

Contraceptive Use and Unintended Pregnancies Among HIV-Infected Women in Mumbai

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ABSTRACT

Background: Access to reproductive health services in Human Immunodeficiency Virus (HIV) programs can greatly enhance program's potential to limit the spread of disease, reduce unintended pregnancies and safeguard the health of infected people. **Objectives:** To assess (i) knowledge, attitude, and use regarding contraceptives; safe sex and dual protection; (ii) fertility desires and unintended pregnancies post HIV and (iii) symptoms of reproductive tract infection/sexually transmitted infection (RTI/STI) among women infected with HIV. **Materials and Methods:** A cross-sectional study among 300 currently married HIV-positive women who had not undergone permanent sterilization with no immediate desire for pregnancy. Study site was Integrated Counseling and Testing Centers (ICTC) in tertiary hospitals of Mumbai and women were interviewed using a semistructured questionnaire. **Results:** In spite of good awareness about modern methods, 42.7 felt that contraceptives other than condoms were harmful to use due to their HIV status. Knowledge on dual protection was limited to condom (75%). Condom use increased from 5.7% pre-HIV to 71.7% post-HIV, with 89.6% reporting regular use. Future fertility desire was expressed by 8.7% women. Induced abortions post-HIV was reported by 16.6% women, as pregnancies were unintended. About 69% wished to use dual contraceptive methods for effective protection if it was not harmful to be used by people living with HIV (PLHIV). **Conclusion:** Data reveals a need to promote modern contraceptive methods along with regular condom use to prevent unintended pregnancies and improve health-seeking behavior for contraception. Health system models that converge or link HIV services with other reproductive health services need to be tested to provide comprehensive reproductive healthcare to infected women in India.

Keywords: Contraception, dual protection, dual methods, HIV

Introduction

India has achieved significant reduction in new HIV infections over the last 10 years. As per latest reports from National AIDS Control Organization, India,⁽¹⁾ the adult

HIV prevalence at national level has declined from 0.41% in 2000 through 0.36% in 2006 to 0.27% in 2011. Young infected population report high fertility than their adult counterparts. There is a high association between the level of high risk behavior, as reflected by unprotected sex and the HIV positivity. For this group, those who engage in unprotected sex are as highly exposed to pregnancy as they are exposed to HIV infection.

Women living with HIV/Acquired Immuno Deficiency Syndrome (AIDS) have right to determine the number and timings of their pregnancies and to safely achieve their reproductive intentions. However, many women

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in Asia affected by HIV lack access to family planning (FP) services and experience disproportionately high rates of unintended pregnancy and abortion.⁽²⁾ In spite of extensive condom promotion, its role as a dual protection method is undermined, leading to challenges in achieving consistent and regular use of condom. Limited evidence from India suggests that one-third of men and one-quarter of women living with HIV report inconsistent use with regular sexual partners.⁽³⁾ Information on dual method use is limited, but data from India suggests it is lower among Female Sex Workers (FSWs)^(4,5) and women and couples living with HIV.⁽⁶⁾ One study in India found that 70% of the repeat pregnancies among women living with HIV were both unplanned and unwanted.⁽⁷⁾ On an average, 10.3% HIV-positive women in India reported that their recent pregnancy was unwanted.⁽⁸⁾ In a study from India, physicians and clients alike reported that the FP counseling delivered to men and women living with HIV focused exclusively on condoms, with only, minimal discussion of other contraceptive method options.⁽⁶⁾ Findings from other studies reveal that there might be a common concern among HIV program planners that providing non-barrier FP methods to high risk clients will be detrimental or even reverse the progress achieved.^(8,9) However, evidence suggests that access to or use of non-condom contraception does not decrease condom use or increase unsafe sex among people living with or at risk of HIV.^(10,11)

Information on reproductive health status such as obstetric events; fertility patterns, perceptions and practice of contraceptives and symptoms of reproductive tract infection/sexually transmitted infection (RTI/STI) among HIV-infected women in India could go a long way in framing strategies to address these unmet needs. Considering limited information on these issues among a good sample of married HIV-infected women in India, an exploratory study was undertaken among HIV-infected women in Mumbai attending HIV counseling and testing centers at tertiary care hospitals to assess:

1. Knowledge, attitude, and uses regarding contraceptives, safe sex, and dual protection;
2. Fertility desires and unintended pregnancies post-HIV and
3. Symptoms of RTI/STI among women infected with HIV.

Materials and Methods

A cross-sectional study was conducted among married, non-pregnant, HIV-infected women aged 18-40 years; who did not desire to have any children and couple was not permanently sterilized. Over a period of 9 months, 300 women attending the ICTC at two randomly selected tertiary hospitals of Mumbai, who fulfilled the above criteria and were willing to participate in the study were

enrolled. After seeking a written informed consent from eligible women, a pretested semistructured interview schedule was administered to collect the desired information.

Data was analyzed using Statistical Package for Social Sciences (SPSS) version 19 (IBM, Bangalore). Knowledge-based questions on contraceptives and safe sex had a Yes and No response. Set of questions were asked to assess knowledge on a broader issue of exploration. Each correct response was coded as 1. Use of condom during every sexual activity was termed as regular/consistent condom use. For descriptive aspects of the analysis, percent was calculated for all categorical variables and mean and Standard Deviation (SD) were calculated for quantitative analysis.

Results

Demographic information [Table 1]

Mean age of participants was 28.65 (SD ± 4.49) years, and mean age at marriage was 19.62 (SD ± 3.05) years. Majority of the women were literates (89%) with more than 61% educated above secondary level but only 17.3% were engaged in some form of employment. Most of them belonged to nuclear families (82%) with an average family size of 4.35 (SD ± 1.6). The mean per capita income was Rs. 2,287.68 (SD ± 1,528).

Table 1: Background characteristics of study participants

Characteristics		Total (n = 300) n (%)
Age (years)	Mean, SD	28.65 (SD±4. 49)
Educational status	Illiterate	34 (11.3)
	Primary andmiddle	82 (27.3)
	Secondary andhigh school education	184 (61.3)
Type of family	Nuclear	245 (81.7)
	Joint	55 (18.3)
Currently employed	Yes	52 (17.3)
Occupation	Skilled	11 (21.2)
	Unskilled	27 (51.9)
	Professional	8 (15.4)
	Business	6 (11.5)
Total family members (mean±SD)		4.35±1.6
Per capita income in Rs (mean, SD)		2,287.68±1,528
HIV status of couples	Concordant	216 (72)
	Discordant	60 (20)
	Spouse's HIV status not known	24 (8)
	On ART	
On ART	Self	132 (44)
	Spouse (n=216)	134 (62)
Disclosed HIV status overall (including spouse or other relative)	Yes	298 (99.7)

SD: Standard deviation, HIV: Human immunodeficiency virus, ART: Antiretroviral therapy

HIV status, Antiretroviral Treatment (ART), and disclosure

Very few (6.7%) women knew their HIV status before marriage and nearly half (51.3%) reported that HIV was diagnosed during antenatal period. The other major cause of detection was due to spouse's or child's illness and only 15% said it was diagnosed due to their own illness. Nearly 60.3% of women reported that they got pregnant pre-HIV and 23% after knowing their HIV status.

Overall, 92% of spouses were tested for HIV resulting in 72% concordant and 20% discordant couples. Mean number of family members who were HIV positive in each family was 1.86 (SD ± 0.63) with mean number of positive children being 1.05 (±0.22). Less than half of women (44%) and about 62 and 77.5% of their positive spouses and children were on ART, respectively. A large majority (96.3%) had disclosed their HIV status to their spouse and 70% of them had also disclosed to others such as family members, friends, etc. [Table 1].

General health status, RTI/STI, and health-seeking behavior

Nearly half (47%) of the women complained of some illness in the last 3 months. Their mean CD4 levels were 534 (SD ± 285). The major problems were related to general health such as weakness, pains and aches, fever, etc., followed by respiratory ailments and skin infections. Less than 10% of women were diagnosed with Tuberculosis (TB) and almost all (97%) of them were taking treatment regularly. Out of 40% of women who complained of some kind of STI/RTI symptoms, only 19% of them had sought treatment. Chronic lower abdominal pain (Pelvic Inflammatory Disease (PID) -24.3%) followed by excessive vaginal discharge (20.6%) and itching of genital area (12.3%) were the most commonly reported symptoms. Partner treatment was provided to only a quarter of those women who sought treatment for RTI/STI.

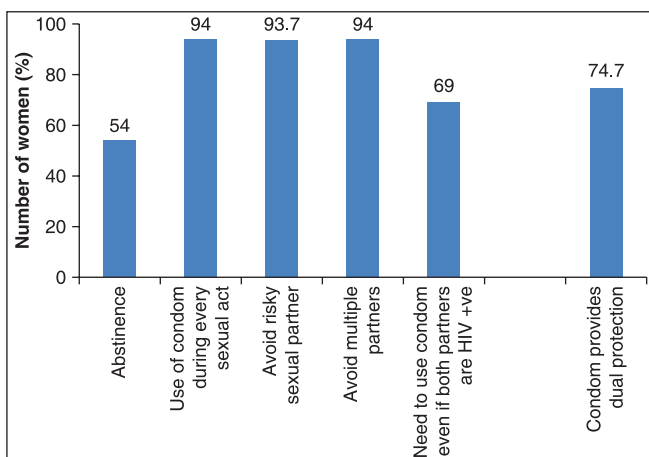


Figure 1: Knowledge about safe sex and dual protection

Knowledge about safe sex, dual protection, and contraception

Overall 94% of women were aware about safe sexual practices [Figure 1]. Awareness about different contraceptives among PLHIV was also found to be above 90% in most cases, barring female condom (13%), injectable (48.3%), and natural FP methods such as withdrawal (35.7%) and rhythm methods (28.3%). Awareness about Emergency Contraceptive Pills (ECP) was only among 41% women [Figure 2].

Knowledge that concordant couples also need to use condoms regularly was known to 69% of women and three quarter of women knew that condom could provide dual protection, that is, protection against both HIV and pregnancy [Figure 1]. Among condom users, only half of them believed that it would give 100% protection from pregnancy. However, none of them could mention use of dual methods for effective prevention of both infection and pregnancy.

Attitude towards contraceptive methods and decision making

A large number of infected women (42.7%) considered use of any modern contraceptive methods to be harmful, especially the ones used for spacing such as Intrauterine Devices (IUD; 32.7%), Oral Contraceptive Pills (OCP; 19.3%), and injectable (2.7%) more so as they were HIV positive. A large majority (90%) reported that the use of contraceptives depended on their sexual partner and 11.3% also felt that it depended on their family members. Among those who knew about ECP, 95% felt that ECP should be made available at ICTC/Prevention of Parent to Child Transmission (PPTCT) centers.

Fertility desire, contraceptive use, and unintended pregnancies

About 92.3% couples had consensus on the total number of children that they wished to have. Only 8.7% of enrolled

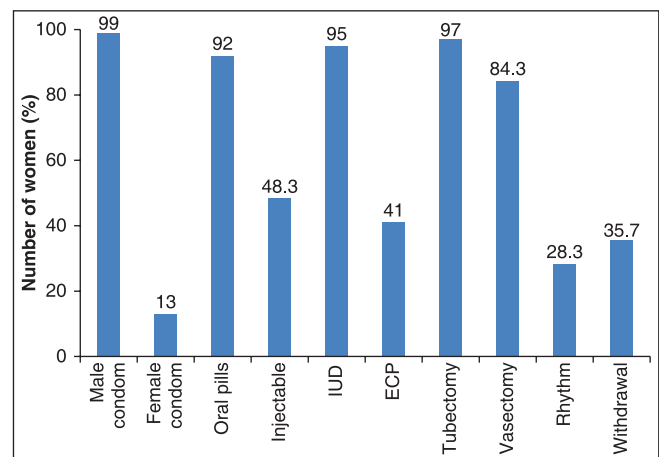


Figure 2: Knowledge about various family planning methods among participants

women revealed desire for more children. The reasons why they did not wish to have any children in future were mainly due to their HIV status (46.5%) or that they were happy with the numbers they already had (33%).

Only 20.7% women had used some kind of contraceptive method before they knew their HIV status. Condoms were used by only 5.7% of the women. 5.7% OCP, 6.3% IUD, 0.7% injectable, and 2% had reported to use multiple methods at different intervals [Figure 3]. Only half of the women responded that they were given some information about different methods of contraception at the ICTC/PPTCT center. Only 45% said that they received condoms during counseling at ICTC, compared to 72% of their husbands who were given condoms along with demonstration of how to use them. As major focus was on condoms for infection control post HIV, nearly 71.7% reported using condom alone, among the 74.7% who reported using some contraception. Among them, 89.6% reported regular use. Use of other spacing methods post HIV was negligible [Figure 3]. Induced abortions post-HIV was reported by 16.6% women as these pregnancies were unintended and there was fear of transmitting HIV to the child. Among them, 68% were given information about contraceptives by health providers and only 14.3% of women initiated use of some contraceptive method. Overall, 31% yet wished to use only condom and 69% of them showed their inclination to use dual contraceptive methods, that is, condom plus another methods such as tubectomy (58.45%), followed by IUD (30.34%), OCP (16.91%), and injectable (1.44%).

Discussion

On one hand it was encouraging to see the positive effect of ART on the overall health condition of women who had a mean CD4 count of above 500 and only 10% seeking treatment for tuberculosis. However, many

(40%) women complained of symptoms of RTI/STI in last 3 months, but very few sought treatment. If ever they received treatment, partner management was neglected. This reflects a need to improve RTI/STI case detection by training the providers at ICTC on aspects of syndromic management to both partners and improve their health-seeking behavior to prevent the biological vulnerability leading to adverse consequences on pregnancy.

This study gives an insight into the contraceptive use and reproductive health profile of HIV-infected women living in a metropolitan city in India. It was encouraging that 93% women had disclosed their status and gained good support from their spouses without facing stigma discrimination. The program needs to be complemented for the facilitating role of counseling that encourages disclosure to spouse overcoming all barriers as reported in literature.⁽¹²⁾ As observed in general population,⁽¹³⁾ the overall awareness of contraceptives was good among the study population. Although only half of them believed that condom only method could give 100% protection from pregnancy yet they did not use other methods due to myths and misconceptions that modern spacing methods of contraception are harmful more so because of their HIV status. This clearly indicates that the program is deficient in imparting correct knowledge about information on dual protection, the need to use dual methods including safety issues if contraceptives are used by HIV-positive women. Women also complained that unlike their male counter parts, they were not given condom demonstration nor had access to condoms at the testing facilities which also reflected in their poor knowledge about the need to use condoms if both are positive. They desired that these facilities must keep a stock of emergency pills too. Our study confirms the finding of another similar study which reveals that programs lack emphasis on pregnancy planning and dual contraception use resulting in unintended pregnancies among PLHIV.⁽⁶⁾

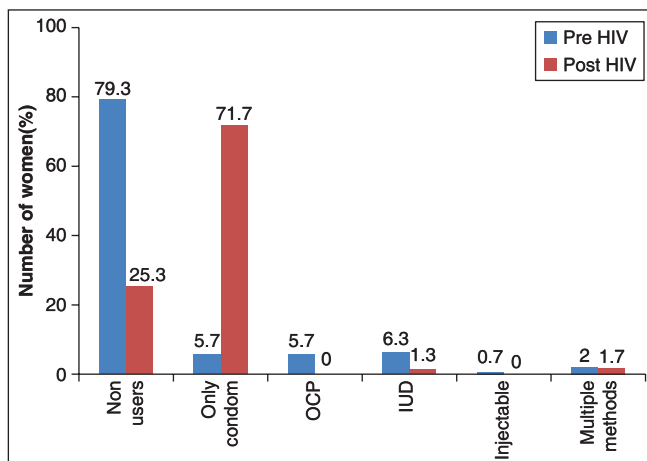


Figure 3: Contraceptive methods used before and after human immunodeficiency virus (HIV)

There was a very clear difference in the type of contraceptives that women used before and after knowing their HIV. As reported in literature,⁽⁶⁾ reliance on condom increased post HIV and none of the study participants were using any method apart from condoms unlike general population where use of condom is very low. However, 11% reported irregular use resulting in unplanned pregnancies to a tune of 16.6% reflecting the unmet need for contraception. It is important to note that not many women resorted to abortions. Option of abortion in early pregnancy need to be offered if a woman is not physically or mentally capable of continuing that pregnancy to term due to her illness. It is well known that among all contraceptives, condom has the highest failure rate. In spite of this, most PLHIV were using only condom. A very good contraceptive

protection must be ensured to PLHIV if they do not want any pregnancy, as pregnancy itself is an immune compromised condition which may further deteriorate the health of the mother. To add to, it is their physical and psychological coping capacity to rear a child both in terms of its health and general well-being. Compared to general population, PLHIV are more vulnerable to these risks for which pregnancy occurrence ideally should not be a casual event which is taken care of by offering PPTCT prevention therapies. The psychosocial well-being of the women and their families must also be considered to be able to take good care of children born to these couples.

Mutual understanding and spouse support are required for consistent use of condom and many studies have reported that refusal of condom by spouse or sexual partner is a potential factor for low condom use among positive women.⁽⁶⁾ Since women are at potential risk of pregnancy due to unprotected sex, women need to use effective methods that are women controlled along with condoms. Consistent efforts are needed to promote use of dual methods post-delivery or abortion for either spacing or limiting. There is a need to train and sensitize service providers on the current consensus that HIV-infected women and women at risk of HIV infection can use all available contraceptive methods.⁽¹⁴⁾

According to the World Health Organization,⁽¹⁵⁾ a moderate reduction in the number of pregnancies among HIV-infected women would yield a reduction equivalent to the number of infections averted among infants of HIV-positive pregnant women. Given that only 22% pregnant women access the prophylactic regimen of PPTCT interventions in India,⁽¹⁾ it is very important that the second prong of PPTCT must get programmatic focus. Reducing unintended pregnancies among HIV-positive women through FP also reduces the number of children potentially orphaned when parents die of AIDS-related illnesses. It also reduces HIV-positive women's vulnerability to morbidity and mortality related to pregnancy and lactation. In addition, FP for both HIV positive and negative women safeguards their health by enabling them to space births.

For any given amount of money, increasing contraceptive use averted more HIV-positive births than did the traditional prophylactic strategy to use drugs to prevent mother to child transmission. If \$ 20,000 were spent in increasing contraceptive use, 22% more births would be averted in comparison to the same amount spent in increasing access to PPTCT prophylaxis treatment. Reducing unmet need for contraception was more cost-effective for preventing HIV-positive births than was the current programmatic emphasis on HIV counseling and testing coupled with nevirapine provision.⁽¹⁶⁾

Expanding FP service linkages or integrating into Voluntary Counseling and Testing Centers substantially contributed towards PPTCT in African settings.⁽¹⁷⁻²⁰⁾ Contraceptive use can also help HIV-positive women space births, which can help their health as well as lower the need for PPTCT services.⁽²¹⁾

India has now moved into Phase four of National AIDS Control Program. It is striving to achieve its target of 0% new infections by introducing newer prophylactic drug regimens. But the universal reach of this strategy will remain a constraint. Given the evidence that reducing unintended pregnancies is cost effective both to the program and families coupled with safeguarding the health of the woman, there is a need to focus on prong 2 approach of prevention of mother to child transmission and reduce unintended pregnancies. Operational research can explore different strategies to improve access to FP either by converging or linking HIV and FP services. Epidemic in India is not generalized; hence a unilateral linkage, that is, from HIV to FP would provide unique opportunity to all positive people who may need contraception to prevent unintended pregnancies. Further research will be needed to test the acceptability and continuation of dual method use among HIV infected women.

Conclusions

HIV-infected women could have same concerns about preventing pregnancies like any other noninfected women for economic reasons, for limiting desired family size, and spacing. In addition to the infection, there could be anxiety about leaving orphans, concerns about the effects of pregnancy on her own health, and fear of transmitting the infection to her offspring. Current program approach should have a strong focus on prong 2 of PPTCT. Strategies to address program-related lacunae could include sensitizing the providers on the importance of use of dual methods, developing linkages between HIV and FP services, holistically addressing the issues of pregnancy, contraception, RTI/STI, and sexual problems of PLHIV at all HIV service delivery sites and vice versa. This will ensure that PLHIV are able to make informed decisions about their sexual and reproductive health and have access to appropriate services.

Limitations

The study was conducted at tertiary level of care in an urban setting and these findings may not be generalizable for rural infected women. The high risk population was not part of this group and their issues may be quite different from the ones that this paper aims to explore. The study group included only those who were fertile and not sterilized, limiting the inference of the study to all infected with HIV.

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