Behavioural Surveillance Survey Among Troops in a Large Military Station

Col GS Saiprasad*, Lt Col A Banerjee⁺, Lt Col SL Jadhav[#], Maj PK Sahoo^{**}, Shri SSL Parashar⁺⁺, Shri DR Basannar^{###}

Abstract

A cross sectional survey was carried out among the troops located in a large cantonment using the UNAIDS standard survey questionnaire (UN Best Practice Collection) for Behavioural Surveillance Survey (BSS). A total of 556 randomly selected recruits and soldiers were administered the questionnaire. The median age at first sexual encounter was 25 years for service personnel and 18 years for recruits. 5.5% of the recruits and 1.7% of regular soldiers reported having regular sexual partners other than spouse. Among those who had casual sex 46.3% reported using condoms. 52.3% were aware about the two main preventive indicators. Some incorrect beliefs regarding transmission of HIV/AIDS were also present among some of the respondents. The findings have been discussed in relation to previous studies.

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Key Words : AIDS; Behavioral Surveillance Survey; HIV; Troops

Introduction

The epidemic of HIV/AIDS in India has emerged as one of the most serious public health problems in the country [1]. HIV is not an infection that spreads randomly. It is transmitted as a consequence of specific behavioural patterns.

The major objective of National AIDS Control Programme Phase II (NACP-II), is reduction in spread of HIV infection in the country on a long term basis. Monitoring and evaluation has been given key importance in NACP-II. This is being done through a regular Computerised Management Information System and through conduct of a series of Behavioural Surveillance Surveys (BSS) in the general population, bridge populations and the high risk groups. Population surveys have a central role to play in the measurement of two of the main determinants of rate of HIV transmission : number of sexual partners and use of condoms during intercourse. Reduction in number of sexual partners and increase of condom use during casual sex are two of the key behavioral preventive indicators for monitoring the impact of prevention programmes [2,3]. The present article gives the findings of a baseline BSS which was conducted among the troops located in a large military station.

Material and Methods

A cross-sectional survey was carried among the troops located in a large military station using the UNAIDS standard survey questionnaire recommended for population surveys [2]. In the absence of data on proportion of men reporting sex with partners other than spouse in the last twelve months the sample is expected to consist of 800 men

aged 15-49 years age group [2]. Accordingly a total of 450 soldiers and 450 recruits were selected by two stage cluster sampling technique. In the first stage, cluster was randomly selected (platoon in case of recruits and platoon/company in case of soldiers). Total of 30 clusters were thus selected. In the second stage, 30 persons were randomly selected from these clusters using random number tables. The survey were randomly conducted between Oct 2001 and Jan 2002. However, owing to prevailing situation and movement of the troops only a total of 556 persons (438 recruits and 118 service personnel) have been studied so far. The purpose of the study and the questionnaire was explained to the selected respondents in batches after which the individuals themselves completed the questionnaires. Anonymity was ensured. Two call back visits were made in case an individual was not present on day of interview. A field check to ensure complete and proper filling up of the questionnaire was carried out immediately after the individual had completed the questionnaire with the consent of the individual and assuring full confidentiality. Data compilation and analysis was done using computers. Standardization and uniformity during the survey were ensured by a series of training workshops for the field personnel.

Results

Respondent Profile

A total of 556 respondents were contacted in the station during the baseline survey. Out of these, 438 were recruits and 118 were service personnel comprising officers, JCOs and NCOs. The median age of recruits in the sample was 19 years. It was 31 years for the sample of service personnel. Among the recruits only 9 (2%) were married whereas among service personnel 95 (80.5%) were married. Only about 1.8% overall had education of less than 10 years. Among the recruits majority (58%) were Sikhs, 35.2% were

*Professor & Head, ⁺Associate Professor, ⁺⁺Senior Lecturer, ^{###}Scientist 'D', Department of Preventive and Social Medicine, Armed Forces Medical College, Pune - 411 040, [#]DADH, Head Quarter 14 Division, C/o 56 APO, ^{**}Officer Commanding, SHO (L), Jhansi.

Table 1

Awareness regarding three main preventive indicators

	Not heard of AIDS			Heard of AIDS		Not stated	Total
		No effective practice endorsed	One practice endorsed	Two practices endorsed	Three practices endorsed		
Recruits	29 (6.6%)	55 (12.6%)	68 (15.5%)	95 (21.7%)	185 (42.2%)	6 (1.4%)	438 (100%)
Service personnel	4 (3.4%)	4 (3.4%)	11 (9.3%)	17 (14.4%)	(42.81) (68.6%)	1 (0.9%)	118 (100%)
Total	33 (5.9%)	59 (10.6%)	79 (14.2%)	112 (20.1%)	266 (47.8%)	7 (1.3%)	556 (100%)

Effective practice : no casual sex, condom use and injecting with clean needle

Table 2

Number of reported episodes of urethritis in the last 12 months

Penile discharge	Number of episodes				Total
	0	1	2	3+	
Recruits	431 (98.4%)	6 (1.37%)	1 (0.22%)	-	438 (100%)
Service personnel	113 (95.76%)	-	2 (1.69%)	3 (2.54%)	118 (100%)
Total	544 (97.84%)	6 (1.08%)	3 (0.54%)	3 (0.54%)	556 (100%)

Hindus and 6.8% were Muslims. Among service personnel 90% were Hindus.

Awareness about Preventive practices

The awareness level of respondents regarding the three main preventive practices (no casual sex, condom use and injecting with clean needle) is given in Table 1.

Overall, 94% had ever heard of HIV/AIDS. Only 62.41% were aware that having one faithful sex partner could prevent transmission of HIV/AIDS. 80.5% of service personnel were aware compared to only 57.5% of recruits. 67.98% were aware about role of consistent condom use in prevention of HIV/AIDS. Some incorrect beliefs regarding transmission of HIV/AIDS like transmission by mosquito bites (22.66%) or by sharing a meal with an infected person (20.32%) were also present.

Awareness, Prevalence and Treatment Seeking Behaviour in STDs

A small proportion 12 (2.15%) of respondents stated that they suffered from genital discharge in the preceding 12 months (4.2% in service personnel and 1.6% in recruits). Only 1 (0.18%) person reported suffering from genital ulcer. The distribution according to number of reported episodes of urethritis in the last 12 months is given in Table-2. Among respondents with one or more reported STD episodes, number seeking treatment from specified persons is given in Table 3.

Awareness, Availability and Accessibility of Condoms

The distribution of respondents according to knowledge of source of condoms is given in Table 4.

Table 3

Number with self reported urethritis seeking treatment from various sources

No treatment	04
Advice	Advice from friend/relative 01
	Advice from traditional healer 02
	Advice from clinic, hospital or health worker 04
Treatment	Used medicines at home 02
	Free drugs from clinic, hospital or health worker 02
	Bought medicine from clinic, hospital or health worker 02
	Bought medicine from pharmacy or home 01
Other	00
Total	12

Table 4

Knowledge of source of condoms

	Condoms not known	Condoms known but not source	Source known	Total n
Recruits	75 (17.1%)	69 (15.8%)	294 (67.1%)	438 (100%)
Service personnel	04 (3.4%)	7 (5.9%)	107 (90.7%)	118 (100%)
Total	79 (14.2%)	76 (13.7%)	401 (72.1%)	556 (100%)

Sexual Behaviour

The median age at first sexual exposure was 25 years for service personnel and 18 years for recruits. A total of 24(5.5%) recruits reported having regular partners other than spouse (sexual relationship of more than 1 year

Table 5

Reported number of non regular sexual partners among sexually active individuals

	No of non-regular partners						Mean	Total
	0	1	2	3	4	5+		
Recruits	34 (44.2%)	32 (41.5%)	4 (5.1%)	4 (5.1%)	-	3 (3.9%)	3	77 (100%)
Service personnel	91 (89.2%)	3 (2.9%)	2 (1.9%)	-	-	-	1	102 (100%)
Total	125 (69.8%)	35 (19.6%)	6 (3.3%)	4 (2.2%)	-	3 (1.7%)	2	179 (100%)

Table 6

Type of non-regular partners

	Stranger		Not a stranger		Not stated	Total
	Paid	Not paid	Paid	Not paid		
Recruits	7 (16.28%)	10 (23.25%)	8 (18.60%)	17 (39.53%)	1 (2.33%)	43 (100%)
Service personnel	1 (09.09%)	2 (18.18%)	1 (09.09%)	2 (18.18%)	5 (45.45%)	11 (100%)
Total	8 (14.8%)	12 (22.22%)	9 (16.67%)	19 (35.19%)	6 (11.11%)	54 (100%)

duration) whereas only 2 (1.7%) of service personnel reported having regular partners. Only 5 persons reported having more than one regular partner other than spouse.

Reported Non regular partners

Among all persons who had been sexually active, percentage distribution according to number of non regular partners is given in Table 5.

Characteristics of Non Regular Partner

Among those who had non-regular partners, percentage reporting payment of money/partner was a stranger is given in Table 6.

Condom use in the most recent sexual intercourse

Among all those who had non-regular partners (n=54) distribution according to condom usage during recent act is shown in Table 7.

Table 7

Condom use rates in casual sex

	Condom use			Total n
	Yes	No	Not stated	
Recruits	21 (48.8%)	22 (51.2%)	Nil	43 (100%)
Service personnel	4 (36.3%)	2 (18.2%)	5 (45.4%)	11 (100%)
Total	25 (46.3%)	24 (44.4%)	5 (9.3%)	54 (100%)

Other Salient Observations

A total of 41.2% reported watching TV at least once a week, 31.7% listened to radio at least once a week and only 26.4% of people reported reading newspaper once a week or more. Overall, 12 (2.16%) respondents reported that they knew or heard of somebody suffering from HIV/AIDS. 76.2% of recruits and 78.1% of the service personnel stated

they were not at risk of acquiring HIV/AIDS. Only about 37.1% person (30.1% of recruits and 62.7% of service personnel) felt that a person with AIDS should be allowed to work in the office.

Discussion

Overall, 94% had ever heard of HIV/AIDS. This is higher compared with findings of BSS carried out by NACO which reported an average awareness of 76.1% with wide variation between different states. As majority of the present population hail from the northern belt, the findings correlate more with findings in northern states which reported awareness of more than 80% [3].

Reducing the number of sexual partners has been widely promoted as one of the prerequisites of safe sex practices that can effectively prevent HIV spread. Only 62.41% were aware that having one faithful sex partner could prevent transmission of HIV/AIDS. 80.5% of service personnel were aware compared to only 57.5% of recruits. This is slightly higher than findings of NACO which reported an overall awareness of 57% [3]. Other studies among school children have reported awareness level 71.9% as regards role of one partner [4]. 67.98% were aware about role of consistent condom use in prevention of HIV/AIDS (77.96% among service personnel and 65.29% among recruits). NACO reported an overall awareness of 58.9% with wide urban, rural and interstate variation. More than 75% of respondents in the northern states were aware about role of condoms, this correlates more with the findings of present study [3]. Studies carried out among recruits by earlier workers have reported a higher awareness level of 76.3% [5] and 87% [6].

52.3% (72% service personnel and 47% recruits) of respondents were aware about the two main preventive indicators i.e. condom usage and having one faithful partner. This is higher compared to study by NACO which quoted 46.8% awareness as regards the two main preventive indicators [3]. Some incorrect beliefs regarding transmission of HIV/AIDS like transmission by mosquito bites (22.66%) or by sharing a meal with an infected person (20.32%) were also present.

Self reported incidence of STD based on whether the respondents had symptoms suggestive of urethritis or genital sore within the last one year was assessed. A total of 12 (2.16%) respondents reported history of having suffered urethritis in the last one year and 5 (0.9%) gave history of suffering from genital sore. Service personnel with a self reported prevalence of urethritis at 4.2% had a higher rate as compared to recruits (1.6%). NACO reported 3.4% urethritis and 2% genital ulcers among males in the general population [3].

In the present study 85.8% of respondents had heard about condoms (82.9% of recruits and 96.6% of service personnel). This is slightly higher than findings by NACO, which reported that 80.1% had heard/seen a condom. There are still significant proportions (14.2%) who have not heard about condoms. Awareness about condom should be universal in order to combat HIV/AIDS. Only 72.1% of respondents were aware about the source of condoms.

The median age at first sex was 25 years for service personnel and 18 years for recruits. NACO reported an overall median age at first sex as 19 years, this is closer to findings among recruits who are generally young and not yet exposed to service conditions [3].

Overall a total of 48 (26.8%) respondents who were sexually active reported having non-regular partners in the last one year. 55.6% of sexually active recruits had non regular partners as compared to only 4.8% of service personnel. This could be partly explained by the fact that 80.5% of service personnel were married as compared to only 2% of recruits. This is considerably higher compared to findings by NACO which reported an overall 6.6% of respondents reporting sex with non-regular partners [3].

Overall 13.8% (15.7% recruits and 5.9% soldiers) gave a history of premarital/extra marital sexual intercourse. This is comparable with study among recruits in India which reported 16% [5] and 12.6% [6]. Other studies in India by Bhattacharjee et al among school teachers reported 21.8% premarital and 13.1% extra marital sexual intercourse, which is much higher than present findings [7]. Sharma et al reported 23.4%

of senior secondary school boys giving history of having sexual intercourse [8]. 46.3% of respondents having non-regular partners had reported using condoms during last intercourse. 48.8% of recruits used condoms as compared to only 36.3% of service personnel. NACO reported 49.3% of respondents who had non-regular partners using condoms during last intercourse [3]. This is significantly higher compared to previous findings of condom use among recruits of only 19.48% [5].

The baseline data showed that though 94% of respondents had heard of HIV/AIDS, only 47.8% were aware about the three main preventive indicators i.e. role of condoms, being faithful to one partner and use of sterilized needles for injection. Awareness about role of consistent condom use was lower among recruits (65.3%) as compared to service personnel (78%). This is particularly important considering the fact that 55.6% of sexually active recruits reported having non regular partners and only 48.8% of them had used condoms during last intercourse. A significant proportion had misconceptions on mode of spread like transmission through mosquito bites or sharing a meal with an infected person. These are required to be combated in order to combat discrimination against persons living with HIV/AIDS.

Among the sexually active population, about 26.8% reported having sexual intercourse with non-regular partners. Proportion was higher among recruits (55.6%) as compared to service person (4.8%). This difference is partly explained by higher proportion of married persons among service persons. Further, only 48.8% of recruits and 36.3% of service persons had used condoms during the last sexual intercourse. Only 68% were aware about the preventive role of condoms. These observations reveal that IEC activities need to be strengthened in the regimental/recruiting centres where recruits are present for considerable duration of time. Imparting knowledge at the time of entry into service where majority is yet to start their sexual activity will go a long way in combating HIV/AIDS.

To conclude, the authors want to emphasize that the present study is one of the first of similar studies which need to be carried out using the same study instrument at intervals of 2-3 years, to monitor the changes in sexual behaviour as a result of AIDS education activities. Though the results of the study have been compared with other studies, it should be emphasized that except for the BSS carried out by NACO, none of the other studies have used the instrument advocated by UNAIDS for international comparison. On the other hand, though the present study has used the instrument advocated by UNAIDS, it differs from NACO survey in that the present study sample was mostly composed of

unmarried recruits while the NACO survey was among the general population.

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