KNOWLEDGE OF DUAL CONTRACEPTIVE USE AMONG SEXUALLY ACTIVE WOMEN LIVING WITH HIV IN OYO STATE.

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Abstract

Dual contraceptive use is a critical approach to preventing unintended pregnancies and reducing the transmission of HIV and other sexually transmitted infections (STIs). Despite their significance, knowledge, and utilisation of dual contraceptive methods among women living with HIV in Oyo State, Nigeria. This study examined the extent of awareness regarding dual contraceptive utilisation among sexually active women with HIV in Oyo State. The study applied a descriptive research design and employed a structured questionnaire to gather data from respondents receiving treatment at specific health facilities delivering ART services in Oyo State. Participants were selected through systematic random sampling at three health facilities: Adeoyo Maternity Health Centre, Lad Medical Centre, and St. Anne's Hospital. Descriptive statistics with the aid of IBM SPSS Software application were employed to evaluate the respondents' comprehension of the advantages and functions of dual contraceptive methods. The study's results indicated that respondents' levels of knowledge were inconsistent. Although a significant number of participants were aware that dual contraceptive methods can prevent HIV transmission to sexual partners and reduce the risk of other sexually transmitted infections, their understanding of other aspects of dual protection was restricted. The suggestion that women living with HIV should combine condom use with other modern contraceptive methods was met with significant disapproval by a substantial number of respondents. The study concludes that sexually active women living with HIV in Oyo State are aware of some of the benefits of dual contraceptive use; however, comprehensive knowledge is still lacking.

Keywords: Women, Sexually Active, HIV/AIDS, Dual-Contraceptive, Oyo State
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Introduction

The Human Immunodeficiency Virus (HIV) continues to be a major global public health issue, particularly affecting sub-Saharan Africa disproportionately (Orlando et al, 2025). Women constitute a significant percentage of individuals living with HIV in West Africa, and their reproductive health requirements pose both clinical and public health issues (Bernard, et al. 2020). The high incidence of HIV among women of reproductive age in Nigeria highlights the necessity for effective sexual and reproductive health treatments that prevent HIV transmission, unwanted pregnancies, and sexually transmitted infections (STIs). The utilisation of dual contraceptives has become a pivotal approach to tackle these

overlapping health requirements. Nonetheless, awareness and application of dual contraceptives among sexually active women with HIV are inadequate in numerous contexts (Willie, 2025).

Dual contraceptive methods fulfil two functions: condoms mitigate the risk of HIV transmission and the acquisition of other STIs, while supplementary contraceptive methods (such as hormonal implants, intrauterine devices, injectables, or oral contraceptive pills) offer enhanced prevention of unintended pregnancies. For women with HIV, the implementation of dual approaches is essential for attaining safer pregnancy outcomes and minimising the risk of vertical transmission of HIV from mother to child (Obeagu & Obeagu, 2024). International health organisations, such as the World Health Organization (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS), advocate for the amalgamation of family planning services with HIV care to enhance awareness and adoption of dual protection strategies among women living with HIV.

Evidence indicates that women's understanding of dual contraception, misconceptions regarding contemporary contraceptive methods, socio-cultural factors, and health system obstacles may hinder effective use (Kabagenyi et al, 2016). Research in Nigeria has revealed geographical variations in contraceptive awareness and service utilisation, with rural groups exhibiting lower rates than urban centers. Oyo State, situated in the southwestern part of the nation, is distinguished by a combination of urban and rural demographics, distinct socio-cultural practices, and disparate access to reproductive health services (Musbau, 2014). Assessing the awareness of dual contraceptive usage among sexually active women with HIV in this environment is crucial for designing treatments that can promote reproductive autonomy and enhance health outcomes.

Knowledge is an essential prerequisite for behavioural modification; in the absence of precise knowledge regarding dual contraceptives, women are less inclined to embrace and consistently utilise these techniques. Moreover, insufficient understanding can perpetuate myths and anxieties that deter women from pursuing contraceptive counselling or utilising services. Health education initiatives that rectify misconceptions and equip women with accurate information are essential in fostering the utilisation of dual methods. To develop effective initiatives, policymakers and health practitioners require empirical data that delineates the existing knowledge among the target population. This study examines the awareness of dual contraceptive use among sexually active women with HIV in Oyo State, Nigeria. The research seeks to elucidate the awareness and comprehension of dual protection strategies while identifying sociodemographic and health-service aspects linked to knowledge levels, so offering insights to enhance the integration of family planning within HIV care services. The results of this study will enhance the existing literature on reproductive health for women with HIV and bolster evidence-based approaches to encourage dual contraception usage in comparable contexts.

Conceptual Clarification

- **HIV**

The Human Immunodeficiency Virus (HIV) is a retrovirus that targets the immune system, particularly the CD4 (T-helper) cells, which are crucial for orchestrating immunological responses. Untreated HIV infection gradually deteriorates the immune system, diminishing the body's capacity to combat opportunistic infections and certain malignancies (WHO, 2023). HIV is typically transmitted by unprotected sexual intercourse, transfusion of contaminated blood, sharing of infected needles, and vertical transmission from mother to child during pregnancy, childbirth, or breastfeeding (UNAIDS, 2023). While there is still no cure for HIV, antiretroviral medication (ART) allows individuals with HIV to maintain prolonged, healthy lives and markedly diminishes the risk of transmission upon achieving viral suppression.

Acquired Immunodeficiency Syndrome (AIDS) signifies the terminal phase of HIV infection. It is marked by significant immunological impairment, typically identified clinically by a CD4 cell count under 200

cells/mm³ or the presence of opportunistic infections and AIDS-defining conditions (CDC, 2023). Significantly, not all patients infected with HIV advance to AIDS, especially when they get prompt and continuous antiretroviral therapy. Conceptually, HIV signifies the virus, but AIDS represents the severe clinical state that arises from protracted untreated infection. Grasping this distinction is essential in public health research and programming, especially in studies concerning sexual and reproductive health among women with HIV.

- **Sexually Active Women**

The term Sexually Active Women often denotes females who participate in sexual intercourse during a certain timeframe, irrespective of marital status, reproductive intentions, or contraceptive methods employed. In reproductive health research, sexual activity is generally characterised as engagement in vaginal intercourse, especially within recent periods such as the past 3 or 12 months, contingent upon the study design (WHO, 2018). This operational definition is crucial in research on contraception and HIV as it delineates women who may be at risk of pregnancy and sexually transmitted infections (STIs), including HIV transmission or re-infection.

For women living with HIV, the designation "sexually active" encompasses further public health ramifications. It includes women who may be at risk of transferring HIV to sexual partners or acquiring other STIs, as well as those who may face unexpected pregnancies. UNAIDS (2023) underscores that sexually active women living with HIV represent a crucial demographic in the amalgamation of sexual and reproductive health (SRH) and HIV services. In this context, sexual activity encompasses not only frequency but also factors such as partnership dynamics, condom negotiation, HIV status disclosure, and reproductive ambitions.

In Demographic and Health Surveys (DHS), sexually active women are often defined as those who indicate having engaged in sexual intercourse within the four weeks prior to the survey (ICF, 2022). In clinical and behavioural studies concerning women living with HIV, larger definitions, such as sexual intercourse during the past three or twelve months, are often utilised to more effectively identify trends pertinent to contraceptive requirements and HIV prevention measures. Consequently, the definition employed in every study must be explicitly articulated to guarantee accuracy in measurement and interpretation.

Conceptually, identifying sexually active women is essential in research on dual contraceptive knowledge and use because it distinguishes those who have an immediate need for dual protection from those who are not currently exposed to pregnancy or sexual transmission risks. For women living with HIV, sexual activity intersects with reproductive rights, partner safety, and prevention of mother-to-child transmission (PMTCT), making it a critical variable in sexual and reproductive health research.

- **Dual Contraceptive**

Dual contraceptive use, known as Dual Protection or Dual Method Use, entails the concurrent application of a male or female condom alongside an additional effective modern contraceptive method, such as oral contraceptive pills, injectables, implants, intrauterine devices (IUDs), or sterilisation, to accomplish two objectives: the prevention of unintended pregnancy and the mitigation of sexually transmitted infections (STIs), including HIV (WHO, 2017; UNAIDS, 2014). The concept originated from international reproductive health discussions addressing the concurrent epidemics of unplanned pregnancy and HIV, especially in sub-Saharan Africa, where women of reproductive age are disproportionately impacted.

Condoms are distinctive among contraceptive methods as they offer protection against both pregnancy and sexually transmitted infections (STIs); however, their efficacy in preventing pregnancy is inferior to that of long-acting reversible contraceptives (LARCs) or hormonal methods when used in isolation, primarily due to inconsistent or improper application (WHO, 2017). In contrast, non-barrier

contemporary contraceptives, like implants and injectables, are highly efficient at preventing pregnancy but do not offer protection against STIs or HIV transmission. Consequently, dual contraceptive use amalgamates the advantages of both methods, hence augmenting overall protection. For women living with HIV, the utilisation of multiple methods is crucial in mitigating horizontal transmission to seronegative partners and in minimising mother-to-child transmission by circumventing unwanted pregnancies (UNAIDS, 2014).

Conceptually, dual contraceptive use is distinct from both single method use and the exclusive use of dual-purpose condoms. Although condom usage alone can fulfil a dual preventive role, the phrase “dual contraceptive use” generally denotes the incorporation of a secondary, more efficacious pregnancy prevention method to offset the comparatively elevated failure rates of condoms in typical application (Hubacher, Mavranezouli & McGinn, 2008). Therefore, the notion stresses the deliberate, synergistic application of two unique approaches for holistic sexual and reproductive health safeguarding.

In public health and behavioural research, dual contraceptive use is analysed both as a practice and as a knowledge construct, encompassing awareness and comprehension of the rationale, advantages, and proper implementation of combining condoms with an additional contraceptive technique. Comprehensive conceptual clarity is crucial in research evaluating knowledge and application among sexually active women with HIV, since misunderstandings may hinder informed decision-making and engagement.

Literature Review

Global recognition has been accorded to dual contraception use as an effective approach for concurrently preventing unplanned pregnancies and mitigating the transmission of HIV and other sexually transmitted infections (STIs) (Willard & Steiner, 2002). For women living with HIV, dual protection is crucial due to the dual public health objectives of minimising vertical transmission and ensuring women's reproductive autonomy. A significant amount of research has investigated dual contraceptive awareness and usage in sub-Saharan Africa, indicating predominantly low to moderate levels of knowledge and even lower adoption rates in various contexts (Blackstone, Nwaozuru & Iwelunmor, 2017; Kibira et al, 2020; Ahinkorah, 2020; Engelbert, 2021). Common determinants discovered in this research encompass educational attainment, age, marital status, exposure to family planning information, and the quality of counselling within health systems.

Research across multiple Nigerian states reveals that whereas awareness of condom use as an HIV prevention method is generally widespread, the comprehension of dual contraception remains variable (Haruna-Ogun, 2025). Research undertaken in urban centers like Lagos and Abuja indicates that while many sexually active women living with HIV are aware of condoms, fewer comprehend the necessity of combining condoms with an additional reliable contraceptive technique for improved protection. Investigations in rural areas similarly indicate that myths and misconceptions regarding hormonal contraceptives, apprehensions about side effects, and deficiencies in counselling hinder proper understanding of dual methods (Joseph, Pradeepkumar & Chettyparambil, 2024).

Notwithstanding these helpful findings, the current literature discloses numerous significant shortcomings. Most of the information about dual contraceptive awareness among women living with HIV in Nigeria is based on data from general reproductive-age women or mixed samples that lack disaggregation by HIV status. Consequently, the distinct informational requirements, perspectives, and obstacles encountered by HIV-positive women are frequently inadequately documented. This represents a significant oversight, as living with HIV can influence reproductive decision-making in various ways, including increased concerns over partner transmission, stigma, and the interplay between antiretroviral medication and contraceptive techniques (Thornton, Romanelli & Collins, 2003).

Secondly, existing research often prioritises contraceptive usage or the intention to use over knowledge as a separate construct (McCarthy, 1981; Lee & Lee, 2015). Knowledge, encompassing a precise comprehension of methodologies, advantages, constraints, and suitable application, is essential for informed decision-making; yet it is often mistakenly equated with behavioural outcomes in analysis. Without isolating and explicitly evaluating knowledge, it is challenging to ascertain whether the poor adoption of multiple approaches is indicative of informational gaps, attitudinal hurdles, or structural obstacles in healthcare delivery.

Third, regional research in Nigeria has been uneven, with a dearth of empirical studies focused on the southwestern states in general and Oyo State in particular. Oyo State's sociocultural diversity and varied access to health services, especially between urban and rural areas, may give rise to unique patterns of awareness and misconceptions that are not reflected in studies from other regions. To date, there is limited documented evidence that systematically assesses the level of dual contraceptive knowledge among sexually active women living with HIV in this state, and even fewer studies that relate knowledge to factors such as health education exposure, quality of HIV care, or community norms.

Thus, the literature highlights clear gaps: the need for research that specifically measures and interprets knowledge of dual contraceptive use among HIV-positive women as distinct from general contraceptive awareness, and the importance of generating such evidence within the context of Oyo State. Addressing these gaps will support more targeted health education and integration of family planning within HIV care services.

Methodology

This study employed a facility-based cross-sectional design targeting sexually active Women Living with HIV (WLWH) who were receiving treatment at Anti-Retroviral Therapy (ART) clinics in Ibadan, Nigeria. Three specific health facilities were purposively selected as study sites because ART services are not available at all locations. The selected health facilities for the study include:

1. Adeoyo Maternity Health Centre, Yemetu
2. Lad Medical Centre, Orita Challenge
3. St. Annes Hospital, Molete

Subsequently, participants from these facilities were recruited using systematic random sampling to ensure a representative selection. The sample size was calculated using Fisher's formula, incorporating an estimated dual contraceptive use proportion of 46.7%, a 95% confidence level, and a 5% margin of error. This initial calculation yielded a sample of 383, which was then increased to 425 to account for a 10% non-response rate. Data collected via questionnaires will be analyzed using SPSS version 25, with descriptive statistics such as frequencies and percentages used to summarize the participants' knowledge of dual contraceptive use.

Dynamics of Sexual Health Amongst Women in Oyo State

Sexual health is an essential component of women's overall wellbeing and encompasses reproductive health, autonomy in sexual decision-making, access to healthcare services, protection from sexual violence, and the ability to make informed choices about fertility and family planning (Mitchell, Lewis, Sullivan & Fortenberry, 2021). In Oyo State, Nigeria, the dynamics of sexual health among women are shaped by the interaction of socio-cultural norms, economic factors, educational levels, healthcare access, and gender relations (Azuh, Fayomi & Ajayi, 2015). These factors collectively influence women's sexual behaviour, reproductive choices, and health outcomes. Understanding these dynamics is important for developing policies and interventions aimed at improving women's reproductive health and protecting their sexual rights in the state.

A primary factor influencing women's sexual health in Oyo State is access to reproductive health services, especially family planning and maternal healthcare. Despite a reasonably high awareness of contemporary contraceptive techniques among women in Nigeria, usage remains notably low due to several structural and cultural impediments (NPC & ICF, 2019). Research in southwestern Nigeria reveals that although numerous women possess awareness of contraceptive methods, persistent misconceptions about side effects, religious convictions, and spousal opposition frequently impede regular utilisation (Akinyemi et al., 2015). In Oyo State, the disparity between knowledge and utilisation underscores ongoing challenges in reproductive health service delivery, such as insufficient counselling services, inadequate healthcare infrastructure in rural regions, and financial barriers that hinder women's access to services.

Socio-cultural norms and gender dynamics significantly influence sexual health outcomes for women in Oyo State. Nigerian society is predominantly patriarchal, with reproductive decision-making in

households often controlled by male partners. In numerous instances, women necessitate marital approval prior to adopting family planning methods or pursuing reproductive healthcare treatments (Adedini et al., 2018). This dynamic diminishes women's autonomy and may restrict their capacity to safeguard themselves against unplanned pregnancies or sexually transmitted illnesses. Cultural norms around fertility exacerbate these issues, since women are frequently anticipated to have several children soon after marriage, rendering contraception use socially frowned upon in specific cultures.

A significant aspect of women's sexual health in Oyo State is the incidence of sexual and gender-based violence. Gender-based violence, encompassing sexual coercion and marital rape, persists as a substantial public health and human rights issue in Nigeria. Studies indicate that intimate partner violence substantially impacts adverse sexual and reproductive health outcomes in women, including heightened risks of sexually transmitted infections, unplanned pregnancies, and psychological trauma (World Health Organization, 2021). Research in southwestern Nigeria has recorded instances of sexual coercion in marriage, underscoring the inadequate acknowledgement of marital rape in some communities and the cultural silence around sexual violence (Fawole et al., 2018). These experiences adversely impact women's capacity to exercise autonomy over their sexual lives and obtain essential medical and psychological assistance.

Education and access to precise sexual health information are essential factors influencing women's sexual wellbeing. Women with elevated educational attainment are more inclined to have sufficient awareness regarding reproductive health, utilise contraceptive methods, and pursue maternity healthcare services (NPC & ICF, 2019). In numerous areas within Oyo State, open discourse around sexuality is culturally sensitive, hence restricting access to comprehensive sexuality education. Consequently, young women frequently depend on friends, social media, or informal channels for sexual health information, which may occasionally be erroneous or deceptive. Enhancing sexual health literacy via formal education and community-based initiatives is crucial for equipping women with the knowledge necessary to make informed reproductive choices.

Economic considerations substantially affect women's sexual health outcomes in Oyo State (Fatoye, Afolabi, Arowolo & Adejuwon, 2025). Poverty and unemployment can restrict women's access to reproductive health services, especially in rural regions where healthcare facilities are limited. Numerous women are compelled to depend on out-of-pocket expenditures for prenatal care, contraception, and treatment of sexually transmitted infections, which may deter the utilisation of healthcare facilities (Ononokpono & Odimegwu, 2014). Moreover, economic reliance on male partners may diminish women's negotiating power in sexual interactions, hindering their ability to advocate for safe sexual behaviours.

In response to these challenges, various governmental and non-governmental initiatives have been implemented to improve sexual and reproductive health outcomes in Oyo State (Daramola et al, 2024). Programs focusing on youth-centric reproductive health services, community health education, and women's empowerment have been established to improve awareness and accessibility to services. National initiatives, such as the National Reproductive Health Policy and Strategy, aim to improve access to reproductive healthcare and promote gender equity in health services across Nigeria (Federal Ministry of Health, 2017). These strategies are gradually improving awareness and access to healthcare, however significant gaps remain in execution and community acceptance.

The sexual health dynamics of women in Oyo State are influenced by a multifaceted interplay of socio-cultural, economic, and institutional factors. Despite advancements in understanding of reproductive health issues, challenges such as restricted autonomy in reproductive decision-making, gender-based violence, insufficient healthcare access, and socio-economic disparities persistently impact women's sexual wellbeing. Addressing these difficulties necessitates comprehensive policy interventions that advance

gender equality, enhance healthcare infrastructure, broaden sexuality education, and economically and socially empower women. Such initiatives are crucial for guaranteeing that women in Oyo State can completely exercise their sexual and reproductive rights while experiencing enhanced health and wellbeing.

Socio-Cultural and Health-Related Challenges of Women Living with HIV/AIDS in Oyo State

Women living with HIV/AIDS in Oyo State, Nigeria, face numerous socio-cultural and health-related challenges that significantly affect their wellbeing and quality of life (Olawoyin, 2021). Despite improvements in HIV prevention, treatment, and awareness in Nigeria, women continue to experience disproportionate vulnerability due to gender inequality, socio-cultural norms, economic dependency, and barriers within the healthcare system. These challenges not only influence their ability to access treatment and care but also affect their psychological health, social integration, and economic stability.

One of the major socio-cultural challenges faced by women living with HIV/AIDS in Oyo State is stigma and discrimination (Olawoyin, 2021). HIV-related stigma remains a persistent problem in many communities in Nigeria, often resulting in social exclusion, rejection by family members, and discrimination in workplaces and healthcare settings. Women are particularly vulnerable to stigma because HIV infection is frequently associated with immoral behaviour or promiscuity within traditional social perceptions (UNAIDS, 2022). In many cases, women diagnosed with HIV experience blame from their spouses or community members, even when the infection may have been contracted within marriage. This stigma discourages many women from disclosing their HIV status or seeking timely medical treatment, thereby increasing the risk of poor health outcomes and continued transmission of the virus (Avert, 2021).

Gender disparity and cultural norms exacerbate the difficulties encountered by women with HIV/AIDS. In numerous communities within Oyo State, patriarchal societal frameworks constrain women's autonomy in sexual and reproductive decision-making. Women frequently rely on male partners for economic support and may lack the authority to negotiate healthy sexual practices, including condom usage. Consequently, women may face recurrent infections or be unable of preventing the transmission of the virus to others. Cultural expectations regarding marriage and childbirth may exert pressure on women living with HIV to persist in having children, notwithstanding the related health risks. Such pressures may induce emotional stress and familial conflict, especially when the revelation of HIV status precipitates marital instability or divorce (National Agency for the Control of AIDS [NACA], 2021).

A notable socio-cultural concern is the effect of HIV/AIDS on women's economic prospects. A significant number of women with HIV encounter diminished productivity as a result of illness, recurrent medical appointments, and the physical ramifications of the infection or its treatment. In certain instances, stigma and prejudice might result in job loss or challenges in obtaining employment. Economic adversity might hinder women's ability to secure transportation to healthcare institutions, acquire nutritional food essential for antiretroviral medication (ART), or deliver sufficient care for their children. These economic pressures may further intensify their susceptibility and restrict compliance with treatment programs.

Alongside socio-cultural issues, women living with HIV/AIDS in Oyo State face other health-related obstacles. Nigeria has made significant advancements in increasing access to antiretroviral medication; nonetheless, inequities in healthcare access persist as a critical issue. Rural towns frequently possess insufficient healthcare facilities, a scarcity of medical workers, and a deficit of important medications. Women living in isolated regions of Oyo State may encounter challenges in obtaining regular HIV treatment and counselling services (NPC & ICF, 2019). Prolonged delays in accessing healthcare services can exacerbate illness development and elevate the risk of opportunistic infections, including tuberculosis and several sexually transmitted infections.

A further health-related difficulty is the psychological strain linked to living with HIV/AIDS. Women diagnosed with HIV often endure mental discomfort, worry, and depression stemming from fears of social ostracism, uncertainty regarding their health, and worries about their children's welfare. Mental health

issues may also stem from the stigma linked to the disease and the urge to hide their HIV status. Mental health services are regrettably inadequate in numerous healthcare institutions in Nigeria, resulting in insufficient psychological assistance for many women (World Health Organization, 2021).

Moreover, compliance with antiretroviral therapy poses further difficulties for numerous women affected by HIV/AIDS. Effective HIV therapy necessitates rigorous compliance with medication regimens and consistent oversight by healthcare practitioners. Nevertheless, elements such as financial limitations, transportation challenges, adverse pharmaceutical effects, and societal stigma might adversely impact adherence. In certain instances, women may cease treatment due to apprehension that others may uncover their HIV status while attending clinics or openly administering medication. Inadequate compliance with treatment may result in drug resistance, therapeutic failure, and heightened health consequences.

Notwithstanding these limitations, numerous interventions have been instituted to assist women living with HIV/AIDS in Oyo State. Government agencies, foreign organisations, and non-governmental groups have augmented HIV testing services, preventive programs, and treatment activities throughout the state. Community-based initiatives aimed at women's empowerment, health education, and stigma alleviation have been implemented to enhance the quality of life for women living with HIV. These measures are vital for enhancing healthcare accessibility, fostering social acceptance, and guaranteeing that women obtain the necessary help to manage their health proficiently.

Women with HIV/AIDS in Oyo State have a varied array of socio-cultural and health-related difficulties. Stigma, gender disparity, economic precariousness, restricted healthcare access, and psychological suffering collectively exacerbate the challenges faced by these women. Addressing these difficulties necessitates comprehensive methods that encompass fortifying healthcare systems, advancing gender equality, augmenting mental health services, and executing community-based educational programs designed to mitigate stigma. By tackling these interrelated concerns, policymakers and healthcare professionals can markedly enhance the health outcomes and general wellbeing of women living with HIV/AIDS in Oyo State.

An assessment of Dual Contraceptive Use in Nigeria

In Nigeria, the promotion of dual contraceptive use has become an important public health strategy, particularly in addressing reproductive health challenges among sexually active populations. Despite increasing awareness of family planning and HIV prevention programmes, the prevalence of dual contraceptive use remains relatively low, highlighting the need for a comprehensive assessment of its patterns, determinants, and barriers (Haruna-Ogun, 2025). In Nigeria, reproductive health policies emphasise the importance of dual protection in reducing maternal mortality, unintended pregnancies, and the spread of HIV/AIDS. However, national survey data suggest that contraceptive utilisation in general remains modest (Ayanlaye, 2013). According to the Nigeria Demographic and Health Survey, the modern contraceptive prevalence rate among married women aged 15–49 was about 12 percent, indicating that many women remain at risk of unintended pregnancies (NPC & ICF, 2019). Within this context, the adoption of dual contraceptive methods is even lower because it requires both awareness of multiple contraceptive options and consistent use of condoms alongside another modern contraceptive method. Studies conducted in different parts of Nigeria have found that dual contraceptive use is more common among individuals who are aware of HIV prevention strategies and who have access to reproductive health counselling services (Asekun-Olarinmoye et al., 2013).

The level of awareness and knowledge about dual contraceptive methods plays a crucial role in determining their adoption. Many Nigerian women are aware of individual contraceptive methods such as condoms or oral pills, but fewer understand the concept of using two methods simultaneously for dual protection (Bello, Oluwasola & Belo, 2016). In some cases, health education programmes focus primarily

on pregnancy prevention rather than on combined protection against both pregnancy and sexually transmitted infections. As a result, individuals may rely on a single method of contraception, which may not adequately protect against both reproductive health risks. Research has shown that women who receive counselling during antenatal care visits or family planning consultations are more likely to adopt dual contraceptive practices because they are informed about the benefits of dual protection (Asekun-Olarinmoye et al., 2013).

Socio-cultural and gender-related factors also influence the uptake of dual contraceptive methods in Nigeria. In many Nigerian communities, cultural norms and gender power dynamics limit women's ability to negotiate condom use within sexual relationships (Awoleye, Solanke, Kupoluyi & Adetutu, 2022). Male partners often influence contraceptive decisions, and resistance from partners may discourage women from adopting condom use even when they are using another form of contraception. Additionally, misconceptions about condoms such as beliefs that they reduce sexual pleasure or signify mistrust between partners can discourage consistent use (Ogala & Xiang, 2026). Religious beliefs and social expectations regarding fertility may also affect the willingness of couples to use contraceptives, particularly in rural communities where large family sizes are often culturally valued (Adedini et al., 2018).

Another factor affecting dual contraceptive use in Nigeria is access to reproductive health services (Solanke, 2017). Healthcare facilities in urban areas are generally better equipped to provide counselling, contraceptive commodities, and HIV prevention services compared to rural areas. Women living in rural communities may face challenges such as long distances to healthcare facilities, shortages of trained health workers, and limited availability of contraceptive supplies. These structural barriers can reduce the likelihood that women receive adequate counselling on dual contraceptive methods or obtain consistent access to condoms and other modern contraceptives (NPC & ICF, 2019). Furthermore, financial constraints and out-of-pocket healthcare expenses may discourage individuals from seeking family planning services regularly.

Dual contraceptive use is particularly important among populations at higher risk of HIV infection, including women living with HIV and individuals in serodiscordant relationships where one partner is HIV-positive, and the other is HIV-negative. Among these groups, dual protection helps prevent both unintended pregnancies and the transmission of HIV to partners or unborn children. Research has shown that counselling and support services provided in HIV treatment centres can significantly increase the likelihood of dual contraceptive adoption among people living with HIV (Ogunbode et al., 2017). Integrating family planning services into HIV care programmes has therefore been identified as an effective strategy for improving dual contraceptive use.

Despite these challenges, various public health interventions have been implemented in Nigeria to promote dual protection. Government agencies, non-governmental organisations, and international health partners have introduced reproductive health campaigns, youth-friendly health services, and community education programmes to increase awareness about family planning and HIV prevention (Odimegwu, Akinyemi & Alabi, 2027). Policies such as the National Reproductive Health Policy and the National HIV/AIDS Strategic Framework emphasise the integration of sexual and reproductive health services, which includes the promotion of dual contraceptive methods (Federal Ministry of Health, 2017). These initiatives aim to strengthen healthcare systems, improve access to contraceptive commodities, and encourage responsible reproductive health practices among Nigerian populations.

The assessment of dual contraceptive use in Nigeria reveals that while awareness of contraception is increasing, the actual adoption of dual protection remains relatively low due to socio-cultural, economic, and healthcare-related barriers. Factors such as limited knowledge, gender power imbalances, inadequate healthcare access, and cultural attitudes toward contraception continue to influence contraceptive behaviour. Strengthening reproductive health education, expanding access to family planning services, and integrating HIV prevention with reproductive health programmes are essential strategies for improving the

uptake of dual contraceptive methods. Promoting dual protection will not only reduce unintended pregnancies but also contribute significantly to controlling the spread of sexually transmitted infections, thereby improving overall public health outcomes in Nigeria.

Discussion of Results: Level of Knowledge of Dual Contraceptive Use among Sexually Active Women Living with HIV in Oyo State

Table 1.1 below provides information about knowledge regarding dual contraception use among Sexually Active Women Living with HIV in Oyo State. Among the respondents, 25.2% are classified as having poor knowledge, while 74.8% have good knowledge about dual contraception.

Table 1.1: Level of Knowledge of Dual Contraceptive Use among Sexually Active Women Living with HIV in Oyo State

Knowledge	Frequency	Percent (%)
Poor	107	25.2
Good	318	74.8

Source: Field Survey 2023

Table 1.2 below shows the response of participants to dual contraceptive knowledge questions. For the statement "Women living with HIV should use a condom with other modern contraceptive methods," a substantial portion disagreed, with 26.6% providing a disagreement and 26.1% strongly disagreeing. Regarding the statement "Dual contraceptive method prevents unintended pregnancy," responses were distributed evenly between agreement and disagreement, with 20% strongly agreeing and 21.2% strongly disagreeing. For the statement "Dual contraceptive method prevents HIV transmission to sexual partners," a notable proportion agreed, with 18.8% strongly agreeing and 40.7% agreeing. In contrast, the statement "Dual contraceptive method prevents other STI transmission" received predominantly positive responses, with 27.5% strongly agreeing and 47.3% agreeing. Finally, opinions on the statement "Dual contraceptive method prevents high viral load result" were more evenly divided, with 32.2% disagreeing and 27.5% strongly disagreeing.

Table 1.2: Dual Contraceptive Knowledge among Respondents

Knowledge Questions	Strongly Agree	Agree	Disagree	Strongly disagree
Women living with HIV should use condom with other modern contraceptive methods	66(15.5)	135(31.8)	113(26.6)	111(26.1)
Dual contraceptive method prevents unintended pregnancy	85(20)	125(29.4)	125(29.4)	90(21.2)
Dual contraceptive method prevents HIV transmission to sexual partner/s	80(18.8)	173(40.7)	118(27.8)	54(12.7)
Dual contraceptive method prevents other STI transmission	117(27.5)	201(47.3)	85(20)	22(5.2)
Dual contraceptive method prevents high viral load result	49(11.5)	122(28.7)	137(32.2)	117(27.5)

Source: Field Survey 2023

Conclusion

The findings from the study indicate that knowledge of dual contraceptive use among sexually active women in Oyo State is mixed and, in some areas, inadequate. While most respondents demonstrated awareness that dual contraceptive methods can prevent HIV transmission to sexual partners and reduce the risk of other sexually transmitted infections, there remains considerable misunderstanding regarding other key aspects of dual protection. Notably, a significant proportion of participants disagreed that women living with HIV should combine condoms with other modern contraceptive methods, suggesting gaps in knowledge about recommended reproductive health practices for HIV prevention and family planning. Similarly, perceptions regarding the effectiveness of dual contraceptive methods in preventing unintended pregnancy were divided, reflecting uncertainty or inconsistent information among respondents.

Overall, the results suggest that although some awareness exists regarding the protective role of dual contraceptive methods against HIV and other sexually transmitted infections, misconceptions and knowledge deficits persist, particularly regarding their role in comprehensive reproductive health management. These gaps highlight the need for strengthened health education, targeted awareness campaigns, and improved counselling services within reproductive health programmes in Oyo State. Enhancing accurate knowledge about dual contraceptive use could contribute to improved adoption of dual protection strategies, thereby reducing unintended pregnancies, limiting the transmission of HIV and other STIs, and improving the overall sexual and reproductive health outcomes of sexually active women.

Recommendations

Based on the findings of the study, the following public health recommendations are proposed:

1. Public health institutions should enhance community-based education on dual contraceptive techniques, particularly stressing the concurrent use of condoms with other modern contraceptives. Health campaigns must rectify myths and elucidate the advantages of dual protection in averting unwanted pregnancies, HIV transmission, and other sexually transmitted illnesses.
2. Healthcare providers ought to incorporate extensive counselling on dual contraceptive use into standard services at HIV treatment centers, prenatal clinics, family planning clinics, and primary healthcare institutions. Customised counselling can assist women in comprehending the significance and proper application of dual protection techniques.
3. Continuous training programs must be implemented for healthcare professionals to enhance their ability to educate and counsel women about dual contraception options. This will guarantee that healthcare professionals deliver consistent, precise, and culturally attuned information throughout patient contacts.
4. Public health interventions must promote the engagement of male partners in family planning and HIV prevention efforts. Involving men in community outreach and education can enhance the acceptance and regular utilisation of condoms in conjunction with other contraceptive options.
5. Government and health agencies must guarantee the availability and accessibility of condoms and other contemporary contraceptive techniques in healthcare institutions and community outlets. Furthermore, reproductive health services tailored for youth should be enhanced to effectively serve sexually active women, especially younger demographics who may encounter obstacles in obtaining correct sexual health information and services.

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