



Microbiology

A STUDY ON SOCIO-DEMOGRAPHIC CHARACTERISTICS AMONG HIV/AIDS PATIENTS ATTENDING INTEGRATED COUNSELING AND TESTING CENTRE IN UDAIPUR, RAJASTHAN.

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ABSTRACT **Background:** HIV is a growing epidemic in India. The growing menace created by HIV/AIDS has alarmed not only the public health officials but also the general community. The Integrated Counseling and Testing Centre (ICTC) services have begun as a cost-effective intervention in reversing this epidemic.

Objectives: To study the socio-demographic characteristics of HIV-positive patients and their risk behaviors.

Materials and Methods: The present study was undertaken from February 2016 to September 2016, in the ICTC at R.N.T. Medical College, Udaipur, Rajasthan.

Results: During the study period a total of 5410 serum samples were processed. Out of 5410 samples, 500 cases were diagnosed HIV positive. Of 316 were males (63.20%), 182 were female (36.40%). Mostly 399 (79.80%) belong to age group 15-49 years. Heterosexual is most common mode of transmission 470(94%). About 348 (69.60%) were married. About 210 (42%) patients were Non-literate. High seropositivity of HIV seen in Housewife 130(26%) followed by Non-agricultural laborer 94(18.8%).

Conclusion: HIV prevalence of 9.24% among the clients attending ICTC, Udaipur, therefore much more attention needs to be paid to the health of general people. And suggests the need for the scaling up of focused prevention efforts in high-risk groups.

KEYWORDS : AIDS, HIV seropositive, risk behavior, ICTC

Introduction:

The human immunodeficiency virus (HIV) infection is a global pandemic and has grown into a public health program of unprecedented magnitude[1]. Present scenario of HIV in India has established itself as a major public health problem with tremendous social and economic implications. The risk behaviors and practices associated with an enhanced risk of transmission of HIV in India include Intravenous drug use, unprotected sexual intercourse, and transfusion of contaminated blood and blood products. Heterosexual route is the commonest route of transmission in India, being associated with the other assessor factors like presence of untreated ulcerative STIs, irregular use of condoms, frequency of sexual contact, and age at sexual initiation. HIV is an infection which many people have stigma, prejudices or negative attitudes about, which can ultimately result in people with HIV being insulted, gossiped about, rejected and excluded from social activities [2]. HIV prevalence appears to be low amongst general population but disproportionately high among high risk groups, like injectable drug users (7.2%), female sex workers (5.1%), Men having sex with men (7.4%) and STD clinic attendees (3.6%)[3]

HIV infection is entirely preventable through raising awareness. Therefore, awareness about its occurrence and spread is very significant in protecting the people from the epidemic. It is for this reason that the National AIDS Control Programme lays maximum emphasis on the widespread reach of information, education and communication on HIV/AIDS prevention. Changing knowledge, attitudes and behavior as a prevention strategy of HIV/AIDS thus is a key thrust area of the National AIDS Control Programme[4]. In 1992, Government of India demonstrated its commitment to combat the disease with the launch of the first National AIDS Control Programme (NACP-I) as a comprehensive programme for prevention and control of HIV/AIDS in India[5]. Looking to counter the immense challenge of the HIV/AIDS threat in India, NACO has a response to increase access to services and effectively communicate for behavior change.

An ICTC is a place where a person is counselled and tested for HIV, of his own free will or as advised by a medical provider.[6] The main functions of an ICTC are:

- Conducting HIV diagnostic tests.
- Providing basic information on the modes of HIV transmission, and promoting behavioral change to reduce vulnerability.
- Link people with other HIV prevention, care and treatment services.

The ICTC provides pre-test counseling and testing, apart from the post-test counseling and support services. Clients which include

general population and high-risk groups excluding antenatal cases utilize the services of the centre on voluntary basis.

Objectives:

To study of Distribution of HIV seropositive patients on the basis of

- Education,
- Marital status,
- Occupation and
- Mode of transmission.

Material and Methods:

The present study was undertaken from February 2016 to September 2016, in the ICTC (Integrated Counseling and Testing Centers) Department of Microbiology, R.N.T. Medical College, Udaipur, Rajasthan. All the clients attending the ICTC were counseled and informed consent was taken from them by ICTC counselors. The basic client data including name, age, sex, occupation, education, marital status, risk factor associated were properly documented in the lab register by ICTC counselors. All clients at ICTC were given unique PID number and he/she was directed for collection of samples (3 - 5 ml of blood) at the primary sample collection room at ICTC. Then HIV test was done in the HIV Laboratory, as per NACO guidelines. During the study period a total of 5410 serum samples were processed. HIV seropositive patients were confirmed by three tests in our lab. In which we were use COMBAIDS – RS Advantage-ST (hiv1+2 immunodot test kit), AIDSCAN HIV- 1/2 RAPID TRISPOT TEST KIT and S D BIOLINE HIV 1-2.

Results:

This is a study included 5410 patients who attended ICTC centre of M.B. government .hospital from February 2016 to September 2016. A total of 5410 patients were tested and out of which 500 were seropositive for HIV, with a prevalence rate of 9.24 %. Out of these 500 cases 316 were males (63.20%), 182 were female (36.40%) and 2 were TS/TG (0.4%). By definition Transgender is a term used to describe those people who experience a mismatch between their gender identity, or gender expression, and their assigned sex. Transgender people are sometimes called transsexual if they desire medical assistance to transition from one sex to another. We also found that majority of the study subjects, i.e., 399(79.8%) belonged to age group of 15-49 years with 81(16.20%) subjects being more than 50 years of age followed by 20(4%) subjects belonged to age group less than 15 years. But now we are focusing on Education ,Marital status, Occupation and Mode of transmission.

Distribution according to marital status ,high seropositivity of 348

(69.60%) was observed among total patients who were married.62 patients (12.4%) were single and widowed .Less seropositivity seen in Separator 16(3.2%) and Divorce 12(2.4%).Married were most affected. Because in India homosexual is least found. Marriage is essential part of culture of India context. As shown in (Table-1)

Out of 500 patients, 210 (42%) patients were Non-literate. After this seropositivity high in patients who studied till primary education 165 (33%).Lowest seropositivity 3 (0.6%) were seen in college going or highly educated people. This proved that mostly patients belonged to below primary level education 375(75%) and 125(25%) belonged to above primary level as shown in Table 2; chart-1.

On the basis of Occupation, high seropositivity of HIV seen in housewife 130 (26%) than in non-agricultural laborer 94(18.8%), truck driver 73 (14.6%) and agricultural landholder/cultivator 58(11.6%) in Udaipur zone as shown in (Table 3).

Distribution according to Mode of transmission, out of 500 patients 470 gave clear indication of Heterosexual contact (94%).This is most common mode of HIV transmission. 5 patients gave history of Bisexual (1%).After heterosexual history, Parent to child mode were common (3.6%).2 were recipients of blood product (0.4%).History cannot be elicited from 5 patients those were included in "Not specific" mode (Table 4, Chart-2).

Discussion:

This study is a step towards research into the socio-demographic profile of subjects of Rajasthan. Most of the study individuals (79.80%) belonged to the age group 15-49 years which indicates a hampering effect on sexually along with financially active age group. This study also revealed that Epidemiological status of HIV affecting low risk groups such as women. Out of 500 patients, 348 (69.6%) were married followed by single 62(12.4%) and widowed 62 (12.4%), separator 16 (3.2%). This study is similar to Rashmi et al 2009 (married 66.7%) [7] and Tripti Chauhan et al 2012 (married 73.8%)[8] which is higher than present study. In married predominately were males 230 and 118 were females out of 348. More males than females were married but among widowed individuals females were more than males. It seems that majority of females got infection from their husbands, while most of the married men may have got their infection due to sexual promiscuous behavior(multiple sexual partners) in which mostly having contact with commercial sex workers, having extra marital contacts while having MSM practice. In Present study, Out of 500 patients, maximum 210 (42%) were non-literates followed by primary school 165(33%), secondary level 94 (18.8%). This is similar to Preet kanwal et al 2014 (52.6%, 36.8%, 7.8%)[9], Tripti Chauhan et al 2012 (8.6%, 48.5%, 31.8%) and Rashmi et al 2009 (33.3%, 25.6%, 23.1%) respectively[7,8]. It indicates that HIV prevalence decreased with improvement in education level. Less number of attendees were in the higher education groups (0.6%) and it could be due to a fact that education might had some protective role. Since sex education is not included in school curriculum, so anyone who is illiterate or educated up to secondary level will not have adequate knowledge for protecting himself/herself from HIV/AIDS (Table 2, Chart-1).470 (94%) patient's mode of transmission is heterosexual. These findings are similar with ER Sabharwal et al 2015 in Jaipur (92%)[10],Baig vaseem et al 2012 (91.5%)[11], Banke Lal et al 2015 in New Delhi (70%)[12], Meena Mishra et al 2016in Nagpur (83.70%)[13]. Heterosexual is most common mode in these studies. Heterosexual route is the most common route of transmission in India which is associated with the factors like presence of untreated ulcerative sexually transmitted infections, irregular use of condoms, frequency of sexual contact, and age at sexual initiation. Homosexuality found very less in India. Homosexuality found because of Indian marriage culture. (Table4 , Chart-2).Majority of patients were housewives 130 (26%) than non-agricultural laborers 94 (18.8%) followed by Truck driver 73 (14.6%), agricultural landholder 58 (11.6%) respectively. Other occupation included business, unemployed, student. This study consonance with Preet Kanwal et al 2014, Tripti Chauhan et al 2012, Nitya Vyas et al 2009 and Kumar A et al 2008[9,8,14,15]. In housewife prevalence is more because they are infected by their spouse then followed by Non agricultural laborers because of low level of education or illiterate. This indicating the penetration of HIV infection in the general population and is a matter of concern. These results were not consistent with the other study where the seropositivity was more among the manual laborers, followed by truck drivers. Education and occupation showed an

inverse relationship, whereby the HIV prevalence decreased with improvement in education and job nature.

Conclusion and Recommendations:

HIV/AIDS spread is mainly influenced by human behavior and ignorance. Prevention is better than cure , keeping this idea in mind, Epidemiological studies should be promoted to understand the role and complex relationship of various behavioral, social and demographic factors, responsible for transmission of HIV/AIDS. By which we can sensitize these vulnerable population on various aspects of HIV/AIDS and it will help to interrupt and control the transmission.

Table-1 Distribution of HIV seropositive patients according to Marital status (n=500)

Serial no.	Marital status	Total (M+F)	Percentage (%)
1	Married	348	69.6%
2	Single	62	12.4%
3	Divorce	12	2.4%
4	Separator	16	3.2%
5	Widowed	62	12.4%
	Total	500	

Table-2 Distribution of patients on the basis of Education (n=500)

Serial no.	Education category	Total patient (M+F)	Percentage (%)
1	Non-literate	210	42%
2	Primary school	165	33%
3	Secondary school	94	18.8%
4	High Sec. school	28	5.6%
5	College & above	3	0.6%
	Total	500	

Table- 3 Distribution of HIV seropositive patients according to Occupation relationship (n=500)

Serial no.	Occupation	Total (M+F)	Percentage (%)
1	Agricultural labourer	8	1.6%
2	Non-agricultural labourer	94	18.8%
3	Domestic servant	3	0.6%
4	Housewife	130	26%
5	Skilled worker	4	0.8%
6	Semi-skilled worker	13	2.6%
7	Bussiness	26	5.2%
8	Service	25	5%
9	Student	11	2.2%
10	Truck driver	73	14.6%
11	Local transport workers	14	2.8%
12	Hotel staff	11	2.2%
13	Agricultural cultivator/landholder	58	11.6%
14	Unemployed/Retired	19	3.8%
15	Others	11	2.2%
	Total	500	

Table 4 Distribution according to Mode of transmission (n=500)

Serial no.	Mode of Transmission	No. of patient (M+F)	Percentage (%)
1	Heterosexual	470	94%
2	Homosexual/Bisexual	5	1%
3	Through Blood & Blood product	2	0.4%
4	Through infected syringe & needles	0	0%
5	Parent to child	18	3.6%
6	Not specific/Unknown	5	1%
	Total	500	

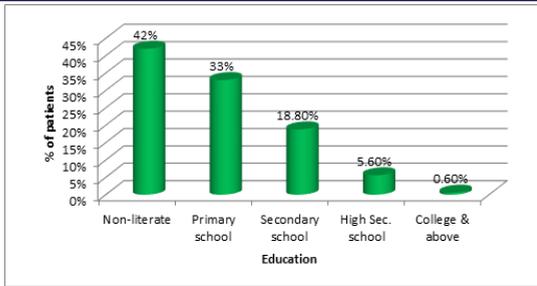


Chart 1: Distribution of patients on the basis of education

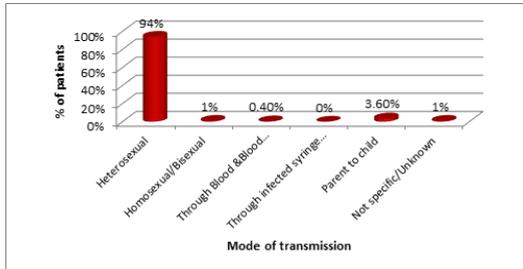


Chart 2: Distribution according to mode of transmission

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