

**Original Article**

Factors Influencing Contraceptive Misuse Among Undergraduates in Selected Tertiary Institutions in Ilorin, Kwara State

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ABSTRACT

Background: Contraceptive misuse among undergraduates is a growing public health concern, contributing to unintended pregnancies and adverse reproductive health outcomes. In this study, contraceptive misuse refers to the incorrect, inconsistent, or inappropriate use of contraceptive methods. Evidence on misuse—rather than use—among Nigerian undergraduates remains limited, particularly regarding the influence of misinformation and fear of side effects.

Methods: A descriptive cross-sectional study was conducted among 275 undergraduates selected through multistage sampling from Al-Hikmah University, Kwara State Polytechnic, and Kwara State College of Education, Ilorin. Data were collected using a structured, self-administered questionnaire and analyzed using descriptive statistics and Chi-square (χ^2) tests at a 5% level of significance.

Results: Awareness of contraceptives was reported by 70.9% of respondents, with condoms being the most commonly known method (86.5%). Contraceptive misuse was prevalent, particularly inconsistent use and over-reliance on emergency contraceptives. Significant associations were found between misuse and knowledge/awareness ($\chi^2 = 14.72$, $p < 0.05$), as well as misinformation and fear of side effects ($\chi^2 = 36.0$, $p < 0.05$). Socio-cultural and economic factors were not significantly associated.

Conclusion: Contraceptive misuse among undergraduates in Ilorin is strongly influenced by inadequate knowledge, misinformation, and fear of side effects. Strengthening comprehensive contraceptive education and youth-friendly reproductive health services in tertiary institutions is recommended.

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Introduction

Contraceptive misuse among young adults, particularly undergraduates, remains a critical public health challenge in developing countries. Although awareness of contraceptive methods is relatively high

among students in tertiary institutions, correct and consistent utilization remains suboptimal. Contraceptive misuse is defined as the incorrect, inconsistent, or inappropriate use of contraceptive methods and contributes significantly to unintended

pregnancies, unsafe abortions, sexually transmitted infections (STIs), and interruption of educational pursuits (Duru *et al.*, 2015; Muhammad *et al.*, 2018). Socio-cultural norms, misinformation, fear of side effects, peer influence, and limited access to youth-friendly reproductive health services further exacerbate the problem (Idowu *et al.*, 2017; Nsubuga *et al.*, 2016). In Ilorin, a culturally diverse city with strong religious influences, these factors may play a significant role in shaping contraceptive behavior among students.

Despite increasing awareness of contraceptive methods among undergraduates in Nigeria, existing studies have largely focused on contraceptive use and prevalence, with limited empirical attention given to the issue of contraceptive misuse, particularly incorrect, inconsistent, or inappropriate use of available methods. This gap is critical, as misuse rather than non-use alone accounts for a significant proportion of unintended pregnancies and reproductive health complications among young adults. Furthermore, many previous studies do not sufficiently examine the role of misinformation and fear of side effects in shaping misuse behaviors among undergraduates.

Ilorin, Kwara State, represents an important yet relatively understudied context for examining contraceptive misuse due to its unique socio-cultural and religious composition and its status as an educational hub hosting public, private, and faith-based tertiary institutions. The interaction between cultural norms, religious beliefs, peer influence, and access to reproductive health services in this setting may uniquely shape contraceptive behaviors among undergraduates.

General Objective

To examine the factors influencing contraceptive misuse among undergraduates in selected tertiary institutions in Ilorin, Kwara State.

Specific Objectives

1. To assess the level of knowledge and awareness of contraceptive methods among undergraduates in selected tertiary institutions in Ilorin.
2. To identify the patterns of contraceptive misuse among undergraduates in selected tertiary institutions in Ilorin.
3. To examine the influence of socio-cultural and economic factors on contraceptive misuse among undergraduates in selected tertiary institutions in Ilorin.
4. To determine the role of misinformation and fear of side effects in influencing contraceptive misuse among undergraduates in Ilorin.

Research Hypotheses

H₀₁: There is no statistically significant association between knowledge and awareness of contraceptive methods and contraceptive misuse among undergraduates in Ilorin.

H₀₂: There is no statistically significant association between socio-cultural and economic factors and contraceptive misuse among undergraduates in Ilorin.

H₀₃: There is no statistically significant association between misinformation and fear of side effects and contraceptive misuse among undergraduates in Ilorin.

Methodology

This study adopted a quantitative research design, which allowed for the systematic collection and statistical analysis of numerical data related to contraceptive knowledge, attitudes, usage patterns, and misuse among undergraduates. A quantitative method was suitable in this issue as it gave an opportunity to objectively determine the prevalence and distribution of contraceptive misuse and make an inferential analysis to identify possible correlations or predictors.

Study Area

The study was conducted in Ilorin, Kwara State, North-Central Nigeria. Ilorin is an educational hub hosting several tertiary institutions and a culturally diverse student population.

Sample Size Determination

The sample size for this study was determined using Cochran's formula for estimating proportions in populations greater than 10,000. Assuming a 20% prevalence of awareness or use of family planning among teenagers, a confidence level of 95%, and a margin of error of 5%, a minimum sample size of 246 was obtained. To account for a 10% non-response rate, the sample size was adjusted to 275 undergraduate students (Cochran, 1977).

Study population

The study population consisted of undergraduate students aged 18–29 years enrolled in the selected institutions in Ilorin, Kwara State. A sample size of 275 respondents was determined using Cochran's formula (Cochran, 1977). Inclusion criteria included undergraduate students aged 18–29 years who were enrolled in the selected institutions and consented to participate in the study. Exclusion criteria included postgraduate students, non-students, and undergraduates who declined consent or submitted incomplete questionnaires.

Sampling Technique

A multistage sampling technique was used, involving selection of institutions, faculties, departments, and systematic random sampling of students. Data were collected using a structured, self-administered questionnaire divided into sections covering socio-demographic characteristics, knowledge of contraception, sources of information, patterns of contraceptive use, and factors influencing misuse.

Instrument for Data Collection

The questionnaire was pre-tested among undergraduates in a similar setting, and internal consistency reliability was assessed using Cronbach's alpha, which yielded a coefficient of ≥ 0.70 , indicating acceptable reliability.

Data Analysis

Data were analyzed using SPSS version 25. Descriptive statistics (frequencies and percentages) were used to summarize variables, while Chi-square (χ^2) tests were used to assess associations between selected variables at a 5% level of significance. Multivariate analysis was not conducted because the primary objective of the study was to identify bivariate associations rather than predictors of contraceptive misuse.

Operational Definition: In this study, contraceptive misuse refers to the incorrect, inconsistent, or inappropriate use of contraceptive methods, including inconsistent condom use, incorrect pill use, reliance on emergency contraception as a regular method, or use of non-recommended traditional methods.

Ethical Considerations: Ethical approval for this study was obtained from the Al-Hikmah University Ethics Review Committee and the Kwara State Ministry of Health Ethics Review Committee (Approval ID: ERC/MOH/2025/08/494). Participation was voluntary, informed consent was obtained from all respondents, and confidentiality and anonymity of

information were strictly maintained throughout the study.

Results

Demographic Characteristics of the Respondents

A total of 275 undergraduate students participated in the study. The majority of respondents were aged 18–20 years (44.7%), followed by those aged 21–23 years (33.8%), while 21.5% were aged 24–25 years. Female respondents constituted 58.9% of the sample, and most participants were single (73.8%). Islam was the predominant religion (66.2%), followed by Christianity (28.7%). Participants were drawn from Al-Hikmah University (38.2%), Kwara State Polytechnic (32.7%), and Kwara State College of Education (29.1%). Most respondents were in 200 level (60.0%), and the largest proportion were students of English Education (33.8%).

Awareness and Knowledge of Contraceptives among Undergraduates

A majority (70.9%) had heard of contraceptives, with school (45.8%), internet/social media (23.3%), and friends (20.4%) being the main sources of information. Awareness was highest for condoms (86.5%), while knowledge of other methods, such as pills, injectables, implants, and emergency contraceptives, was low, indicating moderate overall awareness among undergraduates.

Influence of Socio-cultural Factors on Contraceptive Misuse among Undergraduates

About half of the respondents (50.9%) reported previous use of contraceptives, with condoms being the most commonly used method (86.5%). Only 34.2% reported always using contraceptives according to instructions, while others reported inconsistent use. A substantial proportion reported missing contraceptive pills (34.5%) and relying on emergency contraceptives more than twice in a month (35.6%). In addition, 36.4% admitted to using contraceptives without proper guidance, indicating common patterns of misuse.

Table 1: Chi-Square Test for Hypothesis 1 (Knowledge/Awareness and Contraceptive Misuse)

Awareness of Contraceptives	Misuse: Yes	Misuse: No	χ^2	p-value
Yes	90	105	14.72	< 0.05
No	50	30		
Total	140	135		

Table 2: Chi-Square Test for Hypothesis 2 (Socio-cultural Factors and Contraceptive Misuse)

Influence of Socio-cultural Factors	Misuse: Yes	Misuse: No	χ^2	p-value
Agree	120	110	0.90	> 0.05
Disagree	20	25		
Total	140	135		

Table 3: Chi-Square Test for Hypothesis 3 (Misinformation/Fear of Side Effects and Contraceptive Misuse)

Misinformation/Fear	Misuse: Yes	Misuse: No	χ^2	p-value
Yes	95	42	36.00	< 0.05
No	45	93		
Total	140	135		

Tables 1–3 present the chi-square analysis of the study hypotheses. Knowledge and awareness of contraceptives, as well as misinformation and fear of side effects, showed statistically significant associations with contraceptive misuse ($p < 0.05$), while socio-cultural factors were not significantly associated ($p > 0.05$).

Discussion

This study demonstrates that while awareness of contraceptives among undergraduates in Ilorin is relatively high, correct usage remains inadequate. The findings align with previous studies reporting a gap between awareness and proper contraceptive practice among Nigerian undergraduates (Abdul *et al.*, 2018; Utoo *et al.*, 2020).

The significant association between knowledge and misuse suggests that awareness alone is insufficient without accurate, functional understanding. Misinformation and fear of side effects emerged as strong predictors of misuse, consistent with findings by Muhammad *et al.* (2018) and Guttmacher Institute (2018), who reported widespread myths surrounding contraceptive safety among young adults.

Although many respondents perceived socio-cultural and religious factors as influential, these factors were not statistically associated with contraceptive misuse. This may reflect increasing exposure to digital health information, changing social norms, and greater autonomy among undergraduates, which may reduce the direct influence of traditional socio-cultural constraints on actual contraceptive practices. Persistent myths and exaggerated fears surrounding contraceptive side effects may discourage correct and consistent use, reinforcing misuse even among students who are aware of available methods.

Similar studies have shown that misinformation, fear of side effects, and inadequate knowledge remain major drivers of contraceptive misuse among university students (Chola *et al.*, 2021; World Health Organization, 2023).

Conclusion

This study found that contraceptive misuse among undergraduates in Ilorin remains prevalent despite relatively high awareness. Inadequate knowledge, misinformation, and fear of side effects were significantly associated with misuse, while socio-cultural factors were not. These findings underscore the need for interventions that emphasize accurate contraceptive information and practical guidance rather than awareness alone.

Study Limitations

This study has some limitations. The cross-sectional design limits causal inference, and self-reported data may be subject to recall and social desirability bias. Findings may not be generalizable beyond the selected institutions in Ilorin.

Recommendations

1. Tertiary institutions should integrate comprehensive contraceptive education into school curricula, with emphasis on correct and consistent use rather than awareness alone.
2. Campus-based and youth-friendly reproductive health services should be strengthened to provide undergraduates with access to professional guidance and accurate contraceptive information.
3. Public health authorities should implement targeted interventions to address misinformation and fear of side effects through peer education, digital platforms, and community outreach.
4. Future studies should explore predictors of contraceptive misuse using longitudinal or mixed-methods designs to better understand causal relationships.

Public Health Impact

Reducing contraceptive misuse among undergraduates will contribute to decreased rates of unintended pregnancies, unsafe abortions, and STIs. Improved contraceptive practices will enhance educational continuity, promote reproductive autonomy, and

K.O. Alaro *et al.* (2026). *Al-Hikmah Journal of Health Sciences*, 5(1), 66-70.

reduce long-term public health burdens associated with poor sexual and reproductive health outcomes.

Conflict of Interest

The authors declare no conflict of interest regarding the publication of this manuscript.

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