Original Article

A Study on the Sociodemographic Profile of the Attendees at the Integrated Counselling and Testing Centre of a Medical College in South India

Pharmacology Section

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ABSTRACT

Background: HIV (Human Immunodeficiency Virus) counselling and testing services are a key entry point to the prevention of HIV infection and to the treatment and care of the people who are infected with HIV. The integrated counselling and testing centre (ICTC) services are a cost effective intervention in the prevention of HIV/ AIDS (Acquired Immunodeficiency Syndrome).

Aims: To study the socio demographic characteristics and the risky behaviour pattern of the attendees at the ICTC centre.

Setting: The ICTC at the Sri Chamarajendra Hospital which is attached to the Hassan Institute of Medical Sciences (HIMS), Hassan, Karnataka.

Study Design: A cross sectional, record based study.

Materials and Methods: The study population included 9327 clients who attended the ICTC centres from January 2009 to December 2010.

Results: An overall 10.13% of the ICTC attendees were HIV seropositive subjects. About 78.6% of the HIV seropositive subjects belonged to the age group of 15-49 years. 63% of the males and 72% of the females among the HIV seropositive subjects were married; 45.1% of the female seropositive subjects were illiterate. Among the male seropositive subjects, 30% were unskilled and 12.3% were drivers. An overall 67% of the HIV seropositive subjects were from rural areas. The most common mode of transmission was having multiple heterosexual partners.

Conclusion: People's attitudes towards HIV is changing after the introduction of the ICTC, which plays a major role in the primary and secondary prevention of HIV. There is a more urgent need for the introduction of interventional measures like sex education and preventive education among the general population.

Key Words: HIV, Risky behaviour, Seropositivity, Sexual partners, Sociodemograpic profile

KEY MESSAGE

- The highest prevalence was seen in the economically most productive age group (15-49 years).
- There is an urgent need for interventional measures like sex education and preventive education among the general population.
- The increased availability and the use of the ICTC services will prove to be a huge potential benefit for the society.

INTRODUCTION

The human immunodeficiency virus (HIV) infection is a global pandemic. HIV continues to be a burden globally and presents serious public health problems in the developing countries, especially in India.

According to the UNAIDS and World Health Organization (WHO) reports of November 2010, there are approximately 33.3 million people living with HIV/ Acquired immunodeficiency syndrome(AIDS) worldwide ,with a global prevalence of 0 .8% [1].

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

Hassan is a district in south India with a population of 17, 21,669. Of this, 14, 16,996 is rural population and 3, 04,673 is urban population. This district has a male to female ratio of 996 as per the 2001 census. The average literacy rate is 60.7%. The integrated counselling and testing centre (ICTC) at Hassan is a referral centre for HIV suspected cases. It caters to all the medical needs of the HIV patients as per the National AIDS Control Organisation (NACO) guidelines. We intended to study the sociodemographic profiles of the attendees at the ICTC at Hassan.

MATERIALS AND METHODS

The present study was conducted among the attendees of the ICTC at the Sri Chamarajendra District Hospital, which is attached to the Hassan Institute of Medical Sciences, Hassan, South India.

This study included all the 9327 attendees who attended the ICTC centre between January 2009 and December 2010, either voluntarily or after being referred by various departments.

Anonymous information about all the attendees of the ICTC was available from the records which were maintained at the ICTC, regarding the variables such as age, sex, marital status, level of education, occupation, the pattern of risky behavioural pattern, the place of residence and the HIV serostatus of the attendees. By following the guidelines of the NACO, the counsellor of the ICTC interviewed the attendees under strict confidentiality.

The data of the attendees were collected, compiled and analyzed by using standard statistical methods.

RESULTS

Out of the 9327 attendees who were studied, 52.1% were males and 47.9% were females. The total positives were 945, out of which 52.4% were males, and 47.6% were females. The distribution of the attendees by their age, sex and HIV status is shown [Table/Fig 1A]. A majority of the seropositive subjects, i.e. 789 out of 945, belonged to the age group of 15–49 years i.e. (78.6%).

Factors	Male Attendees		Female Attendees	
	Attended (n = 4861)	Positives % (n = 450)	Attended (n = 4466)	Positives % (n = 495)
A) Age group(years)				
<14	265	20 (4.4)	205	22 (4.4)
15–24	760	38 (8.4)	847	16 (3.2)
25–34	1379	177 (39.3)	1315	188 (38)
35–49	1419	171 (38)	1366	199 (40.2)
>50	1038	44 (9.8)	738	70 (14.1)
B) Marital status				
Unmarried	486	91 (20.2)	804	1458 (29.9)
Married	3160	328 (72.8)	3484	312 (63.0)
Divorced	243	31 (6.9)	178	35 (7.0)
C) Education				
Illiterate	1264	203 (45.1)	1742	159 (32.1)
1–4th standard	1312	148 (32.8)	1072	114 (23.0)
5–10th standard	1847	85 (18.9)	1474	188 (37.9)
>10th standard	438	14 (3.1)	178	34 (6.9)
D) Occupation				
Unskilled	1167	90 (20.0)	1164	149 (30)
Skilled	972	27 (6)	178	69 (13.9)
Semi skilled	850	63 (14)	446	82 (16.5)
Professional	875	18 (4)	268	60 (12.1)
Unemployed	486	68 (15)	804	64 (12.9)
Driver	268	–	–	61 (12.3)
House wife	–	166 (36.8)	1339	–
Student	243	18 (4)	267	10 (2.0)

[Table/Fig-1]: Sociodemographic characteristics of study subjects

The distribution of the attendees by their marital status is shown in [Table/Fig 1B]. Among the males, 63% of the seropositive subjects were married and the rest of the seropositive subjects were unmarried or divorced. The same pattern was observed among the females: 72% of the seropositive subjects were married and the rest were unmarried or divorced.

Among the male seropositive subjects 32.1% were illiterates, whereas 45.1% of the female seropositive subjects were illiterates, as shown in [Table/Fig 1C].

The HIV serostatus of the attendees by their occupation [Table/Fig 1D], shows that the most common source of income for the male seropositive subjects was unskilled occupation (30%). 12.3% of the male seropositive subjects were drivers. Among the females, 36.8% were housewives and 20% were unskilled (labourers and housemaids).

The pattern of risky behaviour [Table/Fig 2] showed that a large percentage of the males (77.6%) and females (77.1%) had multiple sexual partners. Among the female seropositive subjects, 11 were commercial sex workers. Heterosexual contact was the commonest mode of transmission. Among the male seropositive subjects, five (1%) were injection drug users and six (1.2%) were homosexuals. Among the total subjects, 81 males (16.4%) and 92 females (20.4%) did not respond to the questions on the pattern of their risky behaviour.

As far as HIV seropositivity was concerned, 633 out of the 945(67%) subjects were from rural areas and 33% were from urban areas.

Among all the attendees, 1026 study subjects (11%) had visited the ICTC voluntarily, while 8301 subjects (89%) were referred to the ICTC by various departments like government health facilities, obstetrics and gynaecology clinics, revised national tuberculosis control programs, blood banks, ART centres and sexually transmitted infectious disease clinics, as shown in [Table/Fig 3].

	Male (%)	Female (%)
Heterosexual	384 (77.6%)	347 (77.1%)
Homosexual	6 (1.2%)	–
Blood and blood products	3 (0.6%)	2 (0.4%)
Injection drug use(IDU)	5 (1%)	–
Parent to child transmission		
Not specified or unknown	81 (16.4%)	92 (20.4%)

[Table/Fig-2]: Route of transmission in HIV positive subjects

	Male	Female
Non governmental organisation	227	141
Obstetrics and gynaecology/Maternity homes	–	1490
Revised national tuberculosis control programme	367	171
Blood bank	384	37
Government Health facilities	2713	1888
Antiretroviral therapy centres	92	86
Sexually transmitted infectious clinics	280	171
Community Care Centres and Drop in centres	79	42
Private health facilities	98	35
Client initiated	621	405

[Table/Fig-3]: Source of referral of clients for Integrated counselling and testing centre

DISCUSSION

The prevalence of the HIV seropositivity among the ICTC attendees in the present study was noted to be 10.1%, which was lower than that which was reported from a study which was conducted in a district of West Bengal (17.1%) in 2003 [2]. The present study shows that among the total seropositives, 52.4% were males and 47.6% were females. The sex distribution of the case load at the ICTC was similar. These figures were slightly higher than the national average of 38.4% for females [3]. Such a high prevalence of the infection rate in females is a cause of concern, since it will lead to an increase in the

transmission of HIV from mother to child. It is believed that HIV/AIDS affects the economically productive age group of the society, which is also evident from the results of this study.

According to this study, 78.6% of the subjects belonged to the age group of 15–49 years (the most sexually active age group), which was slightly lower than the national average (90%) and also lower than the figures which were obtained from a study which was conducted by Gupta in India (88.7%) [4].

Among the male attendees, 63% were married, 29.8% were unmarried and 7% were divorced. The unmarried males would possibly soon enter their reproductive lives and infect their wives and ultimately the risk of the parent to child transmission would increase. Among the female attendees, 72.8% were married, 20.2% were unmarried and 7% were divorced. This was in contrast to the findings of a study which was conducted in the north-west region of India, where 84.8% to 96.2% of the males and 79.2 to 86.1% of the females were married [5].

Nearly 67% of the HIV seropositive subjects were from the rural areas. In general, it was observed that the awareness and knowledge of HIV/AIDS remained to be weak in the rural areas and especially among women [6]. The present observation of the rural preponderance of the HIV seropositive subjects is believed to be an indication of the spread of HIV from the urban to the vast rural areas.

With regards to the level of education, 32% of the male seropositive subjects and 45 % of the female seropositive subjects were illiterates; this was in contrast to the findings of the study which was conducted by Gupta in India, where 14.3% of the male seropositive subjects and 28.5% of the female seropositives subjects were illiterates [4]. It may be inferred that higher educational levels offered 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.

With regards to occupation, in our study, a majority of the male seropositive subjects were unskilled workers. They may have indulged in risky behaviour because of illiteracy, which must have favoured the HIV transmission. 12.3% of the male seropositive subjects were drivers. A study which was conducted by Vyas N in the north west region of India showed that a majority of the seropositive subjects were unskilled workers (8.4%–12.7%) and drivers (9.7%–17.4%), whereas among the females, a majority of them were housewives (25.6%–33.6%). [5] The long distance truck drivers are a highly mobile group in whom the contact with multiple sexual partners is quite common [7]. Commercial sex and substance abuse are firmly entrenched in the socio-cultural milieu of the trucking industry in India and are a part of their daily lives. [2]

The pattern of the risky behaviour showed that a large percentage of males (77.6%) and females (77.1%) had multiple sexual partners. Heterosexual contact was the commonest mode of transmission, which was supported by studies which were done by Gupta (98.9% of the males, 75% of the females) [4]. Among the female seropositive subjects, 11 were commercial sex workers. Unprotected heterosexual intercourse is the predominant mode of transmission of HIV in India (about 84%) [6]. The transmission through blood transfusion, which was once a matter of concern in many countries, has nearly been eliminated in the developed countries by the routine screening of blood donations [8]. In the developing countries, the transmission through blood supplies has yet to be eliminated, especially where the HIV prevalence rates among the blood donors are high and where the screening of the blood for HIV has not become routine [8]. India still has many paid blood donors; contaminated blood and blood products account for about 2% of the HIV infection cases [9]. In our study, five seropositive subjects gave a history of previous blood transfusion. In the present study, injection drug use (IDU) was the mode of transmission in five seropositive subjects. According to studies from Southeast Asia, the HIV prevalence among the ID Users rose to 40% within two years after the first positive HIV test result. This was true for Manipur and north–east India, [8] where intravenous drug abuse is common.

In our study, nearly 1026(11%) subjects voluntarily attended the ICTC on their own, without being referred by someone else.

CONCLUSION

HIV infection is one of the major infectious diseases in India, as it is chronic and lifelong in nature; its impact is huge as compared to other infectious diseases. People with high risk behaviour and the spouses of the affected couple need to be educated for the primary and secondary prevention of the disease. This disease results not only in income loss, but in the additional burden of taking the treatment and it completely devastates the affected families. Therefore, the entire family needs support and care from both the community and the government. The increased availability and the use of the ICTC services will prove to be a huge potential benefit for the society.

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DECLARATION ON COMPETING INTERESTS:

No competing Interests.

Date of Submission: **Apr 1, 2011**
Date of per review: **Apr 18, 2011**
Date of acceptance: **Apr 28, 2011**
Published on: **June 13, 2011**