International Journal of Research in Medical Sciences
Meharda B et al. Int J Res Med Sci. 2019 Jul;7(7):2604-2609
www.msjonline.org
pISSN 2320-6071 | eISSN 2320-6012
DOI: http://dx.doi.org/10.18203/2320-6012.ijrms20192886

Original Research Article

A cross sectional study regarding awareness of HIV/AIDS and practices of condoms among slum dwellers of Ajmer, Rajasthan, India

Bharat Meharda[1], Sanjeev Kumar Sharma[2]*, Mahesh Keswani[1], Rakesh Kumar Sharma[1]

[1]Department of Community Medicine, J.L.N. Medical College, Ajmer, Rajasthan, India
[2]Department of Medical, Health and Family welfare, Government of Rajasthan, Rajasthan, India

Received: 17 April 2019
Accepted: 30 May 2019

***Correspondence:**
Dr. Sanjeev Kumar Sharma,
E-mail: mehardabharat@gmail.com

ABSTRACT

Background: People living in slums are often deprived of health-care facilities and it make them vulnerable to infection like HIV/AIDS. Health education and behavioural changes is pivotal for prevention of HIV and HIV-related stigma.
Methods: It was community based cross sectional study carried among 288 slum dwellers of Ajmer, Rajasthan, India.
Results: Out of 288 study subjects (male and females in the group of 15-54 years) 144 (50%) males and 144 (50%) females. Out of 288 study subjects 278 (96.53%) were heard about HIV/AIDS. Out of 249 study subject who were aware about condom, 107 (42.97%) study subjects [74 (56.06%) male and 33 (28.21%) female] were presently using of condom. out of 278 study subject who had ever heard about HIV/AIDS majority 215 (77.34%) subjects got the information regarding HIV/AIDS through TV/cinema
Conclusions: Present study shows that the study subjects of slums at Ajmer has inadequate awareness regarding the HIV/AIDS and poor practice of condoms.

Keywords: AIDS, Condom, HIV, Knowledge, Prevention

INTRODUCTION

In 1981, the U.S. Centers for Disease Control and Prevention reported a new clinical entity called "Acquired Immunodeficiency Syndrome" among men having sex with men in New York and California. These men presented with rare Opportunistic Infections, Pneumocystis 0pneumonia and Kaposi's sarcoma that is usually seen only in immuno-compromised persons. The causative agent of AIDS was identified two years later. In 1986, the International Committee on Taxonomy of Viruses recommended a separate name for the virus isolated from AIDS patients, the Human Immunodeficiency Virus (HIV).[1]

HIV/AIDS has been reported from all parts of the globe with Sub-Saharan Africa and parts of Asia being the worst affected areas. Five high priority countries in South East Asian Region (SEAR) which account for 99% of the HIV burden include India, Indonesia, Myanmar, Nepal and Thailand.[2]

HIV infection in India was first detected in 1986 among female sex workers in Chennai.[3] India has the third-highest number of people living with HIV (PLWH) in the world after South Africa and Nigeria. As per the annual report of NACO 2016-2017, the number of PLWH/AIDS (PLWHA) in India is 21.17 lakh with an estimated adult (15-49 years) HIV prevalence of 0.26%. Among the

states/UTs, in 2015 Manipur has shown the highest estimated adult prevalence 1.15% followed by Mizoram (0.80%), Nagaland (0.78%), Andhra Pradesh/Telangana (0.66%), Karnataka (0.45%), Gujarat (0.42%), and Goa (0.40%).[4]

The HIV/AIDS epidemic in India is characterized by heterogeneity, it seems to be following the Type 4 Pattern, where the epidemic shifts from the most vulnerable populations such as commercial sex workers (CSWs), injecting drug users (IDUs), men sex with men (MSMs) to bridge populations like clients of sex workers, sexual tract infections (STIs) patients and partners of drug users and then to the general population. The shift usually occurs when the prevalence in the first group exceeds 5 percent, with a two-three year time-lag between shifts from one group to another.[5]

The management of this epidemic is currently off human comprehension. With so much research already being done on the pathogenesis of this virus and most modes of transmission already being established, the increase in awareness of this disease is not on par with the spread of this disease. The lack of knowledge about the modes of transmission leads to stigma and discrimination against PLWHA. Stigmatization would make people hesitant to get the test done, therefore, more PLWHA are unaware that they are suffering from HIV/AIDS and this, in turn, could further accelerate the spread of the virus. Furthermore, fear of stigma would cause PLWHA to conceal their status, thereby putting his/her sexual partners and/or needle sharers at risk of getting infected, due to lack of precautionary measures.[6]

By 2025, the world population is projected to reach 8.1 billion, with the majority of this growth taking place in developing countries. India is the second largest populous country in the world with a population of over 1.21 billion. Approximately 31.[2] percentage of the total Indian population resides in urban areas, India has the second largest slum population in the world after China. By 2025 in India, over 100 million people are estimated to live in urban slums. It was reported that 17.4% of the urban population lives in slum areas in 2011, increasing from 15% in 2001.[7]

For a better job and lifestyle perspective, many people migrate to urban areas from all over the country. These migrants are often from rural areas and poor family background. Due to limited availability of funds, they are not able to afford the higher cost of living in urban cities. So they live in slums and slums are often deprived of health care facilities, making them vulnerable to several health issues and infections like most fatal infections disease HIV/AIDS.[8]

It is with this background and keeping all these results and views of various related studies about HIV/AIDS present study was also an attempt to evaluate awareness of HIV/AIDS and practices of condom among slum dwellers of Ajmer, Rajasthan, India.

Objectives of this study was to evaluate awareness of HIV/AIDS among slum dwellers of Ajmer and to evaluate practices of condom among slum dwellers of Ajmer.

METHODS

The study was community based, cross sectional study. The study was carried out in slum area of Ajmer city. The list including all the slum areas of Ajmer city was obtained from Ajmer Development Authority. Study population comprised of all the men and women in age group of 15-54 years living in the slum area of Ajmer city. The field work was conducted from October 2014 to December 2014.

Design of the questionnaire

Questionnaire was designed in Hindi. A pilot study was carried out before beginning actual studies. Questionnaire was suitably modified based on the experience of pilot study. It considered of the following.

- Family composition
- Individual person questionnaire

Family information schedule contained data regarding demographic and socioeconomic profile of the family. Individual person questionnaire included questions regarding awareness of HIV/AIDS and practices of condom.

Sample Size and sampling

As per sample registration system (SRS) statistical report 2010, Percentage of population accounting to 15 to 54 years age group was recorded to be 49.2%.The sample size of 288 at 5% alpha error with permissible error taken as 15%. Sample size was calculated using the formula of $N=4\ PQ/L^2$. Where, N=sample size, P=positive character, Q=1-P, L=allowable error. Stratified systematic random sampling technique was used for selecting the sample.

Statistics test

Descriptive statistics were applied, and data was analyzed using proportions and percentages.

RESULTS

Table 1 shows that out of 288 study subjects (male and females in the group of 15-54 years) 144 (50%) male and 144 (50%). Males and females were almost evenly distributed across different age groups with majority of males 46 (31.94%) in age group of 15-24, and majority of females 42 (29.17%) in age group of 35-44.

Table 1: Gander wise distribution of study subjects according to age.

Age (Years)	Male		Female		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
15-24	46	31.94	38	26.39	84	29.17
25-34	27	18.75	30	20.83	57	19.79
35-44	31	21.53	42	29.17	73	25.35
45-54	40	27.78	34	23.61	74	25.69
Total	144	100	144	100	288	100

Table 2 Describe that out of 288 study subjects 278 (96.53%) were heard about HIV/AIDS. In present study 144 (100%) male were heard about HIV/AIDS whereas 134 (93.06%) female were heard about HIV/AIDS.

Table 3 representing that out of 278 study subject who had ever heard about HIV/AIDS majority 215 (77.34%) subjects got the information regarding HIV/AIDS through TV/cinema. followed by 115 (41.37%) newspaper, 96 (34.53%) exhibition/poster-pamphlets, 94 (33.81%) friends/husband/wife, 74 (26.62%) doctor/health workers, 70 (25.18%) radio and 69 (24.82%) teachers.

Table 2: Gander wise distribution of study subjects according to ever had heard about HIV/AIDS.

Heard of HIV/AIDS	Male		Female		Total	
	N	%	N	%	N	%
Yes	144	100	134	93.06	278	96.53
No	00	00	10	6.94	10	3.47
Total	144	100	144	100	288	100

Table 3: Gender wise distribution of study subjects according to source of information of HIV/AIDS.

Sex	News papers	Radio	TV / cinema	Exhibition /Poster-pamphlets	Doctor / health workers	Friends/ husband/ wife	Teachers
	N %	N %	N %	N %	N %	N %	N %
Male, N=144	87 (60.41)	53 (36.81)	118 (81.94)	65 (45.14)	50 (34.72)	70 (48.61)	40 (27.78)
Female, N=134	28 (20.90)	17 (12.69)	97 (72.39)	31 (23.13)	24 (17.91)	24 (17.91)	29 (21.64)
Total* N= 278	115 (41.37)	70 (25.18)	215 (77.34)	96 (34.53)	74 (26.62)	94 (33.81)	69 (24.82)

Total not additive *, Multiple answers, TV = Television

Table 4 shows that out of 278 study subject who had ever heard about HIV/AIDS majority of 126 (45.32%) males 72 (50%), females 54 (40.30%) subjects were think that HIV/AIDS is blood related disease followed by 57 (20.50%) males 30 (20.82%), females 27 (20.15%) immune system related disease, 6 (2.16%), males 5 (3.47%), females 1 (0.75%) nervous system disease, 1 (0.36%), males 1 (0.69%) abdomen related disease and 1 (0.36%) females 1 (0.69%) all system related.

Table 5 demonstrate that out of 278 study subject who had ever heard about HIV/AIDS 150 (53.96%) of subjects were think that HIV/AIDS is curable disease, 103 (37.05%) subjects were not think that HIV/AIDS is curable disease and only 25 (8.99%) subjects responded that they do not know about it.

Table 4: Gender wise distribution of study subjects according response of is HIV/AIDS curable disease.

Is HIV/AIDS curable disease	Male (N=144)		Female (N=134)		Total (N=278)	
	N	%	N	%	N	%
Yes	71	49.31	79	58.96	150	53.96
No	64	44.44	39	29.10	103	37.05
Do not know	09	6.25	16	11.94	25	8.99
Total	144	100	134	100	278	100

Total not additive ***,** Multiple answers.

Table 5: Gender wise distribution of study subjects according response of is HIV/AIDS curable disease.

Is HIV/AIDS curable disease?	Male (N=144)		Female (N=134)		Total (N=278)	
	N	%	N	%	N	%
Yes	71	49.31	79	58.96	150	53.96
No	64	44.44	39	29.10	103	37.05
Do not know	09	6.25	16	11.94	25	8.99
Total	144	100	134	100	278	100

Table 6 support that out of 150 study subject who were think that HIV/AIDS is curable, majority 126 (84%) responded that availability of treatment of HIV/ADIS at that dispensary followed by 91 (60.67%) medical college hospital, 39 (26%) primary health center and 17 (11.33%) private diagnostic center and 25 (16.67%) do not know about the place where treatment is available. Table 7 shows that out of 278 study subject who had heard about HIV/AIDS 249 (89.57%), 132 (91.67%) male and 117 (87.31%) female, study subjects were aware about condom. Whereas only 29 (10.43%) 12 (8.33%) male and 17 (12.69%) female were unaware about condom.

Table 6: Gender wise distribution of study subjects according to response of where is availability of treatment of HIV/AIDS.

Availability of treatment at	Male, (N=71)		Female, (N=79)		Total, (N=150)	
	N	%	N	%	N	%
Medical college hospitals	44	61.97	47	59.49	91	60.67
Primary health centres	22	30.99	17	21.52	39	26.00
Govt. dispensary	61	85.91	65	82.27	126	84.00
Pvt. diagnostic centres	8	11.27	9	11.39	17	11.33
All above	4	5.63	6	7.59	10	06.67
Do not know	7	9.86	18	22.78	25	16.67

Total not additive *, Multiple answers.

Table 7: Gander wise distribution of study subjects according to aware about condom.

Aware about condom	Male (N=144)		Female (N=134)		Total (N=278)	
	N	%	N	%	N	%
Yes	132	91.67	117	87.31	249	89.57
No	12	8.33	17	12.69	29	10.43
Total	144	100	134	100	278	100

Table 8 justify that out of 249 study subject who were aware about condom, majority 220 (88.35%), 122 (92.42%) males and 98 (83.76%) females, knew that condoms are available at medical store followed by 160 (64.26%) at government hospitals, 76 (30.52%) at anganwadi centers, while 29 (11.65%), 10 (7.58%) males and 19 (16.24%) females did not know the site of availability of condom know the site of availability of condom.

Table 8: Gender wise distribution of study subjects according to response of where is availability of condom.

Availability of condom	Male (N=132)		Female (N=117)		Total (N=249)	
	N	%	N	%	N	%
Govt. Hospitals	88	66.67	72	61.54	160	64.26
Medical Store	122	92.42	98	83.76	220	88.35
Anganwadi centres	39	29.55	37	31.62	76	30.52
Do not know	10	7.58	19	16.24	29	11.65

Total not additive *, Multiple answers.

Table 9: Gander wise distribution of study subjects according to practice of condoms.

Response		Male, (N = 132)		Female, (N =117)		Total, (N=249)	
Using condom presently	Yes	74	56.06	33	28.21	107	42.97
	No	58	43.94	84	71.79	142	57.03
Know about right way of use of condom	Yes	57	43.18	19	16.24	76	30.52
	No	75	56.82	98	83.76	173	69.48
See expiry date before using condom	Yes	38	28.79	09	07.69	47	18.88
	No	94	71.21	108	92.31	202	81.12

Table 9 describe that out of 249 study subject who were aware about condom, 107 (42.97%) study subjects 74 (56.06%) male and 33 (28.21%) female were presently using of condom. Whereas 142 (57.03%), 58 (43.94%) male and 84 (71.79%) female study subjects were not using condom presently. Only 76 (30.52%) study subjects knew about the right way of use of condom whereas 173 (69.48%) study subjects were unaware about right way of use. Only 47 (18.88%) study subjects see expiry date before using the condom.

DISCUSSION

In present study 100% male were heard about HIV/AIDS whereas 93.06% female were heard about HIV/AIDS. Similar findings found study done by Renu Bedi et al, in Ajmer, Rajasthan that 94% male and females 94% were heard about HIV/AIDS and study done by Kalasagar M et al, among slum dwellers of Chennai, Tamilnadu that 80% male and females 89% were heard about HIV/AIDS.[9,10] whereas study done by Elisabeth L Fulton et al[11] in Bangladesh found that 16% male and 7.4% female were heard about HIV/AIDS.

In the present study shows that television/cinema 77.34% and newspaper 41.37% were predominant sources of information regarding HIV/AIDS for the study subjects. Similarly findings were observed study done by Shivani Manjrekar et al, sources of information regarding HIV/AIDS predominantly from 62.33% television and 22.87% newspaper among urban slum dwellers of Dharwad, Karnataka and study done by Umesh K Verma et al, 87.68% television and 81.74% newspaper among urban slum dwellers of Agra, UP.[2,12] Communication is the key to generating awareness on prevention of HIV/AIDS as well as motivating access to treatment, care and support for people living with HIV. Communication in is directed to increase knowledge among general population (especially youth and women) on safe sexual behavior, sustain behavior change in at risk populations (high risk groups and bridge populations) generate demand for care, support and treatment services, strengthen the enabling environment by facilitating appropriate changes in societal norms that reinforces positive attitudes, beliefs and practices to reduce stigma and discrimination.

In present study majority 45.32% of study subjects were think that HIV/AIDS is blood related disease whereas 52% study subjects reported study done by Bedi R et al, in slum area of Ajmer that HIV/AIDS is a sex related disease.[9]

In the present study 49.31% males and 58.96% females were think that HIV/AIDS is curable disease. Similar findings were found study done by Kalasagar M et al, among slum dwellers of Chennai, Tamilnadu that 56% males and 71% females were think that HIV/AIDS can be treated with costly medicines or traditional herbal medicine and study done by Amiya Das et al[13] in slum of Kolkata 45.70% study subjects were think that medicine is available that can cure a HIV/AIDS patients. There is no cure for HIV/AIDS yet. However, treatment can control HIV and enable people to live a long and healthy life This may include attaining an undetectable viral load. HIV positive patients advised to start antiretroviral treatment as soon as possible. ART is the only way to manage HIV and prevent it from damaging your immune system and prolong life.

In present study 89.57% study subjects were aware about condom. 80% study subjects were hard /seen condom study done by Amiya Das et al[13] in slum of Kolkata. This finding is similar to present study. In this present study 42.97% study subjects were presently using of condom. Similar findings observed done by Mawar N et al, reported that 52% of the study population was using condom consistently during past 3 months whereas lower rates were found study done by Raja MI et al, 5% were using condoms.[14,15]

Condoms are physical barriers that can reduce the risk of a sexual exposure to HIV because they are made of materials such as latex, nitrile, polyurethane and polyisoprene, These materials do not let HIV pass through them. Condoms act as a barrier to HIV infection by preventing the vagina, penis, rectum and mouth from being exposed to bodily fluids (such as semen, vaginal fluid and rectal fluid) that can contain HIV. This makes condoms a highly effective strategy to reduce the risk of HIV transmission when used consistently and correctly.

CONCLUSION

HIV prevention programs in India have been making extensive use of the mass media to build awareness of HIV/AIDS prevention methods. Present study shows that the study subjects of slums at Ajmer has inadequate awareness regarding the HIV/AIDS and poor practice of condoms. Conventional IEC methods targeting general population via mass media are not reaching slum dwellers. For these areas a specially designed targeted intervention is needed with the help of NGOs and Mahila Aryogya Samities.

ACKNOWLEDGEMENTS

Authors acknowledge the immense help received from the scholars whose articles are cited and included in references of this manuscript. Authors are extremely thankful to all the study subjects of this research who shared their valuable experiences and spent their precious time.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. National AIDS Control Organisaiton. Ministry of Health & Family Welfare, Government of India. National Guidelines for HIV Testing. Available at: http://www.naco.gov.in/sites/default/files/National_Guidelines_for_HIV_Testing_21Apr2016.pdf. Accessed 8 April 2019.
2. Manjrekar S, Sherkhane M, Chowti J. Perceptions and outlook towards HIV/AIDS among reproductive age group of urban slum population. Int J Med Sciand Public Health. 2014;3(7):808-13.
3. Solomon S, Solomon SS, Ganesh AK. AIDS in India. Postgraduate Med J. 2006;82(971):545-7.
4. National AIDS Control Organisaiton. Ministry of Health & Family Welfare, Government of India. Annual Report, 2016-17. Available at: http://naco.gov.in/sites/default/files/NACO%20ANNUAL%20REPORT%202016-17.pdf. Accessed 8 April 2019.
5. Arun S, Swati K, Varsha C, Kusum N, Haider ZZ, Amiya P. Knowledge and awareness about HIV/AIDS among women of reproductive age in a District of Northern India. Nat J Community Med. 2012;3(3):417-22.
6. Ranganath TS, Shibi S, Shireen N, Swetha NB. Comprehensive knowledge of HIV/AIDS among adults of reproductive age group in an urban slum of Bengaluru: a cross-sectional study. Int J Med Sci and Public Health. 2017;6(3):549-54.
7. Kumar P. Slums in India: results from census, 2011. J Environ Soc Sci. 2016;3(1):124.
8. Mehta V, Mehta S. Assessment of HIV knowledge and awareness in adults of a slum area of Mumbai, India: a cross-sectional study. Int J Community Med and Pub Health. 2017;3(1):314-8.
9. Bedi R, Tankha A, Bedi Dk. Study on AIDS among residents of Dhola Bhata, urban area under UHTC. Ajmer. Ind J Com Health. 1998;4(2):1-5.
10. Kalasagar M, Sivapathasundharam B, Einstein TB. AIDS awareness in an Indian metropolitan slum dweller: A KAP (knowledge, attitude, practice) study. Ind J Dent Res. 2006;17(2):66.
11. Fulton EL, Kamal N, Ahmed SM, Khan MI, Determinates of AIDS awareness and knowledge among rural men and women in Bangladesh. BRAC-ICDDR, joint research project Dhaka, Bangladesh, 1998. Available at: file:///f:/gmch/all%20research%20work/all%20research%20work/5.%20hiv,%20aids/hiv%20journal/21.pdf. Accessed 09 April 2019.
12. Verma UK, Nandan D, Shrotriya VP. A comparative study of knowledge and attitude regarding HIV/AIDS among male and female adolescents of urban slums of Agra. Nat J Com Med. 2016;7(2):78-81.
13. Das A, Banerjee S, Dasgupta A, Karmakar N, Das S, Mukhopadhyay M. A Cross-Sectional Study on Knowledge and Attitude of HIV/AIDS among Automobile Repair Workers in a Slum of Kolkata. Int J Health Sci Res. 2014;4(7):49-55.
14. Miawar N, Mehendale S, Thilakavathi S, Shepherd M, Rodrigues J, Bollinger R, et al. Awareness and knowledge of AlbS & HIV risk among women attending STD clinics in Pune, India. Indian J Med Res. 1997 Sep;106:212-22.
15. Raza MI, Afifi A, Choudhry AJ, Khan HI. Knowledge, attitude and behaviour towards AIDS among educated youth in Lahore, Pakistan. J Pak Med Assoc. 1998;48(6):179-81.

Cite this article as: Meharda B, Sharma SK, Keswani M, Sharma RK. A cross sectional study regarding awareness of HIV/AIDS and practices of condoms among slum dwellers of Ajmer, Rajasthan, India. Int J Res Med Sci 2019;7:2604-9.