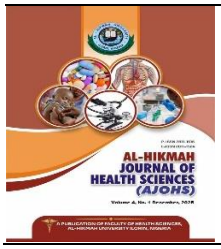
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Original Article

Knowledge, Attitudes and Practices Regarding Contraceptive Use and Sources of Contraceptive Information among In-School Adolescents in Ilorin South Local Government Area, Kwara State, Nigeria: A Cross-Sectional Study

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ABSTRACT

Background: Contraceptive use among Nigerian adolescents is low, but local evidence on what in-school adolescents know, believe, and do, and where their information comes from, is limited. Objective: To assess contraceptive knowledge, attitudes and practices, and sources of contraceptive information, among in-school adolescents in Ilorin South Local Government Area, Kwara State.

Methods: In this descriptive cross-sectional survey, 250 students from five public senior secondary schools, selected by multistage sampling, completed a self-administered questionnaire. Data were summarised as percentages with 95% confidence intervals and Likert mean scores.

Results: Overall, 72.0% had heard of contraceptives. The condom was the best-known method (63.2%) and was considered the most effective by 66.4%. School was the main information source (54.0%), whereas health workers were the preferred source of encouragement (58.0%). Only 5.6% reported ever having sex and 5.6% ever using contraception. Most respondents (56.8%) did not believe contraception benefits women's health, 66.4% would restrict it to married couples and 82.0% agreed that adolescents requesting contraceptives should be scolded. Religion, customs and fear of side effects were the leading perceived barriers.

Conclusion: Awareness was moderate but narrow, and restrictive norms and misconceptions were common. Curriculum-based sexuality education, linked with non-judgemental adolescent-friendly services, is recommended.

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Introduction

Adolescents in low- and middle-income countries experience about 21 million pregnancies each year among girls aged 15–19 years, half of which are unintended, and many unintended adolescent pregnancies end in unsafe abortion (World Health Organization [WHO], 2024). In Nigeria, the 2023–24 Demographic and Health Survey found that 11% of women aged 15–19 years had already given birth and only 15% of married women used a modern contraceptive method (Federal Ministry of Health and Social Welfare [FMoHSW] et al., 2024); in 2018, only 22% of sexually active unmarried adolescent girls used a modern method (Federal Ministry of Health

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[FMoH], 2019). Nigeria also accounted for 28.5% of global maternal deaths in 2020 (WHO et al., 2023).

Low contraceptive use among adolescents is not explained by lack of awareness alone. Adolescents often know that contraceptives exist but hold misconceptions about side effects and fertility, face social and religious disapproval of premarital contraception, and meet judgemental health workers (Chandra-Mouli et al., 2014; Williamson et al., 2009). In South West Nigeria, private providers discourage unmarried young women from using contraception, often by emphasising side effects (Sieverding et al., 2018). Structured school-based sexuality education programmes improve knowledge and attitudes (Fonner et al., 2014), including in Ilorin (Akande et al., 2024), but adolescents also receive diffuse messages from teachers, the media, parents and peers whose content and accuracy are uncertain.

This study did not deliver or evaluate a health education intervention, had no baseline measurement and no comparison group. It is a descriptive cross-sectional survey of contraceptive knowledge, attitudes and practices (KAP) and of self-reported sources of contraceptive information, and it makes no causal claim about the effect of health education messages (Setia, 2016). The specific objectives were to: (1) assess knowledge of contraception and methods; (2) assess attitudes, including misconceptions; (3) describe reported contraceptive practice; (4) describe perceived barriers and facilitators; and (5) describe sources of contraceptive information and preferred sources of encouragement among in-school adolescents in Ilorin South Local Government Area (LGA), Kwara State.

Materials and Methods

Design and setting: A descriptive cross-sectional survey was conducted in 2023 in public senior secondary schools in Ilorin South LGA (headquarters, Fufu; area 174 km²; 2006 population 208,691), Kwara State, North-Central Nigeria.

Participants and eligibility: Students registered in the selected schools, present on the day of data collection, and willing to participate were eligible, irrespective of sexual experience or contraceptive use. Students not registered in the school, those who declined, and those returning incomplete questionnaires were excluded. (An earlier draft incorrectly restricted eligibility to contraceptive users; this criterion was not applied in practice and has been removed.)

Sample size and sampling: Cochran's formula ($Z = 1.96$, $p = 0.5$, $d = 0.05$) gave 384, reduced to 254 by finite population correction for an estimated 750 eligible students. Five schools were selected by balloting, and 50 students per school (250 in total) were selected systematically from the three senior classes, with a planned allocation of about 17 per class. The achieved class distribution (SSS1 106, SSS2 97, SSS3 47) departed from this plan, with SSS3 under-represented.

Instrument: A self-administered, semi-structured questionnaire, validated for content by public health experts, covered sociodemographics; knowledge and practice (including the single item "where did you first hear of contraceptives?", used as the measure of exposure to health education messages); attitudes (yes/no items); and ten perceived barrier and facilitator statements on a five-point Likert scale. No focus group data were collected or analysed.

Statistical analysis: Data were analysed with SPSS version 23.0. Results are reported as frequencies and percentages with Wilson 95% confidence intervals (CI). Multiple-response items are reported as percentages of respondents, and practice items with their own denominator (n = 14). Likert items were scored 5 (strongly agree) to 1 (strongly disagree); weighted means (range 1–5), standard deviations and 95% CI were calculated from the complete frequency distributions, and a mean whose CI lay above the midpoint of 3.00 was interpreted as net agreement (Sullivan & Artino, 2013). An earlier version reported one-way ANOVA tests of the "relationship" between health education messages and KAP. Re-analysis showed that these tests compared counts of "Yes" and "No" answers across questionnaire items rather than respondent groups defined by exposure, and they have been withdrawn. Because the respondent-level data are no longer available, the chi-square or logistic regression analyses needed to test associations between information source and KAP could not be performed (McHugh, 2013).

Ethical considerations: Ethical approval was obtained from the Health Research Ethics Committee of Al-Hikmah University, Ilorin. Each principal gave permission after a letter of introduction from the Department of Public Health was presented and the study was explained. Participation was voluntary and anonymous, students could decline without consequence, and students who wished to consult their parents first were not enrolled. Written parental consent was not obtained, and a waiver of parental permission is not documented; this is acknowledged as a limitation (Council for International Organizations of Medical Sciences [CIOMS], 2016).

Results

Most respondents were aged 13–15 (53.2%) or 16–18 years (37.6%); 64.4% were female, 64.8% Muslim and 87.6% Yoruba. Fourteen (5.6%) reported ever having

P-ISSN: 2811-1516
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had sex. Table 1 summarises knowledge and information sources. Seventy-two per cent had heard of contraceptives. Knowledge concentrated on the condom; two-thirds named it as the most effective method, while only 7.2% chose the implant and 2.4% the intrauterine device. School was the main first source of information, but health workers were most often preferred to encourage use.

Table 1: Knowledge of contraception and sources of information (N = 250)

Variable	n	% (95% CI)
Ever heard of contraceptives	180	72.0 (66.1–77.2)
Aware that contraceptives may have side effects	142	56.8 (50.6–62.8)
Methods heard of (multiple response; % of respondents)		
Condom	158	63.2 (57.1–68.9)
Implant	96	38.4 (32.6–44.6)
Oral contraceptive pill	42	16.8 (12.7–21.9)
Intrauterine device	30	12.0 (8.5–16.6)
Injectable	8	3.2 (1.6–6.2)
Condom considered the most effective method	166	66.4 (60.3–72.0)
First source of information		
School	135	54.0 (47.8–60.1)
Mass media	20	8.0 (5.2–12.0)
Home	17	6.8 (4.3–10.6)
Friends	8	3.2 (1.6–6.2)
Never heard of contraceptives	70	28.0 (22.8–33.9)
Best placed to encourage use		
Health worker	145	58.0 (51.8–64.0)
School teacher	64	25.6 (20.6–31.4)
Parent	15	6.0 (3.7–9.7)

Table 2 shows attitudes. A majority (56.8%; not 46.8% as previously misreported) did not believe that contraception benefits women's health, and two-thirds felt it should be restricted to married couples.

Table 2: Attitudes towards contraceptive use (N = 250)

Statement	Agree, n	% (95% CI)
Preferable to use contraception to avoid unintended pregnancy	188	75.2 (69.5–80.1)
Use should be agreed by both partners	198	79.2 (73.7–83.8)
Contraception can reduce maternal and child mortality	166	66.4 (60.3–72.0)
Contraception benefits the health of women	108	43.2 (37.2–49.4)
Contraceptives should be used only by married couples	166	66.4 (60.3–72.0)
Contraception is unsafe for teenagers or harms reproductive organs	66	26.4 (21.3–32.2)

Only 14 respondents (5.6%; 95% CI 3.4–9.2) had ever used a method: condoms (6), pills (3), withdrawal (3), and the safe period (2). Eight obtained methods from pharmacies and four from health centres; partners (6) and friends (3) most often influenced use. Among the users' 30 multiple responses for reasons, preventing pregnancy and preventing STIs were each cited 10 times. Frequency and consistency of use could not be assessed.

Table 3 presents the Likert items, with means recalculated on the 1–5 scale. (Previously reported "means" of 12.26–19.70 were not valid for a five-point scale.)

Table 3: Perceived barriers and facilitators (N = 250)

Statement	Agree %	Disagree %	Mean (SD)	95% CI
Adolescents should be scolded by health care providers for requesting contraceptives	82.0	4.0	4.34 (0.93)	4.22–4.46
Customs, traditions and beliefs do not support contraceptive use	74.0	8.0	4.04 (1.00)	3.92–4.16

P-ISSN: 2811-1516
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Fear of side effects explains non-use among some with early pregnancy	64.0	8.0	3.88 (1.07)	3.75–4.01
Contraceptive use is against religious faith	72.0	18.0	3.80 (1.37)	3.63–3.97
Contraceptive use among adolescents can be controlled but not eradicated	60.0	20.0	3.62 (1.34)	3.45–3.79
Condom is the most effective method	64.0	24.0	3.58 (1.35)	3.41–3.75
Parental strictness can be a factor in some students' contraceptive use	62.0	24.0	3.56 (1.30)	3.40–3.72
Sexual health education can improve contraceptive use	54.0	28.0	3.40 (1.43)	3.22–3.58
Contraceptive use reduces the fear of sexual promiscuity	52.0	28.0	3.26 (1.33)	3.09–3.43
Some teachers advocate contraceptive use among students	52.0	34.0	3.14 (1.55)	2.95–3.33

Scores: strongly agree 5 to strongly disagree 1. Only the last item's CI includes 3.00 (no clear consensus). Items are worded as in the questionnaire.

Discussion

Awareness of contraception (72.0%) was similar to that among undergraduates in Ilorin (about 71%; Alaro et al., 2026) despite the younger age of our respondents, suggesting that basic awareness is established early in secondary school. However, knowledge was narrow. The belief that the condom is the most effective method is a correctable misconception: under typical use, condoms fail many times more often than implants or intrauterine devices (Trussell, 2011). The condom's dual protection should be promoted, but adolescents also need to understand the relative effectiveness of methods, a gap that mirrors provider steering of young clients towards condoms (Sieverding et al., 2018).

The majority view that contraception does not benefit women's health, despite acceptance of its maternal-mortality benefit, suggests that adolescents associate contraception with rumoured harms rather than with health gains such as safer birth spacing and reduced menstrual problems (Cleland et al., 2012; Williamson et al., 2009). The restriction of contraception to married couples reflects strong social and religious disapproval of premarital sex, which discourages protection when sex does occur (Bankole & Malarcher, 2010; Obasohan, 2015).

The 82.0% agreement that adolescents *should* be scolded for requesting contraceptives is a normative statement: it shows that respondents themselves largely endorsed punitive treatment of adolescents who seek contraception, not how providers actually behave. Adolescents who hold this norm are unlikely to seek services. It is consistent with evidence that judgemental attitudes, shared by providers and communities, are major barriers to adolescent sexual and reproductive health services in Nigeria (FMoH, 2019; Sieverding et al., 2018).

Reported contraceptive use (5.6%) mirrored reported sexual experience (5.6%), which is much lower than the 28.3% reported among secondary students in Ibadan (Morhason-Bello et al., 2008). The young age of the sample probably contributes, but under-reporting in a classroom setting with strong disapproval of premarital sex is likely (Brener et al., 2003). Non-use in this sample is therefore mainly a reflection of reported abstinence rather than evidence of unmet need, and with only 14 users the practice data are descriptive only.

School was the dominant first source of information, unlike in earlier Ilorin studies in which health workers (Babatunde et al., 2016) or movies and the internet (Odeigah et al., 2019) predominated. Together with the preference for health workers, this supports school-based sexuality education delivered with trained health workers and linked to adolescent-friendly services (Denno et al., 2015). Because exposure was measured with a single item and no associations could be tested, these data cannot show whether any source improved KAP; that question requires intervention studies (Akande et al., 2024; Fonner et al., 2014).

Limitations: The cross-sectional design precludes causal inference. Respondent-level data were unavailable, so no associations could be tested. Exposure was measured with one item; some Likert items were ambiguous; no reliability coefficient was documented; sexual behaviour was self-reported; the class distribution departed from the sampling plan; and parental consent was not obtained.

Conclusion and Recommendations

In-school adolescents in Ilorin South LGA had moderate but narrow contraceptive knowledge, held misconceptions about effectiveness, benefits and safety, and widely endorsed restrictive norms, including scolding adolescents who seek contraception. Reported use was very low and reflected low reported sexual activity. Based on these findings, we recommend: (1) curriculum-based sexuality education that covers the full range of

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methods, their effectiveness, health benefits and side effects; (2) explicit discussion of stigma and respectful treatment in school health lessons; (3) involvement of trained health workers in school health education and strengthening of non-judgemental adolescent-friendly services; and (4) engagement of religious leaders. Future studies should use pre-test/post-test designs with comparison groups to evaluate health education, and should retain respondent-level data.

Declarations

Ethics approval and consent: See Section 2.6. Consent for publication: Not applicable. Availability of data: The respondent-level dataset is no longer available; the aggregated frequency data are available from the corresponding author. Competing interests: None declared. Funding: Self-funded. Authors' contributions: K.A.A.: conceptualisation, data collection, analysis and drafting; B.K., L.O.O. and F.M.: analysis and critical review; A.O.B. and B.J.A.: data collection and review. All authors approved the final manuscript. Acknowledgements: We thank the principals, teachers and students of the participating schools.

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