

Original Research Article

Assessment of awareness about HIV/AIDS in slum areas of Jodhpur city

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Abstract

Background: Human immunodeficiency virus (HIV) infection, the disease, whose mode of transmission is known and is largely preventable, but due to lack of knowledge and practices in general population causes its continuous spread.

Aim and objectives: To assess the awareness level about HIV/AIDS among male and female of 15-44 years age group residing in slum areas.

Materials and methods: A cross sectional study was conducted at slum areas of Jodhpur city to assess the awareness and knowledge about HIV/AIDS among male and female of 15-44 years age group. Total 741 persons were selected by multi stage sampling method in 254 households from 66 slums and a predesigned and pretested questionnaire was used to record the information. The data was entered into Microsoft Excel spreadsheet and analyzed using “Chi square test” of significance.

Results: Only 20.1% were aware about the word “HIV” and only 8.7% of these knew the meaning of HIV while 68.8% subjects aware about word “AIDS” and only 12% of them knew the meaning of the word AIDS. Age, sex, religion, caste, literacy and socio-economic status were significantly influenced the knowledge gained ($p < 0.01$). Unsafe sex (heterosexual) was most frequently (52.5%) known route of transmission by the respondents.

Conclusion: In spite of having large scale information, education and communication activities, at the national and state level, the knowledge of various aspects of HIV/AIDS was deficient and myths about modes of transmission were prevalent in studied slum population.

Key words

Awareness, HIV/AIDS, Male and female, Knowledge, Slum.

Introduction

Ever since the discovery of first epidemic in 1981 in homosexual men in California and New York, the human immunodeficiency virus (HIV) infection has gained enormous momentum and it became a pandemic within a few years spreading to all parts of the world infecting 35.2 million peoples worldwide till 2012 [1].

Following detection of HIV infection in April 1986 among the commercial sex workers in Chennai, Government of India stepped up sero-surveillance among the groups practicing high risk behaviours like STD patients, professional blood donors, commercial sex workers etc. Cumulative number of AIDS cases in India as reported to NACO until 2012 were 20.89 lakh. The national adult (15-49 Years) prevalence is estimated at 0.27% for year 2011-12, 0.32% among males and 0.22% among females [2].

First case (a Swiss tourist) in Rajasthan was reported in 1987 at Pushkar (Ajmer). To implement National AIDS Control Programme in Rajasthan AIDS cell was established in Directorate of Medical and Health Services, Jaipur in 1992. Cumulative cases reported to NACO 2011 were 73545 [3].

The main mode of transmission of infection is through sexual intercourse. It can also spread through intravenous drug use, transfusion of blood and blood products, sharing of razors and needles with infected persons. It is estimated that world-wide 70-80% of HIV infections are acquired through sexual intercourse and 5-10% through intravenous drug use. Among seropositive groups in India sexual promiscuity constitutes the largest chunk followed by intravenous drug users and recipients of blood and blood products [1].

Present study was planned to assess the knowledge about HIV/AIDS among male and

female in the age group of 15-44 years in slum areas of Jodhpur city and to ascertain awareness in slum population about preventive practices related to HIV/AIDS.

Material and methods

It was a community based cross sectional study conducted during the period of June 2009 to September 2009 among male and female of 15-44 years age group at slum areas of Jodhpur city. A sample size of 741 in the age group 15-44 years was taken. Multistage sampling method was used to select 254 households from 66 slum areas after stratifying them into four strata based on population of particular slum areas of Jodhpur city.

In the first stage all the slum areas of Jodhpur city were stratified into four strata based on the total population of the individual slum area. In the second stage the calculated sample size of 570 was allotted to the four strata using probability proportional to size (PPS) technique. In the third stage systematic random sampling was used to pick up the required number of households from the selected slum areas from the each stratum.

Method of data collection

After explaining the motive of the study to the head of the family, a rapport was established with the family. Data were collected using a detailed schedule containing family information regarding demographic and socioeconomic profile of the family and individual information regarding their in depth knowledge about HIV/AIDS, condom and its use and attitude towards AIDS disease and AIDS patients and analysed.

Results

Out of the total population (1503) covered, 741 study subjects (man and women in age group of 15-44 years) were found in 254 households under

survey. Out of these, 686 responded (response level 92.6%) while 31 (4.2%) were absent or out of station, 20 (2.7%) refused and 4 (0.5%) were categorized as disabled.

Majority of study population was in age group 15-19 years (22.8%) followed by 20-24 years (18.6%), 35-39 years (15.1%), 30-34 years (14.6%), 40-44 years (14.6%) and 25-29 years (14.3%). About 54.39% were females and rest (45.61%) were males. 73.4% were Hindus and 26.6% were Muslims. The study population comprised of about 25.4% schedule caste, 37.8% schedule tribe, 11.7% other backward class and 25.1% others. According to literacy status of study population it was observed that about 44.7% subjects were illiterate followed by middle and above (31.6%), primary completed (13.6%) and just literate (10.1%). Majority of them belonged to social class IV (40.5%) followed by class V (37%), class III (15%) and class II (7.1%) according to Modified B G Prasad's classification for socio-economic status (**Table - 1**).

About 138 (20.1%) study subjects were aware about word "HIV" and out of them only 12 (8.7%) knew the meaning of the word HIV. Almost all of them were males (11 out of 12) and educated above higher secondary level. 472 (68.8%) of the study subjects were aware about the word "AIDS" and out of them only 58 (12.3%) knew the meaning of the word AIDS. Out of those, 82% (48 out of 58) knew the meaning of AIDS were males.

The present study showed that age, sex, religion, caste, literacy and socio-economic status were significantly associated with knowledge regarding HIV and AIDS ($P < 0.01$). The knowledge was more in the younger age group of 15-19 years (80.3%) than in older age group of 40-44 years (57.4%). Male (83.5%) were more aware about HIV and AIDS than females (51.6%). Awareness about HIV and AIDS were more among Hindus (74.1%) as compared than Muslims (55.2%). It was found more among others (89.6%) followed by other backward class

(75.6%), schedule caste (65.6%) and schedule tribes (53.9%). Awareness level was lowest among socio-economic class V (62.9%) followed by class IV (69.3%), class III (78.6%) and class II (90.6%) as per **Table - 2**.

Table - 1: Distribution of study subjects according to socio-demographic characteristics.

Socio-demographic characteristic	Number	Percent
Age (in years)		
15-19	169	22.8
20-24	138	18.6
25-29	106	14.3
30-34	108	14.6
35-39	112	15.1
40-44	108	14.6
Sex		
Male	403	54.39
Female	338	45.61
Religion		
Hindu	544	73.4
Muslim	197	26.6
Caste		
SC	188	25.4
ST	280	37.8
OBC	87	11.7
Other	186	25.1
Literacy		
Illiterate	331	44.7
Just literate	75	10.1
Primary complete	101	13.6
Middle and above	234	31.6
Socio-economic status		
II	18	7.1
III	38	15.0
IV	104	40.9
V	94	37.0

Among the modes of transmission, unsafe sex (heterosexual) was most frequently (52.5%) known route of transmission followed by homosexual relationship (25.4%), infected needle and syringes (20.6%), getting blood without HIV testing (14.2, trans-placental

transmission (12.9%) and through mother's milk (Table - 3).

Table - 2: Distribution of study subjects according to their awareness regarding the word AIDS.

Variables	Ever heard the word AIDS	Never heard the word AIDS	Chi Square (df)	'P' value
	n (%)	n (%)		
Age (in years)				
15-19	126 (80.3)	31 (19.7)	20.694 (5)	0.000
20-24	92 (73.1)	34 (26.9)		
25-29	68 (69.4)	30 (30.6)		
30-34	65 (65.0)	35 (35.0)		
35-39	63 (60.6)	41 (39.4)		
40-44	58 (57.4)	43 (42.6)		
Sex				
Male	309 (83.5)	61 (16.5)	79.483 (1)	0.000
Female	163 (51.6)	153 (48.4)		
Religion				
Hindu	366 (74.1)	128 (25.9)	22.092 (1)	0.000
Muslim	106 (55.2)	86 (44.8)		
Caste				
SC	107 (65.6)	56 (34.3)	66.249 (3)	0.000
ST	139 (53.9)	119 (46.1)		
OBC	62 (75.6)	20 (24.4)		
Other	164 (89.6)	19 (10.4)		
Literacy				
Illiterate	167 (53.7)	154 (46.3)	101.849 (3)	0.000
Just literate	38 (55.1)	31(44.9)		
Primary complete	72 (76.6)	22(23.4)		
Middle and above	195 (92.92)	17(7.08)		
Socio-economic status				
II	29 (90.6)	3 (9.4)	15.470 (3)	0.002
III	66 (78.6)	18 (21.4)		
IV	199 (69.3)	88 (30.7)		
V	178 (62.9)	105 (37.1)		

df= Degree of freedom

Majority of the people got the information through television and radio (46% each) followed by friends/relatives (33%), newspapers/magazine (26%), school teachers (20%), health worker/hospital (16%), poster/ hoarding (11%), life partner (10%) and cinema (7%). Health worker (35% v/s 6%) and life partner (25% v/s 2%) were more important source for females than males.

Basic knowledge of study subjects regarding certain characteristics of HIV/AIDS shows that for all the questions, knowledge level in case of men was better than women except for the question related to vaccine. Knowledge of men varied from lowest 20% for the question – “Is there any vaccine?” to highest 54% for the question- “Is AIDS infection permanent and life long?”

Table - 3: Distribution of study subjects (who ever heard of AIDS) their knowledge regarding the route of transmission of AIDS and gender.

Mode of transmission	Yes n (%)	No n (%)	Don't know n (%)
Unsafe sex (Heterosexual)	248 (52.5)	70 (14.8)	154 (32.6)
Homosexual relationship	120 (25.4)	106 (22.5)	246 (52.1)
Infected needle and syringe	97 (20.6)	121 (25.6)	254 (53.8)
Getting blood without HIV testing	67 (14.2)	122 (25.8)	283 (60.0)
Trans-placental infection (Mother to child)	61 (12.9)	220 (46.6)	191 (40.5)
Mother's milk	60 (12.7)	206 (43.6)	206 (43.6)

Similarly knowledge of women ranged from a minimum of 19% for the question – “Is infected person is asymptomatic and looks well?” to the maximum of 42% for the question – “Is AIDS a serious and life threatening disease?”

Majority (52%) of the people answered that AIDS is a sex related disease while 30% of the study subject had no idea about the type of the disease. Fever was the most common (33%) symptom, suggested by the study subjects followed by frequent fatigue (29%), frequent episodes of illness (26%) and cough for long duration (23%). 29% of the study subject did not know about the symptoms of AIDS.

Misbelief regarding the route of transmission was found to be prevalent amongst a large number of study subjects- ranging from 28% (through infected food) to 51% (kissing).

Males (ranging from 23% to 57%) had better knowledge regarding preventive methods than females (ranging from 17% to 42%). Having single sex partner was the highest (57% males and 42% females) known method while avoidance of pregnancy by an infected woman was lowest (23% males, 17% females) known method of prevention.

90% of male and 85% of female subjects had heard about condom. It was not heard mainly by the study subject in age group 15-19 years while 82% of the study subject knew that it works as a contraceptive. Only 45% subjects (51% males

and 35% females) had the knowledge regarding its role in prevention of AIDS and other sexually transmitted diseases (19%).

Majority (60%) of the study subject came to know about the condom through radio followed by life partner (42%), television (36%), friends/relative (35%), health worker/ nurse (33%), Newspaper/ magazine (27%), hospital/ doctor (23%).

Attitude of study subjects towards AIDS disease who were aware about AIDS showed that 56% of males and 47% of females thought that they are not the kind of person to get AIDS infection. 60% of males and 48% of females thought that they would be ashamed if they were infected with AIDS. 63% of males and 47% of females were afraid of getting AIDS. 63% of males and 49% of females had opinion that only young people think about avoidance of AIDS. 57% of males and 52% of females answered that they will tell others if someone is suffering from AIDS. Almost equal proportion of males (54%) and females (55%) answered that AIDS patients should be dismissed from service. 33% and 18% of males and females respectively opined that friendship with the AIDS patients should be continued. 34% males and 27% of females thought that a doctor having AIDS should continue to work with patients.

Discussion

In the present study, the age group 15-44 years was selected as a study population keeping in

view that 90% of HIV/AIDS patients in India are found in this age group. To plan a comprehensive health programme, to prevent and control AIDS, it is imperative to have an idea about baseline socio demographic data, their knowledge, attitude, practice and behaviour regarding the disease and the patients, in this age group.

Present study included a set of questions regarding knowledge of AIDS, AIDS transmission, prevention, attitude and practices in the study population. Men and women in age group 15-44 years were first asked whether they had ever heard of an illness called HIV or AIDS. Respondents, who had heard of AIDS, were further asked questions about their sources of information regarding of AIDS, what they know about its transmission and prevention, their attitude towards AIDS patients and disease and their preventive practices (condom and its use).

In the present study, awareness regarding the word AIDS was much higher than the word HIV. Highly significant ($P<0.001$) difference was found in knowledge regarding the word AIDS and age of respondents, showing better knowledge amongst younger age group (80.3% in age bracket 15-19 years) as compared to older age group (only 57% in age group 40-44 years). Similar findings were reported by Sunder Lal, et al. [4].

The study showed significantly ($P<0.001$) better knowledge amongst males. Lower knowledge, regarding AIDS amongst females in comparison to males, was also reported by various authors Sunder Lal, et al. [4] (76% vs 95%), Balagahesh, et al. [5] (65%v/69%), Fulton EL, et al. [6] (7% vs 16%) and Rahman [7] (20% vs 40%) while Bedi, et al. [8] found that males (94%) and females (94%) had almost equal awareness regarding AIDS. Higher level of knowledge in men than women may be due to higher literacy rates in men.

Statistically highly significant relationship was observed between the religion, caste and literacy of respondents and knowledge regarding AIDS

($P<0.001$). Only 53% illiterates had heard the word AIDS, 100% of those with higher secondary had heard about AIDS and the difference was found to be highly significant ($P<0.001$). Positive association between literacy status and awareness was also reported by Sunder Lal, et al. [4], Balagahesh, et al. [5], Bhardwaj, et al. [9] and Poddar, et al. [10]. Increase in knowledge with increase in literacy level may be due to increased exposure to different sources of information.

A significant difference ($P<0.01$) in knowledge level in different socio-economic status was also found in the present study as 90.6% study subject in class II knew about the disease in comparison to 62.9% in class V.

About 82% of slum population in the present study were aware about the contraceptive value of condom, only 45% knew that it can prevent AIDS and 19% knew that it can prevent other STDs. Present study population had far less knowledge regarding the protective value of condom against AIDS/ STDs in comparison to previous studies by Mawar, et al. [11] (48%), Biji, et al. [12] (55%).

Conclusion

The present study indicates that even after the introduction of large scale IEC activities, at the national and state level, the knowledge of various aspects of HIV/AIDS is deficient and myths about modes of transmission is prevalent in studied slum population. There is a strong need for IEC activities to be carried out on regular basis in the slum areas which could make them aware of the problems of HIV/AIDS and related health resources.

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