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KNOWLEDGE AND ATTITUDE TOWARDS CONTRACEPTIVE USE AMONG MARRIED WOMEN IN RURAL AND URBAN COMMUNITIES IN RIVERS STATE

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ABSTRACT

BACKGROUND:

Urban-rural disparities in contraceptive knowledge and attitudes towards use contribute significantly to the country's high fertility rate and widening socioeconomic inequalities. Addressing these gaps is crucial for achieving national reproductive health objectives and advancing progress towards sustainable development goals. Despite ongoing efforts, rural areas remain underserved and less informed about modern contraceptive options, which hinders informed-decision making. This study assessed and compared the knowledge and attitudes towards the use of modern contraceptive methods among married women residing in urban and rural areas of Rivers State, Nigeria.

METHOD:

A comparative cross-sectional study was conducted among 326 married women (163 urban, 163 rural), selected through multistage sampling technique. Data were collected using structured interviewer administered questionnaires. These captured respondents' sociodemographic characteristics, levels of knowledge and attitudes towards modern contraceptive methods. Statistical analyses were conducted using SPSS version 25 to compare the above variables between urban and rural respondents. Chi square and p-values were used to determine statistical significance, set at $p < 0.05$.

RESULTS:

No statistically significant differences were observed in age distribution ($p=0.887$) or marital status ($p=0.700$) between the groups. However, urban women showed significantly higher knowledge of modern contraceptives (50.3% versus 27.6%, $p < 0.001$) and more favorable attitudes towards their use (59.5% vs. 46.6%, $p = 0.002$). Education significantly influenced contraceptive awareness in both urban ($p < 0.001$) and rural ($p = 0.002$) areas, while age had a significant impact on urban knowledge. Specifically, 82 (50.3%) of the respondents in urban areas had good knowledge compared to 45 (27.6%) of the respondents in rural areas ($\chi 2 = 24.96$; $p < 0.001$).

CONCLUSION:

Substantial urban-rural disparities exist in contraceptive knowledge and attitudes among married women in Rivers State. The urban women possess superior knowledge and more positive attitudes towards modern contraceptive methods. Therefore, targeted education and socioeconomic interventions are essential to bridge the gap and improve reproductive health equity among rural married women.

KEYWORDS:

Knowledge, Attitude, Contraceptive Use, Married Women, Rural and Urban, Rivers State.

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INTRODUCTION:

Nigeria, with a projected population of 400 million by 2050, faces critical reproductive health challenges, including a 19% unmet need for family planning among married women.[1] Nigeria, the most populous nation in Africa, is experiencing rapid population growth, with projections indicating a significant increase in the coming decades.[2] This demographic surge has

profound implications for the country's social, economic, and environmental systems. It exacerbates poverty levels, places immense pressure on the healthcare infrastructure, and accelerates environmental degradation. Against this backdrop, family planning, particularly the use of modern contraceptives has emerged as a vital public health strategy. Contraceptive use allows women and couples to control their reproductive lives, which in turn helps reduce the incidence of unintended pregnancies, maternal mortality, and unsafe abortions.[3,4]

Despite the well-documented benefits of modern contraceptive methods, their uptake in Nigeria remains alarmingly low. According to the National Bureau of Statistics [5], only 12.5% of married women currently use modern contraceptives.[5] This low prevalence is influenced by a combination of factors, including limited awareness, deep-seated cultural and religious norms, and notable disparities in access to family planning services, especially between rural and urban populations[6]. Urban women generally enjoy better access to healthcare facilities, education, and mass media, which contributes to higher levels of contraceptive knowledge and attitude towards utilization.[7] However, even in urban settings, various barriers such as myths, misinformation, and socioeconomic challenges continue to hinder widespread adoption.[8]

In Rivers State, Nigeria, the disparity in contraceptive knowledge and use between rural and urban communities is particularly stark. Women residing in rural areas often contend with poor healthcare infrastructure, lower literacy levels, and entrenched traditional beliefs that discourage the use of modern contraceptive methods.[9] These barriers are compounded by limited access to accurate family planning information and trained service providers. On the other hand, while urban women may have better access to reproductive health services and information, they still face constraints including high service costs, misinformation, spousal disapproval, and inadequate privacy in overcrowded facilities.[10] Understanding the nuanced differences in knowledge and attitudes between these populations is critical for crafting effective and context-specific reproductive health interventions.

The importance of this study lies in its potential to inform policy formulation and programmatic planning. For instance, in rural areas where misinformation and cultural opposition are predominant, community-led sensitization campaigns and culturally appropriate education initiatives may be most effective. Meanwhile, in urban areas, improving service accessibility, ensuring privacy, and encouraging spousal involvement may help boost uptake. Tailoring strategies to fit the unique context of each setting is essential for improving contraceptive use and achieving better reproductive health outcomes.[13,14]

Findings from existing literature further reinforce the significance of this research. Urban women generally report higher awareness of modern contraceptives of up to 92% compared to 67% among rural women [6,2] Education and exposure to media have been identified as critical enablers of contraceptive knowledge.[15] Attitudes also differ substantially, with urban women showing greater acceptance due to exposure to family planning messaging, while rural women often harbor fears of side effects and encounter spousal resistance.[16,17] Engaging men and local community leaders has been shown to positively influence contraceptive attitudes, especially in conservative rural settings.[10] This study assessed and compared the knowledge and attitudes towards the use of modern contraceptive methods among married women in urban and rural areas of Rivers State, Nigeria.it will generate actionable insights that can support the design of context-sensitive, effective interventions to increase contraceptive use and promote reproductive health equity in Rivers State and beyond.

METHODOLOGY

Study Area:

This study was conducted in Rivers State, located in Southern Nigeria and comprising 23 Local Government Areas (LGAs). According to the National Bureau of Statistics (NBS)[5], 12 LGAs are classified as urban and 11 as rural, though this classification remains contested. The 2018 Nigeria Demographic and Health Survey (NDHS) reported

a national Modern Contraceptive Prevalence Rate (mCPR) of 17.1% among married women aged 15–49. Within the South-South geopolitical zone, which includes Rivers State, the mCPR stands at 12.2%, lower the national average.[6]

Rural areas in Rivers State are typified by lower population density, limited access to healthcare services, and predominantly agrarian livelihoods. These communities often exhibit lower levels of contraceptive awareness and utilization, with polygamous marriages and higher fertility rates being common. In contrast, urban areas benefit from closer proximity to healthcare services but face unique challenges such as overcrowding, inadequate infrastructure in informal settlements, and socioeconomic constraints that limit access to contraceptives. These disparities contribute to a relatively moderate fertility rate in urban settings compared to rural areas.

Research Design:

A comparative cross-sectional design was adopted for this study, enabling simultaneous data collection from married women in both rural and urban areas of Rivers State. A quantitative approach was used, employing structured questionnaires to gather comprehensive information on contraceptive prevalence, knowledge, and attitudes among respondents.

Study Population and Sample Size:

The study population comprised married women of reproductive age (15–49 years) residing in selected communities in Rivers State. Sample size determination followed the comparative proportions formula outlined by Fleiss, Levin, and Paik.[18] based on contraceptive usage rates of 31.8% in rural areas and 55.22% in urban areas, as reported from studies in south-south Nigeria.[19,20] Using the formula: $n = (Z\alpha/2 + Z_1-\beta)^2 \times (p_1 \times (1-p_1) + p_2 \times (1-p_2)) / (p_1-p_2)^2$, where $Z\alpha/2 = 1.96$ (for 95% confidence level) and $Z1-\beta = 0.84$ (for 80% power), the minimum sample size per group was calculated to be 66. After adjusting for a 20% non-response rate and a design effect of 2, the final sample size was set at 163 participants per group, totaling 326 married women (163 from rural areas and 163 from urban areas).

Validity and Reliability:

The reliability of the research instrument was established using Cronbach's alpha, with a threshold of 0.70 indicating acceptable internal consistency. Content validity was ensured through an extensive literature review and by adapting items from previously validated instruments relevant to contraceptive use and reproductive health.

Data Analysis:

Data were analyzed using SPSS version 25. Descriptive statistics (frequencies, means, and percentages) were used to summarize demographic variables and contraceptive use patterns. Inferential statistics, including chi-square tests, were applied to compare contraceptive use and related variables between rural and urban respondents.

Ethical Considerations:

Ethical approval was obtained from the University of Port Harcourt Research and Ethics Committee (Reference: UPH/CEREMAD/REC/MM98/039). Informed consent was obtained from all participants following a thorough explanation of the study's objectives, procedures, potential risks and benefits, and the voluntary nature of participation. Special care was taken to minimize discomfort when discussing sensitive topics related to contraception.

RESULTS

Table 1: Sociodemographic Characteristics of Participants

Table 1 shows the sociodemographic characteristics of the 326 participants, evenly distributed between urban (n=163) and rural (n=163) areas. Overall, no statistically significant differences were observed across most variables, indicating comparable baseline characteristics between the two populations.

Most participants were aged 40–49 years, accounting for 67 (41.1%) urban and 61 (37.4%) rural respondents (p=0.887). This reflects a focus on individuals in their peak or late reproductive years. A high proportion of participants were married in both urban (134, 82.2%) and rural (128, 78.5%) areas (p=0.700), consistent with the strong cultural emphasis on marriage in the region.

Variable	Urban n=163	Rural n=163	X2 (p-value)
Age group(years)			
15-19	24(14.7)	28(17.2)	0.640(0.887)
20-29	38(23.2)	40(24.5)	
30-39	34(20.9)	34(20.9)	
40-49	67(41.1)	61(37.4)	
Marital Status			
Married	134(82.2)	128(78.5)	0.700(0.705)
Divorced	15(9.2)	18(11.0)	
Widowed	14(8.6)	17(10.4)	
Religion			
Christianity	62(38.0)	64(39.3)	0.112(0.990)
Muslim	38(23.3)	38(23.3)	
Africa traditional	37(22.7)	37(22.7)	
Others	26(16.0)	24(14.7)	
Education			
No formal education	35(21.5)	39(23.9)	7.575(0.056)
Primary	33(20.2)	47(28.8)	
Secondary	53(32.5)	53(32.5)	
Tertiary	42(25.8)	24(14.7)	
No of children			
None	12(7.4)	13(8.0)	0.457(0.928)
1-2	74(45.4)	70(42.9)	
3-4	52(31.9)	51(31.3)	
5 or above	25(15.3)	29(17.8)	
Income			
≤30,000	67(41.1)	73(44.8)	1.096(0.578)
31,000-60,000	63(38.7)	64(39.3)	
≥61,000	33(20.2)	26(16.0)	
Culturally inclined			
Yes	97(61.8)	105(64.4)	0.238(0.625)
No	60(38.2)	58(35.6)	

Christianity was the predominant religion, with similar distributions in urban (62, 38.0%) and rural (64, 39.3%) areas. The proportions of Muslims (38, 23.3%) and adherents of African traditional religion (37, 22.7%) were identical in both groups (p=0.990), reflecting similar religious landscapes. Although not statistically significant (p=0.056), urban participants had higher tertiary education rates (42, 25.8%) compared to rural participants (24, 14.7%), while primary education was more common in rural areas (47, 28.8%) than urban (33, 20.2%). This trend mirrors typical urban–rural educational disparities. The most common family size was 1–2 children in both settings—urban (74, 45.4%) and rural (70, 42.9%)—with no significant difference (p=0.928), suggesting similar fertility trends. Most participants reported monthly incomes of ≤30,000 naira—urban (67, 41.1%) and rural (73, 44.8%)—with no significant variation (p=0.578), indicating comparable economic conditions.

Table 2: Knowledge of Contraceptives among married women in urban and rural areas of Rivers State, Nigeria

Table 2 shows significant disparities in specific contraceptive knowledge between urban and rural participants, despite similar levels of general awareness (urban: 125, 76.7%; rural: 121, 74.2%; p=0.607). Urban participants had significantly greater knowledge of injectable/ implant contraceptives (118, 72.4%) compared to rural participants (101, 62.0%; p=0.045), likely reflecting better access to health services. Awareness of contraceptives as a means of pregnancy prevention was much higher in urban areas (110, 67.5%) than rural areas (47, 28.8%; p<0.001), indicating significant educational gaps. Urban respondents were more aware of the need to consult healthcare professionals before using contraceptives (119, 73.0%) than their rural counterparts (100, 61.3%; p<0.001), reflecting stronger health-seeking behavior.

Variable	Urban n=163	Rural n=163	X2 (p-value)
Heard of contraceptive			
Yes	125(76.7)	121(74.2)	0.265(0.607)
No	38(23.3)	42(25.8)	
Know what a contraceptive is			
Yes	111(68.1)	99(60.7)	1.927(0.165)
No	52(31.9)	64(39.3)	
Condom is a form of contraceptive			
Yes	115(70.6)	115(70.6)	0.058(0.809)
No	48(29.4)	48(29.4)	
Injectable/ implant is a method of contraceptive			
Yes	118(72.4)	101(62.0)	4.021(0.045)
No	45(27.6)	62(38.0)	

Variable	Urban n=163	Rural n=163	X2 (p-value)
Postinor is a method of contraceptive			
Yes	124(76.1)	117(71.8)	0.780(0.377)
No	39(23.9)	46(28.2)	
Contraceptive is primarily used to prevent pregnancy			
Yes	110(67.5)	47(28.8)	48.765(<0.001)
No	53(32.5)	116(71.2)	
Education about contraception is for adolescents			
Yes	104(63.8)	32(19.6)	65.402(<0.001)
No	59(36.2)	131(80.4)	
Only one type of contraception is available			
Yes	95(58.3)	18(11.0)	80.305(<0.001)
No	68(41.7)	145(89.0)	
Contraceptive can only be used by women			
Yes	116(71.2)	127(77.9)	1.956(0.162)
No	46(28.8)	36(22.1)	
No	45(27.6)	62(38.0)	
Postinor is a method of contraceptive			
Yes	124(76.1)	117(71.8)	0.780(0.377)
No	39(23.9)	46(28.2)	
Important to seek advice from health care professional before using contraceptives			
Yes	119(73.0)	100(61.3)	39.009(<0.001)
No	44(27.0)	63(38.7)	

Table 3: Overall Level of Knowledge of Contraceptives among the participants

Table 3 shows that urban participants demonstrated significantly higher levels of good knowledge (82, 50.3%) compared to rural participants (45, 27.6%; p<0.001), while poor knowledge was more prevalent in rural areas (84, 51.5%) than urban areas (71, 43.6%).

Variable	Urban n=163	Rural n=163	X2 (p-value)
Poor	71(43.6)	84(51.5)	24.961(<0.001)
Fair	10(6.1)	34(20.9)	
Good	82(50.3)	45(27.6)	

Poor;0-49.9%, Fair 50-69.9%, Good 70-100%

Table 4: Attitudes Toward Contraceptives

Table 4 shows that a larger proportion of urban participants strongly agreed that contraceptives are important for family planning (67, 41.1%) compared to rural participants (22, 13.5%; p<0.001). Misconceptions about health risks were more pronounced in rural areas, where 43 (26.4%) strongly agreed that contraceptives are harmful, versus only 3 (1.8%) in urban areas (p<0.001). Rural participants were more likely to associate contraceptive use with promiscuity (46, 28.2%) than urban participants (28, 17.2%; p<0.001), pointing to cultural and social barriers. More urban respondents were willing to recommend contraceptives, with 57 (35.0%) strongly disagreeing with the statement "I will not encourage anyone to use contraceptives," compared to 34 (20.9%) in rural areas (p<0.001).

Variable	Urban n=163	Rural n=163	X2 (p-value)
Contraceptive is important for family planning			
Strongly agree	67(41.1)	22(13.5)	56.739(<0.001)
Agree	56(34.4)	48(29.4)	
Neutral	9(5.5)	14(8.6)	
Disagree	4(2.5)	41(25	
Strongly disagree	27(16.6)	14(8.6)	
Contraceptive pose a serious health risk			
Strongly agree	3(1.8)	43(26.4)	82.620(<0.001)
Agree	14(8.6)	45(27.6)	
Neutral	25(15.3)	19(11.7)	
Disagree	44(27.0)	33(20.2)	
Strongly disagree	77(47.2)	23(14.1)	
Contraceptive use is just for promiscuous people			
Strongly agree	28(17.2)	46(28.2)	28.485(<0.001)
Agree	46(28.2)	46(28.2)	
Neutral	19(11.7)	41(25.2)	
Disagree	39(23.9)	16(9.8)	
Strongly disagree	31(19.0)	14(8.6)	
I will not encourage anyone to use contraceptive			
Strongly agree	10(6.1)	42(25.8)	54.230(<0.001)
Agree	13(8.0)	43(26.4)	
Neutral	33(20.2)	21(12.9)	

Variable	Urban n=163	Rural n=163	X2 (p-value)
Disagree	50(30.7)	23(14.1)	
Strongly disagree	57(35.0)	34(20.9)	
Contraceptive use is not very effective in FP			
Strongly agree	21(13.0)	47(28.8)	43.724(<0.001)
Agree	34(21.0)	45(27.6)	
Neutral	16(9.9)	30(18.4)	
Disagree	72(44.4)	21(12.9)	
Strongly disagree	19(11.7)	20(12.3)	
Contraceptive is mainly for females			
Strongly agree	0(0.0)	41(25.2)	65.787(<0.001)
Agree	0(0.0)	8(4.9)	
Neutral	26(16.0)	34(20.9)	
Disagree	65(39.9)	43(26.4)	
Strongly disagree	72(44.2)	37(22.7)	

Table 5: Overall attitude of participants towards contraceptives.

Table 5 shows that additionally, positive attitudes were more prevalent among urban participants (97, 59.5%) than rural (76, 46.6%; p=0.002), while rural participants exhibited more negative attitudes (80, 49.1%) compared to urban (50, 30.7%).

Variable	Urban n=163	Rural n=163	X2 (p-value)
Negative	50(30.7)	80(49.1)	12.994(0.002)
Neutral	16(9.8)	7(4.3)	
Positive	97(59.5)	76(46.6)	

DISCUSSION

This study investigated the knowledge and attitudes of married women in rural and urban communities of Rivers State, Nigeria, regarding contraceptive use. It revealed critical differences in knowledge and attitude between the two groups, highlighting the socio-cultural, educational, and systemic barriers that affect family planning efforts in the region.

The sociodemographic profiles of respondents in both rural and urban areas were largely similar. Most women were in their forties, married, Christian, and had attained secondary education. Both groups typically had between three to four children and earned N30,000 or less monthly. These similarities provided a solid baseline for comparing their knowledge, attitudes, and usage of contraceptives without significant demographic bias.

One of the most prominent findings of the study was the significant disparity in knowledge about contraceptives between urban and rural women. Urban women displayed a considerably higher level of awareness and understanding of contraceptive methods compared to their rural counterparts. This difference can be traced to several systemic and contextual factors, especially the uneven distribution of health facilities and information dissemination structures, which favor urban areas.

Women in rural communities were generally less informed about the types and purposes of contraceptives. Many had never heard of contraceptives at all. For example, injectable and implant contraceptives were unfamiliar to some rural respondents, and there was low awareness that postinor is a form of emergency contraceptive. Misconceptions were rampant in rural areas, with some believing that contraceptives are only meant for adolescents or that only one type exists and can only be used by women.

Crucially, a larger percentage of rural women were unaware that contraceptives are primarily used to prevent pregnancy. The implication is profound: poor contraceptive knowledge contributes to underutilization, thereby hindering effective family planning and population control in rural settings. This finding aligns with similar studies by Lasong et al. but contrasts with Ogunjuyigbe et al., who reported high contraceptive usage in their own study population[7,21].

Attitudes toward contraceptive use also differed markedly between urban and rural women, with urban women demonstrating more positive views. The correlation between knowledge and attitude is significant; the lack of knowledge in rural areas appears to underpin their more negative perceptions.

A considerable number of rural women did not believe that contraceptives are important for family planning. Many associated contraceptives use with promiscuity or feared that it could pose serious health risks. These misconceptions fostered skepticism and a lack of trust in contraceptive methods, which further discouraged use.

Additionally, rural respondents were less likely to recommend contraceptives to friends and family. Many also doubted the effectiveness of contraceptives in family planning, reinforcing a cycle of misinformation and low utilization. This pattern was echoed in similar findings by Debebe et al.[22]

In contrast, urban women, informed by greater exposure and access to reproductive health education, held more progressive views and were more likely to see contraceptives as essential for responsible family planning and health management.

Study Limitations:

The relatively small sample size of 326 may not be representative of the broader population of Rivers State. Data collection relied on self-report, and the questionnaires were interviewer administered, which is susceptible to recall bias and social desirability bias respectively. The rural-urban dichotomy may have masked other important geographical or socioeconomic nuances. Furthermore, the cross-sectional design limits the ability to infer causality or assess changes over time.

CONCLUSION/RECOMMENDATIONS

This study highlights significant disparities in contraceptive knowledge, attitudes, and use between married women in rural and urban areas of Rivers State, Nigeria. Urban women demonstrated better awareness and more positive attitudes toward modern contraception, while rural women faced greater misconceptions, fears of side effects, and stigma. Education and age strongly influenced attitude towards contraceptive acceptance, with younger, educated women showing higher understanding. Despite this, unintended pregnancies remain common in both settings, underscoring gaps between knowledge and practice. Given Nigeria's rapid population growth, addressing these issues is crucial for effective family planning and socio-economic development.

Key recommendations include need for policy actions to strengthen rural healthcare with well-equipped centers, trained providers, and subsidized contraceptives. Integrate family planning education into school curricula nationwide. Community engagement by expanding outreach through health workers and mobile platforms for younger audiences. Promote couple-based counselling to address male influence. Employing social mobilization strategies such as peer education in markets, churches, and workplaces. Partner with traditional and religious leaders to foster cultural acceptance and establish women's health forums for open dialogue. These steps can bridge gaps in contraceptive access and empower women to make informed reproductive choices.

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