

Original Research Article

A cross sectional study conducted to assess knowledge and awareness regarding HIV/AIDS among attendees of integrated counselling and testing centre at Sagar, Madhya Pradesh

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ABSTRACT

Background: Acquired immunodeficiency syndrome (AIDS) has emerged as one of most serious public health problem in the country. ICTC (integrated counseling and testing centre) provides a key entry point for the 'continuum of care in HIV/AIDS' for all segments of the population. This study was conducted to assess knowledge and awareness regarding HIV/AIDS among attendees of ICTC because awareness is only means to reduce prevalence of any disease in absence of availability of treatment and cure.

Methods: The study was conducted among attendees of integrated counseling and testing centre who were visited at the centre for HIV testing. It was a cross-sectional, observational study and conducted at ICTC attached to Microbiology Department of Bundelkhand Medical College, Sagar.

Results: Majority of study subjects (34.96%) had a relatively poor knowledge about HIV/AIDS. In spite of having awareness, the respondents had lack of complete knowledge about the root cause of HIV/AIDS and had misconceptions about the mode of transmission.

Conclusions: Gender, education, residence, caste and socio-economic status showed the significant association with knowledge score regarding HIV/AIDS. IEC activities should be planned in local language incorporating locally derived data pertaining to various social norms, cultural beliefs and sensitivities of community.

Keywords: HIV, AIDS, ICTC

INTRODUCTION

AIDS has emerged as one of most serious public health problem in the world. According to UNAIDS/WHO estimates, there are 38.6 million people living with HIV worldwide.¹ In context of India however the overall prevalence in the country is still low rates (0.36%) much lower than many other countries. India has a sharp increase in the estimated number of HIV infection from a few thousand in early 1990s to steeply increasing to between 2 and 3.1 million this comes to 2.5 million.²

According to cumulative AIDS cases (2006) Madhya Pradesh ranks 13 with 1729 cases of HIV/AIDS.³ HIV/AIDS is not a disease that spreads randomly. It is estimated as a consequence of a specific behavioral pattern and has strong socioeconomic implications.

In order to implement the desired interventions, the epidemiology of HIV/AIDS in a particular region has to be understood specially with regards to various socio-demographic factors, level of awareness as well as pattern of risk behavior of the population, because till

date, the most effective approaches available for the prevention and control of the infection/disease are awareness generation and lifestyle changes. Voluntary counseling and testing for HIV is a cost effective intervention in preventing HIV transmission and it has become an integral part of HIV prevention program. The Voluntary Counseling and Testing Centre (VCTC) is an entry point to care, which provides people with an opportunity to learn and accept their HIV sero-status in a confidential environment.^{4,5} The VCTC are now known as the ICTC (Integrated Counseling and Testing Centre).

To prevent any disease or halt its progression, a full proof strategy and resources are needed and for the best use of them the basic epidemiological information of disease, its transmission dynamics and socio-cultural perception regarding the disease within the community is also needed. The current study is contemplated with a view to throw some light on the knowledge and awareness of attendees of integrated counseling and testing centre and association of knowledge score with various socio-demographic factors.

METHODS

This study was conducted in Bundelkhand Medical College, Sagar (M.P.). It is a tertiary care centre. Study was conducted to assess knowledge and awareness regarding HIV/AIDS among ICTC attendees. It was an institution based cross sectional descriptive study conducted at ICTC which is attached to Microbiology Department where HIV testing and counseling is done. Approximately 8-12 clients per day are undergone HIV testing in this centre. Study subjects who visited ICTC for HIV testing during study period (November 2015 to January 2016) were included in study. In order to elicit

knowledge and awareness of study subjects, a semi-structured, pretested proforma was administered to the subjects. The study instrument focused on knowledge and awareness regarding various aspects of HIV/AIDS like mode of transmission, symptoms, diagnosis, treatment and prevention.

During the study period total 417 attendees were registered at ICTC. Only 326 attendees were included in study group for assessment of their knowledge and awareness regarding HIV/AIDS. Of the remaining 91 attendees, 34 did not fulfill the inclusion criteria, 17 were hospitalized and remaining 40 could not be traced. Knowledge and awareness regarding HIV/AIDS among attendees was analyzed by creating a scale that summarized the total knowledge questions answered correctly. The sum of correct answers responded by attendees was taken to classify the respondents. One mark is allotted to each correct answer. Later on, a scale was prepared manually to categorize the knowledge of clients as score less than 0-5, 6-10 and 11 and above as poor, average and good knowledge respectively.

RESULTS

Out of 326 attendees only 19.02% had ever heard about AIDS and 60.74% had heard about both HIV/AIDS. Males (85.29%) were more aware than females (70.49%). Television was the main source of information about HIV/AIDS among 94.61% of respondents. Very few study subjects (6.9%) received information about HIV/AIDS from doctor/health worker. HIV spread due to person to person contacts known to 83.1% respondents. Males (89.65%) were more aware as compared to females (69.77%).

Table 1: Association of knowledge score with gender.

S. no.	Knowledge score	Gender		Total (n=326) N (%)	P value
		Male (n=204) N (%)	Female (n=122) N (%)		
1.	0	30 (14.70)	36 (29.50)	66 (20.24)	X ² =10.31 Df-3 P<0.05 (significant)
2.	1-5	64 (31.37)	50 (40.98)	114 (34.96)	
3.	6-10	56 (27.45)	20 (16.39)	78 (23.31)	
4.	11 and above	54 (26.47)	16 (13.11)	70 (21.47)	

Table 2: Association of knowledge score with area of residence.

S. no.	Knowledge score	Residence		Total (n=326) N (%)	P value
		Rural (n=184) N (%)	Urban (n=142) N (%)		
1.	0	54 (29.34)	12 (8.45)	66 (20.24)	X ² =37.46 Df-3 P<0.05 (significant)
2.	1-5	82 (44.56)	32 (22.53)	114 (34.96)	
3.	6-10	36 (19.56)	40 (28.16)	76 (23.31)	
4.	11 and above	12 (6.52)	58 (40.84)	70 (21.47)	

Sexual contact is one of the mode of transmission responded by 89.81% attendees. Very few respondents (29.63%) stated mother to child transmission as a mode of spread for HIV. Few study subjects (26.85%) also

believed that sharing food together with an infected person may also lead to spread of HIV. Only 25.38% respondents were aware about symptoms of AIDS.

Table 3: Association of knowledge score with educational status.

S. no.	Knowledge score	Education						Total (n=326)
		Illiterate (n=96)	Up to primary (n=28)	Up to middle (n=24)	Up to high school (n=58)	Up to higher secondary (n=56)	Graduate and post graduate (n=64)	
		N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	
1.	0	52 (54.16)	6 (21.42)	2 (8.33)	6 (10.34)	0 (0)	0 (0)	66 (20.24)
2.	1-5	44 (45.83)	18 (64.3)	14 (58.33)	28 (48.27)	10 (17.86)	0 (0)	114 (34.96)
3.	6-10	0 (0)	4 (14.3)	8 (33.33)	10 (17.24)	14 (42.86)	30 (46.87)	76 (23.31)
4.	11 and above	0 (0)	0 (0)	0 (0)	14 (24.14)	22 (39.3)	34 (53.12)	70 (21.47)

$\chi^2=123.54$; Df-15; $p<0.05$ (significant).

Table 4: Association of knowledge score with caste.

S. no.	Knowledge score	Caste				Total (n=326)	P value
		General (n=126)	SC (n=144)	ST (n=18)	OBC (n=38)		
		N (%)	N (%)	N (%)	N (%)		
1.	0	8 (6.35)	36 (25)	8 (44.44)	14 (36.84)	66 (20.24)	$\chi^2=26.18$
2.	1-5	34 (26.98)	62 (43.05)	6 (33.33)	12 (31.58)	114 (34.96)	Df-9
3.	6-10	42 (33.33)	24 (16.67)	2 (11.11)	8 (21.05)	76 (23.31)	$P<0.05$
4.	11 and above	42 (33.33)	22 (15.27)	2 (11.11)	4 (10.52)	70 (21.47)	(significant)

Table 5: Association of knowledge score with socio economic status.

S. no.	Knowledge Score	Socio economic status					Total (n=326)	P value
		Class I (n=14)	Class II (n=42)	Class III (n=90)	Class IV (n=114)	Class V (n=66)		
		N (%)	N (%)	N (%)	N (%)	N (%)		
1.	0	0 (0)	0 (0)	6 (6.67)	34 (29.82)	26 (39.39)	66 (20.24)	$\chi^2=88.50$
2.	1-5	0 (0)	0 (0)	18 (20)	62 (54.38)	34 (51.51)	114 (34.96)	Df-12
3.	6-10	8 (57.14)	22 (52.38)	30 (33.33)	12 (10.52)	4 (6.06)	76 (23.31)	$P<0.05$
4.	11 and above	6 (42.85)	20 (47.62)	36 (40)	6 (5.26)	2 (3.03)	70 (21.47)	(significant)

Attendees who were aware regarding the symptoms of AIDS, fever (75.75%) was mentioned as the most common symptom, followed by weight loss (30.30%). HIV/AIDS can be diagnosed known to only 28.46% of study subjects. Among the respondents who were aware about diagnosis of HIV/AIDS all (100%) of them correctly mentioned blood test as a method used for diagnosis of HIV/AIDS. Availability of free treatment for HIV/AIDS was known to 16.92% study respondents. Among the respondents who were aware about availability of free treatment, 18.18% said that treatment was available in Government hospital but none of them identified ART centre as a free drug availability centre.

Use of condom during sexual act (54.61%) was believed to be most common way of avoiding HIV/AIDS. Few respondents also believed that not sharing food with

PLHA (22.30%), isolation of people with HIV/AIDS (14.61%) and avoiding mosquito bite (6.92%) were also preventive measures for HIV/AIDS. Clients who had no knowledge, scored zero were 20.24%. Most of the attendees (34.96%) scored less than 5 and they were categorized to have poor knowledge. Females scored less than males and it was significant ($p<0.05$) (Table 1).

Attendees residing in rural areas scored less than the clients living in urban areas ($p<0.05$). Majority of attendees of rural areas (44.56%) were categorized as having poor knowledge (Table 2). There was a statistically significant difference in the knowledge score according to educational status. Attendees who were graduates and post graduates (53.12%) have scored more as compared to others (Table 3). Respondents belonging to SC and ST category scored less and had poor

knowledge (41.97%) and there was statistically significant difference in knowledge score in different caste (Table 4). There was significant association of knowledge score and socio economic status ($p < 0.05$). Clients from high socioeconomic group (I, II) had average and good knowledge respectively 53.57% and 46.42% (Table 5).

DISCUSSION

ICTC services cater to those who come to the centre either from referral (care providers) or direct walk in clients; sometimes it can be referral from the targeted interventions by NGOs running in the area. So the profile of attendees depends upon the characteristics of the catchment areas and the population residing therein.

Overview about awareness

Awareness of HIV/AIDS has increased in recent years. People must also understand how to prevent the disease, along with where to go for testing and treatment. Awareness of HIV/AIDS varies greatly by state. The low level of awareness of the disease in heavily populated states is a danger sign. Without even basic awareness, people are defense less against avoiding HIV/AIDS.

AIDS awareness

The awareness was derived from a question that queried about whether respondents had ever heard about HIV or AIDS or both. Respondents who answered 'yes' to this question were considered to have awareness about HIV/AIDS. In present study 19.02% attendees (10.78% males and 32.79% females) heard about AIDS and 60.74% subjects heard about HIV/AIDS both. According to NFHS-3, 84% men and 61% women had heard of AIDS.⁶ In a study conducted by Naik et al it was found that only 22% of all study participants had heard of AIDS.⁷ These figures are of concern because having heard of HIV/AIDS is only a first step.

Source of knowledge about HIV/AIDS

The answer of sources was multiple. Television was the source of their information about AIDS reported by 94.61% of respondents followed by radio (40.76%) and relatives and friends (11.54%). In contrast, institutions such as school were not important source of information and only 6.15% of the respondents named schools as their main sources of information. On the other hand, specialist persons such as doctors and nurses (6.9%) had less important role in educating people. These people should be more involved in AIDS education. The sources of knowledge of HIV/AIDS for the general population reported here are approximately similar to those previously reported.^{8,9} NFHS-3 findings also mentioned television as a specific source of information (80% males and 80% females).⁶ It appears that the mass media, especially television, has an important role in raising

AIDS awareness within the community. Such findings show that prevention campaigns on media should be encouraged and these have the potential role to limit the emergence of HIV/AIDS epidemic.

Knowledge about mode of transmission of HIV/AIDS

Awareness of how HIV spreads is key requirement in avoiding the disease. In India, sexual contact is the predominant method of AIDS transmission in most states. Study reveals that those who were aware regarding this fact 89.81% respondents (93.6% male vs. 80% females) knew that sexual contact is one of the mode of transmission. Other mode like infected blood transfusion and sharing infected needle and syringes were given by 65.74% and 63.89% of the respondents respectively. This indicates that sexual contact was considered as the major mode of acquiring the virus of AIDS. NFHS-3 findings suggest that 47% women and 63% men knew that HIV/AIDS can be transmitted from a mother to her baby but in our study knowledge regarding this mode of transmission was lacking (29.63%).⁶

Misconceptions about mode of transmission of HIV/AIDS

Further study revealed that misconceptions about the mode of transmission by sharing foods (26.85%), shaking hands (13.89%), and mosquito bites (8.33%) also exist. This is an indication of fact that in spite of having awareness, the respondents had lack of complete knowledge about the root cause of HIV/AIDS. NFHS-3 findings suggests that 31 percent of women and 44 percent of men reject all three misconceptions that AIDS can be transmitted by mosquito bites, hugging, or sharing food with an HIV-positive person.⁶ Leili et al study subjects believe that exposure to an infected person who coughs or sneeze s transmit the disease (54.7%).¹⁰ These findings are not consistent with results in other countries.^{8,9}

Knowledge about symptoms of AIDS

Knowledge regarding symptoms of AIDS was very less among the attendees; only 25.38% attendees were aware regarding symptoms of AIDS. Among them fever (75.75%) was the most common symptom known to study subjects followed by weight loss (30.30%) and diarrhea (9.1%) but none of them were aware regarding the duration of fever or diarrhea.

Knowledge about diagnosis and treatment of HIV/AIDS

Knowledge regarding diagnosis and availability of free treatment was very poor among study subjects. Study revealed that 28.46% study subjects were aware regarding diagnosis of HIV/AIDS and among them all (100%) knew that blood test was done to diagnose HIV/AIDS. Free treatment available for HIV/AIDS known to only 16.92% clients and no one mentioned

correctly ART centre as a site for availability of free treatment. Sasha et al in his study found that most respondents (70%) were aware of a treatment for HIV though could not specifically name antiretroviral therapy.¹¹ Nearly all respondents (94%) were aware of a test for HIV.

Knowledge about ways to avoid HIV/AIDS

Among the respondents who had heard about AIDS, 45.38% do not know any way to avoid infection. Among respondents who reported that something can be done to prevent AIDS, using condoms during intercourse (54.61%) was the most commonly mentioned way of avoiding AIDS. Checking blood prior to transfusion (43.85%) and using sterilized needles and syringe (40.8%) were also mentioned as ways to avoid AIDS. Isolation of infected person (14.61%), avoiding mosquito bite (6.92%) and not sharing food with PLHA (22.30%) was also mentioned to prevent HIV/AIDS which suggests that existence of misconceptions among study subjects.

According to NFHS-3, 70% men and 36% women had knowledge of condom use as HIV prevention method.⁶ It was observed in 2001 that only 47% of the people in India were aware that HIV/AIDS could be prevented by consistent condom use and having one faithful uninfected partner. In the state of West Bengal, only 14% and 19% of the people respectively were aware about these two preventive methods.¹²

In general, the study revealed that the majority of respondents had a relatively poor knowledge (34.96%) about HIV/AIDS and 20.24% had no knowledge. Thus there is a need of continuous awareness program for general population. In a study conducted by Montazeri in 2005, he reported that the respondents had good knowledge about AIDS; however, misconceptions did exist.⁸ This difference may be because of the difference in the study populations. His study was done in Tehran, the capital of Iran, where people are more literate on average.

There was an important evidence of sex differences in responses regarding knowledge about HIV/AIDS. Males were significantly more aware than females; 85.29% as compared to 70.49%. NFHS-3 findings reveal that comprehensive knowledge regarding HIV/AIDS among women (17%) was less as compared to men (33%). Respondent living in urban area had comparatively better knowledge of AIDS, similar finding was reported in our study subjects also and it was found statistically significant. Study conducted by Lal suggests that awareness and knowledge of HIV/AIDS remains weak in rural areas and among women.^{6,13}

Education, caste and socio-economic status were significantly associated with the knowledge about HIV/AIDS ($p < 0.05$). Almost in all items, illiterate individuals were less aware and 54.16% had no

knowledge. The low level of awareness about different dimension of AIDS was recorded among the respondents of scheduled castes or scheduled tribes and among low socio-economic class in comparison to general castes and attendees belonged to higher socio-economic group.

A study from the US among the general population also showed significant differences in AIDS-related knowledge with age, education, race, and gender indicating that minority groups, less-educated and older respondents were less likely to respond correctly to general AIDS knowledge questions.¹⁴

CONCLUSION

The present study reveals that majority of respondents (34.96%) had a relatively poor knowledge about HIV/AIDS. Gender, education, residence, caste and socio-economic status showed the significant association with knowledge score regarding HIV/AIDS. 79.76% subjects had heard about HIV/AIDS and the television was the most important source of information about HIV/AIDS. Sexual contact is the most common mode of transmission known to study respondents (89.81%). Misconceptions about the mode of transmission by sharing foods (26.85%), shaking hands (13.89%) and mosquito bites (8.33%) also exist in study group. Ways to avoid HIV/AIDS infection not known to 45.38% respondents. Using condoms during intercourse was most common way to prevent infection known to respondents (54.61%).

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