

Knowledge, Attitude and Practices (KAP) among the voluntary attendees of Integrated Counselling and Testing Centre (ICTC) of a Teaching Tertiary Care Hospital of North India.

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Abstract: Acquired Immune Deficiency Syndrome (AIDS) is a fatal illness caused by retrovirus known as Human Immunodeficiency Virus (HIV). India's HIV pandemic is slowing down, with 19% decline in new HIV infections and 38% decline in AIDS-related deaths between 2005 and 2013. Still there is a lot of scope regarding improvement in terms of knowledge about HIV/ AIDS and utilization of voluntary counselling and testing (VCT) services by the community.

Aim: To access the extent of Knowledge, Attitude and Practices (KAP) among the voluntary attendees of Integrated Counselling and Testing Centre (ICTC) in the Department of Microbiology, PGIMS, Rohtak.

Material and methods: Present study was conducted from April 2015 to June 2015 among the 100 random attendees by administering pretested structured questionnaire to each client. HIV testing of clients was done as per the NACO guidelines.

Results: Eighty six percent of seropositives were sexually active and 54% indulged in unsafe sexual practises. Condom usage was staggering low at less than 10% in whole study group. More than 95% (13/14) of seropositive females were housewives. Knowledge about non sexual modes of transmission was low (<25%) in both seropositives and seronegatives. Only 38% of seronegatives and 56% percent of seropositives knew that good nutrition can prevent progression of HIV to AIDS.

Conclusion: The present study demonstrates the missing links with regards to KAP among voluntary attendees and focuses on areas which need further improvement. There is a need to improve the overall awareness about disease, including its various routes of transmission, timely diagnosis, etc. to prevent further spread of disease in community by starting treatment of seropositives at the earliest. This will help to reduce mortality, morbidity and a number of misconceptions associated with the disease, thereby allowing those living with HIV to live life without facing any social stigma and discrimination.

Keywords: HIV/AIDS; Knowledge, Attitude and Practices; ICTC; nutrition; condom; NACO; voluntary clients; questionnaire; vaccine.

I. Introduction

Acquired Immune Deficiency Syndrome (AIDS) is a fatal illness caused by retrovirus known as Human Immune Deficiency Virus (HIV). It is a pandemic disease without borders and is currently in its fourth decade. Globally, more than 35.3 million people are currently living with HIV infection. According to WHO, there are an estimated four million people living with HIV (PLHIV) in the South-East Asia Region, constituting nearly 11.8% of PLHIV globally.^{1,2,3} In India, there are nearly 2.12 million PLHIV and 0.9 million are on treatment. As per NACO annual report 2012-13, HIV prevalence in India is 0.3%.⁴

Currently a patient of HIV/ AIDS can look forward to a life of reasonable quality and length. But social stigma and discrimination at health care settings, work places and educational institutions is still a matter of concern and challenge. Since the inception of the National AIDS Control Programme (NACP), the major focus had been on awareness generation. The phase II focused from raising awareness to changing behaviour through interventions, particularly for groups at high risk of contracting and spreading HIV.⁵ The phase III was launched (NACP-III) in July 2007 with the goal of halting and reversing the epidemic.⁶ The Information, Education and Communication (IEC) campaign focused on creating a non-stigmatizing environment and promoting access to services.⁷ Hence, one of the key concern and challenge for NACP IV (2012-2017) is reduction of stigma and discrimination at health care settings, work places and at educational institutions.

HIV is transmitted through virus containing body fluids like blood, semen and vaginal fluids. In India, heterosexual mode of HIV transmission accounts for greater than 88.2% of HIV positive cases.⁴ There is neither any cure nor any effective vaccination available for HIV/AIDS still date. Young people are often vulnerable to HIV due to unsafe sexual activities and drug abuse. So, providing young people with basic AIDS education and counselling enables them to avoid or reduce risky behaviour.

India is a low income and highly populated country with a large number of young and less educated people. Integrated Counselling and Testing Centres (ICTCs), previously known as Voluntary Counselling and Testing Centres (VCTCs) provide key entry points for the continuum of care in HIV/AIDS for all segments of the population. Various knowledge, attitude, behaviour and practice (KABP) studies conducted in different parts of India and abroad have revealed widespread ignorance and misconception about the disease.^{8,9,10,11,12,13} Hence, the present study was undertaken to assess the extent of overall knowledge, attitude and practices of voluntary attendees of ICTC, towards HIV/AIDS in a tertiary care hospital of Haryana. Questions included were taken from the pretested questionnaire covering various aspects related to knowledge, attitude and practices. This will provide a greater insight about the actual scenario prevailing in the study area. KAP status will also help to choose proper remedial measures to improve the overall outlook of the population residing in this area towards the disease.

II. Material And Methods

The present study was conducted among the 100 random voluntary attendees of ICTC, Department of Microbiology, Pt. B. D. Sharma PGIMS, Rohtak. Clients were in the age group of 18 to 50 years. The study was conducted over a period of three months from April 2015 to June 2015 with first number selected every morning by draw method from 1-10. Then every 10th individual was selected. This systematic random sampling method was followed to ensure that every voluntary client has an equal chance of getting selected and to exclude bias. In case the client visited the centre along with their spouse, they were enrolled together.

Subjects were well explained the purpose of the study and assured that their confidentiality will be maintained. A written informed consent was obtained from the subjects regarding their willingness to participate in the study. Pretested structured questionnaire was administered to each client. After the pre-test counselling by the trained and designated staff of the ICTC as per the NACO guidelines, blood samples were taken. HIV testing was done as per NACO strategy III. Data related to sociodemographic characteristics of the clients, including age, level of education, marital status and occupation were recorded. Risky behaviour was assessed by collecting information on client's sexual behaviour, frequency of condom use, sex with commercial sex workers and non-spousal sex partners.

III. Results

Out of total 100 study subjects, 28% were HIV positive and the rest 72% were HIV negative. HIV seropositivity rate was equal between male and female clients. In our study we did not encounter any transgender. Out of 28 seropositives, 75% were in age group 25-44 years and 50% were matric pass. A striking finding of the study was that out of 28 seroreactive participants, 24 were married. Another outstanding observation was out of seven couples tested, six were found to be seroreactive for HIV. Another noteworthy feature among 14 seropositive females was high rate of HIV seroreactivity (13) among housewives while only one labourer out of 18 tested positive. As usual, very high rate of seropositivity was observed among drivers (4/5). (Table -1)

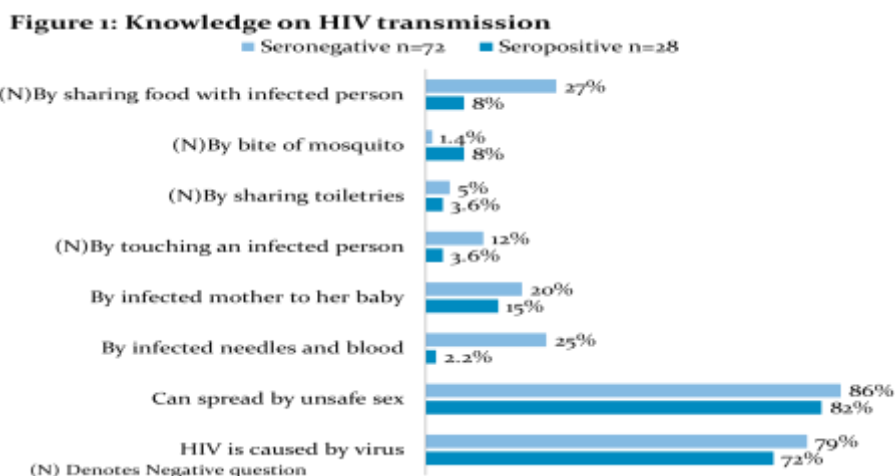
Among 72 seronegatives, 53 (73.6%) were males and 19 (26.4%) were females. 71 (98.67%) were in the age group 18-44 years, 37.5% were graduate or higher, 60% were married and 32.1% were students. (Table-1)

TABLE-1 : DEMOGRAPHIC PROFILE OF STUDY SUBJECTS				
		Total	Positive(n=28)	Negative(n=72)
Sex				
	Male	67	14(50%)	53(73.6%)
	Female	33	14(50%)	19(26.4%)
	Transgender	0	0	0
Age(Male: Female)				
	18-24	35(24:11)	5(17.9%)(3:2)	30(41.67%)(21:9)
	25-44	62(41:21)	21(75%)(10:11)	41(57%)(31:10)
	45-60	3(2:1)	2(7.14%)(1:1)	1(1.4%)(1:0)
Literacy status				
	Illiterate	6(2:4)	4(14%)(2:2)	2(2.78%)(0:2)
	Primary	20(10:10)	8(28%)(5:3)	12(16.7%)(5:7)
	Matric	39(20:19)	14(50%)(5:9)	25(35%)(15:10)
	Secondary	7(7:0)	1(3.6%)(1:0)	6(8.34%)(6:0)
	Graduate and postgraduate	28(28:0)	1(3.6%)(1:0)	27(37.5%)(27:0)
Marital status				
	Married	67(47:20),C-7	24(including 6 couple cases C-6)(85.7%)(11:13)	43(c-1)(60%)(36:7)
	Unmarried	32(20:12)	3(10.7%)(3:0)	29(40%)(17:12)

	Widowed	1(0:1)	1(3.57)(0:1)	0
	Divorcee	0	0	0
Occupation				
	Student	24(23:1)	1(3.6%)(1:0)	23(32.1%)(22:1)
	Driver	5(5:0)	4(14%)(4:0)	1(1.4%)(1:0)
	Professional	23(22:1)	9(32.1%)(8:1)	14(19.4%)(14:0)
	Housewife	30(0:30)	13(46.4)(0:13)	17(23.6%)(0:17)
	Labourer/farmer	18(17:1)	1(3.6%)(1:0)	17(23.6%)(16:1)

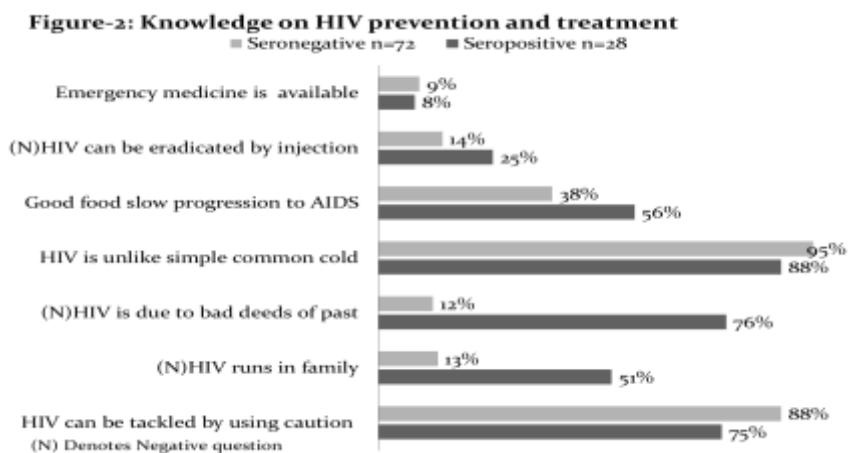
Knowledge on transmission (Figure-1)

Though the knowledge regarding the sexual method of transmission of HIV infection was good (80-85%) among both the groups, but knowledge about non sexual modes of transmission was low in both seropositives and seronegatives. Only 2.2 % of seropositives and 25% seronegatives knew that HIV/ AIDS can spread from infected needle and blood while 15% of seropositives and 20% of seronegatives knew that HIV can spread from infected mother to her baby. When put forward negative question that whether HIV can spread by sharing food with infected person, 27% of seronegatives replied in affirmation whereas only 8% of seropositives had this false belief. Twelve percent of seronegatives believed that HIV can spread by touching an infected person. (Figure1)



Knowledge on prevention and treatment (Figure-2)

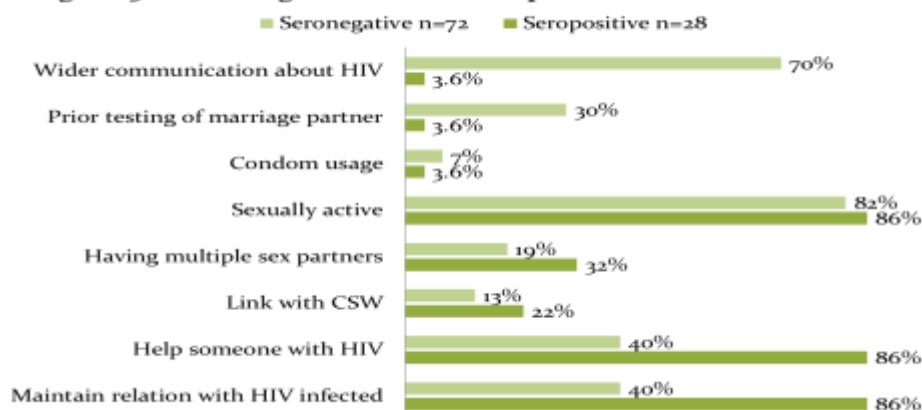
When asked regarding the availability of emergency medicine for the prevention HIV infection only less than 10% of the participants replied in affirmative. Knowledge regarding the role of nutrition and adoption of healthy lifestyle was low among seronegatives as only 38% knew that good food can slow progression of HIV to AIDS. Seventy six percent of seropositives had the perception that HIV is due to bad deeds of past whereas 51% of them believed that it runs in family. More than 75% of clients had the opinion that HIV can be tackled by taking precautions. (Figure 2)



Knowledge on attitude and practices (Figure-3)

Seventy percent seronegatives believed that wider communication is required to spread awareness regarding HIV in community, whereas only 3.6% seropositives were in its support. Thirty percent of seronegatives believed that prior testing of marriage partner need to be made mandatory to prevent the spread of disease in community but only 3.6% of seropositives supported the same view. More than 80% of participants from both the groups were found to be sexually active. Moreover, participants from both the groups were involved in high risk activities like having multiple sex partners and having link with commercial sex workers, but astonishingly condom usage was less than 10% among all study subjects and only 3.6% among seropositives. Attitude of helping other PLHIV was two times more among seropositives than seronegatives. (Figure 3)

Figure-3: Knowledge on attitude and practices



IV. Discussion

The present study was undertaken to get an overall view of knowledge, attitude and practices of voluntary attendees of ICTC while all other previous studies conducted in India and abroad have included college and high school students.^{9,10,11,12,13} These voluntary clients are at comparatively higher risk of contracting disease due to their unsafe sexual practices or inclination towards other risky behaviour like IV drug abuse. Therefore, they require a good amount of information and knowledge about this disease. This can help to prevent its further spread in community and also to remove the stigma and discrimination associated with it. These voluntary attendees are mostly encouraged by local medical practitioners or health care workers at grass root level to get the testing done, as they want to clarify their HIV status after having indulged in some unsafe practices.

In this study, males and females were equally divided (50%) among the seropositives. On the contrary, according to the latest national figures, males (61%) are more seropositive than females (39%).¹⁴ Other authors have also reported higher HIV seroreactivity among males.^{15,16} This gender wise difference may be due to different case selection criteria followed by different authors. High proportion of infection rate in females is a cause for concern, since this will lead to a subsequent increase in proportion of children being infected due to subsequent mother to child transmission (MTCT).¹⁷

Our study revealed that more than 90% of seropositives belonged to the age group of 18-44 years, which is the most sexually active and reproductive age group. This figure is in concordance with the national figures¹⁴ (88% in age group 15-49 yrs.) and with the studies conducted by Handeet al.¹⁸, Kumar et al¹⁵ and Sharma.¹⁶ WHO has reported that about 50% of the HIV infected people became infected between the ages of 15 and 24 years, though they may be diagnosed in their late 20s or thereafter.¹⁹ All these figures explain that there is an urgent need of some youth specific interventions or some school or college-based interventions, where these people can be counselled properly at the first place.

Only 14% of seropositives were illiterate, which is a quite lower figure than other studies where it was nearly 30%.^{16,18} This might be because of different case selection criterion adopted by different investigators. Better literacy status in our study may be due to selection of only voluntary attendees, which are considered to have better aptitude level as compared to the other studies where cases referred from clinicians as well as Non-Government Organisations (NGOs) were also enrolled. Less than 10% seropositives were educated beyond 10th standard as found in other studies.^{15,16,18} All infected females were having low education standard, further emphasizing the importance of female education in providing protection against this disease.

Our study revealed high seropositivity (85.7%) among married people which is in accordance with the other studies.^{15,16,18} In our study, 92.85% of seropositive females were married. This is a worrisome finding, as it will directly lead to increased infection rate among paediatric population by mother to child transmission. Another

alarming finding observed in the study was that, out of seven couples enrolled six were seropositive. Two couples have admitted high risk activity of having multiple sexual partners, whereas three males in other seropositive couples confessed to have links with commercial sex workers (CSWs) and their indulgence in non-spousal sex activities. None of the female in our study was working as CSW as per the information they disclosed. In case of the couples, the response of both the spouses was kept confidential from each other. HIV status of the spouse of those seropositive married cases who visited the centre independently is not known. Considering the heterosexual route as most common route of transmission (87.4%) in India, it is supposed that the spouses of these cases must also be suffering from hidden HIV infection or if not they may soon transmit infection to their respective partners. Such a high incidence of HIV infection among married population leads to enhanced risk of transmission of the infection to their children and more number of "AIDS orphans".

Generally persons such as long distance truck drivers and labourers are considered as high risk people as far as the incidence of HIV is concerned. In our study four out of five long distance truck drivers were seropositives but astonishingly only one out of 18 labourers was seropositive even though more than 40% admitted to be involved in high risk activities like having multiple sexual partners and contact with CSW. This low incidence of HIV infection among these labourers despite high risk practices maybe because of the short history of exposure. Since only antigen detection facility is available at ICTC as per NACO guidelines, many cases in the window period might have been missed. On the other hand, house wives are generally included in low risk category, but in our study more than 95% (13/14) of seropositive females were housewives. Out of these seropositive housewives six visited the center along with their spouse. Two housewives along with their husbands admitted to have been involved in unsafe sexual practices while husbands of other three housewives were found to be involved in risky sexual practices. As far as rest of eight house wives are concerned, no history suggesting of any type of exposure was obtained. One female was divorcee and was working as an unskilled professional and admitted to having been involved in unsafe sexual practices. None of the seropositive females however admitted to having worked as a CSW. This highlights feminization trend in HIV/AIDS.

In the present study, knowledge about sexual mode of transmission was good (>80%) among both groups. Chauhan et al²⁰ has reported low knowledge (< 50%) about sexual mode of transmission among their study population. Whereas Bhalla et al⁹ and Parmar et al²¹ have reported that more than 90% of the cases in their study knew that HIV can be transmitted by unsafe sexual practices. This difference in the knowledge is due to the different study population included in different studies. Knowledge about the non-sexual mode of transmission was low (<25%) in both seropositives and seronegatives. A study conducted at Pune reported that 66.6% of high school students were aware about the fact that the HIV can be transmitted by the infected blood.²²

A number of misconceptions about the disease in relation to its cause and treatment were also found. Similar misconceptions have also been reported by other studies.²⁰⁻²² So, awareness campaigns to spread the information about HIV/AIDS may be designed to educate the general public about the importance of preventive measures which should be incorporated in their daily life so as to protect themselves from contracting this fatal disease.

Only 56% of seropositives knew that good nutrition and healthy lifestyle can slow down the progress of HIV to AIDS. WHO advocates the importance of nutritional counselling as essential component in the management of HIV/AIDS. Nutritional counselling proved to be helpful in raising awareness about the importance of nutrition. Through nutritional counselling, improvement is seen not only in overall dietary intake but also increases dietary diversity which enhance micronutrients intake thereby improving the quality of life by slowing down the disease progression.^{8,23,24} A moderate nutritional knowledge (80%) among people living with HIV (PLHIV) has been reported in a study conducted at New Delhi.²⁵

Condom usage was found negligible and inconsistent (<10%) in both groups by all the attendees even though more than 80% were sexually active. Participants were aware of condom usage in disease prevention but the same was not practically applied by them in real life, leading to higher chances of contracting HIV or other STIs. So, need for awareness and sensitisation for consistent condom use in ICTCs as well as through media campaigns is felt in the study region.

Only 40% of seronegatives were ready to help someone suffering from HIV. So, general outlook of the public needs to be improved towards PLHIV to remove the social stigma and discrimination associated with this disease. Seventy percent of the seronegatives were of the view that wider communication on this subject was needed. Major source of information for participants about HIV/AIDS were the grass root level workers, local hoardings, print and electronic media. All these sources motivated 70% of our cases to visit the ICTC for the testing and counselling. Specific chapter on HIV/AIDS should be included in the school curriculum which can go a long way to remove a number of misconceptions about the disease and encourage people to adopt a healthy lifestyle.

V. Limitations

The present study had certain limitations. Results observed are subject to bias arising from rate of reporting in the counselling and testing center as the clients may over report socially desirable answers and under report others. Due to the non-availability of 4th generation HIV ELISA kit, clients could not be screened for infection within the window period.

VI. Conclusion

Even though India's HIV pandemic is slowing down, with a 19% decline in new HIV infections and a 38% decline in AIDS-related deaths between 2005 and 2013, still there is urgent need to enhance KAP and scale up VCT services.

Our study points out that HIV/AIDS in India is undergoing feminization as females are increasingly getting infected and the prevalence among women, both among high risk behaviour (HRB) group and in married monogamous relationship, on the rise.

General public needs to be explained about the importance of preventive measures as currently there is no effective vaccine or medication available which can ensure absolute protection against this disease and cure it. KAP and VCT services need more expansion to increase the overall awareness about disease, its various routes of transmission, timely diagnosis and to start treatment at the earliest in case of seropositives. This will help to reduce mortality and morbidity associated with the disease and further help to remove a number of misconceptions associated with this disease. Eventually, this will lead to an overall change in outlook towards the disease, thereby allowing those living with HIV to live a dignified life without facing any social stigma and discrimination.

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