RESEARCH ARTICLE

KNOWLEDGE OF HIV/AIDS AND HIV TESTING AMONG THE HIGH RISK GROUPS (HRGs) POPULATION

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ABSTRACT

Background: Several factors put India in danger of experiencing rapid spread of HIV if effective prevention and control measures are not scaled up throughout the country.

Aims & Objective: (1) To assess the level of basic knowledge about HIV/AIDS among the study population; (2) To analyze the HIV testing among them.

Material and Methods: It was a cross sectional study carried out during April –May, 2010 amongst 3125 subjects of high risk groups (HRGs) comprising of IDUs (Injectable Drug Users), Female Sex workers (FSWs), MSMs (Male having Sex with Males) and Single Male Migrants (SMMs) covered by 13 Targeted Interventions (TIs) of Ahmedabad city. Ten percent of registered HRGs were assessed by systematic sampling. Data was analyzed using Epi info version 3.5.1.

Results: Mean age of HRGs was 28.69 years and about half of HRGs were educated up to primary standard. More than half of them were married.85% HRGs had heard of HIV and 51% correctly knew what HIV positive means. Knowledge about AIDS was 76% and understanding of AIDS was 66% among them .About 38% HRGs knew that HIV is infectious and 72.8% knew that HIV is incurable. About 65% HRGs knew that there is no effective vaccine for HIV. About 65% HRGs had been tested ever tested and in last 6 months about 52.2% of HRGs were tested for HIV. Age and education were statistically significantly associated with the knowledge about incurability of HIV, non-existence of vaccine, and ever testing of HIV and in last six months also with disclosure of HIV positive status. Additionally age was also statistically significantly associated with infectious nature of HIV.

Conclusion: Young and literate HRGs are better aware about the disease and are more concerned about their HIV status. They are also more open about disclosing their HIV/AIDS status.

Key-Words: High Risk Groups (HRGs); Male having Sex with Males (MSMs); HIV/AIDS

Introduction

HIV epidemic in India continues to be concentrated in populations with high-risk behaviour like FSWs, IDUs, and MSMs. HIV information and awareness among sex workers appears to be low, Poor knowledge of HIV has been found in groups of MSM. Injecting drugs with contaminated injecting equipment is the main risk factor for HIV infection in the north-east and features increasingly in the epidemics of major cities elsewhere, Current interventions targeting IDU tend to be inconsistent, and too small and infrequent to yield demonstrable results Migration for work takes people away from the social environment of their families and community. This can lead to an increased likelihood to engage in risky behaviour. Concerted efforts are needed to address the vulnerabilities of the large migrant population.[1] Although HIV testing and counselling uptake has improved, many people living with HIV in low- and middle-income countries still do not know their HIV status.[2] Thus a study was undertaken among HRGs and migrants in Ahmedabad city.

Materials and Methods

A Cross sectional study was carried out in Ahmedabad Municipal Corporation area during April–May, 2010 among the all Targeted Interventions (TIs) working for HIV/AIDS in Ahmedabad city. There were 13 TIs out of which eight were working for migrants, two were working for FSWs, and two were working for MSMs and one for IDUs. Ten percent of registered HRGs from each TI were included by systematic sampling. As we intended to cover 10% of the total HRGs covered, we selected a random number less than 10 and that was our first HRG from the list of people at the concerned TI intervention sites. Thus, the study was conducted amongst 3125 subjects of high risk groups comprising of 40 IDUs (Injectable Drug Users), 354 Female Sex

workers (FSWs), 452 MSMs (Male having Sex with Males) and 2279 Single Male Migrants (SMMs) covered by 13 TIs of Ahmedabad. A pre-designed & pre-tested proforma was used for collection of data. The proforma was first prepared and then field tested. After that the final version of the proforma was prepared and used. The data collectors were the outreach workers of different NGOs. Extensive training was imparted to them for collecting information. All required information was gathered by personal interview after obtaining the written informed consent from the respondents. Five percent of the forms filled by them were supervised and crosschecked with onsite rectification of any errors by faculty members of Community Medicine Department of AMCMET Medical College, Ahmedabad.

Collected data were analyzed with Epi info version 3.5.1 to calculate mean, median, standard deviation, proportions and percentages. Appropriate statistical test like Chi square were applied.

Results

A total of 3125 HRGs between age group of 15 to 50 years were assessed. Maximum number of HRGs (25.2%) was in age group of 20- 24 years. Mean age of HRGs was 28.69 (SD 8.2) years, with mean age of IDU of 34.87 (SD 7.5) years, FSW of 32.65 (SD 7.5) years, SMMs of 27.19 (SD 7.6) years, MSM of 32.54 (SD 9.3) years. In total, 48.9% of HRGs were educated up to primary standard, 23.8% up to secondary standard. Illiteracy was about 50% among IDUs. About 58% of respondents were married.

When asked about whether they have heard of HIV, 85% HRG had heard the word HIV and among them maximum awareness was seen in IDUs and FSWs and least aware were SMMs. About 51% HRGs knew correctly what HIV positive means with maximum of IDUs and MSM among them. Knowledge about the word AIDS was 76% and understanding of AIDS was 66% among HRGs. About 37.7% HRGs knew that HIV is infectious and among them were 100% IDUs and 57.7% MSM .About 72.8% HRGs knew that HIV is not curable and among them FSWs were in highest percentage and least aware were IDUs. About 65% HRGs knew that at present there is no effective vaccine for HIV and this was known to about 90%FSWs and least aware were IDUs (10%). About 65% HRGs had been tested at least once in their life time with 100% IDUs and 90% FSWs among all the HRGs. In last 6 months about 52.2% of HRGs were tested for HIV and highest testing was seen among IDUs and FSWs. (Table 1)

It was observed that age was highly statistically significantly associated with the knowledge about incurability of HIV disease and the knowledge of infectiousness of the disease and with non-existent of vaccine ($p< 0.0001$). It also showed significant relationship for testing of HIV in life time and in last six months. It also showed highly significant relationship with revelation of HIV positive status. [($P< 0.0001$) (Table 2)]

Education showed highly statistically significant relationship with knowledge of incurability of disease, nonexistence of HIV vaccine ($p< 0.001$) for both variable. Education status showed statistically highly significant relationship with testing for HIV once in life time and last 6 months and also disclosure of HIV status. [($P< 0.0001$ for all variables) (Table 3, 4)]

Table-1: Correct Knowledge about HIV/AIDS among HRGs (n=3125)

Question		FSW (%) (n=354)	IDU (%) (n=40)	SMM (%) (n=2279)	MSM (%) (n=452)	Total (n=3125)
Heard the word HIV.		349 (98.58)	40 (100)	1852 (81.26)	416 (92.04)	2657 (85.02)
Know what HIV is.		255 (72.03)	40 (100)	894 (39.22)	389 (86.06)	1578 (50.50)
Heard the word AIDS.		347 (98.02)	40 (100)	2025 (88.85)	400 (88.50)	2387 (76.38)
Know what AIDS is.		327 (92.37)	40 (100)	1393 (61.12)	388 (85.84)	2065 (66.08)
Knows HIV is infectious.		119 (33.6)	40 (100)	757 (33.2)	261 (57.7)	1177 (37.7)
Knows HIV is incurable.		307 (86.7)	6 (15)	1644 (72.1)	319 (70.6)	2276 (72.8)
Knows there is no vaccine for HIV		319 (90.1)	4 (10)	1412 (62)	295 (65.2)	2030 (65)
Had Undergone HIV testing	Ever	319 (90.11)	40 (100)	1297 (56.91)	376 (83.18)	2032 (65.02)
	In last 6 month	296 (83.61)	37 (92.5)	1008 (44.22)	289 (63.9)	1630 (52.16)

Table-2: Association between Age and Various Variables

Questions	Age				Chi (p value)
	<25 (1049)		>25 (2076)		
	Yes (%)	No (%)	Yes (%)	No (%)	
Knows HIV is incurable.	970 (92.47)	79 (7.53)	1306 (62.90)	770 (37.10)	306.2 (<0.0001)
Know there is no vaccine for HIV	843 (80.36)	206 (19.64)	1188 (57.23)	888 (42.77)	162.9 (<0.0001)
Knows HIV is infectious?	519 (49.48)	530 (50.52)	658 (31.70)	1418 (68.30)	93.07 (<0.0001)
Tested for HIV once in life time?	766 (73.02)	283 (26.98)	1266 (60.98)	810 (39.02)	44.41 (<0.0001
Tested for HIV in last 6 month?	602 (57.39)	447 (42.61)	1028 (49.52)	1048 (50.48)	17.29 (<0.0001)

Table-3: Association of Literacy Status with Various Variables

Questions	Education				Chi (p value)
	Illiterate (522)		Illiterate (522)		
	Yes (%)	No (%)	Yes (%)	No (%)	
Knows HIV incurable	322 (61.69)	200 (38.31)	1867 (71.72)	736 (28.28)	20.4 (<0.0001)
Knows there is no vaccine for HIV	292 (55.94)	230 (44.06)	1657 (63.66)	946 (36.34)	10.7 (<0.0001)
Knows HIV is infectious	193 (36.97)	329 (63.03)	934 (35.88)	1669 (64.12)	0.179 (0.67)
Tested for HIV ever	309 (59.2)	213 (40.8)	1723 (66.19)	880 (33.81)	9.05 (0.002)
Tested for HIV in last 6 month	246 (47.13)	276 (52.87)	1384 (53.16)	1219 (46.84)	6.12 (0.013)

Table-4: Association of HIV Status and Various Variables

Variable		HIV Positive				
		Yes (%)	No (%)	Don't Know/ No Answer (%)	Total	Chi sq. p value
Age	< 25 (1049)	21 (2)	890 (84.84)	138 (13.15)	1049	150.5, <0.0001
	> 25 (2076)	48 (2.31)	1332 (64.16)	696 (33.52)	2076	
Education	Illiterate (522)	10 (1.91)	348 (66.66)	164 (31.41)	522	10.5, 0.0052
	Literate (2603)	57 (2.18)	1905 (73.18)	641 (24.62)	2603	

Discussion

We assessed 3125 HRGs comprising of FSWs, IDUs, MSMs and SMMs. In our HRGs, mean age of SMMs was 27.19 years but it was 24.2 years in a study by L. C. Mullany et al[3] and median age of FSWs was 32 years in contrast to 28 years as per BSS[4]. We found half of the IDUs were illiterate whereas it was less than 1% as per IBBS in Nepal[5] and among FSWs 30%were illiterate in our study and 41.8% were illiterate as per BSS[4]. As regard to HIV, 98.5% FSWs had heard of HIV in our study and same percentage of FSWs had heard of HIV as per BSS.[4] All IDUs had heard of HIV/ AIDS as per our study and IBBS.[5] Among SMMs 81.26% had heard of HIV whereas 92% of them had heard of HIV as per L. C. Mullany et al.[3] A study on FSW Lau JT et al reported that 90% had heard of AIDS[6] and as per BSS 72% had heard of AIDS in contrast to 98% in our study. Knowledge about infectious nature of disease may play an appreciable role in preventing the spread of HIV/AIDS and we found that the knowledge of the same was present in all IDUs, more than half of MSMs, one third FSWs and one third SMMs in our study.

Knowledge about incurability of HIV among HRGs may make them more concerned for using preventive methods and 65% of FSWs knew that HIV/AIDS cannot be cured[6] in contrast to 86.7%% in our study. HIV testing among HRGs at periodic intervals and at least once in life time indicate their awareness about high probability of contracting the disease and proxy indicator of utilization and accessibility of services and attitude of health care provider. In our study 90% FSW underwent HIV testing once in their life time and it was 38% in another study.[4] All IDUs were tested once for HIV in their life time and about 51% IDUs had undergone testing once in their lifetime as per IBBS.[5] Among migrants, in our study 57 % had been ever tested once in their life time and 2.3% migrants reported to be ever tested for HIV as per Na He et al.[7]

HIV affects the sexually active and economically productive age group. So knowledge among younger adults (<25 years) about the disease was compared with adults more than 25 years and we found that young adults were better informed about infectious nature of disease, its incurability and nonexistence of vaccine and it was statistically highly significant for knowledge about incurability of HIV disease and the knowledge of infectiousness of the disease. Also they had undergone HIV testing once in life time and last 6 month in higher percentage as compared to adult more than 25 years and it was statistically significant. Similarly education status showed that illiteracy was associated with lack of awareness about incurability of disease and non-existence of effective vaccine and it was highly statistically significant.

Literate HRGs had undergone HIV testing in higher percentage once in their lifetime as well as

in last 6 months as compared to illiterate HRGs and this was statistically highly significant. Also percentages of HRGs revealing their positive HIV status were higher among literate as compared to illiterate HRGs and it was statistically highly significant.

Conclusion

Thus young and literate HRGs were found to be more aware about HIV/AIDS and it indicates that our efforts should be more targeted towards adults and illiterate HRGs. Our IEC to be more effective must concentrate more on SMMs and IDUs as these groups have poor knowledge about basic of HIV/AIDS and they are also poorly availing services of HIV testing centres.

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