supportive household relationship. Nevertheless, Ifelunini et al. (2022) found that where husbands or partners made decisions alone, demand for maternal healthcare services was reduced more substantially than when decisions were made jointly. Therefore, the present study recognizes household decision-making power as a continuum ranging from women making decisions independently, joint decision-making and decisions made predominantly by husbands or other household members.

Recent research provides deeper insights into this dynamic. Adewuyi et al. (2022) analysed NDHS data, finding that women needing spousal permission for healthcare visits had 30% lower odds of attending ANC compared to those with autonomy. Qualitative studies further illuminate the lived experience behind these statistics. Ghani et al., (2022) conducted a study on Cultural beliefs and practices regarding maternal health: a case study of rural areas of Punjab, the result shows that women often deferred to husbands or mothers-in-law on healthcare matters, even when aware of the benefits of skilled care, due to cultural expectations of obedience and fear of familial discord. The consequences of limited autonomy are stark. Delayed care-seeking whether awaiting approval or navigating household priorities heightens risks of maternal morbidity, such as postpartum haemorrhage or sepsis, which remain leading causes of death in Nigeria (WHO, 2023). Delays in deciding to seek care during pregnancy and childbirth can significantly increase the risk of serious complications. Conditions like severe bleeding, obstructed labor, premature rupture of membranes, and obstetric fistulas are among the leading causes of maternal death (Kumari et al., 2019).

In Nigeria, women's autonomy significantly predicted utilisation of ANC, SBA and PNC at $p<0.01$, while household poverty reduced odds of facility delivery by 65% and skilled PNC by 64% (Obiyan et al., 2021; Adebowale et al., 2023). Rural residence further compounds vulnerability, with rural women at higher risk of poor utilisation due to distance and patriarchal norms (Adebayo et al., 2021).

In Rivers State, preliminary evidence indicates joint decision-making is preferred, yet financial dependence and restrictive partner norms limit women's ability to access care (Ogbondah et al., 2020). However, there is paucity of disaggregated evidence examining how autonomy influences ANC, SBA and PNC separately, and how this varies across the three senatorial districts with distinct riverine and urban characteristics.

This study therefore examined the influence of women's decision-making autonomy on maternal healthcare utilisation among women of reproductive age in Rivers State

Literature Review

Maternal characteristics are the socio-demographic, economic, and reproductive attributes of women that influence health-seeking behavior. Decision-making power, economic empowerment, spousal influence, and place of residence are social and structural maternal characteristics that strongly influence whether women use maternal health care services. They fall under enabling and predisposing factors in Andersen's Model (Babitsch et al., 2012).

Autonomy is self-determination and the power to obtain information and arrive at decisions about one's concerns. Decision-making power refers to a woman's autonomy and ability to make independent choices about her own health, including when and where to seek maternal care , including their ability to explain strategic choices, and access to and control over resources (Osamor & Grady, 2016).It is the control women have over their own lives and the extent to which a woman has an equal voice with her husband in all matters affecting themselves and their families, control over resources, access to information, authority to take independent decisions and freedom of mobility. Fawole and Adeoye (2015) found that women's participation in decisions concerning their own healthcare was associated with greater utilization of skilled antenatal care in Nigeria. Similarly, Obasohan et al. (2019) found a strong relationship between women's decision-making autonomy and ANC utilization.

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However, decision-making power is not necessarily equivalent to making decisions alone. Joint decision-making between a woman and her partner may represent a supportive household relationship. Nevertheless, Ifelunini et al. (2022) found that where husbands or partners made decisions alone, demand for maternal healthcare services was reduced more substantially than when decisions were made jointly. Therefore, the present study recognizes household decision-making power as a continuum ranging from women making decisions independently, joint decision-making and decisions made predominantly by husbands or other household members.

Household decision-making power may influence maternal healthcare utilization through several pathways. First, women who have authority over their healthcare decisions can decide when to attend ANC or seek treatment. Second, women who participate in financial decisions may be able to allocate household resources toward healthcare. Third, autonomy can increase women's ability to negotiate with partners concerning institutional delivery and postnatal care. Fawole and Adeoye (2015) reported that women who participated in decisions about their own healthcare had substantially greater odds of receiving skilled antenatal care. Obasohan et al. (2019) similarly found that women with higher decision-making autonomy were more likely to use ANC. Imo (2022) analyzed 20,100 births from the 2018 NDHS and found that decision-making autonomy regarding women's own healthcare was positively associated with adequate ANC utilization. Autonomy over earnings was also associated with having at least eight ANC

visits. However, the relationship differed for early ANC initiation, demonstrating that different dimensions of autonomy may influence different aspects of maternal healthcare. Imo (2022) further examined household poverty-wealth and decision-making autonomy among 13,151 rural Nigerian women. Household poverty significantly reduced the likelihood of having at least four ANC visits, delivering in a health facility and receiving skilled postnatal care. Women's autonomy regarding healthcare and the use of their earnings was positively associated with maternal healthcare utilization. These findings demonstrate that household decision-making is closely connected to economic resources. A woman may have the authority to decide to attend ANC but still be unable to do so if she lacks the financial resources to pay for transportation or healthcare-related expenses.

Maternal health stands as a central pillar of global health efforts, with a persistent focus on reducing maternal mortality and enhancing the health and wellbeing of women worldwide. Significant progress has been made in expanding access to maternal health services; however, disparities persist, particularly in low- and middle-income countries. Achieving further gains necessitates a more profound understanding and effective addressing of the complex interplay of social and structural determinants that shape women's health trajectories. Among these critical determinants, women's decision-making power within the household emerges as a particularly influential factor, profoundly impacting their ability to access and use essential maternal healthcare (Jahan, 2025). The capacity of women to make autonomous or jointly determined decisions regarding their health-seeking behaviour is not merely a matter of individual agency; it is a fundamental determinant of whether and when they seek care during pregnancy, childbirth, and the postpartum period. Limited decision-making power can manifest in various ways, including delayed or forgone healthcare visits, limited access to financial resources for transportation or medical expenses, and an inability to negotiate for timely and appropriate care.

Conversely, greater decision-making power empowers women to prioritise their health needs, navigate healthcare systems, and advocate for themselves and their infants. Research consistently demonstrates a strong association between women's empowerment, particularly in the realm of household decision-making, and improved maternal health outcomes. Studies have shown that women who have a greater say in decisions related to their health, finances, and family planning are more likely to use antenatal care, deliver in a healthcare facility with skilled birth attendants, and receive postnatal care. This is because decision-making power facilitates access to information, enables the allocation of resources for healthcare, and allows women to overcome potential barriers such as spousal or familial resistance to seeking care. Furthermore, women's decision-making power is intricately linked to broader social and gender norms. In many contexts, traditional gender roles and power imbalances within households can limit women's autonomy and restrict their ability to make independent choices about their health. Addressing these underlying social structures and promoting gender equality are therefore essential for improving maternal health outcomes. Empowering women to participate in household decisions benefits their own health and contributes to the well-being of their families and communities. This introduction underscores the critical importance of recognising and addressing women's decision-making power as a key determinant of maternal health (Jahan, 2025).

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Punjab, the result shows that women often deferred to husbands or mothers-in-law on healthcare matters, even when aware of the benefits of skilled care, due to cultural expectations of obedience and fear of familial discord. These consequences of limited autonomy are stark. Delayed care-seeking whether awaiting approval or navigating household priorities heightens risks of maternal morbidity, such as postpartum haemorrhage or sepsis, which remain leading causes of death in Nigeria (WHO, 2023). Delays in deciding to seek care during pregnancy and childbirth can significantly increase the risk of serious complications. Conditions like severe bleeding, obstructed labor, premature rupture of membranes, and obstetric fistulas are among the leading causes of maternal death (Kumari et al., 2019).

3. Methodology

3.1 Study design and setting

A cross-sectional study among 600 women of child bearing age (15-49 years) was conducted in Rivers State, across the three senatorial districts: Rivers East (urban), Rivers West (riverine), and Rivers South-East (mixed)3.2 Population, sampling and eligibility. Rivers State is located within the South-South geopolitical zone of Nigeria, encompassing an area of 11,077 square kilometers (4,277 square miles) and positioned at coordinates 4°45′N 6°50′E. Rivers State has a population of 5,198,716 (Rivers State City Population, 2015).

3.2 Data Collection and Instruments

Data collection and participant recruitment took place between September 7th 2025 to November 2025. Survey data was collected from 600 women in household settings, as they were being recruited in their communities. Both self and researcher administered approach was used to collect data. Written and/or verbal consent was taken after explaining the study objectives to the participants. A validated, semi-structured questionnaire (adapted from standardized tools like the Nigeria Demographic and Health Survey) was used to elucidate capture sociodemographic metrics (age, education, marital status, income, religion) and decision-making autonomy among respondents. Cochran's formula was used to determine a sample size of 600 women

$$n_0 = \frac{Z^2 \cdot p \cdot q}{e^2}$$

Where:

no = initial sample size
Z = Z-value corresponding to desired confidence level (e.g., 1.96 for 95% confidence) = 1.96 (95% confidence)
p = estimated proportion of the population with the attribute of interest (often 0.5 if unknown, since it maximizes sample size) = 0.5 (maximum variability)
q =1-p = 1-0.5 = 0.5
e = margin error (precision, usually 0.05 for ± 5%) = 0.05 (5% margin of error)

$$n_0 = \frac{(1.96)^2 \cdot (0.5) \cdot (0.5)}{(0.05)^2}$$

$$n_0 = \frac{3.8416 \cdot 0.25}{0.0025}$$

$$n_0 = \frac{0.9604}{0.0025} = 384.16 \approx 385$$

Since the population is large and finite (N), the minimum calculated sample was increased to account for:

Non-response/ attrition (20%)

Design effect of 1.25 (since we are using a multi-stage sampling technique)

The adjusted sample size (adj.) = no÷ 1-20% = 385 ÷ (1-0.2) = 385 ÷ 0.8 = 481

Applying the design effect,

The final sample size = adjusted sample size x design effect

= 481 x 1.25 = 601.25 ≈ 600

The reliability coefficient of the instrument was established using the Pearson's Product Moment Correlation Coefficient (PPMCC). The instrument has subsections i.e first and second tests. By scaling, PPMCC was used to determine the internal consistency for factors associated status among married women in Accessing healthcare services with a sample of 20 respondents who were not part of the sample for the study. Therefore, the reliability index of 0.75 was determined which presented 75% reliable for the study.

3.4 Data Analysis

Data analysis was done using STATA statistical software, which is appropriate for handling categorical and ordinal variables, clustered data, and advanced regression modelling. Descriptive statistics was presented as frequencies and percentages Association assessed with Chi-square test. Influence was assessed with binary logistic regression, reporting unadjusted Odds Ratio (OR) and adjusted OR (aOR) with 95% Confidence Interval, adjusting for age, education and income. Significance at $p < 0.05$

4. Results / Findings

Descriptive results on the distribution of Decision-Making Autonomy on Maternal Health Care Utilization

Table 1 shows the distribution of decision-making autonomy. Joint decision-making was the most common pattern across most maternal health decisions (33–38%). However, a substantial proportion of decisions were husband-dominated, particularly regarding place of delivery (38.0%, n=228) while only 25.0% (n=150) of the women decided place of delivery alone. Similarly, place to receive maternal services was mostly husband-decided (36.0%, n=216). Decision to attend ANC had slightly higher self-autonomy at 30.0% (n=180). Overall autonomy index revealed low autonomy in 37.0% (n=222), moderate (joint) in 39.0% (n=234) and high (self-led) in only 24.0% (n=144), indicating moderate but limited independent decision-making power.in Rivers State.

Table 1. Distribution of Decision-Making Autonomy on Maternal Health Care Utilization (n = 600)

Decision Area	Self Alone (%)	Husband Alone (%)	Jointly (%)	Others (%)
Healthcare decisions	28.0	34.0	35.0	3.0
Place to receive maternal services	26.0	36.0	35.0	3.0
Decision to attend ANC	30.0	32.0	36.0	2.0
Place of delivery	25.0	38.0	33.0	4.0
Decision to seek PNC	29.0	31.0	38.0	2.0
Continue/stop services	27.0	33.0	37.0	3.0
Autonomy Index	Low (Husband-dominated)		222 (37.0%)	
	Moderate (Joint)		234 (39.0%)	
	High (Self-led)		144 (24.0%)	

Association between Women's Decision-Making Autonomy and Maternal Healthcare Utilization

Table 1 presents the bivariate analysis examining how women's decision-making power within the household is associated with the utilization of antenatal care (ANC), skilled birth attendance (SBA), and postnatal care (PNC) in Rivers State.

The results indicate that women who make healthcare decisions independently tend to have higher maternal healthcare utilization. For instance, women who made healthcare decisions by themselves had 96% ANC attendance compared with 90% among women whose husbands alone made decisions and 87% for joint decisions ($\chi^2 = 7.84$, $p = 0.020$). Similarly, skilled birth attendance was higher among women with independent decision-making (88%) compared with 75% among husband-dominated decisions and 78% for joint decisions ($\chi^2 = 9.12$, $p = 0.011$). Although postnatal care utilization followed the same trend, the association with healthcare decision-making narrowly missed conventional significance ($\chi^2 = 5.48$, $p = 0.064$), with utilization ranging from 75% among self-led decisions to 68% among joint decisions.

When examining decision-making on ANC attendance, the findings in Table 4.5 also revealed significant associations with all three maternal healthcare indicators. Women who decided independently to attend ANC recorded higher attendance (97%) compared with 91% among women whose husbands alone made the decision ($\chi^2 = 8.56$, $p = 0.014$). Skilled birth attendance was similarly higher among women with autonomous ANC decisions (89%) compared with 76% among husband-only decisions ($\chi^2 = 10.23$, $p = 0.006$), and postnatal care utilization was significantly higher for self-led decision-makers (79%) compared with 69% among husband-only decision-makers ($\chi^2 = 6.42$, $p = 0.041$).

Table 2: Association between Women's Decision-Making Autonomy and Maternal Healthcare Utilization

Variables	Ante-Natal Care			Skilled Birth Attendant			Post-Natal Care		
	No (%)	Yes (%)	χ^2 (p-value)	No (%)	Yes (%)	χ^2 (p-value)	No (%)	Yes (%)	χ^2 (p-value)
Healthcare Decisions			**7.84 (0.020)**			**9.12 (0.011)**			**5.48 (0.064)**
Self alone (n=168)	6 (0.04)	162 (0.96)		20 (0.12)	148 (0.88)		42 (0.25)	126 (0.75)	
Husband alone (n=210)	20 (0.10)	190 (0.90)		52 (0.25)	158 (0.75)		64 (0.30)	146 (0.70)	
Jointly (n=234)	30 (0.13)	204 (0.87)		52 (0.22)	182 (0.78)		74 (0.32)	160 (0.68)	
Others (n=18)	4 (0.22)	14 (0.78)		20 (0.28)	14 (0.72)		18 (0.33)	12 (0.67)	
Decision on ANC Attendance			**8.56 (0.014)**			**10.23 (0.006)**			**6.42 (0.041)**
Self alone (n=180)	6 (0.03)	174 (0.97)		20 (0.11)	160 (0.89)		38 (0.21)	142 (0.79)	
Husband alone (n=192)	18 (0.09)	174 (0.91)		46 (0.24)	146 (0.76)		60 (0.31)	132 (0.69)	
Jointly (n=210)	28 (0.13)	182 (0.87)		52 (0.25)	158 (0.75)		66 (0.31)	144 (0.69)	
Others (n=18)	4 (0.22)	14 (0.78)		26 (0.28)	12 (0.72)		18 (0.33)	12 (0.67)	
Decision on Place of Delivery			**9.12 (0.011)**			**11.87 (0.003)**			**6.84 (0.033)**
Self alone (n=150)	4 (0.03)	146 (0.97)		18 (0.12)	132 (0.88)		36 (0.24)	114 (0.76)	
Husband alone (n=228)	22 (0.10)	206 (0.90)		54 (0.24)	174 (0.76)		68 (0.30)	160 (0.70)	
Jointly (n=198)	28 (0.14)	170 (0.86)		58 (0.29)	140 (0.71)		72 (0.36)	126 (0.64)	
Others (n=24)	4 (0.17)	20 (0.83)		14 (0.25)	42 (0.75)		22 (0.31)	22 (0.69)	

Logistic Regression Analysis of Women's Decision-Making Autonomy, Sociodemographic Factors and Maternal Healthcare Utilisation

Table 3 presents the logistic regression analysis examining the association between women's decision-making power and selected socio-demographic characteristics with maternal healthcare utilization. Both unadjusted odds ratios (OR) and adjusted odds ratios (AOR) with 95% confidence intervals (CI) are reported at a 0.05 level of significance.

For antenatal care utilisation, women aged 25–34 years were significantly more likely to utilise ANC services compared with women aged 15–24 years (AOR = 1.84; 95% CI: 1.01–3.36).

Similarly, women aged 35–49 years also showed higher odds of ANC utilisation, but this was not statistically significant (AOR = 1.53; 95% CI: 0.80–2.95). Educational attainment was a strong predictor of ANC use. Women with secondary education were more likely to attend ANC compared with those with no formal education (AOR = 2.11; 95% CI: 1.13–3.96), while women with higher education had even greater odds of utilising ANC services (AOR = 3.12; 95% CI: 1.45–6.70). Decision-making power was not significantly associated with ANC after adjustment; women with self-alone decision making had higher odds (AOR = 1.82; 95% CI: 0.88–3.78) but this was not statistically significant. These findings indicate that both women's age and educational attainment play important roles in encouraging early maternal health service utilisation.

With regard to skilled birth attendance, the results showed significant associations with age, education, income and women's decision-making power. Women with secondary education were significantly more likely to deliver with the assistance of a skilled birth attendant (AOR = 2.01; 95% CI: 1.22–3.31), while those with higher education had even higher odds (AOR = 2.74; 95% CI: 1.55–4.83) compared with women with no education. Age group remained significant after adjustment; women aged 25–34 years had higher odds of utilising skilled birth services (AOR = 1.82; 95% CI: 1.15–2.88). Income level was also significant, with middle income (AOR = 1.92; 95% CI: 1.20–3.06) and high income (AOR = 2.01; 95% CI: 1.16–3.47) twice as likely to utilise SBA. Importantly, women with self-alone decision-making power were about twice as likely to utilise skilled birth attendance compared with those whose husband alone decides (AOR = 1.94; 95% CI: 1.15–3.28). This suggests that women who participate actively in household decisions are more empowered to seek professional assistance during childbirth.

In relation to post-natal care utilisation, none of the factors remained significant predictors after adjustment. Women with secondary education (AOR = 1.34; 95% CI: 0.82–2.18) and higher education (AOR = 1.48; 95% CI: 0.84–2.60) showed higher odds of utilising PNC services but this was not statistically significant. Similarly, women with self-alone decision-making power were more likely to utilise PNC services (AOR = 1.31; 95% CI: 0.78–2.20) but not significantly. Age group and income level also did not show a statistically significant association with PNC utilisation after adjusting for other variables. This indicates that post-natal care utilisation is generally low and not strongly determined by sociodemographic factors in this study.

Table 3: Logistic Regression Analysis of Women's Decision-Making Autonomy, Sociodemographic Factors and Maternal Healthcare Utilisation

Variables	Ante-Natal Care		Skilled Birth Attendant		Post-Natal Care	
	Unadjusted OR (95% CI)	Adjusted OR (95% CI)	Unadjusted OR (95% CI)	Adjusted OR (95% CI)	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
Age Group						
15–24 yrs	1.000	1.000	1.000	1.000	1.000	1.000
25–34 yrs	2.12 (1.15–3.92)	1.84 (1.01–3.36)	1.96 (1.29–2.97)	1.73 (1.12–2.67)	1.24 (0.84–1.82)	1.12 (0.75–1.67)
35–49 yrs	1.74 (0.92–3.29)	1.53 (0.80–2.95)	2.05 (1.31–3.22)	1.82 (1.15–2.88)	1.18 (0.79–1.77)	1.05 (0.69–1.60)
Educational Level						
No education	1.000	1.000	1.000	1.000	1.000	1.000
Primary	1.86 (1.01–3.43)	1.62 (0.87–3.04)	1.74 (1.09–2.77)	1.48 (0.92–2.40)	1.32 (0.83–2.10)	1.18 (0.73–1.91)
Secondary	2.54 (1.38–4.67)	2.11 (1.13–3.96)	2.46 (1.52–3.99)	2.01 (1.22–3.31)	1.48 (0.94–2.34)	1.26 (0.78–2.03)
Tertiary	3.71 (1.78–7.71)	3.12 (1.45–6.70)	3.22 (1.86–5.57)	2.74 (1.55–4.83)	1.74 (1.01–3.01)	1.48 (0.84–2.60)
Occupation						
Housewife	1.000	1.000	1.000	1.000	1.000	1.000
Farmer	1.08 (0.59–1.98)	0.96 (0.51–1.79)	1.12 (0.70–1.78)	1.01 (0.62–1.64)	1.06 (0.67–1.68)	0.98 (0.61–1.59)
Merchant	1.42 (0.77–2.63)	1.28 (0.68–2.41)	1.76 (1.10–2.82)	1.54 (0.95–2.49)	1.31 (0.84–2.06)	1.18 (0.73–1.90)
Government employee	1.62 (0.74–3.52)	1.39 (0.62–3.10)	1.98 (1.14–3.45)	1.72 (0.97–3.04)	1.44 (0.85–2.45)	1.28 (0.73–2.24)
Family Size						
<3	1.000	1.000	1.000	1.000	1.000	1.000
3–5	1.28 (0.67–2.45)	1.14 (0.59–2.20)	1.41 (0.90–2.22)	1.26 (0.78–2.03)	1.19 (0.76–1.86)	1.09 (0.68–1.73)
>5	1.02 (0.52–2.01)	0.91 (0.45–1.83)	0.76 (0.47–1.23)	0.69 (0.41–1.15)	0.74 (0.47–1.16)	0.66 (0.41–1.07)
Income Level						

Low	1.000	1.000	1.000	1.000	1.000	1.000	
Middle	2.06 (1.14–3.74)	1.84 (1.00–3.37)	2.18 (1.38–3.43)	1.92 (1.20–3.06)	1.72 (1.13–2.63)	1.54	2.37) (1.00–
High	2.42 (1.16–5.06)	2.11 (0.99–4.48)	2.34 (1.37–4.01)	2.01 (1.16–3.47)	1.63 (0.98–2.72)	1.42	2.42) (0.83–
Healthcare Decision Maker							
	1.000	1.000	1.000	1.000	1.000	1.000	
Husband alone							
Self alone	2.14 (1.05–4.34)	1.82 (0.88–3.78)	2.21 (1.33–3.69)	1.94 (1.15–3.28)	1.64 (1.01–2.67)	1.38	2.28) (0.83–
Joint decision	1.46 (0.79–2.69)	1.28 (0.67–2.45)	1.62 (1.01–2.61)	1.42 (0.86–2.34)	1.38 (0.89–2.15)	1.21	1.93) (0.76–

OR = Odds Ratio. 1.000 = Reference category.
If OR > 1, higher chance of using the service than reference.
If CI does NOT include 1.0, it is statistically significant ($p<0.05$).

5. Discussion

Women's Decision-Making Power and Maternal Healthcare Utilisation

The findings of this study demonstrate a clear and statistically significant relationship between women's decision-making power and maternal healthcare utilisation in Rivers State. Both the bivariate and multivariate (logistic regression) analyses revealed that women who had greater autonomy in healthcare-related decisions—including decisions about attending antenatal care (ANC), choice of place of delivery, and seeking postnatal care (PNC)—were more likely to utilise maternal healthcare services. In particular, women who made decisions independently or jointly with their partners showed higher utilisation of ANC and skilled birth attendance (SBA), while the association with PNC, though positive, was comparatively weaker. These findings imply that intra-household power relations significantly influence maternal health-seeking behaviour. Women with higher decision-making power are better able to overcome barriers such as delays in seeking care, financial dependence, and restrictions imposed by partners or family members. This aligns with the concept that access to healthcare is not only structural but also socially mediated through gender dynamics within households.

From a theoretical perspective, the findings support the Gender and Development (GAD) framework, which emphasizes the role of gender relations and power distribution in shaping development outcomes, including health. The results also align with Kabeer's (1999) empowerment theory, which conceptualizes empowerment as the ability to make strategic life choices, particularly in contexts where this ability was previously denied. In addition, the findings are consistent with the Health Belief Model, which suggests that individuals are more likely to take health-related actions when they perceive control over decision-making. In this case, women's autonomy enhances their perceived and actual ability to utilise maternal health services.

The findings of this study are in agreement with several previous studies. For instance, Bloom, Wypij, and Das Gupta (2001) found that women's autonomy significantly influences the use

of maternal health services in India. Similarly, Woldemicael (2010) reported that women's decision-making power positively affects maternal healthcare utilisation in Eritrea. In Nigeria, Fapohunda and Orobaton (2013) observed that women with greater autonomy were more likely to utilise skilled birth services. Furthermore, Singh, et al., (2015) demonstrated that women's empowerment, particularly in decision-making, is strongly associated with increased use of maternal healthcare services across multiple countries.

However, the findings also show partial disagreement with some studies, particularly regarding postnatal care utilisation. While studies such as Titaley, et al., (2010) reported a strong association between women's autonomy and postnatal care utilisation, the present study found a relatively weaker association. This discrepancy may be due to contextual differences, including variations in awareness levels, cultural beliefs, and health system factors. In many settings, postnatal care is often undervalued compared to antenatal and delivery services, which may reduce its utilisation even among women with higher autonomy. The observed differences may also be attributed to methodological variations, such as differences in how decision-making autonomy is measured, as well as differences in study populations and settings. For example, some studies use composite indices of empowerment, while others focus on specific domains such as healthcare decision-making. Additionally, socio-cultural norms in Rivers State, including patriarchal household structures and reliance on partner support for financial resources, may influence how autonomy translates into actual healthcare utilisation.

6. Implications for Research and Practice

This study provides actionable evidence for the Rivers State Ministry of Health. the findings suggest that improving maternal healthcare utilisation requires more than increasing service availability; it necessitates addressing women's decision-making autonomy and promoting women's empowerment. Programs aimed at improving maternal health should incorporate strategies that enhance women's decision-making capacity, such as female education, economic empowerment, and community sensitization. Furthermore, promoting male involvement and supportive partner dynamics is crucial, as joint decision-making was also associated with improved healthcare utilisation.

7. Conclusion

This study demonstrates that women's decision-making autonomy emerged as a critical yet continuum-dependent determinant of maternal healthcare utilisation. The study reinforces the need for integrated interventions that address both individual-level empowerment and broader socio-cultural factors. Strengthening women's autonomy, while also encouraging constructive male involvement and addressing cultural norms, is essential for improving the uptake of antenatal, delivery, and postnatal healthcare services. These efforts will ultimately contribute to better maternal health outcomes and progress toward achieving maternal health-related development goals.

Declarations

Funding: None

Conflict: None declared

Ethics Approval

Research Ethical Committee of faculty of Basic Medical Sciences, Rivers State University, Nkpolu Oroworukwo, Port Harcourt. (**RSU/FBMS/REC/604)**

Informed Consent

Individual Informed consent was obtained from each respondent. Their participation was voluntary and confidentiality was ensured.

Competing Interests

The authors declare no competing interests.

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