

Modern Family Planning Utilization and Associated Factors among HIV Positive Reproductive Age Women in Debre Markos Referral Hospital Northwest Ethiopia, 2014 G.C.

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Abstract

The study was conducted to find out modern family planning utilization and associated factor among HIV positive reproductive age women attending anti retroviral treatment care in Debre-markos referral hospital, in Ethiopia. Institution based cross-sectional study was carried out. Three hundred thirty five HIV positive reproductive age women were selected using systematic random sampling methods. Data were collected and analyzed. About 47.9% HIV positive reproductive age women are currently using modern family planning methods. Level of education has significant effect on utilization of modern family planning methods. Women with primary education and secondary education and above are utilizing modern family planning methods 2.71 times and 6.91 times more from non educated women, respectively. Number of children has also effect in utilization of modern family planning methods. Those who have one child and two and more children are utilizing modern family planning methods 5.31 and 11.66 times more than those who do not have children, respectively. Utilization of modern family planning methods was low and the most commonly used methods were condom and inject able contraceptives. In order to enhance utilization of modern family planning methods for HIV positive women, family planning services must be integrated with anti retro viral treatment care and support service sites and women's educational status must be improved.

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Keywords

Family Planning, Modern Methods, Utilization

1. Introduction

HIV is a global problem affecting many people. Seventy one percent of the epidemic is in Sub-Saharan African countries [1]. In Sub-Saharan African countries, women of reproductive age account for 60% of all adult infections and 75 % of infections among people 15 - 24 years old [2]. In 2008, the number of children newly infected with HIV was approximately 430,000 of which 90% were infected through mother-to-child transmission (MTCT) (reference). World Health Organization (WHO) list methods of preventing unintended pregnancies among people living with HIV as a second pillar of preventing mother-to-child transmission (PMTCT) [3]. Ethiopia is one of the countries most severely affected by HIV/AIDS pandemic, where the prevalence of HIV is 1.5% among adults (15 - 49 age) and 1.9% among women of reproductive age group. In Amhara region the prevalence of HIV/AIDS is 2.2% among women of reproductive age group [4]. Pregnancy among women living with HIV is an issue of public health importance especially in resource limited countries including Ethiopia with high HIV prevalence and high fertility rates. Pregnancy in this category of women is associated with increased risk of poor maternal and pediatric outcomes [5]. A lower total fertility rate through increased modern contraceptive use has been shown to reduce by up to 15%, the number of mothers dying than would have occurred with no fertility decline [6]. Currently an increased level of modern contraceptive utilization prevent 188 million unintended pregnancies, in addition to this it increases savings, productivity, better prospects for education and employment and improvement in the status of women [7]. Factors that frequently reduce demand for contraception are side effects, husband's influence, and religion and pressure to have children. Some factors have to do with access to contraception and these include frequent stock outs, limited number of contraceptive methods and poor provider client relationships [8].

Developing sexual and reproductive health services to meet the reproductive health care needs of people living with HIV are growing concerns of HIV prevention (reference). Antiretroviral therapy (ART) use is significantly associated with a higher pregnancy rates among HIV positive women (reference). However, little attention has been given to modern contraceptive utilization, and other reproductive health care services for HIV positive women as critical components of HIV prevention, care and treatment services [9]. Modern family planning counseling and provision of their methods of choice to HIV infected women including those on ART is an important strategy in preventing unintended pregnancies and significantly reduce the proportion of infants born infected with HIV at a lower cost compared to other PMTCT interventions. This emphasizes that provision of an effective family planning services to PLWH had a significant public health importance than PMTCT services [3].

Studies on modern family planning use among HIV positive reproductive age women are scarce in the specified study area. The purpose of this study is therefore, to assess modern family planning utilization and associated factors among HIV positive reproductive age women attending ART care at Debre Markos Referral Hospital, Northwest Ethiopia.

2. Materials and Methods

A hospital based cross-sectional study was conducted among HIV (human immunodeficiency syndrome) positive reproductive age women (15 - 49) who had ARV (Anti Retro Viral) treatment and care follow up at Debre Markos Referral Hospital. Three hundred thirty five HIV positive reproductive age woman who are on anti retroviral treatment were selected using systematic random sampling. Data were obtained through well designed and pretested questionnaire by face to face interview. Collected data were analyzed using SPSS version 16 computer software.

3. Result and Discussion

In this study, 330 women were participated obtaining a response rate of 98.5%. **Table 1** shows, most, 98.8% of

Table 1. Socio demographic characteristics of HIV positive reproductive age women attending ART care, Debre Markos Referral Hospital, Northwest Ethiopia, 2014.

| Variables | Frequency (n = 330) | Percent |
|----------------------------|---------------------|---------|
| Age | | |
| 15 - 24 | 37 | 11.2 |
| 25 - 34 | 169 | 51.2 |
| >35 | 124 | 37.6 |
| Educational status | | |
| Illiterate | 105 | 31.8 |
| Primary school | 138 | 41.8 |
| Secondary and above | 87 | 26.4 |
| Marital status | | |
| Married | 159 | 48.2 |
| Single | 16 | 4.8 |
| Divorced | 103 | 31.2 |
| Widowed | 52 | 15.8 |
| Occupation | | |
| House wife | 127 | 38.5 |
| Government employed | 52 | 15.8 |
| Private employed | 73 | 22.1 |
| Daily laborer | 67 | 20.3 |
| Commercial sex worker | 11 | 3.3 |
| Religion | | |
| Orthodox Christians | 319 | 96.7 |
| Muslim | 11 | 3.3 |
| Ethnicity | | |
| Amhara | 326 | 98.8 |
| Others | 4 | 1.2 |
| Monthly expenditure | | |
| <500 | 221 | 67 |
| 500 - 1500 | 75 | 22.7 |
| >1500 | 34 | 10.3 |

them were from Amhara ethnic group and 96.7% were Orthodox Christians. The mean age of the respondents was 30.7 ± 5.2 year and over half, 51.2% of them were within the age group of 25 to 34 years. Out of 330 women, 41.8% of them had a primary level of educational attainment and 48.2% and 38.5% of them were married and housewives respectively. Majority, 67% of the respondents had a monthly income of less than 500 Ethiopian Birr. **Table 2** shows, out of 330 study participants, 47.87% of them were currently using modern family planning methods. Among those, the most commonly used method of family planning were condom alone or combined with other methods which are 51.8%, Those using injection contraceptives, 44.9%. The main reasons of their choice for currently used methods were related with health providers attitude, 79% and side effects, 20.2%. In contrast above half, 52.13% of women were not currently using any modern family planning method and their main reason were related with partner disagreement, 33.7% and to give birth, 24.4%. Among 330 women, 9% of them were currently pregnant, and of these, 17 were unintended pregnancies.

Table 2. Current family planning use among HIV positive reproductive age women attending ART care, Debre Markos Referral Hospital, Northwest Ethiopia, 2014.

| Variables | Frequency | Percent |
|-----------------------------------------------|-----------|---------|
| Use of current FP | | |
| Yes | 158 | 47.9 |
| No | 172 | 52.1 |
| FP methods used | | |
| Condom | 82 | 51.8 |
| Injectable | 71 | 44.9 |
| Pills | 15 | 9.5 |
| Dual method | 30 | 19 |
| Implant | 14 | 8.9 |
| Tubal ligation | 4 | 2.5 |
| IUCD | 3 | 1.9 |
| Reason to choose the current FP method | | |
| Health professionals advise | 125 | 79.1 |
| It suites with my health | 32 | 20.2 |
| Friends experience/advise | 1 | 0.6 |
| Currently pregnant | | |
| Yes | 30 | 9.1 |
| No | 300 | 90.9 |
| Timing of pregnancy | | |
| Want to pregnant now | 13 | 43.3 |
| Want to be pregnant after 2 year | 5 | 16.7 |
| Didn't want to be pregnant forever | 12 | 40 |

Table 3 shows, 93.94% of women were consulted about modern family planning methods, only 28.18% of them reported availability of the service in ART service site and 30.38% got the service within the ART service site. Among modern family planning users, 29.74% clients had experienced different side effects related with their method use.

Table 4 shows, out of 330 women, 27% of them had no children, 28.5% of them and 40% of their sexual partners had future desire of children. Regarding sexual partners sero-status, 95.7% of them were aware of their partner's sero-status and of these 87% of them were HIV-positive **status**. **Table 5** shows, Majority, 78.48% of the participants had disclosed their HIV status to their family. Out of 49.09% study subjects who had sexual partner, 98.15% of them had disclosed their status to their spouse. Three hundred nine 93.64% participants were currently on HAART and 88.35 % of them had begun ART before one year. **Table 6** shows, according to the multivariate analysis HIV positive women who had no desire to have children were 4.91 times more likely to use modern family planning methods than their counterparts [AOR (95% C.I) 4.91 (2.71 - 8.99)]. HIV positive women who had one child, and two and/or more children [AOR (95% C.I): 5.32 (2.75 - 10.29), and 11.66 (5.53 - 24.59)] respectively were more likely to use modern family planning methods than their counterparts who didn't have a child. Literate HIV positive women attaining primary, and secondary and above educational level [AOR (95% C.I): 2.71 (1.49 - 4. However, HIV disclosure status and ART treatment were confounders of modern family planning method use 93), and 6.91 (3.35 - 14.23)] respectively were more likely to use modern family planning methods than their counterparts who were illiterate.

Table 3. Health service related factors among HIV positive reproductive age women attending ART care, Debre Markos Referral Hospital, Northwest Ethiopia, 2014.

| Variables | Frequency | Percent |
|-----------------------------------------|-----------|---------|
| Place of family planning gotten | | |
| Another governmental health institution | 57 | 36.1 |
| At the ART treatment unit | 48 | 30.4 |
| Family planning unit in the hospital | 24 | 15.2 |
| Private clinic | 19 | 12 |
| NGO health institution | 10 | 6.3 |
| Counseling on FP utilization | | |
| Yes | 310 | 93.9 |
| No | 20 | 6.1 |
| Availability of FP in ART unit | | |
| Yes | 93 | 28.2 |
| No | 237 | 71.8 |
| Side effect of current FP | | |
| Yes | 47 | 29.7 |
| No | 111 | 70.3 |
| Main concern (side effect) | | |
| Menstrual change | 37 | 78.7 |
| Headache | 12 | 25.5 |
| Weight gain | 3 | 6.4 |
| Difficulty to conceive | 1 | 2.1 |
| Vomiting | 1 | 2.1 |

Table 4. Family factors of HIV positive reproductive age women attending ART care, Debre Markos Referral Hospital, Northwest Ethiopia, 2014.

| Variables | Frequency | Percent |
|-----------------------------------|-----------|---------|
| Number of children | | |
| No | 89 | 27 |
| 1 | 142 | 43 |
| ≥2 | 99 | 30 |
| Desire of children | | |
| Yes | 94 | 28.5 |
| No | 236 | 71.5 |
| I don't know | 13 | 13.8 |
| Partner Desire of children | | |
| Yes | 65 | 40.1 |
| No | 97 | 59.9 |
| Partner HIV tested | | |
| Yes | 155 | 95.7 |
| No | 4 | 2.5 |
| Don't know | 3 | 1.8 |
| Partner HIV status | | |
| Positive | 135 | 87 |
| Negative | 19 | 12.2 |
| Don't want to mention | 1 | 0.8 |

Table 5. Disclosure and ART status of HIV positive reproductive age women attending Debre Markos Referral Hospital ART unit. Debre Markos, Northwest Ethiopia 2014.

| Variables | Frequency | Percent |
|-----------------------------|-----------|---------|
| Disclosed to family | | |
| Yes | 259 | 78.5 |
| No | 71 | 21.5 |
| Disclosed to partner | | |
| Yes | 159 | 98.1 |
| No | 3 | 1.9 |
| On ART | | |
| Yes | 309 | 93.6 |
| No | 21 | 6.4 |
| Time started ART | | |
| <1 year | 36 | 11.6 |
| ≥1 year | 273 | 88.4 |

Table 6. Factors associated with modern family planning use among HIV positive reproductive age women attending ART care, Debre Markos Hospital, Northwest Ethiopia, 2014.

| Variables | Use of FP | | COR (CI = 95%) | AOR (CI = 95%) | P-value |
|--------------------------------|-----------|-----|--------------------|----------------------------|------------------|
| | Yes | No | | | |
| No of children | | | | | <0.001 |
| No child | 63 | 26 | 1.00 | 1.00 | |
| One child | 66 | 76 | 2.79 (1.58, 4.90) | 5.32 (2.75, 10.29) | |
| ≥ 2 | 29 | 70 | 5.84 (3.11, 10.97) | 11.66 (5.53, 24.59) | |
| HIV Disclosed to family | | | | ----- | |
| Yes | 118 | 141 | 1.00 | | |
| No | 40 | 31 | 0.64 (0.38, 1.10) | | |
| On ART | | | | ----- | |
| Yes | 144 | 165 | 1.00 | | |
| No | 14 | 7 | 0.43 (0.17, 1.11) | | |
| Monthly income | | | | ----- | |
| < 500 | 66 | 83 | 1.00 | | |
| 501-1500 | 78 | 60 | 0.50 (0.29, 0.85) | | |
| >1500 | 14 | 29 | 1.13 (0.54, 2.36) | | |
| Education | | | | | |
| Illiterate | 72 | 33 | 1.00 | 1.00 | 0.001 |
| Primary | 62 | 76 | 2.67 (1.57, 4.55) | 2.71 (1.49, 4.93) | |
| Secondary and above | 24 | 63 | 5.72 (3.06, 10.70) | 6.91 (3.35, 14.23) | |
| Desire of children | | | | | |
| Yes | 65 | 29 | 1.00 | 1.00 | |
| No | 93 | 143 | 3.44 (2.07, 5.73) | 4.91 (2.71, 8.99) | < 0.001 |

This study showed that nearly half of HIV positive women were using modern family planning methods. Condom (alone or combined with other methods) and injections were the most commonly used family planning methods. Modern family planning use was higher especially among HIV positive women who had a child/children and no desire for children and among literate mothers. This study showed that nearly half, 47.87% of the women were using modern family planning methods. The reported prevalence is supported by other studies conducting in Tigray [10] [11]. This might be due to the provision of family planning services within the ART service sit. In contrast to this finding is greater than a study finding done in Addis Ababa [12] and Southwest Uganda [13]. This might be related with family planning counseling, spouse influence and/or desire for children. However, a higher proportion of HIV positive women were using modern family planning methods in a study conducted in South Africa [14], Lesotho [15] and Zambia [16]. This might be due to educational level of attainment, active family planning promotion and integration of family planning services with ART clinics.

Condom was the most commonly used method by about half (51.8%) of the women as contraceptive method. This finding is comparable with a study finding conducted in Tigray [11] but higher than a study finding conducted in Southwest Uganda [13]. The higher prevalence of condom use might be related with its nature of dual protection and easily accessible. On the contrary a higher proportion of HIV positive women were using condom in a study done in Tigray [10] and Zambia [16]. This might be due to active promotion and distribution of condoms in the respective areas. Injection contraceptives were the other commonly used family planning methods. In contrast to this study finding a lower prevalence was obtained in a study done in Tigray [10] and South Africa [14]. Women's might use methods that might not detected by husbands or sexual partners. In another study conducted in Tigray a higher proportion of women were using injections [11]. This lower proportion of injectable use might be due to a lower level of awareness about injectable contraceptives and spouse influence too. In this study dual family planning method use was very low (19%) which is comparable with other studies done in Tigray (20) and Zambia [16]. But it was higher as compared to a study done in Southwest Uganda (16). The possible variation might be due to time variation and the study design. Modern family planning utilization was significantly associated and was higher among literate women attending primary and secondary and above level of education and this is supported by other studies conducted in different countries [12] [17] [18]. Educated HIV positive women might have good knowledge about family planning methods, HIV/AIDS, consequences of unintended pregnancies and convince their spouse about importance of family planning methods than their counterparts. Utilization of modern family planning was significantly associated and higher among those women who had one or more children. Other studies documented that the odds of using modern family planning methods was two folds higher among those who had one or more child [17] and was also higher among those who had one or more living children [13] [16]. Women who had no children might have a high future fertility desire and their intention to use family planning methods might be low.

Utilization of modern family planning methods was also significantly associated and higher among those had no a desire for children. A study conducted in Uganda [19] and Cape Town [14] had supported this study finding as personal desire for biological parenthood was more likely to influence women's decision on contraceptives than the fear of transmitting HIV.

The possible reasons might be related with partner's insistence, to conceal their HIV sero status, socio-economic status and fearing complications associated with pregnancy. In contrast to this study, a study done in Addis Ababa showed that, those who had a desire for more children were more likely to use family planning methods than those who had no a desire for children [20]. This might be related with women's desire to have a child after two or more years of child birth and/or might want to have children after improvement of their weight and CD4 count.

4. Conclusion and Recommendation

Utilization of modern family planning methods was below half and the most commonly used methods were condom and injectable contraceptives. The proportions of HIV positive women using dual methods were very low. Similarly integration of family planning services within the ART service site was low. Therefore in order to enhance utilization of modern family planning methods for HIV positive women, family planning services must be integrated with ART care and support service sit. In addition, it needs a concerted effort from the ministry of health, ministry of education, non-governmental organizations, and governmental and non-governmental health facilities and from health providers too.

Competing Interests

We, the authors declare that we have no competing interests.

Authors' Contributions

Selamawit G. Egzeabher wrote the proposal, participated in data collection, analyzed the data and drafted the paper. Dr. Mekonnen Ayichiluhm Bishaw, Mr. Teketo Kassaw Tegegne and Mr. Dube Jara Boneya approved the proposal with some revisions and participated in data analysis as main and co-advisors. We revised drafts of the paper. Currently Dr. Mekonnen Ayichiluhm is the contact person for the communication in the processes of publication.

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