Socio Behavioural Profile of HIV Positive DSC Personnel

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Abstract

Background : Few human immunodeficiency virus (HIV) positive Defence Security Corps (DSC) personnel reported for surveillance at one of the Air Force (AF) stations in 1992 and it was appropriate to study socio-behavioural profile of HIV positive DSC personnel to determine the reason for their vulnerability.

Method : The study was conducted among 46 HIV positive DSC personnel during 1992-2004 at various AF stations. Pretested questionnaires were introduced to the subjects to ascertain their demographic, social, educational and behavioural profile vis-à-vis their HIV-AIDS awareness.

Results : Majority of the subjects detected during pre-donation screening were middle aged, rural, semiliterate, (56.5%) and acquired the disease through heterosexual (95.66%) mode, mostly from commercial sex workers (CSWs). All were aware of HIV-AIDS prevention and most of them (77.2%) stated that condoms were easily available but 70.7% did not use the same for the fear of failure to perform under the influence of liquor. 74% subjects were found complying with medical instructions.

Conclusion : The study brings out a discernable gap between the knowledge and practice of safe sex. Adequate preventive knowledge did not always result in practice of safe sex.

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Key Words : Socio behavioural profile; HIV ; Condom gap.

Introduction

The relentless spread of human immunodeficiency virus (HIV) in the past few years has unfolded its grave health and socioeconomic consequences in a dramatic way. Armed forces community being derived from various social, economic, ethnic and regional groups are equally susceptible. It has been documented that HIV positivity rate is 0.40, 0.45 and 0.04 per thousand in Army, Navy and Air Force respectively [1]. The Defence Security Corp (DSC), which is a part of all the three services, is equally affected. Their life style, social structure, work pattern and service deployment makes them highly vulnerable. Studies have emphasised on assessment of social and behavioural determinants for planning of HIV/AIDS prevention programme [2]. Therefore it was decided to study socio-behavioural profile of HIV positive DSC personnel to ascertain the reasons for their vulnerability.

Material and Methods

The present study was conducted among 46 HIV positive, asymptomatic DSC personnel at various Air Force (AF) stations during 1992-2004. They were introduced with pretested questionnaire to ascertain their demographic, educational, social and behavioural profile along with their knowledge and awareness about HIV/AIDS. The data collected were tabulated and analysed.

Results

A total of 46 DSC personnel in the age group of 32 to 48 years at time of entry, with a mean age of 37.6 years were studied. Majority (65.21%) were educated up to VII standard and hailed from rural background 31 (67.39%). Fifteen (32.61%) subjects were married and staying with family, 19 (41.3%) were married but separated due to various reasons and 12 (26.08%) were widower at the time of investigation.

Majority of subjects (65.21%) were detected at the age of 28-32 years. Twenty six (56.52%) personnel came under surveillance while under going screening for blood donation, 10 (21.73%) while taking treatment for tuberculosis and five (10.87%) each while getting treated for herpes zoster and sexually transmitted infections (STI).

Forty four (95.66%) subjects acquired the infection by heterosexual mode of which 10 (21.74%) had single, 14 (30.43%) had double and 20 (43.48%) had multiple sexual exposure. All 34 (73.9%) personnel who had two or more sexual exposures had the experience with different partners. 36 (78.26%) had sex with commercial sex workers (CSW) and rest of eight (17.39%) had the experience with amateur/casual workers (Table 1). Instances of premarital sexual experience were more (56.5%) as compared to extramarital exposure (39.1%). All the respondents demonstrated that they had fairly good knowledge about HIV/AIDS, its mode of transmission, frivolousness of social and casual contacts with HIV positive individuals and its prevention. All of them had acquired this knowledge from their regimental medical

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Table 1

Mode of HIV contraction according to number of exposure

Mode of HIV Acquisition	Number of exposure				Total
	Nil	Once	Twice	More	
Premarital					
Heterosexual	-	08	08	10	26 (56.52)
Homosexual	-	-	-	-	-
Blood transfusion	-	-	-	-	-
Other (nknown)	-	-	-	-	-
Post marital					
Heterosexual	-	02	06	10	18 (39.13)
Homosexual	-	-	-	-	-
Blood transfusion	01	-	-	-	01 (2.17)
Other (unknown)	01	-	-	-	01 (2.17)
Total	02 (4.34)	10 (21.74)	14 (30.43)	20 (43.48)	46 (100.00)

Figures in the parenthesis indicate percentage

Table 2

Awareness of HIV/AIDS according to source of knowledge

Awareness about HIV/AIDS	Source of Knowledge				Total
	Unit RMO	Unit Cdr	Media, TV/Radio	Hospital/ SMC	
What is HIV/AIDS	46	26	46	46	46
Modes of transmission	46	26	46	46	46
How isn't it transmitted	46	26	46	46	46
Modes of prevention	46	26	46	46	46

officers (RMOs), the local hospitals/ medical inspection (MI) rooms and media (Table 2). Forty four (95.96%) of them were sure that they were aware of HIV/AIDS prevention before the exposure.

Thirty six (81.82%) individuals had consumed liquor and four (9.09%) had taken some kind of local drugs prior to exposure while, 36 (81.82%) individuals had been to CSW while on transit for leave and temporary duty (TD). Four (9.09%) individuals exposed themselves on reporting to new unit, where as four (9.09%) had been having promiscuous sex while at the parent unit only. Forty (90.90%) individuals stated that CSWs were easily accessible at the places of exposure as compared to four (9.09%) who expressed difficulty in such access. Four (9.09%) individuals stated that they had condom with them, 30 (68.18%) stated that the same was otherwise available as compared to 10 (22.72%) subjects who stated that they did not have any access to condoms at the place of exposure (Table 3). Ten (22.73%) subjects stated that they did not have access to condom and therefore fell prey to circumstances. 31 (70.45%) respondents stated that under the influence of alcohol although their desire was heightened, yet they had physically partial arousal and under such circumstances with a fear of failure to initiate the act, they could not waste time on using the condom (Table 4).

Thirty four (73.71%) subjects stated that they were using condom with their regular partner at the time of study and 36 (78.26%) informed that they were not indulging in promiscuity now. All individuals stated that they declared their HIV status

Table 3

Availability of condom and accessibility to CSW

Availability of condom	Accessibility to CSW at Transit/ New or parent unit		Total
	Easily accessible	Not easily accessible	
Available with self	04	—	04 (09.09)
Available other wise	30	—	30 (68.18)
Not available	06	04	10 (22.72)
Total	40 (90.90)	04 (9.09)	44 (100.00)

Figures in the parenthesis indicate percentage

Table 4

Reasons for not using condom

Reasons	No. of respondents
Fell prey to the circumstances where condoms were not available	10 (22.73)
Never came to mind	01 (2.27)
Never used before	01 (2.27)
Interfere with sexual pleasure	01 (2.27)
Fear of failure to initiate the act if wasted time on using condom	31 (70.45)
Total	44 (100.00)

Figures in the parenthesis indicate percentage.

Table 5

Post acquisition behaviour

	Yes	No
Using condom with regular partner	34 (73.91)	12 (26.08)
Avoiding promiscuity	36 (78.26)	10 (21.73)
Screened family members	10 (21.73)	36 (78.26)
Declaring HIV status if needed	46 (100.00)	—
Complying with medical instructions	46 (100.00)	—

Figures in the parenthesis indicate percentage.

where needed and were complying with medical instructions. Twelve (26.08%) individuals denied use of condoms with their partners and 10 (21.73%) of them even appeared to be indulging in promiscuity (Table 5).

Discussion

Shepherd [3] identified a statistically significant interaction between level of education and HIV acquisition. The risk of contracting HIV was significantly high for illiterate men as compared to men with some education. Nearly 67.4% of the subjects were from rural areas and were married but separated or single widower. Studies [3,4] have documented that rate of contraction of HIV is significantly higher among the rural subjects and those living separated from their families because of occupation and employment.

Nearly 56.5% were detected while undergoing screening for blood donation and 43.5% while undergoing investigation for chronic infections. Similar findings have been documented by a study in Indonesia [5] where

61% HIV positivity was detected in predonation screening, 30% in voluntary screening and 9% while investigation for certain chronic infections. The mean age of detection (31.9 years) was commensurate with findings of a similar study where the age was 32.7 years with 90% belonging to the age group of 20 - 40 years [6].

In the present study 95.7% subjects acquired HIV through heterosexual mode. 78.2% of the subjects had sexual experience with CSWs while 17.4% had the same with amateurs. Among those who had heterosexual exposure, 73.8% had two or more exposures. Studies in India [4, 6] have documented heterosexual transmissions as the principal mode of HIV acquisition and the main source of infection has been CSW (43.4%) followed by the amateurs (30.9%) [7]. Chances of HIV acquisition increases with increase in the number of exposures further compounding complications like contracting different subtypes of the virus prevailing in the different geographical zones [8].

Instances of premarital sexual exposures were high (59.1%) as compared to the post marital exposure (40.9%). However, majority of the subjects (31.8%) who belonged to 30-35 years age group had extra-marital sexual exposure. An earlier study [7] among defence personnel has recorded that promiscuous sexual behaviour is not peculiar to unmarried subjects only, the married and widowers are equally susceptible. It has been documented that marriage as an institution has hardly any role to play in acquisition of HIV for men and extramarital sexual relations play a major role in HIV transmission among the married men in the age group of 35-40 years [8].

Study revealed that all subjects were aware of the various facets of prevention and control of HIV/AIDS. It is also gratifying to note that unit RMOs, commanders, hospitals, station medicare centres and media had played a major role in disseminating the knowledge. Unfortunately, even with high awareness, the protection has been frivolous. A study [9] to evaluate changes in AIDS related risk in adults in context of knowledge of HIV prevention, did not find any change in personal life circumstances. Another study [10] documented that separated married subjects did not apply the existing knowledge while indulging in risk behaviour.

82% subjects contracted HIV while on transit during leave/temporary duty as compared to 9% each, at the parent and new unit respectively. This envisages potentiality of HIV acquisition during long hours of transit station, bus terminus or transit camps. 81.8% stated that they consumed liquor and 9% stated that they took some pills given by their compatriots before indulging in the risk behaviour. It is pertinent that consumption of alcohol prior to risk indulgence is important because drinking

liquor is often governed by peer pressure, it heightens the sexual desire, it brings in self perception of invincibility and endows opportunities for commercial/casual sex neglecting norms of social conventions [7].

Nearly 77.2% subjects stated that condoms were easily available. Around 91% subjects stated that CSWs were easily accessible at transit points, parent and new unit locations. Nearly 70.7% stated that they could not use condom due to 'fear of failure to initiate the act' since they had partial arousal under influence of alcohol and therefore they did not want to waste time on condom. Although factors like condom availability and CSW accessibility are important in HIV acquisition but binge drinking as a reason for 'condom-gap' is unique and unequivocal [11]. 'Risk indulgence' in sexually promiscuous persons is not uncommon which is often compounded with 'poor and inconsistent condom habit', which has been reported in 85% of such cases [12].

Around 26% of the subjects were not using condoms with their regular partner and claiming to be abstinent with their spouses. About 23% of the same group also submitted that they had indulged in promiscuity even after acquiring the infection. The multitude of risk of such behaviour like transmission, reinfection and reinfection with different subtypes of HIV can be detrimental to such individuals [7]. Only 22.7% got their spouses and children screened as compared to 78.2% who could not undertake the same due to inaccessibility of testing facilities. However, all subjects stated that they had always declared their HIV status when needed and complied with medical instructions from time to time.

This is a descriptive study covering a small group of HIV positive men, therefore the results cannot be generalised. However, it has generated certain facets of HIV prevention, which need to be studied for planning preventive strategies and epidemiological research. The study brought out existence of a discernible gap between the knowledge and practice of safe sex. Most respondents had fairly good knowledge on prevention of HIV, however it was not always put into practice under the actual life circumstances. Future behavioural research should focus on this aspect.

Conflicts of Interest

None identified

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Quiz

Radiological Quiz

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A 54 year old obese lady presented with postprandial vague abdominal discomfort of two years duration. Computerised tomography (CT) scan of abdomen is shown in Fig 1.

What is your diagnosis?

Fig 1: CT scan abdomen

Answer to the quiz - page 370

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