East African Medical Journal Vol. 92 No. 1 January 2015
CONTRACEPTIVE PRACTICE AMONG HIV POSITIVE WOMEN ATTENDING ANTI-RETROVIRAL CLINIC AT THE UNIVERSITY OF PORT HARCOURT TEACHING HOSPITAL, PORT HARCOURT, SOUTHERN NIGERIA
J. D. Ojule, (MBBS, FWACS), Consultant Obstetrician and Gynaecologist, E. O. Oranu, B.Med Sci, MBBS, FWACS, Consultant Obstetrician and Gynaecologist, B. C. Unamba, MBBS, Senior Registrar, Department of Obstetrics and Gynaecology, University of Port Harcourt Teaching Hospital, Port Harcourt.

Request for reprints to: J. D. Ojule, Department of Obstetrics and Gynaecology, University of Port, Harcourt Teaching Hospital, PMB 6173,Port Harcourt, Nigeria, e-mail: ojeydee@yahoo.com

CONTRACEPTIVE PRACTICE AMONG HIV POSITIVE WOMEN ATTENDING ANTI-RETROVIRAL CLINIC AT THE UNIVERSITY OF PORT HARCOURT TEACHING HOSPITAL, PORT HARCOURT, SOUTHERN NIGERIA

J. D. OJULE, E. O. ORANU and B. C. UNAMBA

ABSTRACT

***Background*: As the global efforts to curb the human immuno deficiency virus (HIV) pandemic continues, one key intervention is the promotion of effective family planning options for HIV positive women in the reproductive age group.**
***Objectives*: To evaluate the level of awareness and utilisation of contraceptives among HIV positive women attending anti-retroviral (ARV) clinic in Port Harcourt, South-South Nigeria and also determine the pattern of contraceptive use before and after sero-conversion.**
***Design*: Descriptive cross-sectional Hospital based study**
***Setting*: Anti-retroviral (ARV) clinic, University of Port Harcourt Teaching Hospital, (UPTH), Port Harcourt, Nigeria.**
***Subjects*: One hundred and seventy HIV positive women in the reproductive age on highly active anti-retroviral therapy (HAART)**
***Results*: The mean age of the respondents was 34.34 ± 0.66 years with a range of 22-55years and parity range of 0-6 with a median parity of 2. Although majority (76%) of respondents were aware of contraceptives, only 49 (28.82%) were using contraception before diagnosis of HIV infection, but the uptake increased to almost 100% after knowledge of sero-conversion, with majority using male condom. Up to 55 (32.4%) respondents were sero-concodant with sexual partners, 46 (27.1%) sero-discodant while 69(40.6%) were not aware of their partners sero-status.**
***Conclusion*: There is extremely high knowledge and uptake of family planning after diagnosis of sero-conversion among HIV positive women attending the ARV clinic in Port Harcourt with the male condom as the most preferred method. This may have contributed to the reportedly overall slowly declining HIV prevalence.**

INTRODUCTION

As the global HIV pandemic and burden persists especially in developing countries, concerted efforts are tremendously being made to tame the spread including the promotion of family planning methods to HIV infected women in the reproductive age group. Despite the efforts, the World Health Orgnisation (WHO) estimates that well over 42 million people are still living with HIV or acquired immune deficiency syndrome (AIDS) worldwide and 50% of all adults with HIV are women predominantly infected through heterosexual transmission (1). About 14 million women in sub-Saharan Africa are HIV positive (2), and in Nigeria an estimated 2.6 million adult aged between 15 and 49 years are sero-positive for HIV (3).

Majority of women at risk of HIV infection are in the reproductive age and this age group makes up 85% of women living with HIV/AIDS worldwide (1,4), hence it has become a major challenge to design an effective contraceptive method to prevent HIV transmission and unintended pregnancies amongst this group (4,5).

Interestingly, there has not been any clearly demonstrated decrease in fertility among HIV positive women. Therefore contraceptive methods offerred and effectively used by HIV positive women have become extremely important considering their reproductive wishes, interaction with HIV disease, anti-retroviral therapy and other commonly used medications (4,6). The contraceptive options among HIV infected women must take into account the risk of intended pregnancy, vertical transmission and horizontal transmission for non-infected partner. To achieve these goals, a combined contraceptive have been advocated, preferably a barrier plus another method (6).

Since the introduction of highly active anti-retroviral therapy (HAART) in 1996, there has been dramatic reduction in both morbidity and mortality among people living with HIV (7), such that many patients and health care providers view HIV as a chronic but manageable illness (8), and like other women of reproductive age group, many HIV positive women desire child bearing and parenthood despite having a chronic illness. They also want safe and effective contraception to prevent unintended pregnancies, sexually transmitted infections and prevent HIV transmission to their sexual partners (7).

Contraceptive prevalence has continued to vary among HIV positive women and may be influenced by education, ethnicity, religion, socio-economic status parity and others (5, 9). Arowojolu *et al* reported that among the youths in western Nigeria, though majority have adequate knowledge of HIV transmission and prevention, only a few are taking positive preventive measures (10). Anad *et al* confirmed that in Kenya and Malawi, 32% and 20% respectively of HIV positive women who were sexually active were using contraceptives (11), while Stuart reported a contraceptive prevalence of 21% among partnered women living with HIV in sub-saharan Africa (3), and in the United States only about 50% of HIV infected and at risk youths used effective contraception consistently despite its availability (12). Jarbas *et al*, working in Brazil, demonstrated an increased knowledge and use of contraceptive methods after diagnosis of sero-conversion amongst women living with HIV/AIDS (13), and suggested that either the women who received information about contraceptives had never received it before or that the diagnosis of being HIV infected created stronger motivation to listen to counselling offered (13).

Port Harcourt, the capital city of Rivers state, south-south Nigeria which has been the hub of oil and gas prospecting and refining activities for decades, plays host to several multinational companies and as such densely populated with people from diverse backgrounds. The UPTH draws its patients from a cross section of multi-ethnic and indigenous population who reside in Port Harcourt and its catchment states of the oil rich Niger Delta area of Nigeria.

This preliminary study was therefore done to evaluate the level of awareness and use of contraceptives among HIV positive women in the reproductive age group in Port Harcourt and also determine their contraceptive uptake pattern.

MATERIALS AND METHODS

It was a descriptive cross sectional questionnaire based study of HIV positive women attending the Anti-retroviral (ARV) clinic of UPTH, Port Harcourt, South-South Nigeria. As at June 2009 when the study was done, about 500 HIV positive women attended the ARV Clinic annually at the UPTH. while the study subjects consisted of all the consenting 170 of these women who were on HAART. Those who were not already on HAART and who were menopausal at the time of the study were excluded. Inclusion criteria were those who were already on HAART and gave consent. Those who were not already on HAART, did not give consent, and were already menopausal at the time were excluded from the study. Of the 500 women attending the ARV clinic, 170 met the inclusion criteria and were therefore recruited for the study.

Ethical approval was given by the Hospital Ethical committee: The ARV clinic was established in February 2002 and headed by a consultant physician, with supporting residents from internal medicine, hematology and community health departments. The clinic is located at the medical out patient department, and at its inception runs once weekly but changed to twice weekly in august 2006 with increasing patronage of almost 1000 patients annually.

The study instrument was a structured interviewer administered questionnaire which requested information on the respondents' socio-demographic characteristics, contraceptive options, patterns and reasons and husbands' sero-status. Details of the study were fully explained to the women before they were administered to them on each clinic day by trained research assistants.

At the end of the interview, the questionnaires were collated and the information retrieved coded and entered into a personal computer using SPSS for windows 11.0 version. The results were presented in percentages, rates, means with standard deviations.

RESULTS

The mean age of the respondents was 34.34 ±0.66 years with a range of 20 - 55years, while the median parity was 2, with majority (54.1%) being multiparous and only 2 (1.2%) nulliparous. One hundred and sixty

one (72.3%) of the women had at least secondary education, while only 9(5.9%) had no formal education. The socio-demographic characteristics are shown in Table 1.

Although, 129(75.8%) had knowledge of contraception before realizing they were infected, only 49(38%) were practicing contraception. Of the 32 (65.3%) using male condom before diagnosis, 14(43.8%) changed to oral pills. The comparism between use of contraceptives before and after diagnosis is as shown in Table 2.

However, almost all (100%) were aware of and used one form of contraception or the other after diagnosis of sero-conversion. The most common form of contraception was the male condom used by 119 (70%) respondents, followed by oral pills used by 46 (27.1%) while non accepted bilateral tubal ligation. Of the 119 who used the condom, majority were of the younger age group, 43 (36.1%) were in the age range of 20-29 years. The older women aged 50 years and above used condoms and implants inserted some years back. The contraceptive method used against the age groups is shown in Table 3.

Almost 71.7% (122) of the women reported that the reason for the choice of contraceptive method was because it was more effective against HIV transmission, while 22 (12.9%) reported that it was more effective against pregnancy.Table 4 shows the reasons for choice of contraceptive used.

Up to 32.4% (55) of respondents were sero-concordant with their partners, 46(27.1%) sero-discordant while the partner's sero-status was unknown in 69(40.5%) women.

Table 1
The socio-demographic characteristics respondents

Characteristic	Frequency (n)	Percentage (%) of Total
Age		
• 20-29	61	35.9
• 30-39	72	42.4
• 40-49	24	14.1
• ≥50	13	8.6
Marital status		
• Married	65	38.2
• Single	56	32.9
• Divorced/Separated	13	7.6
• Widowed	36	21.2
PARITY		
Nullipara	2	1
1-2	102	60
3-4	48	28
≥5	18	11
EDUCATIONAL STATUS		
• None	9	5.3
• Primary	38	22.4
• Secondary	74	43.5
• Tertiary	49	28.8

Table 2
Comparison between use of contraceptive before and after diagnosis

BEFORE DIAGNOSIS		AFTER DIAGNOSIS			
	TOTAL NO. (%)	Abstinence (%)	Condoms (%)	Implants (%)	Oral Pills (%)
Coil	1 (2.0)	0 (0.0)	1 (100.0)	0 (0.0)	0 (0.0)
Condoms	32 (65.3)	18 (56.3)	0 (0.0)	0 (0.0)	14 (43.8)
Injections	1 (2.0)	0 (0.0)	1 (100.0)	0 (0.0)	0 (0.0)
Oral Pills	14 (28.6)	1 (7.1)	7 (50.0)	5 (35.7)	1 (7.1)
Safe Period	1 (2.0)	0 (0.0)	1 (100.0)	0 (0.0)	0 (0.0)
Total	49 (100.0)	19 (38.8)	10 (20.4)	5 (10.2)	15 (30.6)

Table 3
Method of Contraceptive Used and Age Group

Method of Contraceptive Used		Age Group			
	Total No	20-29 (%)	30-39 (%)	40-49 (%)	≥50 (%)
Coil	1 (0.6)	0 (0.0)	1 (100.0)	0 (0.0)	0 (0.0)
Condoms	119 (70.0)	43 (36.1)	51 (42.9)	17 (14.3)	8 (6.7)
Implants	2 (1.2)	0 (0.0)	0 (0.0)	1 (50.0)	1 (50.0)
Injections	1 (0.6)	0 (0.0)	1 (100.0)	0 (0.0)	0 (0.0)
Oral Pills	46 (27.1)	18 (39.1)	18 (39.1)	6 (13.0)	4 (8.7)
Safe Period	1 (0.6)	0 (0.0)	1 (100.0)	0 (0.0)	0 (0.0)
Total	170(100.0)	61 (35.9)	72 (42.4)	24 (14.1)	13 (7.6)

Table 4
Reasons for choice of contraceptive method

Reasons for contraceptive choice	Number (n)	% of Total
Age	1	0.6
Convenience	12	7.1
More effective against HIV transmission	122	71.7
More effective against pregnancy	22	12.9
Partners acceptability	12	7.1
Widowed	1	0.6
Total	170	100.0

DISCUSSION

There is very high knowledge and use of contraception after diagnosis of sero-conversion among HIV positive women in Port Harcourt in keeping with result of a Brazilian study (13). The increased knowledge of contraceptive method after sero-conversion and the increased prevalence of contraceptive use tend to suggest positive impact of the counseling done. This commendable attitude of these women towards contraceptive uptake may have contributed immensely to the reportedly declining HIV prevalence in Nigeria.

However, one disturbing finding in this study is the fact that all the women using the condom for contraception prior to sero-diagnosis switched to other methods.They may have been disappointed with condom as this, in their thinking, did not prevent them from acquiring the HIV. It is probable that they might have aquired the virus before condom use, were not using the condom consistently and effectively or may have aquired the virus from other routes. A more aggressive counselling in this regard is needed in this group of women to enable them prevent transmision of this virus to their partners or even prevent them from acquiring new strains of the virus. A combined contraceptive, preferably a barrier plus another method have earlier been advocated for these women (6).

It is even more disturbing that some of them still do not use condom even when their partner is sero negative. It is possible some may not be aware of their partners' sero-status or may have the erroneous believe that HIV does not exist. Some authors have also suggested that many HIV women consider methods to avoid pregnancy as having similar or more effectiveness in the transmission of the virus (13). This is also in keeping with the findings in this study where 71% of the women gave this reason for their choice of contraceptive as 'more effective against HIV transmission'. This finding buttresses the need for comprehensive counselling on reproductive health issues, not only at the time of HIV diagnosis but also at every appointment at the ARV clinic. However, the use of behavioural methods like safe period had drastically reduced from these women and may not be unrelated to counselling received at the ARV clinic. It was also noted that majority of these women chose condom for contraception at variance with results of earlier study in Port Harcourt, where majority of the general population used injectable contraceptives and intra uterine contraceptive device14 Expectedly, non of these women opted for bilateral tubal ligation. This reflects the prevailing contraceptive practice in Nigeria where tubal ligation is not a very popular method even among uninfected women (14), at variance with studies from developed countries where BTL is very popular contraceptive method especially among HIV positive women (13).

It is reassuring to note that the younger age group in this study based their choice of contraceptive on prevention of HIV transmission and used condom specifically. This is quite commendable as these group tend be sexually more active and having protected intercourse will help in reducing transmission of HIV and other sexually aquired infections.

In conclusion, the diagnosis of HIV infection contributed to a greater knowledge of contraceptive methods and exponential improvement on its use. Young women within the reproductive age group acquiring HIV through heterosexual contact constitute the new wave of the HIV pandemic. They should therefore receive adequate contraceptive counseling in order to prevent HIV transmission to a serodiscordant partners, contracting a new HIV serotype and prevent unplanned pregnancy with consequent increased rate of mother to child transmittion of HIV. When these are achieved, we will be further reducing the impact of HIV/AIDS in our society.

REFERENCES

1. Mitchell HS, Stephens E. Contraception choice for HIV positive women. *Sex Transm Infect* 2004; **80**: 167-173.
2. Stuart GS. Fourteen million women with limited options: HIV/AIDS and highly effective reversible contraception in Sub-Saharan Africa. *J. Contraception* 2009; **03**(014).
3. Ladepo JO, Tanimowo GA. Extension personnel's sexual behaviour and attitudes towards HIV/AIDS in South-Western Nigeria. *AJRH* 2002; **6**: 51-59.
4. Johnstone FD. Contraception for HIV-infected women. *J Int Assoc Phys AIDS Care*. 1997; **3**: 10-11.
5. Uckun FM, Osmond JD. Prophylactic contraceptives for HIV/AIDS. *Human Reproductive Update* 1999; **5**: 506-514
6. AIDSCAP, The status and trends of global HIV/AIDS pandemic. In: 12th World AIDS Conference, Geneva. June 28-July 3(1998): 1-81.
7. Stanwood NL, Cohn SE, Heiser JR, Puglise MA. Contraception and fertility plans in a cohort of HIV-positive women in care. *J Contraception* 2007; **75**: 294-298.
8. Guidelines for the use of antiretroviral agents in HIV –infected adults and adolescents.2006; http://www.aidsinfo.nih.gov/guidelines
9. Francis-Chizororo M, Natshalaga RN. The female condom acceptability and perception among rural women in Zimbabwe. *AJRH* 2003; **7**: 101-116.
10. Arowojolu AO, Ilesanmi AO, Roberts OA, Okunola MA. Sexuality, contraceptive choice and AIDS awareness among Nigeria undergraduates. *AJRH* 2002; **6**: 60-70.

11. Anand A, Shiraishi RW, Bunnell RE, Jacobs K, Solehdin N, Abdul-Quader AS et.al. Knowledge of HIV status, sexual risk behaviours and contraceptive need among people living with HIV in Kenya and Malawi. *AIDS* 2009; PMID: 19542867.
12. Belzer M, Roges AS, Camarca M, Fuchs D, Peralta L, Tucker D, Durako JS. Contraceptive choices in HIV infected and HIV at-risk adolescent females. *Journal of Adolescent Health* 2001; **29**: 93-100.
13. Magalhaes J, Amaral E, Giraldo PC, Simoes JA. HIV infection in women: Impact on contraception. *J Contraception* 2002; **66**: 87-91.
14. Ojule JD, Macpepple DA. Family Planning Practice in a Tertiary Health Institution in Southern Nigeria. *WAJM* 2011; **30**: 178-181.