

None declared

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## ABSTRACT

**Background:** Meeting contraceptive needs of HIV positive women can help to avoid unintended pregnancies which would reduce maternal deaths and paediatric HIV infections.

**Objectives:** Objectives of this study were to determine the proportion of HIV positive women on ART using contraception and to know the factors associated with their contraception use.

**Methods:** This is a facility based, descriptive cross-sectional study conducted from 1<sup>st</sup> October 2012 to 31<sup>st</sup> March 2013 in HIV Clinic, Bapuji Hospital, Davangere. The study subjects included were 220 HIV positive women attending HIV clinic. Statistical analysis was done using proportions and Chi-square test.

**Results:** The proportion reporting use of contraception was 54.1%. The most common method used was condoms (54.6%), oral contraceptives (5.1%), while 33.6% had undergone tubectomy. Fear of side effects (43%) was the most common reason cited for not using contraception. Parity, Spouse HIV status, stage of disease or CD4 counts were found to be associated with contraception use.

**Conclusions:** About half of the women on ART were not on contraception. Thus, contraceptive use among HIV-positive females was low. Counselling regarding family planning and provision of contraception services should be integrated with HIV clinic.

**Key words:** Family planning practices, HIV positive women

## INTRODUCTION

Pregnancy among women living with HIV is an issue of public health importance especially in resource limited countries with high HIV prevalence and high fertility rates<sup>1</sup>. It is associated with increased risk of poor outcomes which include maternal mortality as well as paediatric HIV infections. Preventing unintended pregnancy among HIV-infected women could contribute significantly to preventing HIV infection in infants. There is a large unmet need for family planning services particularly in developing countries like sub-Saharan Africa because of high fertility rates and high HIV

prevalence rates. Strong Family planning programmes are needed to prevent unintended pregnancy. As Most of HIV-infected women in developing countries are unaware of their HIV status, efforts are required to scale up testing and counselling services thus increasing the access to family planning for infected women who still do not know their status and require family planning<sup>1</sup>.

For the elimination of parent-to-child transmission of HIV, the World Health Organization (WHO) recommends a comprehensive strategy that includes Family Planning for preventing unintended pregnancies among HIV-infected women<sup>2</sup>.

Contraceptive needs of HIV positive women are complex with some desiring for fertility and some want to limit child bearing<sup>3</sup>. Meeting contraceptive needs of these women is a cost effective strategy to reduce HIV transmission<sup>3</sup>.

There are limited studies on family planning practices among HIV positive women and factors influencing it in India. With this background present study has been undertaken.

Objectives of the study were to determine the proportion of HIV positive women on ART using contraception and to know the social and clinical factors associated with their contraception use.

## METHODOLOGY

This is a facility based, descriptive cross-sectional study conducted from 1<sup>st</sup> October 2012 to 31<sup>st</sup> March 2013 in HIV Clinic, Bapuji Hospital, Davangere. The study subjects included were 220 HIV positive women attending HIV clinic.

Inclusion Criteria were HIV positive women attending HIV clinic; Aged between 15-45 years, sexually active, Non Pregnant, Non-hysterectomy; Consenting to participate in the study. Exclusion criteria was HIV positive women still on Pre-ART/ not on ART.

Data collection from these 220 HIV positive women attending HIV clinic was started after getting institutional ethical review board clearance. Study participants were interviewed using pre-designed, pre-tested, semi-structured questionnaire after obtaining written consent. The questionnaire included information regarding their socio-demographic data, HIV/AIDS diagnosis, Anti-Retroviral therapy, CD4 counts and contraception use, etc.

Data was analysed using SPSS v17.0 and presented in the form of descriptive statistics (means, proportions, percentages). Chi square test was employed to determine factors associated with contraception uptake. P <0.05 was considered statistically significant.

## RESULTS

In the present study total 220 PLHIV were recruited. Out of 220, 53.2% were aged more than 30 years with mean age  $29 \pm 8.6$  years. 70% of the study participants belong to Hindu religion. In our 32.7% were illiterate and 30% studied upto high school. 72.3% were married and 8.6% were widows. In the present study 88.6% of the study participants belonged to Class IV and V socioeconomic status according modified BG Prasad socio-economic classification. (See table1)

In the present study 183 (83.1%) study participants had children, out of this 53.1% had before diagnosis and 30% after the diagnosis of their HIV status. 13.6% of the study participants had abortion after knowing their HIV status. 71.8% of their partner/spouse were HIV positive. 47.7% of study participants were having desire for more children and 52.3% didn't have desire for children. 54% of the study participants were using contraceptives and 46% were not using any contraceptives. (table 2)

In our study 54.6% were using male condoms 33.6% had undergone tubectomy and 5.1% were using oral pills. (table 3)

Fear of side effects (43.2%) was the main reason cited by study participants for not using contraceptives followed by don't want to take many drugs (26.4%). (table 4)

Table 1: socio-demographic characteristics of study participants

Variable	Frequency (n=220) (%)
Age	
<30	103 (46.8)
≥30	117 (53.2)
Religion	
Hindu	154 (70)
Muslim	57 (25.9)
Christian	9 (4.1)
Education	
Illiterate	72 (32.7)
Primary	60 (27.3)
High school	66 (30)
PUC/diploma	22 (10)
Marital status	
Married	159 (72.3)
Divorced/Separated	26 (11.8)
Single	16 (7.3)
Widow	19 (8.6)
Socioeconomic status	
Class III	25 (11.4)
Class IV and V	195 (88.6)

\*Modified BG Prasad socio-economic classification

Table 2: Reproductive and Contraceptive Profile of Respondents

Profile	Frequency (n=220)
Reproductive Profile	
Have Children	183 (83.1)
Before diagnosis	117 (53.1)
After diagnosis	66 (30)
Had abortions	30 (13.6)
Spouse/Partner HIV Positive	158 (71.8)
Fertility Desires	
Desire for more children	105 (47.7)
No Desire	115 (52.3)
Contraception Profile	
Users	119 (54)
Non-users	101 (46)

Tab.3 family planning practice among study participants

Family planning method	Number (Percentage)
Male condoms	65 (54.6)
Tubectomy	40 (33.6)
Intrauterine device	8 (6.7)
Oral pills	6 (5.1)

Table 4: Reasons for not using contraception

Reason	Number (%)
Fear of side effects	95 (43.2)
Don't want to take many drugs	58 (26.4)
Spouse/ partner not willing	9 (4.1)
Want to have child/ children	37 (16.8)
Lack of access / Don't know about contraception	15 (6.8)
Others (ill health, can't afford)	6 (2.7)

Table 5: Factors associated with contraception use

Determinants	Contraceptive uptake		P value
	Yes (n=119)	No (n=101)	
Age groups (in years)			
<30	67(56)	36(35.6)	0.005*
≥30	52(44)	65(64.4)	
Marital status			
Married	80 (67.2)	79(78.2)	0.05
Unmarried/ Divorced/ widow	39(32.8)	22(27.8)	
No. of children			
0	16(13.5)	25(24.7)	0.01*
1	32(26.8)	36(35.6)	
2+	71(59.7)	40(39.7)	
Partners HIV status			
Negative/unknown	23(19.3)	34(33.6)	0.001*
Positive	96(80.7)	62(66.4)	
Discloser to partner			
Yes	94(78.9)	69 (68.3)	0.02
No	25(21.1)	32(31.7)	
Stage of HIV			
Stage 1 or 2	69(57.9)	43 (42.5)	0.02
Stage 3 or 4	50(42.1)	58(57.5)	
CD4 counts			
≤500	57 (47.8)	67(66.3)	0.005
>500	62(52.2)	34(33.7)	
Duration of ART			
≤ 1 year	35(29.4)	29(28.7)	0.5
>1 year	84(70.6)	72(71.3)	
Future child bearing desire			
Yes	29(24.3)	43(42.5)	0.005
No	90(14.3)	58(57.5)	

\*p ≤ 0.05 is significant; Figure in parenthesis indicate percentage

The factors like Age group, number of living children, partner HIV status, HIV stage, CD4 counts and desire for children were found to be significantly associated with contraception use. (table 5)

## DISCUSSION

In the present study 83.1% study participants had children, out of this 53.1% had before diagnosis and 30% after the diagnosis of their HIV status.

13.6% of the study participants had abortion after knowing their HIV status. Our study result is higher than study conducted by Mitsiwat Abebe<sup>4</sup> (21.8%) and Beena Joshi<sup>5</sup> (16.6%). 71.8% of their partner/spouse were HIV positive. This difference could be due to difference in sociodemographic characteristics, ethnicity, geo-graphical area and life style of individuals.

In our study 47.7% of study participants were having desire for more children. Our study result is higher than study by Mekdes Daba Feyssa<sup>6</sup> (52.1%), James Kimani<sup>7</sup> (52%), Dennis Odai Laryea<sup>8</sup> (53.5%), Rhoda K Wanyenze<sup>9</sup> (58%) and James LC<sup>10</sup> (69%) and lower than study by Mitsiwat Abebe<sup>4</sup> (36.5%) Myer L<sup>11</sup>(36%) Nobrega AA<sup>12</sup>( 40%).

In the present study 54% of the study participants were using contraceptives. Our study result is lower than study by Jaco homsy<sup>13</sup> (68.6%), Shiva Raj Mishra<sup>14</sup> (70.8%), Beena Joshi<sup>5</sup> (74.7%), Mekdes Daba Feyssa<sup>6</sup> (77.4%), Rhoda K Wanyenze<sup>9</sup> (80.5%), Naomi Nakaie<sup>15</sup> (81.4%) and Nadia Kancheva Landolt<sup>16</sup> (95%). Our study finding is higher than Dennis Odai Laryea<sup>8</sup> (42.6%), Nobrega AA<sup>12</sup> (49%), Mbonye AK<sup>17</sup> (50%), dereje habte<sup>18</sup> (51.2 %). In a study conducted by Kerry LD<sup>19</sup> MacQuarrie contraceptive use among HIV-positive women ranged from 16% in Togo to 59% in Namibia.

In our study 54.6% were using male condoms which is higher than study conducted by Dereje Habte<sup>18</sup> (12.7%), Mekdes Daba Feyssa<sup>6</sup> (39.8%) and James Kimani<sup>7</sup> (41%). Our study result is lower than Jaco homsy<sup>13</sup> (63.3%), Shiva Raj Mishra<sup>14</sup> (65.8%), Mitsiwat Abebe<sup>4</sup> (68.5%), Naomi Nakaie<sup>15</sup> (68.7%), Walter Kipp<sup>20</sup> (71.3%), Beena Joshi<sup>5</sup> (71.7%), Dennis Odai Laryea<sup>8</sup> (79.6%) and Nadia Kancheva Landolt<sup>16</sup> (87%).

In present study 33.6% of participant had undergone tubectomy. Our study result is higher than study by Nadia Kancheva Landolt<sup>16</sup> 42% and lower than study by Naomi Nakaie<sup>15</sup> (3.2%), Dereje Habte<sup>18</sup> (11%) and Jaco homsy<sup>13</sup> (13.3%).

In our study 5.1% were using oral pills and same finding was observed in the study conducted by Dennis Odai Laryea (5.1%). our study finding is higher than study by dereje habte<sup>18</sup> Pill (0.8%), Shiva Raj Mishra<sup>14</sup> (2.5%), Walter Kipp<sup>20</sup> (2.5%) and lower than study by Mekdes Daba Feyssa<sup>6</sup> (13.8%), Naomi Nakaie<sup>15</sup> (14.2%) and James Kimani<sup>7</sup> (37%).

Fear of side effects (43.2%) was the main reason cited by participants for not using contraceptives followed by don't want to take many drugs (26.4%). 16.8% of them wanted to have children so that they were not using any contraception.

In present study the factors like Age group, number of living children, partner HIV status, HIV

stage, CD4 counts and desire for children were found to be significantly associated with contraception use. In a study by Shiva Raj Mishra<sup>14</sup> marital status, family relationship, regular sexual intercourse, FP counselling and attitude of believing FP is useful to prevent unwanted were significantly associated with contraceptive use. Study by Myer L<sup>11</sup> contraceptive use was associated with male gender, younger age and less number of children.

## CONCLUSION

Nearly half of the study participants in present study were practicing one or other method of Family planning. However among non-users majority did not desire for future child birth. Permanent methods like tubectomy were the most common contraception used. Fear of side effects was the most common reason stated for not using contraception. Thus use of reversible contraception among HIV positive women is low.

## RECOMMENDATIONS

Counseling regarding family planning must be strengthened at HIV clinics. Contraceptives must be provided by duly considering HIV positive women's social, reproductive, clinical profile and their desires.

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Ethical approval: The study was approved by the Institutional Ethics Committee.

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