

Original Article

KNOWLEDGE OF HIV/AIDS AMONG PATIENTS ATTENDING GENERAL OUT PATIENT DEPARTMENT OF A TERTIARY CARE HOSPITAL OF KOLKATA

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ABSTRACT

Introduction: The total number of people living with HIV/AIDS in India is estimated at 21 lakh in 2011. Now India is on track to achieve the global targets of 'Zero New Infections, Zero AIDS-related deaths & Zero discrimination.' The modes of transmission HIV is known and is largely preventable, but due to lack of knowledge about HIV/AIDS in general population makes it's rapid spread in India. So understanding about the knowledge about HIV/AIDS in general populations will help in formulating strategy for prevention and treatment.

Objective: to assess the knowledge about HIV/AIDS among the people attending general OPD in a Tertiary Care Hospital of Kolkata.

Methods: An Institution based cross sectional study was conducted among 576 patients attending the General OPD in a tertiary care hospital of Kolkata from February 2013- April 2013 using a predesigned pretested schedule.

Results: 100 percent of the study population had heard about HIV/AIDS; more than 90 percent reported that unsafe sex, infected needle sharing, and contaminated blood transfusion were possible ways of transmission. Misconceptions regarding the transmission of were found among more than 25 percent the respondents. More than 70 percent of the participants were aware of various possible correct preventive measures. Electronic media was the main source of information. More than 40 percent respondents knew the major high risk groups.

Conclusion: These study results can be useful in directing future efforts at creating awareness about HIV/AIDS.

Key Words: HIV/AIDS, Knowledge, General Population.

INTRODUCTION

HIV, the virus that causes "acquired immunodeficiency syndrome" (AIDS)¹ has become one of the world's most serious health and development challenges. Most people living with HIV do not have access to prevention, care, and treatment, and there is still no cure.² New global efforts have been mounted to address the epidemic, and there are signs that the epidemic may be changing course.³

Globally, an estimated 35.3 million people were living with HIV in 2012. New HIV infections among adults and children decreased by 50 percent and 52 percent respectively between 2001 and 2012. AIDS-related deaths have fallen by 30 percent since 2005.⁴

While new cases have been reported in all regions of the world, 95 percent of these occur in low- and mid-

dle-income countries.⁵ National AIDS Control Programme in India has been rests on two key pillars - prevention for those who are not infected and care, support & treatment for those who have been infected.⁶

India is estimated to have an adult HIV prevalence of 0.27% ; with around 1.16 lakh new HIV infections ; number of people living with HIV/AIDS 21 lakh and about 1.48 lakh died of AIDS related causes in 2011. Now India is on track to achieve the global targets of 'Zero New Infections, Zero AIDS-related deaths & Zero discrimination'.⁶

The modes of transmission HIV is known and largely preventable, but due to lack of knowledge in general population makes it's rapid spread in India.⁷ Understanding the knowledge about HIV/AIDS in general

populations will help in formulating strategy for prevention and treatment.

Studies about Knowledge of HIV/AIDS in different population groups in India and abroad

revealed: in Indian dental students, the total mean knowledge score was 78.8 percent⁸; amongst nurses, doctors & other healthcare workers in India; the highest possible score was 12 and the mean score was 9.5⁹; among Bangladeshi garment workers the awareness of majority of the respondents was poor while only 10.6% had good awareness.¹⁰

With this background, this study was conducted to assess the knowledge about HIV/AIDS among the people attending general OPD in a Tertiary Care Hospital of Kolkata.

MATERIALS AND METHODS

Study type and design: The study was an Institution based observational descriptive study, cross sectional in design. Study setting was General Out-Patient Department (OPD) in a tertiary care hospital of Kolkata. The study population was constituted of those patients found in the setting during the **study period** between February 2013- April 2013.

Study tool was a predesigned pretested semi structured schedule prepared by experts of community medicine. It was pre tested among 20 people attending the same General OPD; validated by 3 experts of community medicine and necessary modification were done before final data collection.

Study variables were socio demographic profiles (age, sex, religion, marital status, residence, type of family, educational status, occupation, socio economic classification as per modified B.G. Prasad scale¹¹); knowledge about different correct modes of transmission; misconceptions regarding modes of transmission; different ways of prevention, availability of health services, sources of information and idea about high risk persons.

Each correct answer carried 1 mark and wrong or unknown answer carried 0 mark. A score was considered good knowledge (i.e. a respondent giving at least 60% correct answers) and those below <60% correct answers as poor knowledge.

Inclusion criteria were patients of 18 years and above, both sexes, not seriously ill, non HIV/AIDS patient, willing to give answers, gave informed written consent.

The calculated sample size for this study was 576; based on the anticipated proportion of awareness among the general population as 40 percent,¹² with relative precision of 10 percent, and a Confidence Interval of 95 percent. After adding the 10 percent, non-response error, the final sample size was 633.

Systematic random sampling method was followed (every 5th patient was interviewed starting from a random number).

Data collection technique: During exit time, the informed written consent of the study population was obtained after explaining the purpose and nature of the study and knowing their willingness to share the information. They were assured about their confidentiality and anonymity. They were told that their participation was voluntary and not compulsory. Then the principal investigator (PI) / Co investigators conducted a face-to-face interview to fill the

schedule. Each subject was interviewed privately and were explained the importance of an honest answer. The interviewers were native speakers of the Bengali language and the entire interview process was conducted in Bengali. The average time of an interview was 15 minutes. The interview with male patients was conducted without any assistance. However, in case of female patients; either assistance of a female intern was sought or it was done by female PI and female Co PIs., particularly for questions related to sexual behavior. After the data collection, any

queries relating to HIV/AIDS that the participants may have had were answered.

Data entry and analysis: Data were entered in MS-EXCEL, compiled and analyzed by Epi Info 6 version and SPSS 17 version by proper statistical tests (Percentage, Chi-square). P-value of < 0.05 was considered statistically significant.

RESULT

Five hundred and seventy six persons participated in this study. Their response rate was cent percent. The socio demographic profiles of the study population and relation of those profiles with their knowledge were shown in Table 1. The lowest age of both sexes was 19 years while highest ages for females and males were 64 and 68 years respectively. Majority were between 20 and 39 years with mean age of 28.41; male; married; Hindu by religion; from nuclear families and residents of rural areas. While 14.76 percent of the respondents were illiterate, rest 85.24 percent were literate. By occupation most were unskilled workers followed by service. Regarding socio economic status (as per modified B.G. Prasad scale 2011), almost equal (more than 25.00%) proportion of the study population belonged to Class I, II and III respectively.

The study reveals that 398 (69.1%) respondents had poor knowledge while only 178 (30.9%) had good knowledge.

There was an association between the age of the respondents and their level of knowledge. The number of study population with good knowledge increased with advancement of age which was statistically significant ($p < 0.05$). The study showed that males were slightly more aware than the females, though their re-

relationship was not statistically significant ($p > 0.05$). Knowledge among Higher Secondary passed and above was quite more than that of illiterate; married were more knowledgeable than unmarried and urban population had better knowledge than that of rural

people which was also statistically significant ($p < 0.05$). However there was no relation ($p > 0.05$) of income, religion, type of family and occupation with level of knowledge (Table 1).

Table 1: Relation of level of knowledge with socio-demographic variables (n=576)

Variables	Poor knowledge (%)	Good knowledge (%)	Total (%)	χ^2 , P value
Age (in years)				
Less than 20	09 (81.81)	02 (18.19)	11 (01.91)	8.54; df 3, 0.03
20-39	219 (73.99)	77 (26.01)	296 (51.39)	
40-60	121 (63.35)	70 (36.65)	191 (33.16)	
More than or equal to 60	49 (62.82)	29 (37.18)	78 (13.54)	
Gender				
Male	290 (68.07)	136 (31.93)	426 (73.96)	0.80; df 1, 0.37
Female	108 (72.00)	42 (28.00)	150 (26.04)	
Religion				
Hindu	261 (68.32)	121 (31.68)	382 (66.32)	0.32; df 1, 0.57
Muslim	137 (70.62)	57 (29.38)	194 (33.68)	
Marital status				
Unmarried	143 (76.06)	45 (23.94)	188 (32.64)	7.38; df 2, 0.02
Married	239 (66.39)	121 (33.61)	360 (62.50)	
Others (Divorced, widow, widower)	16 (57.14)	12 (42.86)	28 (04.86)	
Residence				
Urban	143 (62.45)	86 (37.55)	229 (39.76)	7.88; df 1, 0.00
Rural	255 (73.49)	92 (26.51)	347 (60.24)	
Type of Family				
Nuclear	234 (69.85)	101 (30.15)	335 (58.16)	0.21; df 1, 0.64
Joint	164 (68.05)	77 (31.95)	241 (41.84)	
Level of Education				
Illiterate	69 (81.18)	16 (18.82)	85 (14.76)	13.8, df 2, 0.00
Up to Secondary	169 (72.84)	63 (27.16)	232 (40.27)	
Higher Secondary and above	160 (61.78)	99 (38.22)	259 (44.97)	
Occupation				
Unemployed	10 (76.92)	03 (23.08)	13 (02.26)	3.05; df 5, 0.69
Unskilled	151 (68.02)	71 (31.98)	222 (38.54)	
Skilled	43 (64.18)	24 (35.82)	67 (11.63)	
Service	83 (67.48)	40 (32.52)	123 (21.35)	
Business	50 (71.43)	20 (28.57)	70 (12.15)	
Others (Housewife, Student)	61 (75.31)	20 (24.69)	81 (14.07)	
Per Capita Monthly Income (PCMI)*				
Class I (upper) (\geq Rs. 3000)	100 (66.23)	51 (33.77)	151 (26.22)	2.18; df 4, 0.70
Class II (upper middle) (Rs. 1500-2999)	102 (68.92)	46 (31.08)	148 (25.70)	
Class III (lower middle) (Rs. 900-1499)	106 (73.10)	39 (26.90)	145 (25.17)	
Class IV (upper lower) (Rs. 450-899)	59 (70.24)	25 (29.76)	84 (14.58)	
Class V (lower) ($<$ Rs. 450)	31 (64.58)	17 (35.42)	48 (08.33)	
Total	398 (69.10%)	178 (30.90)	576 (100.00)	

*Modified BG Prasad Scale, Based on per capita monthly income in Indian rupees (CPI 610/July 2011)

Different aspects of knowledge about HIV/AIDS was assessed and displayed in Table 2. It was seen that cent percent of the study population had heard about HIV/AIDS. Among them, more than 90 percent appropriately reported that unsafe sex, infected needle sharing and contaminated blood transfusion were possible ways of transmission of HIV/AIDS. About 61.46 percent knew that HIV/AIDS spread from infected mother/parent to child. Near half of the study participants were of the opinion that one can get infected by breast feeding and by sharing of infected razor blade.

Misconceptions regarding the transmission of HIV/AIDS were found among the respondents. More than one fourth of the study population incorrectly stated that the disease spreads through mosquito bites,

public toilets sharing, social contacts and sharing of utensils/clothes/soap (Table 2).

More than 70 percent of the participants were aware of various possible correct preventive measures against HIV/AIDS as follows: safer sex with condom, having one faithful sexual partner, importance of safe injection practices and role of blood safety (Table 2).

Almost one third respondents were aware of the existence of laboratory services for HIV testing and availability of drugs against HIV (Table 2).

Table 3 revealed that Electronic media was the major sources of information about HIV/AIDS followed by friends & relatives.

Table 2: Distribution of the study population according to their Knowledge about HIV/AIDS *(Multiple response) (n=576)

Knowledge	Number(%)
Knowledge on correct modes of transmission	
Unsafe sex	560 (97.22)
Contaminated needle, syringe or any other skin piercing instrument sharing	520 (90.28)
Contaminated blood transfusion/ blood contact	529 (91.84)
Infected Parent/mother to unborn child	354 (61.46)
Breast feeding by infected mother	278 (48.26)
Infected razor blade and toothbrush sharing	266 (46.18)
Misconception regarding modes of transmission	
Mosquito or other insect bite	158 (27.43)
Public toilet sharing	148 (25.69)
Touching/hugging/shaking hands/kissing on cheeks	157 (27.25)
Sharing utensils/clothes/soap etc	155 (26.91)
Knowledge regarding ways of prevention	
Condom use	417 (72.39)
Having one faithful sexual partner	507 (88.02)
Screening of blood before transfusion	471 (81.77)
Avoid sharing of needles and syringes	475 (82.46)
Avoid use of shared razors and toothbrushes	244 (42.36)
Medications given to HIV infected mother to prevent the child from getting infected	246 (42.70)
Avoid breast feeding	189 (32.81)
Knowledge regarding availability of health services	
Laboratory services	230 (39.93)
Drugs against HIV/AIDS	181 (31.42)

Table 3: Distribution of the study population according to their source of information about HIV/AIDS (Multiple response) (n=576)

Sources	Number(%)
Health care workers(HCW) (Doctors, Nurses etc.) and social workers	113 (19.61)
Electronic media(Television and Radio)	477 (82.81)
Friends and relatives	162 (28.12)
Print media(Newspaper, Magazines, Hoardings, Wall slogans)	128 (22.22)
Neighbors	49 (08.50)
Others (Colleagues etc.)	73 (12.67)

Table 4: Distribution of the study population according to their opinion about High Riskpersons (Multiple response) (n=576)

High Risk Persons	Yes (%)	No (%)	Don't Know
Female sex workers (FSWs)	347 (60.2)	208 (36.1)	21 (03.6)
Men sex with men (MSM)	232 (40.3)	107 (18.6)	237 (41.2)
Persons having multiple sexual partners	299 (51.9)	139 (24.1)	138 (23.9)
Clients of sex workers	197 (34.2)	260 (45.1)	119 (20.7)
Single male migrants	96 (16.7)	173 (30.0)	307 (53.3)
Sexually transmitted diseases (STDs)patients	194 (33.4)	199 (34.6)	184 (31.9)
Long distance truckers	162 (28.0)	110 (19.8)	304 (52.8)
ANC attendees	100 (17.4)	153 (26.6)	323 (56.1)
Health care workers	15 (02.60)	521 (90.4)	40 (06.9)
Injecting drug users	281 (48.7)	260 (45.2)	35 (06.17)
Persons who require frequent blood transfusions (Thalassaemia etc.)	61 (10.59)	472 (81.9)	43 (07.47)
Others (Lactating mothers etc.)	42 (07.3)	493 (85.6)	41 (07.1)

It was seen from **Table 4** that over 40.0 percent of the study population correctly knew that Female sex workers (FSWs); Men sex with men(MSM); Persons having multiple sexual partners and injecting drug users (IDU) were the high risk groups.

DISCUSSION

The major issues related to HIV / AIDS is social stigma and discrimination; myths and misconceptions which exist at individual, family and community level. The reasons behind these issues are wide spread ignorance, poor information and lack of awareness. Understanding about the knowledge of HIV/AIDS in general populations may help in formulating preventive strategy. In the absence of any vaccine to this dread disease till date, prevention remains the only measure to apprehend the transmission of disease.

In the present study, 100 percent of the study population had heard about HIV/AIDS, which was quite higher than other previous studies by Gupta et al¹³ among rural population of Tamilnadu, Negi et al¹⁴ among pregnant women of Dehradun, Yadav et al¹⁵ among rural youth of Gujarat and Kalasagar et al¹⁶ among Indian Metropolitan slum dwellers of Chennai. However in a study among HIV patients, care givers & general population at Varanasi by Meena et al¹⁰, study among general population at Ethiopia by Negash et al¹⁷ and study among adult at Nigeria by Iliyasu et al¹⁸ revealed that more than 90 percent of the study population had heard about the disease.

This study found that knowledge regarding the transmission of the HIV/AIDS was good among general population but variable for different modes. An overwhelming majority were aware of sexual mode of transmission, transmission through blood transfusion and through sharing of needles/syringes. Same type of findings were also reported by Meena et al¹⁰, Unnikrishnan et al¹², Gupta et al¹³, Negi et al¹⁴, Yadav et al¹⁵ and Chauhan et al¹⁹, but much lower recorded in the study by Kalasagar et al¹⁶, Nagesh et al¹⁷, Iliyasu et al¹⁸ and Modi et al²⁰.

Unfortunately it was observed that the participants were less aware of transmission from mother/parent to child in comparison to other modes of transmission. Similar findings were reported by Meena et al¹⁰, Unnikrishnan et al¹², Gupta et al¹³, Yadav et al¹⁵, Nagesh et al¹⁷ and Iliyasu et al¹⁸. However studies by Negi et al¹⁴ and Chauhan et al¹⁹ revealed higher result. These findings show regional variation in knowledge regarding different modes of transmission which can help in developing a strategy for an awareness program. In our study, participants displayed less awareness of preventive measures in comparison to awareness of modes of transmission of the infection/disease. Similar findings were observed in other studies conducted across the country and abroad without regional variation^{10,13,15,17,18}.

Again, awareness about different preventive measures was variable. This study found that the general popu-

lation were less aware of condom use as prevention strategy than having onemonogamous sexual relationship, importance of safe injection practices and blood safety; which was also similar to some other previous studies^{9,13,15}. This observation highlighted the high level of ignorance about this important preventive measure in the general population. However use of condom was the most important preventive measure in Varanasi study¹⁰ and Ethiopia study¹⁷.

It was observed that a good number of study population were aware of different modes of transmission of HIV/AIDS and its prevention but there were misconceptions as well regarding modes of transmission. Studies completed by Meena et al¹⁰, Unnikrishnan et al¹², Gupta et al¹³, Negi et al¹⁴, Yadav et al¹⁵, Kalasagar et al¹⁶, Iiyasu et al¹⁸, Chauhan et al¹⁹ and Modi et al²⁰ also showed presence of similar types of misconceptions which reflects a lack of complete understanding of the modes of the spread of disease.

Varanasi study¹⁰, Tamilnadu study¹³, Dehradun study¹⁴ and Ethiopia study¹⁷ found that electronic media (TV & Radio) was the main source of information about HIV/AIDS; which was similar to the present study but dissimilar to the Gujarat study¹⁵ where friends were the main source of information followed by TV. Nigeria study¹⁸ revealed radio as the main source of information. However the role of Health Care Workers (HCW) was minimal in this respect in our study and other studies also^{10,13,14,17,18}.

CONCLUSION

The study concluded that Knowledge regarding the modes of transmission of the HIV/AIDS was good among the study population but variable for different modes. Vertical transmission from mother/parent to child was seen very low. So attention should be given during Information, Education and Communication (IEC) campaign about this important mode of transmission to reduce the magnitude of infection among children. In spite of repeated advertisements through mass media about the importance of condom use, their knowledge was poor about this important preventive strategy. So this area should be addressed. Removal of myths and misconceptions about the spread of disease also needs great emphasis. Mass media should be utilized in a big way to alleviate these misconceptions. Role of HCWs was minimal as the source of information about HIV/AIDS; they should lay more emphasis on IEC activities. These, along with the efforts of the healthcare professionals should provide an immense progress in the global fight against HIV/AIDS.

LIMITATIONS

The study was done at one period in time; thus it has the limitation of a cross-sectional study.

It was an Institution based study.

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