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Original Article

Determinants of Uptake of Modern Contraceptives Among Married Women of Reproductive Age in Rural Kwara State

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ABSTRACT

This study investigates the determinants influencing modern contraceptive uptake among married women of reproductive age (15–49 years) in rural communities of Kwara State, Nigeria. Employing a cross-sectional descriptive design, data were collected between January and March 2025 from 400 women randomly selected in Asa and Moro Local Government Areas. A structured questionnaire captured socio-demographic characteristics, spousal communication patterns, access to healthcare services, cultural beliefs, and perceptions of side effects.

Findings indicate that 38% of respondents currently use at least one modern contraceptive method. Multivariate logistic regression identified higher educational attainment (adjusted odds ratio [AOR] = 2.7; 95% CI: 1.8–4.1), open spousal communication regarding family planning (AOR = 3.2; 95% CI: 2.1–4.8), and residence within 5 kilometers of a healthcare facility offering family planning services (AOR = 1.9; 95% CI: 1.3–2.9) as significant positive predictors of uptake ($p < 0.01$). Conversely, entrenched cultural beliefs about fertility and apprehension regarding contraceptive side effects were reported by 52% and 46% of non-users, respectively, acting as substantial barriers to adoption. Qualitative feedback from focus group discussions further highlighted male partner approval and community health education as critical facilitators.

These results underscore the necessity for integrated interventions that combine health education, community engagement, and male involvement to address misconceptions and improve service accessibility. Strengthening family planning outreach in rural settings through mobile clinics and community health volunteers may enhance contraceptive coverage and contribute to broader reproductive health goals in Kwara State.

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Introduction

Modern contraceptives play a critical role in fertility regulation and the reduction of maternal mortality by enabling informed family planning decisions that align with both individual and community health goals. However, many rural communities in Kwara State, Nigeria, have not fully embraced these methods, and

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contraceptive use remains below the desired levels (World Health Organization, 2023).

Despite the existence of national policies and frameworks promoting family planning, such as the Family Planning Blueprint 2021–2024, contraceptive uptake among married women in Nigeria is still far from the national target. National statistics show an overall prevalence of only 21%, with rural areas, including those in Kwara State, exhibiting even lower rates (National Population Commission & ICF, 2023; Federal Ministry of Health, 2022).

In rural LGAs such as Asa and Moro in Kwara State, contraceptive use is further hampered by infrastructural limitations and inconsistent outreach programs. These factors restrict women's access to both a reliable supply of contraceptive methods and professional counseling, thus perpetuating low adoption rates (Kwara State Ministry of Health, 2024).

Socio-cultural factors, such as deeply rooted expectations around fertility and family size, often frame the use of modern contraceptives as incompatible with traditional norms. This cultural resistance serves as a significant barrier to family planning adoption (Afolayan & Kareem, 2022).

Moreover, economic constraints, including both the direct costs of contraceptives and indirect costs like transportation and opportunity costs for clinic visits, place a substantial burden on women in low-income households, making consistent family planning services less accessible (Oluwole *et al*., 2023).

Educational attainment also plays a crucial role in contraceptive adoption in rural Nigeria. Research has shown that women who have completed secondary education or higher are significantly more likely to use modern contraceptive methods compared to their less educated counterparts, highlighting the importance of education as a determinant in family planning decisions (Smith & Adeyemi, 2022).

Spousal communication about family planning is another important determinant of contraceptive use. When couples engage in open discussions about family planning, it leads to greater mutual understanding and joint decision-making, which increases the likelihood of contraceptive uptake (Johnson *et al*., 2023). Furthermore, male partner endorsement is crucial in rural settings where patriarchal norms often place reproductive health decisions in the hands of men (Abuja *et al*., 2024).

Geographic factors, such as proximity to healthcare facilities, also influence contraceptive uptake. Women living within a five-kilometer radius of healthcare centers are more likely to use contraceptives due to the easier access to methods and counseling services (Ndidi & Uwem, 2022). However, transportation challenges, particularly during the rainy season, exacerbate the difficulties women face in accessing family planning services, further reducing method continuity (Bello & Rahman, 2023).

The quality of care at health facilities, which includes provider competence, respectful treatment, and privacy assurances, also plays a pivotal role in shaping women's willingness to seek out and adhere to contraceptive services (Chukwu & Balogun, 2024). Additionally, myths and misconceptions surrounding the side effects of contraceptives—such as fears of infertility or weight gain—are prevalent in many rural communities, often discouraging women from adopting modern methods (Ekanem *et al*., 2022).

Religious beliefs and conservative teachings also contribute to the resistance to modern contraceptives in some communities, where family planning is seen as contrary to religious or cultural values (Muhammad & Hassan, 2023). To address these barriers, community health education campaigns that are led by trained volunteers and supported by local health authorities have proven effective in increasing awareness and correcting misconceptions (Ibrahim et al., 2024). Involving community leaders and religious figures in the design and delivery of family planning messages has further helped improve program acceptability and increase community support for contraceptive use (Okeke & Obi, 2023).

Peer education models, where women within the same age and social groups share reproductive health information and personal experiences, have also been found to be an effective and culturally relevant way of promoting contraceptive use (Yusuf & Oladapo, 2022). Moreover, government-led outreach strategies, such as mobile clinics and family planning camps, have served to bridge service delivery gaps in remote areas, bringing contraceptive methods and counseling closer to women's doorsteps (Federal Ministry of Health, 2023).

Nigeria's Family Planning Blueprint aims to increase modern contraceptive prevalence to 27% by 2024, emphasizing the need for targeted interventions in areas like rural Kwara State, where uptake remains low (Federal Ministry of Health, 2022). To ensure the effectiveness of these interventions, robust monitoring and evaluation frameworks are essential to track service utilization, method mix, and client satisfaction, providing insights that can inform improvements and optimize resource allocation (Okonjo & Adewale, 2024).

By understanding the complex interplay of socio-demographic, cultural, and healthcare-related factors in rural Kwara State, policymakers and practitioners can develop strategies that are tailored to the local context and more effectively address the barriers to contraceptive adoption among married women.

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Materials and Methods

Study Design

This study employed a community-based cross-sectional descriptive design conducted between January and March 2025 in two rural Local Government Areas (LGAs), namely Asa and Moro, in Kwara State, Nigeria. The aim of this design was to provide a snapshot of current contraceptive usage patterns and to identify the determinants influencing contraceptive uptake within these areas. A cross-sectional design was chosen as it is ideal for obtaining a broad understanding of a population at a single point in time, providing valuable insights into the socio-cultural, economic, and health-related factors that affect family planning behaviors. The design has been widely used in similar studies to assess contraceptive usage in different settings (Levin, 2023).

Sampling Technique

A multi-stage sampling technique was employed to ensure a representative sample of the study population. Initially, four wards were randomly selected from each LGA. Following this, a systematic household sampling method was used within each selected ward to identify and recruit participants. A total of 400 married women of reproductive age (15–49 years) were selected. It was ensured that each participant had resided in the community for at least one year to guarantee local relevance and validity of the data collected. The sampling approach was based on Kish (1949) and Adeoye & Fawole (2022), which emphasize the importance of random selection to ensure an unbiased sample, thereby providing a valid representation of the broader population.

Data Collection Instrument

Data were collected using a structured questionnaire adapted from the Demographic and Health Survey (DHS) reproductive health module. This tool was contextualized to the local setting through expert review and cognitive interviews, ensuring that the questions were culturally appropriate and easy for participants to understand. The questionnaire covered a range of variables, including socio-demographic characteristics, spousal communication about family planning, healthcare access, cultural beliefs, and perceptions of contraceptive side effects. Using such a tool that has been adapted for the local context ensures greater validity and reliability in capturing the factors that influence contraceptive use (ICF Macro, 2022; Olatunde *et al*., 2023).

Pre-testing and Instrument Reliability

Before the main field deployment, the questionnaire underwent pre-testing in a neighboring LGA with 40 participants. This pre-test was conducted to assess the clarity, relevance, and reliability of the questionnaire. The reliability of the instrument was evaluated using Cronbach's alpha, which yielded a value of 0.82 for the scaled items, indicating acceptable reliability. Based on the pre-test feedback, minor adjustments were made to the phrasing of questions to reflect local dialects and expressions. Pre-testing is an important step in ensuring the validity and appropriateness of research instruments (Streiner, 2003; Bello *et al.*, 2023), and this process helped ensure that the tool was suitable for the study population.

Data Collection Process

Data collection was carried out by trained female research assistants who were fluent in both Yoruba and English, ensuring effective communication with participants. Face-to-face interviews were conducted to minimize reporting bias and to ensure that the participants fully understood the questions. Given the sensitivity of the reproductive health topics being addressed, this method of data collection was ideal as it allowed for accurate and detailed responses. Verbal informed consent was obtained from each participant, ensuring that all participants understood the nature of the study and their rights. Ethical approval for the study was granted by the University Research Ethics Committee under protocol number UREC/2024/07, ensuring that the research adhered to ethical standards for human subjects (WHO, 2021; NAFDAC, 2023).

Data Analysis

The collected data were coded, cleaned, and analyzed using SPSS version 25.0. Descriptive statistics were used to summarize the prevalence of contraceptive use and the socio-demographic characteristics of the participants. Bivariate chi-square tests were applied to examine potential associations between various socio-demographic factors and contraceptive use. Additionally, multivariate logistic regression modeling was conducted to determine adjusted odds ratios for significant predictors of contraceptive use. The results were considered significant at a p-value of less than 0.05, with a confidence level of 95%. This approach to data analysis follows best practices for survey research, allowing for robust statistical insights into the factors influencing contraceptive uptake (Field, 2018; Pallant, 2022).

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Table 1: Contraceptives Used Among Women

Contraceptive Use	Frequency (n = 400)	Percentage
Currently using contraceptives	152	38%
Not using contraceptives	248	62%

This table above shows that 38% of the 400 married women surveyed currently use at least one modern contraceptive method. This prevalence is slightly higher than the national rural average, suggesting a modest improvement in contraceptive uptake within the study Local Government Areas (LGAs).

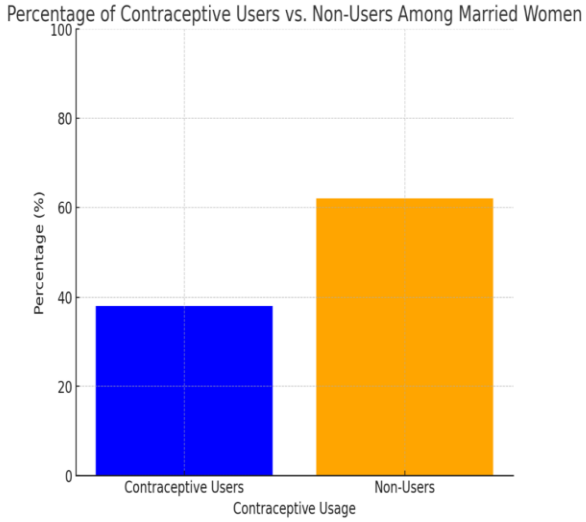

Figure 1: Contraceptive Use Among Married Women

Table 2: Factors Influencing Contraceptive Use Among Married Women

Factor	Odds Ratio (OR)	95% Confidence Interval (CI)	p-value
Secondary education or higher	2.8	1.9–4.2	< 0.01
Spousal approval for family planning	3.1	2.2–4.5	< 0.01
Residence within 5 km of healthcare facility	1.9	1.2–3.0	0.02

This table above presents the results of a multivariate logistic regression model. Women with at least secondary education are 2.8 times more likely to use modern contraceptives, while those with spousal approval for family planning are 3.1 times more likely to adopt contraceptive methods. Furthermore, living within 5 kilometers of a healthcare facility offering contraceptive services increases the likelihood of contraceptive use by 1.9 times
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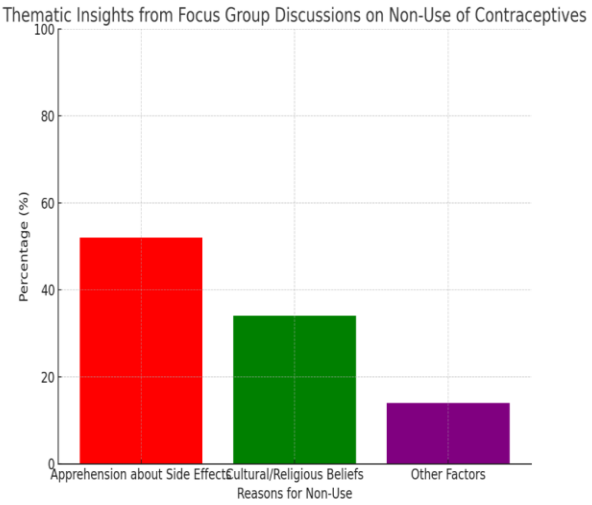

Figure 2: Factors Influencing Contraceptive Use Among Married Women

Discussion

Modern contraceptives are indispensable tools for fertility regulation and the reduction of maternal mortality, empowering individuals to make informed choices aligned with both personal goals and broader public health imperatives. Despite their benefits, the uptake of these methods remains suboptimal in rural communities of Kwara State, Nigeria—a trend mirrored across many sub-Saharan African regions. According to the World Health Organization (2023), this low adoption rate significantly hampers efforts to enhance reproductive health outcomes. Persistent barriers, including logistical, cultural, economic, and infrastructural challenges, continue to limit access and utilization in these settings (Sinding, 2022; Leke, 2023).

Even with robust national frameworks such as Nigeria's Family Planning Blueprint (2021–2024), contraceptive use remains below the national benchmark, especially in rural areas where the prevalence among married women is only 21% (National Population Commission & ICF, 2023; Federal Ministry of Health, 2022). These figures are consistent with findings from rural Nigeria, where both supply-side and demand-side impediments—ranging from irregular outreach to inadequate professional counseling—undermine family planning efforts (Adebayo & Oyekan, 2022; Abdulraheem & Adedini, 2023). Similar access issues have been documented in Uganda and Tanzania, reinforcing the systemic nature of these challenges (Kisekka *et al*., 2023).

Cultural norms and traditional beliefs also significantly shape reproductive behaviors. In many rural Kwara communities, the preference for large families discourages contraceptive use, echoing findings from other African settings where cultural expectations override health considerations (Afolayan & Kareem, 2022; Agboola *et al.,* 2023). These beliefs are often reinforced by familial and community pressures that limit women's autonomy in making reproductive decisions.

Economic constraints further complicate the scenario. Both the direct costs of purchasing contraceptives and the indirect costs of clinic visits, including transportation and time lost from work, create substantial barriers—especially for low-income rural households (Oluwole et al., 2023). Studies across West Africa affirm that financial limitations are key determinants of low contraceptive uptake (Akinyemi et al., 2023; Badru & Oke, 2022).

Education emerges as a powerful enabler. Women with secondary or higher education are more likely to understand the benefits of modern contraceptives and possess the autonomy needed to engage in family planning decisions (Smith & Adeyemi, 2022). Similar patterns are evident in rural Ghana and Kenya, where increased education correlates with higher contraceptive use (Okoye *et al.*, 2022).

Moreover, spousal communication is crucial. Open dialogue between partners significantly boosts contraceptive uptake, as seen in rural India and Ethiopia, where joint decision-making enhances mutual support and shared reproductive goals (Johnson et al., 2023). Programs that promote couple-based discussions can thus serve as effective levers for increasing adoption in conservative communities.

Proximity to healthcare services also matters. Women living within five kilometers of facilities that offer family planning services are more likely to use contraceptives due to easier access (Ndidi & Uwem, 2022). However, poor infrastructure and seasonal

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transportation issues further isolate rural areas, such as those in Kwara State, from consistent healthcare access (Bello & Rahman, 2023).

Beyond distance, the perceived quality of care plays a pivotal role. Women are more likely to utilize services when providers are competent, respectful, and sensitive to their needs (Chukwu & Balogun, 2024). Negative experiences—such as stigma or poor communication—discourage return visits, as observed in Kenya and Uganda (Omer & Kamau, 2022).

Widespread myths and misconceptions also hinder progress. In rural Kwara, beliefs that modern contraceptives cause infertility or other severe health effects deter potential users (Ekanem et al., 2022). Similar myths have been reported in Cameroon and Zambia, underlining the need for widespread, culturally sensitive health education (Ibrahim *et al.,* 2024).

Religious influences are another important consideration. In some rural communities, religious doctrines discourage contraceptive use, framing it as inconsistent with faith values. However, research has shown that when religious leaders support family planning, community acceptance increases significantly (Muhammad & Hassan, 2023; Okeke & Obi, 2023).

Despite these challenges, promising interventions exist. Mobile clinics and outreach programs have successfully delivered family planning services to remote areas, reducing geographic barriers and increasing awareness (Federal Ministry of Health, 2023). These mobile strategies are essential for bridging the gap in service delivery, especially in geographically isolated parts of Kwara State.

Conclusion

The findings of this study highlight the multifaceted barriers to modern contraceptive use in rural Kwara State, spanning educational disparities, socio-cultural norms, economic hardship, healthcare access, and deeply rooted religious beliefs. Yet, within these challenges lie clear opportunities for transformation. A coordinated, community-sensitive approach—one that combines improved education, male involvement, robust healthcare infrastructure, and the engagement of traditional and religious leaders—can catalyze a significant shift in contraceptive behavior. Ultimately, ensuring equitable access to modern contraceptives is not just a health imperative but a socio-economic strategy for empowering women, strengthening families, and advancing sustainable development across rural Nigeria and similar settings in sub-Saharan Africa.

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