

Prevalence Of Modern Contraceptive Methods Use Among Women Living With HIV Attending Care And Treatment Clinic At Amana Hospital Dar Es Salaam, Tanzania.

Elizabeth Kashagam¹ and James Samwel Ngocho^{1,2*}

¹Kilimanjaro Christian Medical University College, P.O Box 2240 Moshi-Tanzania

²Kilimanjaro Christian Medical Centre - Duke University Collaboration, P.O Box 3010 Moshi Tanzania

Abstract

Background: Family planning allows people to have their desired number of children and determine spacing of children. Promoting modern contraceptive use is crucial towards the elimination of mother to child transmission of HIV by preventing unwanted pregnancies. Since mother to child transmission is responsible for 90.0% of childhood HIV infection. The objective of this study was to determine the prevalence of modern contraceptive methods use among HIV positive women attending care and treatment clinic at Amana hospital, Tanzania.

Methodology: This was hospital based cross-sectional study, conducted from March to April, 2015. All women living with HIV aged 18 years and above at the time of enrollment and sign written consent was eligible for participation. A face to face interview using an interview schedule was conducted. Information on socio-demographic, use of modern contraceptive and factors influencing choice of modern contraceptive method were collected.

Results: A total of 165 HIV positive women were enrolled in the study. The mean age (\pm SD) was 33.6 (\pm 8.7) years. Among them, 68.5% were currently using modern contraceptives. Condom was the most preferred modern contraceptive method (42.7%), followed by dual methods 32.7%, implants 8.8% respectively. Religion was significantly association with use of modern contraceptives (OR=1.1522; 95% CI; 1.000-1.3338 p=0.037) while factors like; age, marital status, HIV status disclosure, level of formal education were not association with modern contraceptive use.

Conclusion: This study has shown a high contraceptive prevalence rate among women living with HIV compared to the general population. Most women were using condoms and the main reason of choosing condom was due to its dual protection.

Key words: Women living with HIV, modern contraceptives, factors, Tanzania

Background

Globally by the end of 2012, an estimated 35.3 million people were living with HIV (PLHIV) whereby women accounted for more than half (1). Majority of affected women are in their reproductive age (2), they are sexually active and have the same sexual desire just like those who are not infected. Many HIV positive women continue to desire children despite their status (3,4). The availability of antiretroviral therapy has resulted in a significant improvement in the life of those living with HIV and children born with HIV are now reaching their reproductive age (1). In Tanzania, about 1.6 million people are living with HIV among them more than half are female (5).

Promoting modern contraceptive use among HIV positive women so that women can avoid unwanted pregnancies is central towards elimination of MTCT (6). With the risk of MTCT of HIV, use of contraceptives is critical in avoiding unwanted pregnancy and for HIV positive women to plan for the right time to have children (7-9). Providing comprehensive family planning services in HIV care and treatment clinics is an important strategy for reducing unintended pregnancies among women with HIV and the number of infants born HIV positive. Globally, each year about 2 million women living with HIV fall pregnant. Most (69.2%) of these pregnancies are unplanned contributing to high maternal mortality and poor perinatal outcomes in developing countries (2,10). Use of modern contraceptives

among HIV infected women in Sub-Saharan Africa is said to be low, 2 million (90%) of childhood HIV in sub-Saharan Africa is through mother to child transmission. This signifies high levels of fertility and low modern contraceptive use among HIV positive women in sub-Saharan Africa (11). For instant in Tanzania, an estimated 119,000 women living with HIV are giving birth each year attributing to 11% of maternal mortality (12).

About 0.16 million HIV positive births could be prevented by meeting the need for contraception among all women who do not wish to become pregnant in SSA (13). Across Africa, up to 1 900 children are infected daily with HIV, and three million children younger than 15 are living with the disease (14). It is estimated that approximately 120 000 HIV-positive births per year would be averted if the family planning needs of all HIV positive women in sub-Saharan Africa could be met (15). However, most antiretroviral therapy (ART) programs focus on providing ART to HIV-positive women without integration with contraceptive services.

Whereas the world is recording an increase in modern contraceptive use, especially in Asia and Latin America, the use of modern contraceptive methods continues to be low in Sub-Saharan Africa (16). Globally, uptake of modern contraceptive has risen slightly, with 57% of women aged 15-49 years in 2012 were using modern contraceptive. Africa has the lowest use of modern contraceptive 24%, while in Asia the uptake was 62%, and Latin America 67% (16). Intra-regional difference also exist, for instant the contraceptive prevalence among women living with HIV in Kenya, Uganda and Zambia was 44.0%, 30.0% and 59.0% respectively (17,18), whereas among HIV sero-discondant the contraceptive prevalence was 60% (8). In Tanzania the uptake of modern contraceptive is 27% (about 2.1 million) among women of reproductive age, whereby in Dar es Salaam it was 30.7% (19). With the availability of antiretroviral therapy (ART), women living with HIV are now living a healthy life and this may increase childbearing desires and/or fertility, resulting in greater need for

contraception. Unmet need for contraception is high in this population, in Zimbabwe 66- 92% of women reporting not wanting another child (now or ever), only 20-43% were using contraception (20).

Modern contraceptive methods such as condoms have dual advantage of both birth control and preventing sexually transmitted infections, including preventing the transmission of HIV (21). Notably, the use of condoms is the only available contraceptive choice for HIV sero-discondant couples (8). Reports show that the most common modern contraceptive among HIV positive women is male condom and Depo Provera/injectable. The use of male condom among HIV positive women range between 47.6% and 79.6% (3,4,14), whereas injectable use range between 8.2 and 70.7% (3,4,14).

Sub-Saharan Africa is said to have the lowest prevalence of contraceptive use in the world while the low use is associated with various factors. Factors such as in-sufficient health care infrastructure, lack of knowledge, miss conception about contraceptive, fear of modern contraceptive side effects and access to family planning services including difficulty in accessing contraceptives, poor economic development among countries in the Sub-Saharan Africa and cultural values placed on fertility (18). There is limited information on contraceptive use among women living with HIV. Raising a need to determine prevalence and identify factors affecting contraceptive use among women living with HIV in Tanzania. Therefore, the aim of this study was to determine the current use of modern contraceptive among women living with HIV attending Amana hospital in Dar es Salaam Tanzania.

Methods

Study area

Study population

Amana CTC serves clients from different part of Dar es Salaam region, but mostly residents of Ilala district. All women of reproductive age living with HIV attending Amana CTC were eligible for participation. Women who attended Amana CTC for routine clinic visit were invited to

participate. However, those aged below 18 years and those who did not sign the informed consent were excluded from the study. A total of 165 women living with HIV were enrolled in this study.

Data collection

A face to face interview was conducted with each client who consented to participate. The interview was in Kiswahili language, the language which they were all conversant with. The interviews were conducted by investigator and a trained Amana CTC nurse. Client characteristics such as age, level of education, marital status, and monthly income, number of children, religion and place of residence were collected. Also, use of modern contraceptive and factors influencing choice of modern contraceptive method were collected using the interview schedule.

Ethical Consideration

The study was granted permission from both the Kilimanjaro Christian Medical University College and from the Ilala Municipal authorities. The purpose of the study,

risk and benefits were explained to all participants. A written informed consent was obtained from all participants before interview. Participant was informed that participation was voluntary and that they were free to withdraw any time. To maintain confidentiality, participants names were not used instead each participant was assigned a unique number.

Statistical analysis

Data were entered and analyzed using Statistical Software for Social Sciences (SPSS) version 20.0 (SPSS Inc., Chicago, Illinois). Univariate analysis involved the estimate of mean, proportion and frequencies. Chi-square test was used in bivariate analysis to determine the association between various factors and contraceptive use. A p-value <0.05 was considered to be statistically significant.

Results

A total of 165 HIV-positive women were enrolled in this study. Most of participants, 112 (67.9%) were from Ilala district, followed by Kinondoni district 28 (16.9%). The mean age (\pm SD) of the study population was 33.6 (\pm 8.72). Most, 58.0% (96) of the respondents had primary education. Majority, 89.0% (147) of the participants were on ARV. Table 1 below

Table 1: Sociodemographic characteristics of study participants (n=165)

Variables	n	%
Residence		
Ilala	112	67.9
Kinondoni	28	16.9
Temeke	25	15.2
Age		
18-21	11	6.7
22-28	40	24.2

29-38	57	34.5
39-55	57	34.5
Mean age (\pm SD)	33.56 (\pm 8.72)	
Level of education		
Never attended	14	8.5
Primary education	99	60.0
Secondary education	28	17.0
Tertiary education	24	14.5
Employed in formal sector		
Yes	36	21.8
No	129	78.2
Marital status		
Single	55	33.3
Married/Cohabiting	78	40.0
Divorced/Separated/Widow	44	26.7
On ARV		
Yes	147	89
No	18	11

Table 2: Current users of contraceptive (n=110)

Method of contraceptive	n	%
Condom	47	42.7
Condom with other methods	36	32.7
Pills	7	6.4
Depo-Provera	7	6.4
IUCD	0	0.0
Norplant	10	9.1
Bilateral tubal ligation	3	2.7

Of the 165 respondents, 136 (82.4%) reported ever used modern contraceptive methods and 113 (68.5%) were currently using modern contraceptive methods. The most commonly used modern contraceptive method was condoms 47 (42.7%) followed by dual methods (the use of condoms and other modern contraceptive; 36, (32.7%) where by respondents who reported using dual

method mentioned using oral hormonal pills or Depo-Provera (6.4%). Other preferences included; implants 9.1% and female sterilization 2.7%.

Half 85 (51.5%) of the participants reported no desire to have children. However, only 35 (41.2%) of them reported current modern contraceptives use as means of preventing unwanted pregnancy. The most common factor influencing contraceptive choice was method side effect 32 (29.1%), followed by desire for dual protection 26 (23.6%) and HIV sero-positivity 24 (21.9%).

Table 3

Table 3: Factors influencing contraceptive choice (n=110)

Variable	n	%
Method availability	4	3.6
HIV status	24	21.9
Partner choice	14	12.7
Desire for dual protection	26	23.6
Method side effect	32	29.1
Effectiveness of the method	4	3.6
User friendly	6	5.5

Muslims were 1.2 times more likely to use contraceptive as compared to Christian religion (OR=1.1522, CI=1.000-1.3338, p=0.037). However, other factors like; ages, marital status, HIV status disclosure, parity, level of formal education were not associated with modern contraceptive use. See table 4 below

Table 4: Factors affecting contraceptive use (n=165)

Variables	n	Current contraceptive use n (%)	OR(CI)	p-value
Age				
18-35	96	77 (46.7)	0.931(0.808-1.072)	0.224
36-55	68	58 (35.2)	1	
Religion				
Muslim	82	72 (87.8)	1.1522(1.000-1.3338)	0.037
Christian	83	63 (75.9)	1	
Disclosure to partner				
Yes	69	59 (85.5)	1.080(0.938-1.244)	0.202
No	96	76 (79.2)	1	
Level of education				
Never attended school	15	12 (80.0)	0.976(0.749-1.270)	0.538
Attended school	150	123 (82.0)	1	
Marital status				
Married	65	55 (84.6)	0.945(0.820-1.090)	0.296
Not married	100	80 (80.0)	1	
Parity				
Yes	120	99 (82.5)	1.031(0.872-1.220)	0.434
No	45	36 (80.0)	1	

Discussion

This study has shown that most (68.5%) of the reproductive age women living with HIV were currently using modern contraceptive method. The CPR in this study is higher than that reported with TDHS 2010, where the CPR in Dar es

Salaam was 30.7%. However, the TDHS data included both HIV-positive and negative women (19). The reported CPR is above the Tanzania government target of 60.0% CPR by 2015. This finding is similar to a study conducted in Lusaka, Zambia and South Africa where the contraceptive uptake

rate was 60.0% and 95.0% respectively (8,22). Also a study from Ethiopia reported a similar high CPR among women living with HIV(23). However, several studies from different parts of Africa have reported a low contraceptive uptake among women of reproductive age living with HIV. For instance, studies from Kenya and Ghana reported a prevalence of 44.0% and 42.6% respectively (3,17). The observed high CPR in Dar es Salaam might be due to the integration of family planning services into HIV care and treatment program in Tanzania.

Almost half (42.7%) of women living with HIV were using condoms as method of contraception, followed by dual methods (32.7%). Most of participants who opted for condoms mentioned desire for dual protection (prevention of new HIV infection and unplanned pregnancies) as a factor which influenced their choice. Contrarily, in a study conducted across southern parts of Africa; Swaziland, Zimbabwe, Zambia and Lesotho rate of condom use was as low as 36.0%, 5.0%, 17.0% and 20.0% respectively (24). Whereby, HIV Sero-discordant relationships was significantly associated with condoms use (alone or combined with other methods). Injection (Depo Provera) was the most commonly used family planning method in a study conducted in Northwest Ethiopia (25). The high rate of condom use among other method is because of its dual protection, and free provision at all CTCs in Tanzania.

In univariate analysis religion showed a significant association with use of modern contraceptives whereby factors like age, marital status, HIV status disclosure, parity, level of formal education were not associated with modern contraceptive use. This is different from studies from Ethiopia and Zambia where age, knowledge about birth spacing methods, marital status, HIV disclosure status, report on history of tuberculosis, parity, CD4+ cell counts, hemoglobin level, knowing partner's HIV status and monthly income were shown to have statistically significant association with modern contraceptive methods use(8,23). Similarly in Uganda, with exception of religion, other factors like; use of ARV, occupation, desire of having children, age, marital status, HIV status disclosure, parity,

level of formal education were significantly associated with modern contraceptive use among HIV-positive women (9).

Conclusion

This study has shown a high contraceptive prevalence rate among women living with HIV infection. Most women living with HIV were using condoms as contraceptive method and the main reason of choosing condom was due to its dual protection. Religion was the only factor that had statistical significant association with modern contraceptive use.

Strength and limitation

This is among the few studies in Tanzania which has determined the prevalence of contraceptive use among women living with HIV. This was a hospital survey where only 165 HIV-positive women were interviewed; the number of surveyed clients might be the reason why we did not find the association between factors and contraceptive use.

REFERENCE LIST

1. UNAIDS. GLOBAL REPORT: UNAIDS report on the global AIDS epidemic 2013. UNAIDS. 2013. 198 p.
2. Unfpa AE, Unaid GH, Benomar E, Braun N, Collins L, Cooper J, et al. Women and HIV / AIDS : Confronting Editorial and production team : Additional support and research : Aids.
3. Laryea D, Amoako Y, Spangenberg K, Frimpong E, Kyei-Ansong J. Contraceptive use and unmet need for family planning among HIV positive women on antiretroviral therapy in Kumasi, Ghana. BMC Womens Health. 2014;14(1):126.
4. Melaku YA, Zeleke EG. Contraceptive utilization and associated factors among HIV positive women on chronic follow up care in Tigray Region, Northern Ethiopia: a cross sectional study. PLoS One. 2014;9(4):e94682.
5. Survey MI. Results from the 2011-12 Tanzania HIV / AIDS and Malaria Indicator Survey and Malaria Indicator Survey. 2011;14-5.
6. Sachs JD, McArthur JW. The Millennium Project: A plan for meeting the Millennium Development Goals. Lancet. 2005;365(9456):347-53.
7. Nattabi B, Li J, Thompson SC, Orach CG, Earnest J. Family planning among people living with HIV in

- post-conflict Northern Uganda: A mixed methods study. *Confl Health. BioMed Central Ltd*; 2011;5(1):18.
8. Chibwasha CJ, Li MS, Matoba CK, Mbewe RK, Chi BH, Stringer JS a, et al. Modern contraceptive and dual method use among HIV-infected women in Lusaka, Zambia. *Infect Dis Obstet Gynecol*. 2011;2011:261453.
 9. Wanyenze RK, Tumwesigye NM, Kindyomunda R, Beyeza-Kashesya J, Atuyambe L, Kansiime A, et al. Uptake of family planning methods and unplanned pregnancies among HIV-infected individuals: a cross-sectional survey among clients at HIV clinics in Uganda. *J Int AIDS Soc. BioMed Central Ltd*; 2011;14(1):35.
 10. Warren CE, Abuya T, Askew I. Family planning practices and pregnancy intentions among HIV-positive and HIV-negative postpartum women in Swaziland: a cross sectional survey. *BMC Pregnancy Childbirth*. *BMC Pregnancy and Childbirth*; 2013;13(1):150.
 11. Stephenson R, Vwalika B, Greenberg L, Ahmed Y, Vwalika C, Chomba E, et al. A Randomized Controlled Trial to Promote Long-Term Contraceptive Use Among HIV-Serodiscordant and Concordant Positive Couples in Zambia. *J Women's Heal*. 2011;20(4):567-74.
 12. MoHSW. Expanded programme on Immunization: 2010 - 2015 comprehensive multi year plan. 2011;(April 2011):67.
 13. Baumgartner JN, Green M, Weaver M a, Mpangile G, Kohi TW, Mujaya SN, et al. Integrating family planning services into HIV care and treatment clinics in Tanzania: evaluation of a facilitated referral model. *Health Policy Plan*. 2014;29(5):570-9.
 14. Somera YS, Ross a. Contraceptive knowledge and practice among HIV-positive women receiving antiretroviral therapy at a district hospital in KwaZulu-Natal. *South African Fam Pract*. 2013;55(2):196-200.
 15. MoHSW. United Republic of Tanzania Ministry of Health and Social Welfare The National Road Map Strategic Plan To Accelerate Reduction of Maternal , Newborn and Child Deaths in Tanzania. Dar es Salaam; 2008. 1-102 p.
 16. WHO. Fulfilling the Health Agenda for Women and Children The 2014 Report ER. Geneva; 2014.
 17. Mutiso SM, Kinuthia J, Qureshi Z. Contraceptive use among HIV infected women attending Comprehensive Care Centre. *East Afr Med J*. 2008 Apr;85(4):171-7.
 18. Grabbe K, Stephenson R, Vwalika B, Ahmed Y, Vwalika C, Chomba E, et al. Knowledge, use, and concerns about contraceptive methods among serodiscordant couples in Rwanda and Zambia. *J Womens Health (Larchmt)*. 2009;18(9):1449-56.
 19. TDHS. Tanzania Demographic and Health Survey. National Bureau of Statistics , Dar es Salaam, Tanzania and ORC Macro; 2010.
 20. McCoy SI, Buzdugan R, Ralph LJ, Mushavi A, Mahomva A, Hakobyan A, et al. Unmet need for family planning, contraceptive failure, and unintended pregnancy among HIV-infected and HIV-uninfected women in Zimbabwe. *PLoS One*. 2014;9(8):e105320.
 21. Mark KE, Meinzen-Derr J, Stephenson R, Haworth A, Ahmed Y, Duncan D, et al. Contraception among HIV concordant and discordant couples in Zambia: a randomized controlled trial. *J Womens Health (Larchmt)*. 2007;16(8):1200-10.
 22. Oni EE, Ross A, Van der Linde S. Contraceptive practices amongst HIV-positive women on antiretroviral therapy attending an ART clinic in South Africa. *African J Prim Heal Care Fam Med*. 2013 Jan 24;5(1):1-6.
 23. Kahsay Z, Bilen M. Utilization and associated factors of modern contraceptive among women attending art clinics in Gondar Town, northwest Ethiopia: institutional based cross sectional study. *Sch J Appl Med Sci*. 2014;2(Department of Midwifery, College of Medicine and Health Sciences, University of Gondar, Gondar, Ethiopia.):1896-9.
 24. Johnson KB, Akwara P, Rutstein SO, Bernstein S. Fertility preferences and the need for contraception among women living with HIV: the basis for a joint action agenda. *AIDS*. 2009;23 Suppl 1:S7-17.
 25. Egzeabher SG, Bishaw MA, Tegegne TK, Boneya DJ. Modern Family Planning Utilization and Associated Factors among HIV Positive Reproductive Age Women in Debre Markos Referral Hospital Northwest Ethiopia , 2014. *Open J Epidemiol*. 2015;(February):32-40.