

ORIGINAL ARTICLE

Condom use among HIV sero-concordant couples attending a secondary health facility in North-Central Nigeria

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ABSTRACT

Background: Condom use during intercourse is perceived as unnecessary in sexual encounters involving a regular partner. The non-use of condom among HIV-positive people has been found to increase the risk of resistance to anti-retroviral therapy. The objective of this study was to determine the pattern of condom use among HIV sero-concordant couples attending a secondary health facility in North-Central Nigeria. **Materials and Methods:** This is a cross-sectional survey that was carried out among people living with HIV and AIDS (PLWHA) who have been enrolled into care and treatment at General Hospital Abejukolo in Kogi State, Nigeria. The data instrument used was self-/interviewer-administered questionnaire. The data obtained were analysed using EPI-INFO version 3.4.1 software package. Chi-square test was used and $P < 0.05$ was considered significant for the study. **Results:** Assessment of knowledge of the respondents on the correct use of condom showed that two-thirds (60; 65.9%) had good knowledge and 70 (79.6%) of them demonstrated positive attitude towards the use of condom during sexual intercourse. About one-third of the respondents (32; 35.2%) would oblige the spouse sexual intercourse without condom mainly because they are both positive, to fulfil marital obligations and to avoid problems in marital relationship. Less than two-thirds (59.3%) of sero-concordant spouse used condom during sexual intercourse for reasons of preventing re-infection and pregnancy. **Conclusion:** With one-third of respondents not using condom during sexual intercourse, there is a great challenge for spread of HIV infection and risk of drug resistance in HIV care and management. Therefore, stakeholders at various levels should intensify efforts and support research towards behavioural modification in addressing the existing lacunae in HIV control.

Key Words: Condom use, Human immunodeficiency virus infection, Nigeria, Sero-concordant couple

INTRODUCTION

Human immunodeficiency virus infection (HIV) and acquired immunodeficiency syndrome (AIDS) epidemic has become a serious health and developmental problem in many countries around the world.^[1] AIDS also continues to be the leading cause of death in Africa and studies have shown that condoms are highly effective in preventing HIV transmission when used properly.^[2] HIV and AIDS is to a large extent a crisis of sexual behaviour, as unsafe sex is responsible

for a large majority of HIV infection in the sub-Saharan Africa, Latin America and the Caribbean.^[3] No cure is available for AIDS as of now and the disease threatens the social and economic well-being of the countries of the world.^[4] Sexual transmission accounts for about 80% of cases of HIV infection in developing countries.^[5] It is also the predominant mode of transmission in central and western Europe.^[6]

In Nigeria, the national level of awareness of HIV and AIDS is estimated to be 90%.^[7] People are aware that their ways

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of life, which include sex work, casual sex, indiscriminate unprotected sex and multiple sexual partners, put them at risk of infection with HIV/AIDS. Despite the acceptance and awareness that AIDS is real, deadly and incurable, people still continue to engage in risky sexual activities.^[7] Over the past decades, huge efforts have been made to make condoms use more widely accessible and acceptable. The major emphasis has been on their use outside marriage and some success has been achieved in this regard.^[2] Despite accumulated evidence of interventions aimed at preventing infection, super-infection is not often recognised in the same way as primary infection, in spite of its epidemiology and impact on the immune system. Individuals infected with HIV often think that they do not have to protect themselves against re-infection with HIV. Previous studies looked at uninfected people in sexual relationship with HIV-infected partners and found that even with repeated sexual contact, 98-100% of those people who used latex condoms correctly and consistently did not become infected.^[8]

In Nigeria, majority of sexually active persons do not use condom during intercourse. Condom use during intercourse is not perceived as necessary in sexual encounter involving a regular partner.^[9,10] Condom use does not offer total protection but a good-quality, new condom will significantly reduce the risk of infection.^[11] In a study of discordant couples in Europe, among 123 couples who reported consistent condom use, none of the uninfected partner became infected. In contrast, among the 122 couples who used condom inconsistently, 12 of the uninfected partners became infected.^[12] Similarly, Mark Cichoki reported that even with repeated sexual contact, among discordant couples, 98-100% percent of those who used latex condoms correctly and consistently did not become infected.^[13] In a study in South Africa on condom use among sero-concordant couples, 16.9% of the participants used condoms regularly and most of the reasons reported for not using condoms related to alcohol intoxication, social and cultural beliefs as well as gender inequality.^[2]

Lack of access to free condoms lower the likelihood of use. Among 450 female, street sex workers surveyed in Ghana, fewer than 25% had access to free condom and 69% said they would use condom always if they had access to condom free of charge.^[14] According to the 2003 assessment, only 43% of people worldwide who wanted to use condom during sex could obtain one.^[15] Decreasing condom price in Brazil in early 1990s resulted in massive increase in the number of condoms purchased. Increase in condom accessibility and availability promoted by Ford Foundation in South Africa (through mass distribution and vending machines in work places, toilets) increased uptake 25-fold.^[16]

A study carried out among people living with HIV and AIDS (PLWHA) in Maiduguri, Nigeria shows that 75.6% were sexually active and 62.2% never used condom.^[17] Similarly, in a study of fertility desire and sexual behaviour of people living with HIV/AIDS within the age of 15-59 years in south-western Nigeria, 48.8% of the respondents use condom regularly and 9.5% of respondents had multiple sexual partners.^[18]

Another study among people living with HIV/AIDS in Kaduna State, Nigeria reported that there was a general belief among PLWHAs that poverty, unprotected sexual activity and polygamy are the main cause of the continued spread of HIV/AIDS.^[19] Majority of the female PLWHAs are not well informed about the issue of safe sex. Some PLWHAs know about sexually transmitted infections (STI) and how they manifest even though most of them do not know that STIs can have no symptoms, especially in the females, few of them know about the male condom, fewer still know about female condom. Some male PLWHAs do not like condom because they claim it removes the pleasure of sex; some do not believe in condoms.

The female condom, which is known by few people, is not popular due to high cost, unavailability and the fact that most of the few who know it do not know how to insert or remove it. Education status again appeared to play a significant part in the knowledge, attitude and practise/use (KAP) of condom among the PLWHAs.^[19] Similarly, a study to explore the correlates of high-risk sex among HIV-positive adults, reported 34% of respondents reported at least one occasion of unprotected anal or vaginal intercourse in the past 6 months.^[20] In a hospital-based, cross-sectional survey conducted among 705 HIV-positive individuals in south-west Ethiopia, 24% of the participants reported unprotected intercourse in their most recent sexual episode. Protected sex at recent episode was independently associated with knowing partner's HIV status or disclosing HIV status to partner.^[21] Thirty-eight per cent used condoms inconsistently after HIV diagnosis. Common reasons given by respondents for not using a condom include: Partner is also positive (40.7%), condom takes away the romance in sex (17.9%), married (0.7%), partner's refusal to use one (3.4%), I do not have them with me (4.8%) and desire to have children (0.7%).^[21]

In another study of knowledge of HIV status, sexual risk behaviours and contraceptive need among PLWHA in Kenya and Malawi, the findings showed that only 10% of respondents reported using condom at last intercourse in each country.^[22] A similar study conducted in Kampala, Uganda, among PLWHAs, 38% of clients reported use

of consistent use of condom while 48% reported its occasional use.^[23] In a study conducted in India among 55 sero-concordant and 36 sero-discordant couples male spouses used condom in 16 cases (29%) in sero-concordant couples, while 17 (47%) male spouses used condom in sero-discordant couples.^[24]

Condom use by sero-concordant couples may be necessary not only to prevent pregnancy and STIs but also to prevent HIV drug-resistant and super-infection.^[25,26] Therefore, the non-use of condom by sero-concordant couples encourages the spread of resistant strains of the virus and occurrence of super-infection. Consequently, the objective of this study is to determine the pattern of condom use among HIV sero-concordant couples attending a secondary health facility in Abejukolo, north-central Nigeria.

MATERIALS AND METHODS

This is a descriptive, cross-sectional survey that was carried out among sero-concordant couples living with HIV and AIDS who have been enrolled into care and treatment at General Hospital Abejukolo in Omala Local Government Area of Kogi State, Nigeria. Consent for participation in the survey was sought from the respondents before commencing the study. Ethical clearance was obtained from the University of Ilorin after presentation of the proposal to the ethical committee. The total population of the sero-concordant couples living with HIV (PLWHA) in the hospital was 91; all of them consented and participated in the survey. Couples in this study refer to male and female who were either married or living together.

The data instrument used was interviewer-administered, semi-structured questionnaire containing open- and close-ended questions. The data tool was validated for errors before they were used for data collection. Three research assistants, among who were three PLWHAs, were recruited and trained to administer and retrieve the questionnaire on the days the respondents came for their monthly support group meetings and regular clinic attendance. The data obtained were manually edited for errors and entered for analysis using EPI-INFO version 3.4.1 software package.

RESULTS

The mean age of the respondents was 35.2 ± 4.5 and the ages ranged between 20 and 61 years. Majority of the respondents were females (48; 52.7%). Many of them (37; 40.7%) had secondary education, 24 (26.4%) had primary education and 18 (19.8%) had tertiary education. However, 12 (13.2%) had no formal education.

Most of respondents (87; 95.6%) knew the meaning of condom and 36 (39.6%) knew that female condom exists. About knowledge of categories of people known for condom use, 68 (74.7%) agreed that single persons can use condom while 64 (70.3%) said married can also use it [Table 1].

Majority of the respondents (75; 82.4%) agreed that people with STI and sex workers (74; 81.3%) are categories of people who can use condom. Assessment of knowledge of correct use of condom revealed that 60 (65.9%) had good knowledge, 12 (13.2%) had fair knowledge while 10 (11.0%) respondents had poor knowledge. However, 9 (9.9%) respondents had no knowledge on the correct use of condom.

Attitudes of people living with HIV and AIDS to condom use showed that 70 (79.6%) would like to use condom during sexual intercourse. Similarly, almost all of them would encourage free distribution of condoms to PLWHAs who are not married. Majority of them (89; 97.8%) supported the promotion of condom use among PLWHAs for HIV prevention. Also, 87 (95.0%) feel there is need for HIV-concordant couples to use condom during sexual intercourse. More than three-quarters agreed that it is important to ask the spouse to use a condom during sexual intercourse. About two-thirds (59; 64.8%) said they will refuse sexual intercourse if the spouse refused to use a condom while 32 (35.2%) mentioned that they will oblige their spouse [Table 2].

Of the respondents who would oblige sex without condom use, 10 (13.3%) mentioned that it is because both are positive, 18 (56.3%) said they want to fulfil their marital obligations, 2 (6.3%) mentioned that to avoid problem and 2 (6.3%) to increase sexual pleasure [Table 3].

About use of a condom with a sero-concordant spouse, only 54 (59.3%) used it and the reasons adduced for use were prevention of re-infection (47; 86.8%), prevention of pregnancy and infection (5; 9.4%) and prevention of pregnancy only 2 (3.8%). The reasons for non-use of condom among sero-concordant spouse were because both are positive 15 (36.8%), partner dislikes it 13 (34.2%) while 6 (18.4%) said because they were married and 4 (10.5%) emphasised that it reduces sexual pleasure [Table 4].

DISCUSSION

About one-third of the respondents (38; 41.8%) were within the age range of 30-39 years. In Nigeria, the highest infection rates have been reported in the 20- to 24-year age group and

Table 1: Knowledge of condom among respondents

	Frequency (%)
Meaning of condom	
Correct	87 (95.6)
Not correct	4 (4.4)
Types of condom known	
None	6 (6.6)
Male condom	87 (95.6)
Female condom	36 (39.6)
Categories of people known to use condom	
Single persons	68 (74.7)
Married	64 (70.3)
Divorced	60 (65.9)
People with STI/HIV	75 (82.4)
Sex workers	74 (81.3)
Knowledge of correct use of condom	
Good	60 (65.9)
Fair	12 (13.2)
Poor	10 (11.0)
No knowledge	9 (9.9)

STI: Sexually transmitted infections, HIV: Human immunodeficiency virus

Table 2: Attitude to condom use among sero-concordant couples

Variable	n=91	
	Yes (%)	No (%)
Do you like using condom during sexual intercourse	70 (76.9)	21 (23.1)
Do you see anything wrong with free distribution of condom to PLWHA who are not married	1 (1.1)	90 (98.9)
Should condom use be permitted among PLWHA for HIV prevention	89 (97.8)	2 (2.2)
Do you feel there is need for HIV discordant couples to use condom during sexual intercourse	87 (95.6)	4 (4.4)
Do you think it is proper to ask your spouse to use condom	81 (89.0)	10 (11.0)
Will you agree to have sexual intercourse if your spouse refused condom	32 (35.2)	59 (64.8)

PLWHA: People living with HIV and AIDS, HIV: Human immunodeficiency virus

since those infected with HIV may become symptomatic later, that could explain the clustering of respondents in the 30-39-year age group.^[27]

The respondents constituted more females (52.7%) than males (47.3%). This was in agreement with a similar study done in south-western Nigeria where more females were living with the disease.^[18] The higher incidence of HIV among the females could be attributed to the anatomical disposition of the female gender. This tends to increase the chances of a woman contracting the virus. The economic dependence of women on men is equally a strong factor as most men use this to take advantage of women and, in the process, infect the women.

Many (37.2%) of the respondents were traders, 21.2% were civil servants working with either the local government or state government, 19.5% were farmers and 3.0% unemployed.

Table 3: Reasons for accepting sex without condom

Reasons	Frequency (%) n=32
Both are HIV positive	10 (31.3)
Marital obligation	18 (56.3)
Increase sexual pleasure	2 (6.3)
Avoid problem	2 (6.3)

HIV: Human immunodeficiency virus

Table 4: Condom use among sero-concordant couples

Variable	Frequency (%) n=91
Condom use with spouse (sero-concordant spouse) n=91	
Yes	54 (59.3)
No	37 (40.7)
Frequency of condom use	
Always	53 (58.2)
Never use	14 (15.4)
Occasional	24 (26.4)
Reasons for condom use with sero-concordant spouse n=54	
Prevent pregnancy and infection	5 (9.4)
Prevent pregnancy	2 (3.8)
Prevent re infection	47 (86.8)
Reasons for non use of condom among sero concordant spouse n=37	
Both are positive	15 (41.0)
Married	6 (16.0)
Partner dislike	13 (35.0)
Reduce sexual pleasure	3 (8.0)

The higher percentage among traders may be because they often stay away from home on business trips for days leaving their spouse or regular partner behind.

On the knowledge of condom use by respondents, over 90% have the correct knowledge of condom and equally knew that condom is one of the prevention measures for HIV. However, 82 (90.1%) of the respondents had adequate knowledge of how to correctly use it. Of these, 60 (65.9%), 12 (13.2%) and 10 (11.0%) had good, fair and poor knowledge, respectively. This is in contrast to the study carried out among the internally displaced person (IDP) camp of the district of Gulu, Liva, Katakwa and Soroti, Uganda, where only 49% of the respondents knew that condom was one of the prevention methods of HIV/AIDS and 38% of the respondents knew how to use it.^[27] Among the respondents, 87 (95.6%) knew about male condom and fewer (36; 39.6%) respondents knew about female condoms. This is similar to the finding of a study conducted among people living with HIV/AIDS in Northern State of Kaduna, Nigeria.^[19]

Over 75% of the respondents identified commercial sex workers and people with STIs as the main categories of people who must use a condom. Even though a number of the respondents (75; 82.4%) knew that persons with STI/HIV infections have to use a condom regularly

during sexual intercourse, only 60 (65.9%) of them have adequate knowledge of correct condom use. The low level of knowledge of correct condom use poses a great danger to the success of control programme of HIV/AIDS as many respondents who used condom are still at risk of re-infection or spreading HIV infection to their sexual partners.

On the attitude of respondents to use of condom, majority of the respondents have a positive attitude towards condom use as many (70; 76.9%) said they like using condom during sexual intercourse and 89 (97.8%) said condom use should be promoted among people living with HIV/AIDS. This finding was in contrast to the study among a similar group in the Northern Nigeria where few respondents had positive attitude towards condom use.^[19]

On the proportion of respondents who used a condom during sexual intercourse, 54 (59.3%) said they used one. However, only 58.2% used condom always, 26.4% used it occasionally and 15.4% never used it, even after diagnosis. This finding was in contrast to that of the study carried out among PLWHAs in Maiduguri, Nigeria, where 62.2% never used a condom.^[17] Regular use of condom among respondents in this study is similar to that of the study of the fertility desire and sexual behaviour of people living with HIV/AIDS in South-western Nigeria, where 48.8% of the respondents used condom regularly.^[18]

This present study result is equally similar to that of the study conducted in Kampala, Uganda, among PLWHAs where 38% of clients reported use of condom always.^[23] However, the occasional use of a condom in that study was 48%, which is in contrast to the occasional use of the present study.

The reasons given for the occasional use of condom in this study include: Partner is also positive, married, need to have children, partner dislike and condom reduces sexual pleasure. These reasons were similar to those of the report of a hospital-based cross-sectional survey among PLWHAs in south-western Ethiopia.^[21]

CONCLUSION

Generally, the use of condom among persons in sero-concordant relationship was high; however, regular use was low. Barriers to condom use mentioned were need to have children, partner dislike, religion, and reduction of sexual pleasure and non-availability of female condom. With one-third of respondents who did not use condom during sexual intercourse, there is a big challenge for spread of HIV infection and risk of drug resistance in HIV care

and management. Therefore, stakeholders at various levels should intensify efforts and support research towards behavioural modification in addressing the existing lacunae in HIV control.

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