Research Article

Profile of Human Immunodeficiency Virus seropositives attending Integrated Counseling and Testing Center of a Medical College in Chhattisgarh

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ABSTRACT

Background: Acquired immune deficiency syndrome (AIDS) is one of the most important public health problems of the late 20th and early 21st centuries. Hence, it is necessary to understand the sociodemographic profile and risk behavior pattern of human immunodeficiency virus (HIV)-infected individuals for better implementation of interventions. **Objective:** The objective of this study was to assess sociodemographic profile, risk behavior pattern, and source of referral of HIV seropositive clients attending Integrated Counseling and Testing Center (ICTC). **Materials and Methods:** A cross-sectional study was done on all HIV-seropositive attendees who attended ICTC from July 2015 to October 2015. **Results:** Out of all 274 individuals, 61.31% were male, 58.39% were of 20-39 years age, 77.01% were married, and 34.39% had completed primary education. Most common occupation among males is government or private service (20.83%) and almost half of the females were homemakers (49.06%). 174 (63.50%) individuals stated heterosexual transmission as the risk behavior. 3.66% of individuals got infected because of parent to child transmission. 37.23% of individuals visited ICTC voluntarily. **Conclusion:** Epidemiological studies should be carried out in various settings to understand the role and complex relations of social and demographic and behavioral factors, which will help, interrupt, and control the transmission of HIV/AIDS.

KEY WORDS: Human Immunodeficiency Virus Seropostives; Integrated Counseling and Testing Center; Risk Behavior; Sociodemographic Profile

INTRODUCTION

In 1980, acquired immune deficiency syndrome (AIDS) was recognized as emerging disease and now, it has spread worldwide. We can call AIDS as our modern pandemic, which affects both industrialized and developing countries.[1] There are approximately 36.9 million people living with human immunodeficiency virus (HIV) at the end of 2014 with 2 million people becoming newly infected with HIV in 2014 globally.[2] Home to an estimated 3.5 million people living with HIV, the WHO's South-East Asia Region accounts for 10% of global burden of the disease.[3]

Although the percentage of adult population affected by HIV and AIDS may have dropped, in absolute numbers, number of people living with AIDS, in India, is still substantial. It is the third largest in the world and remains the largest in Asia.[4] According to the HIV Sentinel Surveillance (2014-2015), overall HIV prevalence of India is 0.29% (90% confidence interval: 0.28-0.31%). The prevalence in Chhattisgarh is 0.41% which is more than the national average and makes it the fifth state with the highest prevalence.[5]

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HIV counseling and testing services were started in India, in 1997. Now, there are more than 4000 counseling and testing centers, mainly located in government hospitals.[6] Under the National AIDS Control Programme-III, Voluntary counseling and testing center and facilities providing the Prevention of Parent-To-Child Transmission services are remodeled as Integrated Counseling and Testing Center (ICTC) to provide services to all clients under one roof. ICTC is an important component of prevention and control of HIV/AIDS as it does not only make people aware of their HIV status but also helps them to adopt healthy lifestyle, access life-saving care and treatment, and prevent further transmission of HIV.

Chhattisgarh, being a tribal state, is also facing the HIV epidemic and the main factor contributing to it is Chhattisgarh's demographic and economic ties with Andhra Pradesh, Telangana, and Maharashtra which are already known as high-prevalence states.[7,8] Other possible factors can be lack of education and poverty.[9]

As the awareness and lifestyle changes are the key for the prevention and control of HIV infection, it is important to understand its epidemiology with regard to various sociodemographic profile.[10] Keeping this in mind, this study was done with the following objectives

1. To assess sociodemographic profile of HIV seropositive clients attending ICTC
2. To find the risk behavior pattern
3. To identify the source of referral.

MATERIALS AND METHODS

The present cross-sectional study was conducted in ICTC of Pt. J.N.M. Medical College, Raipur. The study was done from July 2015 to October 2015 and all the clients who were detected HIV seropositive during this period were included in the study. HIV was diagnosed by performing a rapid test and Enzyme-linked immunosorbent assay using two different antigens. A total of 274 attendees were diagnosed seropositive during the study period.

An informed consent was obtained from every client after explaining the purpose of the study. A predesigned pro forma was administered to the individuals and information regarding age, gender, marital status, education, occupation, type of risk behavior, and source of referral was asked. Analysis was done by standard statistical method using proportions.

RESULTS

Out of 274 seropositive attendees, 168 (61.31%) were males and 106 (38.69%) were females. Other sociodemographic characteristics of the attendees are shown in Table 1. Most of the seropositive attendees were from the age group of 20-39 year, i.e., 160 (58.39%). Distribution according to marital status showed that 133 (79.17%) of male attendees and 78 (73.58%) of female attendees were married. Among 168 male attendees, 64 (38.09%) had taken up to primary education while among 106 female attendees, 34 (32.00%) females were illiterate. Distribution of HIV seropositive attendees according to their occupation shows that among the males, majority 35 (20.83%) were occupied in government or private services and almost half of the females, i.e., 52 (49.06%) were homemakers (Table 1).

Table 1: Distribution of individuals according to sociodemographic profile

Factors	Male attendees (*n*=168)	Female attendees (*n*=106)	Total (*n*=274)
Age group (years)			
<20	11 (6.55)	11 (10.38)	22 (8.03)
20-39	98 (58.33)	62 (58.49)	160 (58.39)
40-59	52 (30.95)	27 (25.47)	79 (28.83)
≥60	7 (4.17)	6 (5.66)	13 (4.75)
Marital status			
Married	133 (79.17)	78 (73.58)	211 (77.01)
Unmarried	28 (16.67)	14 (13.20)	42 (15.33)
Divorce/separated	1 (0.59)	1 (0.94)	2 (0.73)
Widowed	6 (3.57)	12 (11.32)	18 (6.57)
Education			
Preschool children	6 (3.57)	4 (3.77)	10 (3.65)
Illiterate	18 (10.71)	34 (32.0)	52 (18.98)
Primary education	64 (38.09)	30 (28.30)	94 (34.31)
Secondary education	55 (32.73)	28 (26.41)	83 (30.29)
College and above	25 (14.88)	10 (9.43)	35 (12.77)
Occupation			
Agriculture labor	24 (14.28)	9 (8.49)	33 (12.04)
Non-agriculture labor	29 (17.26)	19 (17.92)	48 (17.52)
Business/self employed	28 (16.67)	5 (4.72)	33 (12.04)
Service (Government/Pvt.)	35 (20.83)	9 (8.49)	44 (16.06)
Truck/auto/taxi driver and helper	27 (16.07)	0 (0.00)	27 (9.85)
Student	6 (3.57)	6 (5.66)	12 (4.38)
Homemaker	-	52 (49.06)	52 (18.99)
Unemployed	19 (11.31)	6 (5.66)	25 (9.12)

Among the total individuals, 45 males (26.78%) and 36 females (33.96%) did not respond to the questions on the pattern of their risky behavior. Among those who responded a large proportion of males 111 (90.24%) and females 63 (90%), either had multiple sex partners or an HIV-infected spouse. This is followed by vertical transmission, use of infected needle, through blood and blood products and homosexuality (Table 2).

Table 2: Distribution of individuals according to risk behavior

Risk behavior	Male attendees (*n*=168)	Female attendees (*n*=106)	Total (*n*=274)
Heterosexual	111 (66.07)	63 (59.43)	174 (63.50)
Homosexual/bisexual	01 (0.60)	00 (0.00)	01 (00.36)
Through blood/blood products	01 (0.60)	03 (2.83)	04 (1.46)
Infected needle	04 (2.38)	00 (0.00)	04 (1.46)
Parent to child for children	06 (3.57)	04 (3.78)	10 (3.66)
Not specified/unknown	45 (26.78)	36 (33.96)	81 (29.56)

Table 3: Distribution of individuals according to source of referral

Source of referral	Seropositive attendees (*n*=274)
Non-governmental organization	2 (0.73)
Obstetrics and gynecology/maternity homes	3 (1.09)
DOTS center	4 (1.46)
Government health facility	84 (30.67)
Care centers and drop in centers	3 (1.09)
Private health facility	73 (26.64)
Link worker	3 (1.09)
Voluntary	102 (37.23)

Out of total 274 clients, 102 (37.23%) clients attended ICTC voluntarily (Table 1). While the most common source of referral among referred clients was from different departments of the government health facilities 84 (48.84%), followed by private health facility 73 (42.44%) (Table 3).

DISCUSSION

According to the present study, the male attendees were 61.31% of total individuals while female constituted 38.69%. This is slightly higher than the 35.3% of females in the study done in Udupi, by Gupta.[11] Similar findings were reported by Ghosh et al. among seropositive clients of ICTC of a Medical College in West Bengal (37.31%).[12] This difference in distribution of gender may be because of discrimination and stigma faced by females which lead to lack of access to health services to them.

Majority of attendees belong to the age group of 20-39 years, i.e., 58.39%. While in the study done in Bihar by Rout et al., 76.19% attendees were in the above-mentioned age group.[13] High proportion of infection in the economically productive age group affect not only the individual but also its family.

77% of the study individuals are married which corresponds to the 79.1% of HIV positive married individuals, found in the study done at a tertiary care hospital in Gwalior, by Mishra and Mishra.[14] However, it is higher (54.26%) than the study done in Bihar, by Rout et al.[13]

Heterosexual risk behavior was found out as the most common risk behavior among both male (66.07%) and female (59.43%) attendees. In Kiran et al.'s study, heterosexual behavior was found even more common; 95.45% and 91.43 % in males and females, respectively.[8] This finding is also supported by study done by Shafee et al., at Karim nagar, where most of the males (72.1%) and females (56.9%) stated having multiple sex partners as their risk behavior.[10] The observation of the study also denotes that a large number of population is connecting the high-risk group with the low-risk group.

Among all the individuals, 102 (37.23%) had visited voluntarily. In Chennaveerappa et al.'s study, 11% individuals voluntarily attended the ICTC without being referred.[15] In another study by Mathur et al., at Jaipur, only 5% of seropositives came voluntarily.[16]

CONCLUSION

Findings of our study suggest the presence of HIV infection in economically productive age group, in considerable proportion of students, and in general population along with the high-risk population. People with the high-risk behavior and the spouses of the affected individuals need to be made aware for the primary and secondary prevention of the disease. There is need of community-based and youth-specific interventions. As ICTC has a major impact on prevention of HIV, its services should be accessible to the outreach population also so that all HIV-positive patients can be linked to the care, support, and treatment program.

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