



Contraceptive Prevalence and Pattern Amongst Human Immunodeficiency Virus Infected (HIV) Women of Reproductive Age Attending the Special Treatment Clinic (STC) of a Tertiary Health Facility in North Central Nigeria

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ABSTRACT

Background: Nigeria has the second largest burden of HIV in the world and Mother to Child transmission of HIV is the predominant mode of transmission in children. Family planning is the most cost-effective strategy to reduce mother to child transmission of HIV. **Aim/Objective:** The study was to determine the prevalence and pattern of contraceptive use amongst HIV infected women attending the special

treatment clinic of University of Abuja Teaching Hospital. **Methods:** A cross-sectional descriptive study was carried out on 383 enrolled participants using systematic random sampling technique. Data was collected via a pretested semi structured interviewer administered questionnaire. **Results:** The contraceptive prevalence among all study participants was 47% while the prevalence of contraceptive use among the sexually active study participants was 64.1%. The most commonly used contraceptive was the male condom (66.1%). The practice of dual contraception among participants who used any form of contraceptive was 25.4% and the commonest combination was condom with oral contraceptive pill. **Conclusion:** Despite the strides made so far in family planning services among HIV infected women there is still a gap in the reproductive health of these women as 35.9% of study participants did not practice any form of contraception while only 25.4% use dual contraception.

Keywords: HIV/AIDS, Contraceptive, Reproductive Age

INTRODUCTION

The face of the HIV/AIDS pandemic has changed dramatically since its emergence in the 1980s; from being seen as an illness of homosexual men to increasingly affecting women globally [1]. Sub-Saharan Africa has the highest prevalence and incidence of HIV infection in the world. These days, women of reproductive age account for 60% of all adult infections and 75% of infections among people 15–24 years old [2]. At the end of 2018, it was estimated that in Nigeria, people living with HIV were about 1.9 million in which children aged 0-14 living with HIV are 150,000 and women aged 15 and above are 940,000 [3].

Sub-Saharan Africa continues to have the highest rates of new infection and the key drivers of the Nigeria HIV pandemic are heterosexual transmission and mother-to-child transmission [4]. Mother-to-child transmission (MTCT) is by far the largest source of HIV infection in children below the age of 15 years and yearly, nearly 350,000 infants are infected with HIV via mother-to-child transmission (MTCT) worldwide [5]. According to WHO recommendations, the main pillars of PMTCT are preventing HIV infection in women of child-bearing age, preventing unwanted pregnancies among women living with HIV, reducing HIV transmission from women living with HIV to their infants and providing care and support for women living with HIV, their children and families [6].

Each year, about 1.5million HIV infected women become pregnant; mainly in sub-Saharan Africa [7]. Preventing unintended pregnancies among women living with HIV is an important component of prevention of mother to child HIV transmission yet few data exist on contraceptive use among women on HIV care [8]. The sexual and reproductive decisions faced by these women with HIV involve their desire for pregnancy, their contraceptive practices, their choices about an unintended pregnancy, and their prenatal and postnatal options to reduce perinatal transmission of HIV [9].

Contraception is the intentional prevention of conception through the use of various devices, sexual practices, chemicals, drugs, or surgical procedures [10]. Thus, any device or act whose purpose is to prevent a woman from becoming pregnant can be considered as a contraceptive [10]. This offers women, their family and their communities regardless of their HIV status; a variety of benefits by delaying first birth, lengthening birth intervals, reducing the total number

of children born to a woman, preventing unintended pregnancies and reducing unsafe abortion thus contraception has a major impact on improving overall maternal and infant health [11]. In any social context, effective contraception allows a couple to enjoy a physical relationship without fear of an unwanted pregnancy and ensures enough freedom to have children when desired [10].

In 2014, National Agency for Control of AIDS (NACA) reported a 5.8% prevalence of HIV among pregnant women in the North Central part of Nigeria which was the highest even though the region had the lowest overall contraceptive use as reported in 2013 [12].

OBJECTIVES

To determine the prevalence and pattern of contraceptive use amongst HIV infected women attending the special treatment clinic of UATH.

MATERIALS AND METHOD

The study was conducted at the Special Treatment Clinic (STC) of the University of Abuja Teaching Hospital, Gwagwalada, FCT-Abuja, North Central Nigeria. The special treatment clinic is an outlet where outpatient care is offered to HIV positive and HIV exposed patients within the hospital. This clinic had offered care to 2859 females of reproductive age at the end of March 2019.

It was a hospital based cross-sectional descriptive study and 383 consenting women of reproductive age were recruited by systematic random sampling technique. Data was obtained using a pretested semi-structured questionnaire developed based on the objectives for a seven-week period. HIV infected females in the reproductive age group (15-49 years) were included in the study while those who were post-menopausal and acutely ill patients who could not withstand the interviewing process were excluded.

The data collected from the study was analysed using the Statistical package for social sciences (SPSS) software version 21.0 (SPSS Inc., Chicago USA). Data was represented using tables, bar and pie charts. Categorical variables were expressed as proportions and percentages while continuous variables were expressed as means $\pm$ standard deviations.

Ethical Issues

Ethical clearance for the study was obtained from the Health Research Ethics committee of the hospital, written informed consent was obtained from the participants and all information obtained from the patients was kept confidential by the researcher.

RESULTS

Within the period of study 383 eligible participants were each interviewed with the study questionnaire.

The age range of study participants was 15-49 years and the mean age was 33.4 years with a standard deviation of 7.5 years.

In terms of marital status 57.2% were married at the time of the study, 28.7% were single, 8.6% were widowed, 4.4% were separated while 1.6% were divorced. The type of marriage practised

by the participant showed mostly monogamous marriages, 84.4% while 15.6% had been in a polygamous marriage.

Majority of the participants had at least secondary level of education as the highest educational level as 44.6% had attained tertiary level of education while 43.9% had secondary level as the highest educational level.

In terms of occupational status 52.5% were businesswomen, 23% were civil servants, 20.5% were others which includes housewives and students while 3.9% were farmers.

The monthly income of study participants showed that just 1.5% earned greater than or equal to 150,000 Naira while 36.6% earned 50,000-99,000 Naira and 20.9% earned less than 20,000 Naira.

Amongst the major tribes in Nigeria Igbo were the highest number constituting 23.0%, Yoruba were 12.8% and Hausa were 6.2%. Others were 58% which includes Gbagyi, Bassa, Idoma, Tiv, Nupe, Mada, Jukun, Igala, Berom, Taorok, Ishan, Ibibio, Eggon, Igbira, Igede, Ogoja and Wamba. In terms of religion Christianity was 81.2%, Islam was 18.5% while African traditional religion was 0.3%.

One hundred and sixty-five (58.9%) participants had partners who had tertiary level of education while 1.4% had partners with no education. In terms of partner's occupation 56.1% had partners who were businessmen.

Table 1: Sociodemographic characteristics of study participants

Variables	Frequency (N=383)	Percentage (%)
Age Group (Years)		
≤20	38	9.9
21 – 30	85	22.2
31 – 40	174	45.4
>40	86	22.5
Marital Status		
Single	110	28.7
Married	219	57.2
Separated	15	3.9
Divorced	6	1.6
Widowed	33	8.6
Educational level		
No formal education	13	3.4
Primary	31	8.1
Secondary	168	43.9
Tertiary	171	44.6
Occupational status		
Business	201	52.5
Civil servant	88	23.0
Retired	2	0.5

Farmer/Artisan	15	3.9
*Others	77	20.1
Tribe		
Igbo	88	23.0
Yoruba	49	12.8
Hausa	24	6.2
*Others	222	58.0
Religion		
Christianity	311	81.2
Islam	71	18.5
African traditional religion	1	0.3
Income (NGN)		
<20,000	80	20.9
20,000 – 49,000	124	32.4
50,000 – 99,000	140	36.6
100,000 – 149,000	33	8.6
≥150,000	6	1.5
<i>Median = 66,000; Range = 5,000 – 250,000</i>		
Type of marriage	(N = 275)	
Monogamy	232	84.4
Polygamy	43	15.6
Partners educational level	(N = 280)	
No formal education	4	1.4
Primary	15	5.4
Secondary	96	34.3
Tertiary	165	58.9
Partner's occupational status	(N = 280)	
Business	157	56.1
Civil Servant	88	31.7
Retired	4	1.4
Farmer/Artisan	12	4.3
*Others	19	6.5

*Others in Participants Occupational status includes Housewives, Students, house keeper

*Others in Tribe includes Gbagyi, Bassa, Idoma, Tiv, Nupe, Mada, Jukun, Igala, Berom, Taorok, Ishan, Ibibio, Eggon, Igbira, Iggede, Ogoja and Wamba.

*Others in Partners Occupation includes Students, Drivers, Apprentice, Mechanics.

Prevalence of Contraceptive Use Among the Study Participants

The prevalence of contraception among the study participants was 47% as shown in the Pe chart in figure 1.

Contraceptive prevalence among married study participants was 54.3% out of two hundred and ninety-one participants while prevalence of contraceptive use among sexually active study participants was 64.1% out of two hundred and eighty-one study participants that were sexually active as depicted in the bar chart in figure 2.

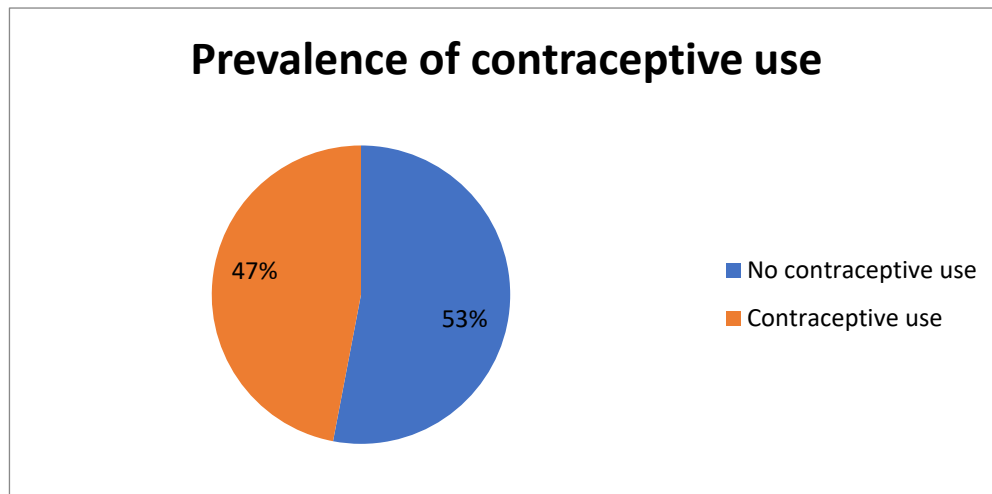


Figure 1: Prevalence of contraceptive use among all study participants

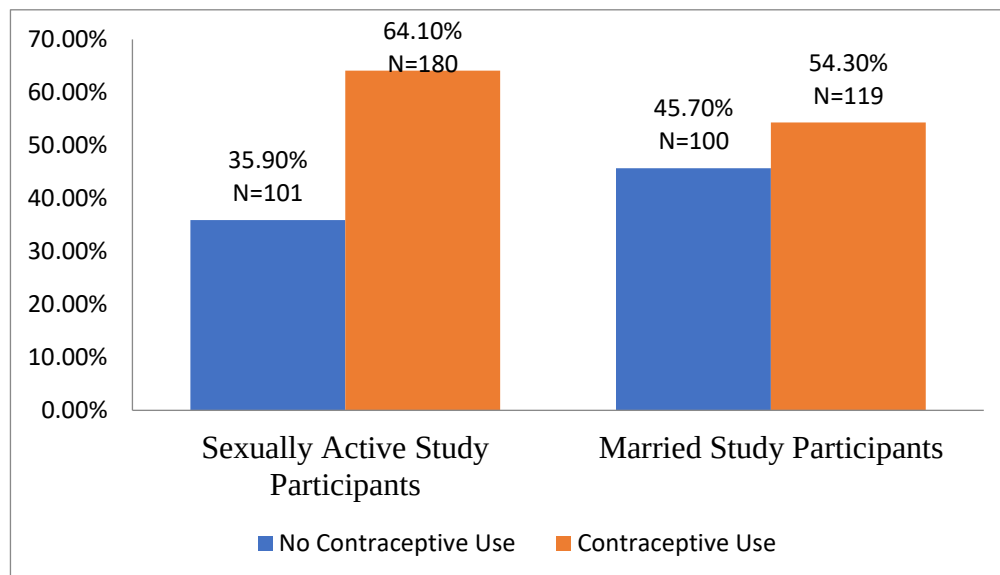


Figure 2: Contraceptive prevalence among sexually active and married study participants

Pattern of Contraceptive Use Among the Study Participants

The pattern of contraceptive use among study participants is depicted in figure 3.

One hundred and nineteen (66.1%) of the study participants who used contraception used male condoms, 15.6% used injectable hormonal contraception, 12.2% used oral contraceptive pill, 9.4% used withdrawal method, 8.9% used periodic abstinence, 6.7% used the female condom and 6.7% used the intrauterine device. None of the study participants used surgical sterilization as a means of contraception.

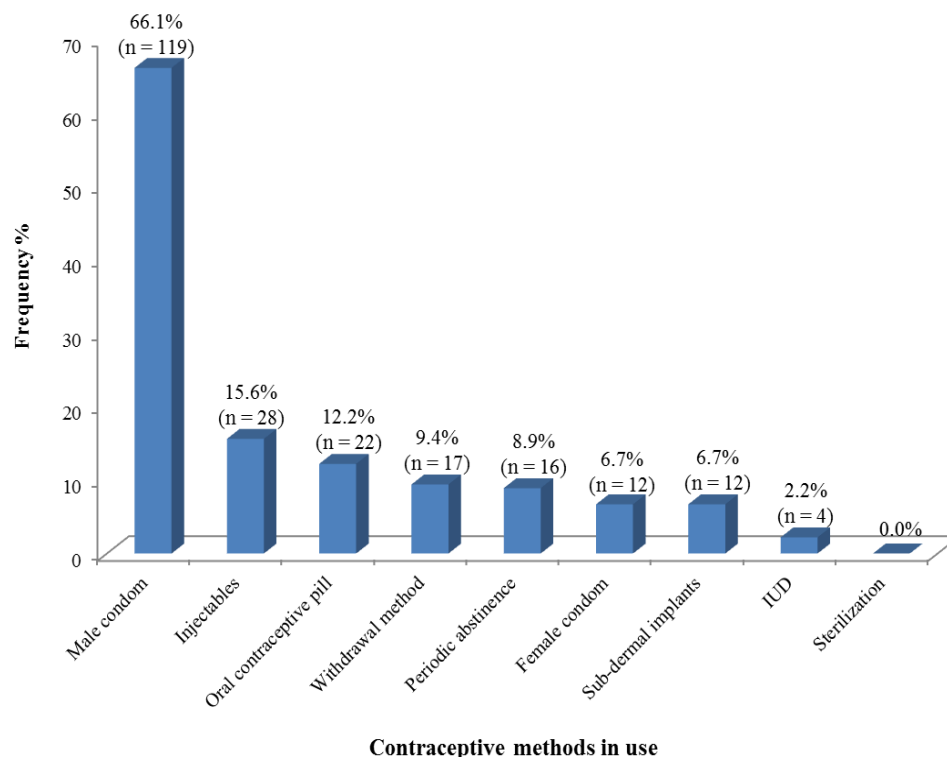


Figure 3: Pattern of contraceptive use among the study participants

*Multiple responses

DISCUSSION

One hundred and eighty HIV infected women (47.0%) used contraceptives out of the 383 study participants. Almost two thirds (64.1%) of sexually active participants used any form of contraception. This was similar to contraceptive prevalence in a study done in Zaria which was 56.1% [13] and Ibadan which was 67.7% [14]. However, the contraceptive prevalence in this study was lower than that seen in a study in Enugu at 73.1%¹⁵ and Togo at 74.7%¹⁶. This was probably because both studies were done across more than one HIV treatment centre. This contraceptive prevalence is however higher than in a study done in Birnin Kudu, Jigawa at 10% [17]. However, this study in Birnin Kudu had the majority religion was Islam which has been shown in this study to be associated with lower contraceptive use. Another study in Ethiopia by Alene and Atalell which showed lower contraceptive prevalence of 30.3% [18]. The low prevalence of contraceptive use in their study was explained by the likely high level of desire for children among the married women, and likely low levels of sexual desire among the separated, divorced and widowed women. These group of women were in high proportions in their study.

In this study male condom was the most commonly used method of contraception at 66.1% either alone or dual protection followed by hormonal injectables at 15.6%. This is similar to a study where male condoms were used by majority of the sexually active HIV women including in Zaria where condoms use was at 60.4% [13]. Another study at Enugu showed condom use at 78.1% [15]. This was similar to other studies done in Togo at 74.7% [16] and Mumbai at 92.7% [19]. Conversely, a study done in Lagos showed more HIV infected women using hormonal injectable contraception at 45.8% with those using male condom at 21% [20]. However, this

study in Lagos was done in a family planning centre where contraceptive counselling was done and there was accessibility to other form of contraceptive devices. However nowhere in the world is the consistent and correct use of condom more important than in Sub-Saharan Africa in preventing STI infection including HIV. In this study none of the participants used any form of sterilization; this is probably because this method of contraception is not widely accepted in developing countries like Nigeria.

This study also showed 25.6% of the sexually active study participants practiced dual protection. This was similar to a study done in Enugu state, southeast Nigeria, where dual contraception was 25.1% [15] and Ebonyi state where the dual contraception practice was 27.2%²⁰ but higher than in another study in Togo where dual protection was 16.9% [16]. This could be because of sociodemographic differences and that only recently did Togo benefit from a program to strengthen their skill in family planning.

In this study the most common combination of methods used for dual contraception was condom with oral contraceptive pills. This is contrary to the study done in Ebonyi done by Lawani et al where the most common combination was condom with hormonal injectables [21]. However, in their study majority of the participants were married women who did not know their partners' HIV status and thus may prefer using condoms with a long acting reversible contraceptive like hormonal injectables.

Condom has the potential to offer dual protection, thus reducing the burden of unwanted pregnancy and sexually transmitted infection in the sub-region. However, condom has a failure rate of 15 per 100 women years (that is if worn properly and consistently use), thus is not as effective in preventing unwanted pregnancies.

The high fertility, serodiscordant and seroconcordant rates amongst the respondents in this study justifies the need to promote the use of dual method as a form of safer sex practice by all HIV infected individuals as recommended by global health bodies. Unsafe sexual practises fuels STIs which enhance HIV transmission especially among serodiscordant couples and these counters the efforts made to eliminate new infections.

LIMITATIONS

1. Consistency and proper use of contraceptive was not evaluated. However, this was left for future research purposes
2. The study relied on self-reported information from PLHIV in a health care setting. Hence, there may be social desirability bias. The researcher assured the study participants that there would be no victimization irrespective of their response.
3. Due to the cross-sectional nature of the study, the timing of snap shot is not guaranteed to be representative as patients' responses may change if there was a follow up.

CONCLUSION

Family planning is one of the most important and yet least emphasized pillars for prevention of mother to child transmission of HIV. The results of this study showed the prevalence of contraceptive of 47% among all the study participants and 64.1% among the sexually active participants. Male condoms were the most commonly used contraceptive method, however there was a low practice of dual protection. This study shows that strengthening the link

between HIV services and reproductive health through improved integration of family planning services with a goal to reduce unintended pregnancies would essentially prevent mother to child transmission. Dual protection needs more emphasis through counselling as the practise of safer sex using dual methods serves to protect against STIs and prevent unintended or high-risk pregnancies. This in turn will improve the reproductive challenges encountered by HIV infected women. Such counselling may improve preference and usage of more effective contraceptive methods.

RECOMMENDATIONS

1. Improved integration of family planning services by establishing family planning unit within the special treatment centre; making it more accessible to the HIV patient.
2. Identifying and promoting effective counselling strategies that will improve safer sexual and contraceptive practices
3. Encouraging dual protection through public enlightenment programs and mass media.
4. Advocating for government and nongovernmental organizations' involvement in ensuring improved accessibility and availability of contraceptive methods through subsidies and donations.

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