KNOWLEDGE, ATTITUDES AND RISK BEHAVIOUR IN RELATION TO AIDS/HIV AMONG RECRUITS OF A REGIMENTAL CENTRE

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ABSTRACT

A cross-sectional study to find out the knowledge, attitudes beliefs and certain behaviours in relation to HIV/AIDS among military recruits in a regimental centre was carried out in two stages. In the first stage all recruits reporting to a regimental centre between January-December 97, (n=913), were given a closed questionnaire to be completed anonymously. In the second stage 236 recruits were randomly selected for more detailed analysis for studying relationship of factors such as urban/rural residence, age and education with knowledge, attitudes and behaviours in relation to AIDS. Though there was a fairly good awareness of sexual routes of transmission only 38.88% of recruits were aware of parenteral routes of transmission. Only 47.75% of the recruits were aware of healthy carriers or asymptomatic transmission. Much gap between knowledge and practice of condom use was observed. About 17% of the recruits believed that AIDS is curable and 21.58% believed it to be non-fatal. Sociodemographic factors like urban/rural residence, age and education had little bearing on knowledge, attitudes and behaviour.

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KEY WORDS: AIDS;HIV; KAP; Military recruits.

Introduction

Behavioural sciences have been particularly neglected in STD research, though their importance in the prevention of AIDS and in the assessment of its effect is increasingly recognised [1]. National surveys were seen to have long-term benefits, to be costly and general in orientation, and to present methodological problems. Local, more focused surveys were seen to be of value in the short term, better aimed, economical and likely to lead to action [2]. Rapid assessment techniques, involving the use of small surveys, group interviews, and in-depth individual interviews with members of key target audiences can provide the preliminary information needed for health promotion programmes [3].

Recruits enrolled for military training are in the age group 17-23 years. They are on the threshold of the age group known epidemiologically to be at the highest risk for AIDS.

The aim of the present study was to provide descriptive information about knowledge, attitudes and beliefs and certain behaviours in army recruits with regard to HIV/AIDS.

The investigation was designed not to test any specific hypotheses but to meet a wide range of pragmatic information needs.

Material and Methods

A closed questionnaire in Hindi and English was administered to all recruits reporting to a regimental centre between January-December 97. In the first stage of the study the recruits (n=913), who reported to the training centre were administered the self administered questionnaire to be filled up in the absence of the investigators. In the second stage the same information was elicited from 236 recruits by personal interview technique (in depth individual interviews). Because of time and resource constraints information from all the 913 recruits could not be elicited by the interview technique, but nevertheless it provided the opportunity to test the validity of the self administered questionnaire technique. As the investigator did not attempt to test any hypothesis, no specific formulae for sample size calculation was used. Only time and resource constraints restricted the sample size to 236. The issue of pretesting and validating the questionnaire was tackled by adapting from already existing instruments which have been used by other workers in developing countries [3,4]. Also the results obtained by two different modes of eliciting information i.e. anonymously among 913 recruits and by personal interview technique among 236 recruits were comparable further validating the present instrument to some extent. The relevant portions of the questionnaire to elicit various informations were as follows:

Knowledge about AIDS

A detailed series of questions regarding specific areas of knowledge and the routes of transmission were asked such as:

- Whether someone who has AIDS virus but looks healthy can transmit the virus to others (asymptomatic transmission).
- Questions on sexual transmission modes; such as potential transmission by CSW's, having sex with a man/woman who has the virus, having sex with many people and sharing needles.
- Questions regarding casual routes of transmission such as contact with someone who has the virus-touching, sharing food, shar-

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ing a room, kissing, and mosquito bites.

-Other questions covered knowledge concerning curability and fatality of AIDS.

One point was given for each correct answer. The aggregate point on each individual provided an ordinal scale for assessing knowledge.

Attitudes about AIDS

Two distinct attitudes regarding AIDS were expected to be of major significance in determining behavioural response; the perceived seriousness of AIDS and perceived personal vulnerability to AIDS. If individuals did not regard AIDS as an important problem and/or did not think that they or their family members were personally at risk of HIV infection, the chances of changing behaviour in response to AIDS information might be low. These two beliefs were assessed through a number of questions.

Sexual risk behaviours

Although the range of information required on these aspects is wide, in practice the amount of data that can be collected on these subjects is limited by culturally defined reticence to talk about personal sexual behaviour. Still, a few questions regarding premarital/extramarital sex, and condom use were included.

Sociodemographic correlates

Relations of few predictor variables such as age, rural/urban background, education, etc with AIDS knowledge, attitudes and behaviour were studied, among 236 randomly selected recruits. Statistical analysis was done on Epi Info Public Domain Epidemiology and Disease Surveillance Software developed by Centre for Disease Control (CDC), Atlanta and WHO Global Programme on AIDS.

Results

Initial rapid assessment of AIDS knowledge, attitudes and behaviour

This is depicted in Table 1. Majority (76.67%) of the recruits were aware that AIDS is an infectious disease. The others ticked it as being a form of cancer, poisoning by drugs, etc. More than eighty four percent were aware of the sexual modes of transmission and 38.88 percent were aware of parenteral transmission. A few (13.33%), mentioned other casual routes of transmission which included sharing rooms with infected person, kissing, touching, sharing utensils/food, and mosquito bites. Only 47.74% of the 913 recruits were aware of healthy carriers of HIV. About 17% believed in a cure for AIDS and 21.58% believed that it is not fatal. More than 87% of the recruits were aware of condom as a preventive measure. Commercial sex workers (CSW's) were identified as the group most likely to get AIDS by 60.13% of recruits followed by homosexuals (51.80%).

Attitudes about AIDS

Most (90.14%), agreed that AIDS is an important public health problem in the country. About 43% were afraid of themselves being affected by AIDS. Most (88.61%), had no inhibition in discussing about AIDS with relatives/friends/peers. Ninety-two percent of the recruits were of the opinion that there should be some health education campaign against AIDS.

Sexual behaviour and condom use

About 16% of recruits admitted having premarital/extramarital sexual experience, out of which only 19.48% had used condoms for these encounters.

TABLE 1

Results of rapid preliminary KAP assessment among 913 recruits

Questions on	Response	No.	Percent
1. Knowledge			
a) Response to question What is AIDS?	Infectious disease	700	76.67%
b) Transmission knowledge (multiple answers)	Sexual transmission	772	84.56%
	Parenteral trans.	335	38.88%
	Others (casual route)	121	13.33%
c) Knowledge about Healthy carriers	Correct response	436	47.75%
	Incorrect response	477	52.25%
d) Belief in cure	Correct response	758	83.02%
	Incorrect response	155	16.98%
e) Question on fatality	Correct response	716	78.42%
	Incorrect response	197	21.58%
f) Knowledge about condom as preventive	Present	795	87.07%
	Absent	118	12.93%
g) Group likely to contact HIV infection (multiple answers)	Homosexuals	473	51.80%
	CSW's	549	60.13%
	Drug addicts	81	8.87%
	Others	32	3.51%
2. Attitudes			
a) Important problems	Yes	823	90.14%
	No	90	9.86%
b) Afraid of being affected by AIDS	Yes	394	43.15%
	No	519	56.85%
c) Afraid of someone in the family being affected	Yes	303	33.19%
	No	610	66.81%
d) Can discuss AIDS frankly with family/peer	Yes	809	88.61%
	No	104	11.39%
e) Should Govt have AIDS Edn programme?	Yes	841	92.11%
	No	72	7.89%
3. Sexual behaviour			
a) Pre/extramarital sex	Yes	154	16.87%
	No	759	83.13%
b) Use of condom for pre/ extramarital sex	Yes	30	19.48%
	No	124	80.52%

Urban/rural, age and educational differentials in knowledge score among the 236 randomly selected recruits

This is depicted in Table 2. As will be seen there was no statistically significant difference in knowledge scores in relation to urban rural background, age and educational level in the present study. It should be noted that all recruits studied were literates (having minimum 10th standard education), therefore the classical dichotomy into literate/illiterate was not possible.

Urban/rural differences in attitudes/beliefs and behaviours

Table 3 shows that there was no statistically significant differences in certain attitudes/beliefs and pre/extramarital sexual behaviour among recruits from urban and rural areas.

Discussion

Knowledge of HIV/AIDS is a necessary condition for safe behaviour, though awareness per se may not be sufficient. Ideally every individual should be able to discriminate effectively between potential routes as a guide to the adoption of specific forms of safer behaviour. The fact that in the present study only about 76% were aware of it being an infectious disease is not very encouraging considering that in similar surveys

TABLE 2

Urban/rural, age and educational differentials in knowledge score among 236 randomly selected recruits

Sociodemographic predictor	Mean knowledge score	SD	p-value
Residence			
a) Urban (n=31)	10.806	2.04	P=0.201 (Mann Whitney)
b) Rural (n=205)	10.383	2.24	
Age			
a) 17 years (n=13)	10.077	2.93	p=0.130 (Kruskal Wallis)
b) 18 years (n=45)	10.089	2.16	
c) 19 years (n=50)	10.020	2.23	
d) 20 years (n=72)	10.625	2.19	
e) 21 years (n=39)	10.718	2.13	
f) 22 years (n=10)	11.100	1.59	
g) 23 years (n=7)	12.000	2.08	
Education			
a) Graduate (n=21)	10.286	1.98	p=0.962 (Kruskal Wallis)
b) 12th Std (n=120)	10.446	2.29	
c) 10th Std (n=95)	10.463	2.20	

in developing countries overall figures varied between 64 to 99 per cent [4]. The present survey was carried out among individuals all of whom were literate, whereas the other studies have been carried out in the general populations which included illiterates and women. False positive beliefs-for example, that HIV can be transmitted through sharing utensils, food, insect bites might engender a feeling of helplessness so that no changes are made simply because so many are thought to be needed. Besides fatalism, they may lead to unwarranted discrimination and enforced isolation against those infected with HIV. Though the present

rate of 13.33% of such false beliefs cannot be directly compared with other population since the actual numbers of items canvassed in various studies differ, it is important to note that fairly high levels of such beliefs are not unique to developing countries. Contemporary survey in developed countries demonstrate similar erroneous beliefs [4].

Knowledge of asymptomatic transmission (47.75%) was low in the present study compared with findings of surveys in 15 Asian and African communities in which the levels of accuracy on this aspect ranged from 71% to 80% [4].

Similarly, knowledge about parenteral transmission (38.88%), was very low compared to the African and Asian studies which report more than 80% awareness on parenteral transmission [4].

False beliefs about curability and fatality, 16.78% and 21.58% respectively, are similar to findings from developing countries reported by Ingham [4], in which the range of these two false perceptions ranged between 14% to 40%. Such false beliefs have to be countered as they may possibly lead to false levels of security and increase risk behaviour.

Though 87.07% of the recruits had knowledge about condoms as a preventive measure only 19.48% of those who had experience of pre/extramarital sex (n=154), had used condoms for these encounters. This reinforces the observations by other workers that in sexual behaviour there is much gap between knowledge and behaviour [5,6]. Many factors not included

TABLE 3

Urban rural differentials in certain attitudes/beliefs and sexual experience among 236 randomly selected recruits

Attitude/belief behaviour	Residence			Statistical Significance
	Rural(%)	Urban(%)	Total(%)	
1. Fatality				
a) fatal	156 (76.09%)	23 (74.19%)	179 (75.85%)	p=0.817 (chi sq) OR=1.11, 95% CI = 0.47, 2.63
b) Non fatal	49 (23.91%)	8 (25.81%)	57 (24.15%)	
Total	205 (100%)	31 (100%)	236 (100%)	
2. Curability				
a) Curable	45 (21.95%)	3 (9.68%)	48 (20.34%)	p=0.179 (chi sq) OR=2.63, 95% CI=0.76, 9.03
b) Incurable	160 (78.05%)	28 (90.32%)	188 (79.66%)	
Total	205 (100%)	31 (100%)	236 (100%)	
3. Major public health problem				
a) Agree	179 (87.32%)	25 (80.65%)	204 (86.44%)	p=0.395 (chi sq) OR=1.65, 95% CI=0.62, 4.41
b) Don't agree	26 (12.68%)	6 (19.35%)	32 (13.56%)	
Total	205 (100%)	31 (100%)	236 (100%)	
4. Vulnerability				
a) Felt	121 (59.02%)	17 (54.84%)	138 (58.47%)	p=0.806 (chi sq) OR=1.19, 95% CI=0.55, 2.54
b) Not felt	84 (40.98%)	14 (45.16%)	98 (41.53%)	
Total	205 (100%)	31 (100%)	236 (100%)	
5. Pre/extra marital sex experience				
a) Present	34 (16.58%)	6 (19.35%)	40 (16.95%)	p=0.899 (chi sq) OR=0.82, 95% CI=0.31, 2.15
b) Absent	171 (83.42%)	25 (80.65%)	196 (83.05%)	
Total	205 (100%)	31 (100%)	236 (100%)	

in the present study are likely to influence behaviour.

The identification of commercial sex workers and homosexuals as the higher risk groups reflects the effect of the early publicity which accompanied the spread of the virus.

The concept of personal risk (in the present study 43.15% who were afraid of being affected by AIDS), or vulnerability is central to many theories of behavioural change. Most Asian communities surveyed reported less than 50% people expressing personal vulnerability [7], which was a function of the prevalence of AIDS and/or the intensity of public information campaigns.

The high degree of frankness (88.61%), in discussing AIDS with family members/peers and opinion for a Government health education programme (92.11%), indicates a fertile soil for well directed health promotion inputs on AIDS among the recruits. Subsequent discussion among peer groups as a result of such frankness and lack of inhibition will increase the 'herd immunity' against AIDS.

Information about early sexual activity is of obvious value in defining the onset of potential exposure to risk of HIV. Some social scientists doubt whether standardised surveys can yield valuable and valid data on sexual behaviour.

A huge cross cultural variability in the onset of sexual behaviour was demonstrated in 15 Asian and African studies [6]. At age 20, over 80% reported themselves to be virgins in Asian communities, whereas in African communities level of sexual experience was close to 90% [6]. The present findings of about 16% of the recruits having had sexual experience is in conformity with the Asian observations.

Lastly, the lack of urban/rural, age and educational

differentials in KAP among recruits can be taken advantage of to design a uniform health education package on AIDS and sexuality for recruits joining the regimental centres.

To conclude, the findings documented here have important implications for prevention efforts. They tell us where to focus prevention efforts. Repeated cross sectional surveys could yield an even better picture of how populations are changing and where future efforts might be focused.

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