

Sociodemographic profile of people living with HIV/AIDS attending ART center in a tertiary-care hospital in central India

Yogesh Shukla¹, Bhupendra Kumar Rohit², Rajesh Tiwari³, Pradeep Kumar Kasar³

¹Department of Pediatrics, NSCB Medical College and Hospital, Jabalpur, Madhya Pradesh, India.

²Department of Community Medicine, Chirayu Medical college Bhopal, Madhya Pradesh, India.

³Department of Community Medicine, NSCB Medical College and Hospital, Jabalpur, Madhya Pradesh, India.

Correspondence to: Yogesh Shukla, E-mail: yogesh_shukla02@yahoo.com

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Abstract

Background: HIV/AIDS epidemic is a major public health problem in India. The epidemiology of HIV/AIDS should be known with regard to sociodemographic variables that will be helpful in the planning of future complex need of people living with HIV/AIDS and prevention prospective of disease.

Objective: To study the sociodemographic profile of people living with HIV/AIDS attending ART center at NSCB Medical College and Hospital Jabalpur in central India.

Materials and Methods: A cross-sectional study was carried out among the HIV-positive persons who were attending antiretroviral treatment (ART) center at NSCB Medical College and Hospital, registered from January 1 to December 31, 2009. Before starting the study, permission was taken from MPSACS. Data were analyzed using Microsoft Office Excel 2007.


Result: Totally, 124 HIV/AIDS patients registered during the year 2009. Most of the cases [101 (81.45%)] were aged 20–45 years. Male subjects were affected twice when compared with female subjects. Most of the patients were illiterate or completed up to primary education. Majority of the patients were laborers [30 (24.19%)], followed by drivers [28 (22.58%)] in occupation. In 73 (58.87%) patients, per capita income/month was <1,000 rupees. Widow/widower [70 (56.45%)] and divorce/single [15 (12.1%)] were the most vulnerable group. Heterosexual was the most important route of transmission in 94 (75.81%) of cases, and Bargi was the most affected region. Only 52 (41.94%) patients were on ART at the end of the year.

Conclusion: The majority of HIV/AIDS-affected persons were in the economically productive age group. The educational level, occupation, socioeconomic status, marital status, and affected region were found to be associated. Heterosexual is the commonest mode of transmission. Most of the patient reported at early phase of disease.

KEY WORDS: acquired immune deficiency syndrome (AIDS), antiretroviral treatment (ART), human immunodeficiency virus (HIV).

Introduction

The human immunodeficiency virus (HIV) infection is a global pandemic. HIV continues to be a major public health challenge in developing countries especially India. According to the UNAIDS and WHO reports of November 2010, there are approximately 33.3 million people living with HIV/AIDS worldwide with a global prevalence of 0.8%.^[1] It is the leading cause of adult deaths in the world owing to infectious disease.^[2]

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The HIV cases in southeast Asia account for 4.1 million people. It is estimated that 90% of the HIV-infected persons live in the developing country, with the estimated number of infected Indians being 2.31 million with adult prevalence of 0.3%.^[1]

The AIDS epidemic targets people in their most productive years who are strong young adults, which lead to disastrous economic, political, and sociodemographic consequences. It is 100% fatal without lifelong treatment with antiretroviral drugs. It is sexually transmitted, and such infections are known for being difficult to control, even when treatment is available.^[3,4] The World Bank has categorized India as a low-income country. Prevention of HIV transmission is hampered owing to all these factors, and the task of controlling HIV/AIDS in India is gigantic.^[5,6]

National AIDS Control Programme III envisages district-level planning and implementation of all the programmatic initiatives. For this, all the districts in the country are classified into four categories, i.e., A, B, C, and D, based on the HIV prevalence in the districts among different population groups. This high/low prevalence of HIV in the districts is calculated on the basis of prevalence of HIV in ANC and HRGs in the last 3 years.^[7] The Jabalpur district of Madhya Pradesh comes under district category C. Two national highways cross through it. This study was carried out to know the sociodemographic profile of people living with HIV/AIDS so that it will be helpful in planning of the prevention process.

Materials and Methods

Study Design

A cross-sectional descriptive study was carried out at antiretroviral treatment (ART) center of NSCB Medical College and Hospital (MP).

Study Population

HIV-positive patients who were registered at ART center at NSCB Medical College and Hospital Jabalpur (MP) from January 1 to December 31, 2009, for a period of 1 year.

Data Collection

In-depth interview of the consenting patients was conducted, and the responses were recorded on a pre-designed and pretested questionnaire. The patients were interviewed with reference to sociodemographic profile and other variables. Data were also obtained from the ART cards of the patients, which are maintained at the ART center. This was done to doubly verify the entries made on the basis of history alone. Data were analyzed with the help of Microsoft Office Excel 2007.

Ethical Considerations

Research was initiated after the permission from Madhya Pradesh States AIDS Control Society (MPSACS). Informed consent was taken from participants. During the processing of the data, strict confidentiality was maintained.

Result

In this study, totally, 124 HIV/AIDS patients were registered during the year 2009. The distribution of the patients according to the age showed that most of the patients [101 (81.45%)] were in the age group of 20–45 years, followed by 17 (13.71%) patients in the age group of >45 years and only three (2.42%) were pediatric patients. Male patients [83 (66.93%)] were more when compared with female patients [41 (33.07%)]. Male subjects were twice affected when compared with female subjects. Most of the patients [49 (39.51%)] had completed up to secondary education, followed by primary education [38 (30.65%)], illiterates [31 (25%)], and college and above [6 (4.84%)].

Majority of the patients were laborers [30 (24.19%)], followed by drivers [28 (22.58%)], and unemployed [19 (15.32%)]. Socioeconomic status of the patients found that majority of the patients 73 (58.87%) revealed income <1,000 rupees per capita per month, followed by 27 (21.77%) in the income group of 1,000–1,999 and 19 (15.32%) in the income group of 2,000–4,999 rupees. Only one (0.81%) patient's income was >10,000 rupees. Among the patients studied, 70 (56.45%) were widow/widower, 21 (16.94%) married and living with partner, 15 (12.1%) divorce/separated, and only three (2.41%) were single. In the studied group, 15 (12.1%) patients did not mention their marital status [Table 1].

The most common route of transmission was found to be heterosexual [94 (75.81%)], followed by unknown about their route of transmission [21 (16.94%)], mother to child [4 (3.22%)], MSM [3 (2.42%)], and injecting drug user [2 (1.61%)]. Mapping of the high-risk group and migrants report titled "Madhya Pradesh: Draft mapping report NACO 2008" says that Bargi is the most affected block where commercial sexual activity was mostly seen [Table 2].

The majority of the patients [68 (54.8%)] were referred to ART center by Integrated Counselling and Testing Center (ICTC), followed by inpatient department [15 (12.1%)] and self-referred [10 (8.2%)], and the rest of the cases by IDU rehabilitation [3 (2.4%)], NGOs [3 (2.4%)], private sector [2 (1.6%)], and RNTCP [1 (0.8%)] [Table 3].

The majority of the patients [72 (58.06%)] were not on ART at the end of the year. Only 52 (41.94%) patients were on ART registered during the year [Table 4].

Most of the patients 120 (96.7%) were alive at the end of the year. Only four (3.23%) deaths were observed at the end of the year because of HIV/AIDS [Table 5].

Discussion

Totally, 124 HIV/AIDS patients were registered during the year 2009. The distribution of the patients according to the age showed that most of the patients [101 (81.45%)] were in the age group of 20–45 years. HIV/AIDS generally affects the economically productive and younger age group, which forms the most important threat to the community. A study done at Aligarh reported the mean age of HIV/AIDS patients as 29.68 ±

Table 1: Sociodemographic profile of people living with HIV/AIDS (N = 124)

Sociodemographic variable	Number	Percentage
Age-wise distribution (years)		
0–9	3	2.42
10–19	3	2.42
20–45	101	81.45
>45	17	13.71
Sex		
Male	83	66.93
Female	41	33.07
Educational status		
Illiterate	31	25
Primary school	38	30.65
Secondary school	49	39.51
College and above	6	4.84
Occupation		
Labor	30	24.19
Driver	28	22.58
Unemployed	19	15.32
Skilled worker	10	8.07
Self-business	9	7.26
Shopkeeper	8	6.45
Government/private job	6	4.84
Others	14	11.29
Per capita income (rupees)/month		
0–999	73	58.87
1,000–1,999	27	21.77
2,000–4,999	19	15.32
5,000–9,999	4	3.23
≥10,000	1	0.81
Marital status		
Married	21	16.94
Widow/widower	70	56.45
Single	3	2.41
Divorce/separate	15	12.1
Not mentioned	15	12.1

Table 2: Routes of transmission of HIV infection (N = 124)

Routes of transmission	Number	Percentage
Heterosexual	94	75.81
Mother to child	4	3.22
MSM	3	2.42
Injecting drug user	2	1.61
Unknown	21	16.94

11.92 years, with 68.7% of the patients in the age group of 20–39 years.^[8] A study in Nigeria reported the mean age of patients as 35.6 years and 75% of the patients were in the age bracket of 20–49 years.^[9]

Male subjects were twice affected when compared with female subjects. Male predominance was also observed in study done by Ahmed *et al.*^[10] Male predominance might be

Table 3: Distribution of cases according to the point of referral (N = 124)

Point of referral	Number	Percentage
ICTC	68	54.8
Inpatient	15	12.1
Self-referred	10	8.2
IDU	3	2.4
NGOs	3	2.4
Private practice	2	1.6
TB/RNTCP	1	0.8
Others	22	17.7

Table 4: Antiretroviral treatment (ART) status (N = 124)

ART status	Number	Percentage
On ART	52	41.94
Not on ART	72	58.06

Table 5: Distribution according to living/death status at the end of year (N = 124)

Living status	Number	Percentage
Still alive	120	96.77
Dead	4	3.23

because, in the existing social setup, female subjects do not seek medical care fearing social stigma and neglect attached with the disease, which decreases the number of females to seek medical help. So, the low number of female subjects may not be the true representation of female population.

Most of the patients [39.51%] were educated up to secondary education, followed by primary education [38 (30.65%)] and illiterate [31 (25%)]. This study shows that higher educational levels offer some protection against HIV. Anybody who is illiterate and educated below the secondary education level may not have adequate knowledge for protecting himself or herself from sexually transmitted diseases, including HIV/AIDS. This was in accordance with the findings of the study conducted by Chennaveerappa *et al.*,^[11] where 32% of the male seropositive subjects and 45% of the female seropositive subjects were illiterates.^[11]

Majority of the patients were laborers (24.19%), drivers (22.58%), and unemployed (15.32%). Majority of the patients who were laborers and driver has their living hood that require periods of stay away from the family; these appear to be the factors responsible for the drivers to be mostly affected in the epidemic. Most of the subjects (58.87%) belonged to the lower social class that had a median per capita income of Rs <1,000 per month. In another study in Delhi, majority (91.5%) of them were from low socioeconomic status, with more than 90% drawing monthly income <Rs. 5,000.^[12]

Among the marital status of patients, widow/widower (56.45%) and divorce/separated (12.1%) were the most important group. All widows gave history of death of their

husband because of HIV/AIDS. This clearly indicates that most of the female subjects got infection from their husbands. Large part of married women who were divorced and separated was because of their HIV status. The similar findings were found by Bahl et al. (widows, 42.86% and widower, 1.79%).^[13]

The most common route of transmission was found to be heterosexual in 75.81% of cases, followed by 16.94% who were unknown about their route of transmission. This finding is somewhat similar to what was reported by Sharma from Ahmedabad, where sexual route accounted for infection in 63% cases while, in 22% cases, mode of transmission could not be elicited.^[14] Two national highways cross through Jabalpur district. Mapping of the high-risk group and migrants report of Madhya Pradesh (draft mapping report NACO 2008 reports) says that Bargi is the most affected block where commercial sexual activity was mostly seen.

Majority of the patients (54.8%) were referred to the ART Center by ICTC, followed by inpatient department (12.1%). This is because any suspected cases are first send to ICTC from where it is referred to ART center. The majority of the patients (58.06%) were not on ART, and only 3.23% deaths were observed at the end of the year owing to HIV/AIDS. It means that these patients were diagnosed at early phase of disease.

Conclusion

The majority of HIV/AIDS-affected persons were in the economically productive age group and male subjects, which increases the economic burden to the community. The female patients were underrepresenting because of social stigma. The other sociodemographic determinants were low educational level and poor economic condition. The laborers and drivers were most common occupation found to be affected and act as a link between high-risk groups and general population. Widow/widower and divorce/separated were the most affected group. Heterosexual route is the commonest route of transmission, and Bargi is the most affected region. The majority of patients were not on ART and alive at the end of the year showing that patients were reporting at early stage of disease.

There is an urgent need to focus our attention to above sociodemographic variables for prevention and planning of HIV/AIDS at our district.

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