

## Awareness and Misconception about HIV/AIDS Transmission among Selected Bangladesh Army Troops

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### Abstract

**Introduction:** AIDS is a fatal illness that breaks down the body's immune system, leaving the victim vulnerable to life-threatening opportunistic infections, neurological disorders or unusual malignancies, having no effective treatment till now.

**Objectives:** To assess the awareness and misconception about the transmission of HIV/AIDS among the troops of Bangladesh Army.

**Materials and Methods:** This cross-sectional study was conducted from September 2011 to December 2011 among purposively selected 125 troops of various Army units of Dhaka Cantonment, Bangladesh. Data were collected by face-to-face interview by pretested structured questionnaire and analyzed by software SPSS version 17.0.

**Results:** Among the 125 respondents, most (92%) of them were aware of the transmission of HIV/AIDS and having no significant misconception of its transmission. No association has been found between knowledge of HIV transmission and type of occupation.

**Conclusion:** Most of the troops of the Bangladesh Army were aware of the transmission of HIV/AIDS and misconception among them was very less. The authority should continue this status for the betterment of the country.

**Key-words:** HIV, AIDS, Awareness, Misconception, Bangladesh Army.

### Introduction

Acquired Immune Deficiency Syndrome (AIDS) is a fatal illness caused by a retrovirus known as the Human Immune deficiency Virus (HIV) that breaks down body's immune system, leaving the victim vulnerable to a host of life-threatening opportunistic infection, neurological disorders or unusual malignancies. The term AIDS refers only to the last stage of HIV infection. AIDS can be called modern pandemic, affecting both industrialized and developing countries<sup>1</sup>. Bangladesh is facing growing number of HIV prevalence among high-risk groups such as sex workers, injecting drug users (IDU), men who have sex with men (MSM), and migrants. Dire poverty, political instability, gender inequality, denial and social stigma

in Bangladesh, combined with low levels of education make HIV prevention a challenging task<sup>2</sup>. Like many other Asian countries, a good number of patients in Bangladesh have the history of unprotected sex by the commercial sex worker as well as homosexual activities, which is a major risk factor for transmission of HIV infection.

It has been noted that nearly one in five ever-married women who had heard of AIDS did not know if there was any way to prevent it and this was lower (6%) among men. Due to wide range of illiteracy and ignorance, the knowledge on HIV/AIDS among the people is limited. Every year approximately 250,000 people leave abroad for employment<sup>2</sup>. Migrant workers account for a significant number of HIV cases in Bangladesh, primarily because they are subjected to mandatory HIV testing. According to the ICDDR,B 47 of the 259 cases of people living with HIV between 2002-2004 had history of migration. Of these, 29 were males returning from abroad, seven were wives of migrant workers, and four were children of HIV positive migrant workers<sup>3</sup>.

Members of Bangladesh Army are frequently visiting and staying abroad on the event of 'UN Peace Keeping Mission' for a sustained tenure that is compulsory in nature. Usually, these UN missions are located in Africa continent, countries of which are highly exposed to HIV/AIDS and at the same time Bangladesh is one of the largest providers of troops to UN peacekeeping missions. Staying away from family for a prolong period, stressed life-threatening situation, lack of leave facility and amusement, exposed to unrestricted and easily accessible ethnicity for sex can direct Army personnel to get pleasure by unsafe sex, thereby obtain HIV infection. At the same time, soldiers of Bangladesh Army have a different prototype of duty differs from other government services, like restrained to cantonment area, harsh training schedule, droning duty pattern, less extent of social interaction and freedom. All these factors create potent aspiration to have substantial gratification of having sex with professional sex workers or with men whenever they loosen up<sup>5</sup>.

In Bangladesh, the HIV prevalence among the general public is not fully known; currently, available surveillance data only

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covers high-risk groups. This ambiguity is partly because voluntary and confidential counselling and testing (VCT) services are not widely available in Bangladesh<sup>6</sup>. In such circumstances, awareness on prevention of HIV/AIDS has no substitution which is required to be assessed. The study was conducted to assess the awareness and misconception of armed forces personnel on transmission of HIV/AIDS.

### Materials and Methods

This cross-sectional study was conducted from September 2011 to December 2011 among 125 serving soldiers of Bangladesh Army posted at different units of Dhaka Cantonment. The respondents were selected purposively. Data were collected through face-to-face interview using a pretested questionnaire. Prior to conduct the study ethical clearance was taken from Ethical Committee of Armed Forces Medical Institute (AFMI) and informed written consent was taken from the subjects. Respondent's awareness and misconception regarding transmission of HIV/AIDS were assessed through a structured questionnaire. Awareness on transmission regarding HIV/AIDS has been inquired under the heading of transmission through surgical procedure, breast milk and vertical transmission. Misconception regarding transmission of HIV was assessed in the heading of sharing utensils and through mosquito bites. Data processing and analyses were done using Statistical Package for Social Sciences (SPSS) version 17. Frequencies, percentage, mean and standard deviation (SD) were used for descriptive statistics. Chi-square test was used to evaluate association between variables.

### Results

Mean age of the respondents was 28.48± 6.4 years and more than half (51.20%) of the respondents were in the age group of 21-30 years. The majority were Muslim (96.80%) and married (66.40%), having the education qualification up to SSC (74.40%) followed by HSC (16.0%). Mean family income was 11307± 2879.86 taka and 53.60% of the respondents' monthly family income was between 10001-15000 taka. About 40.80% were general duty followed by tradesman (32.80%) and about 36.0% respondents were serving in army for 11-15 years (Table-I). Out of 125 respondents, 92.0% were aware of vehicle of transmission of HIV to a person through contaminated surgical procedure and 96.8% were aware of its transmission through breast milk. At the same time 97.6% were aware of the transmission of HIV/AIDS through vertical route. About 98.4% had awareness about the transmission through utensils and 84% through mosquito bites (Table-II). No significant association was revealed between the occupation of the respondents and awareness about HIV transmission through surgical procedure (Table-III). No significant association was revealed between the occupation of the respondents and misconception about HIV transmission through mosquito bite (Table-IV).

**Table 1:** Socio-demographic characteristics of respondents (n=125)

Socio-demographic characteristics		Frequency	Percentage
Age	Up to 20	12	9.60
	21-30	64	51.20
	31-40	43	34.40
	41-50	6	4.8
	Mean (SD) 28.48(±6.4) years		
Religion	Islam	121	96.8
	Hindu	4	3.2
Marital Status	Unmarried	42	33.60
	Married	83	66.40
Education	Up to Class X	12	9.60
	SSC and equivalent	93	74.40
	HSC	20	16.00
Monthly income (Taka)	5000-10000	51	40.80
	10001-15000	67	53.60
	≥150001	7	5.6
	Mean (SD) 11307 (± 2879.86)		
Occupation	General Duty	51	40.80
	Tradesman	41	32.80
	Others	33	26.40

**Table-II:** Distribution of respondents by status of awareness about transmission of HIV/AIDS (n=125)

Domain		Aware (%)	Not aware (%)
Awareness	Through Surgical Procedure	115 (92.0)	10 (8.0)
	Through Breast milk	121 (96.8)	4 (3.2)
	Vertical transmission	122 (97.6)	3 (2.4)
Misconception	Through sharing utensils	123 (98.4)	2 (1.6)
	Through mosquito bite	105 (84)	20 (16)

**Table-III:** Association between respondents' occupational status and awareness about the transmission of HIV through surgical procedure (n=125)

Occupational status	Transmission through surgical procedure			Statistics
	Yes	No	Total	
General duty	46 (36.8)	5 (4.0)	51 (40.8)	χ <sup>2</sup> =7.81 df=4 p > 0.05
Tradesman	41 (32.8)	0 (.0)	41 (32.8)	
Driver	16 (12.8)	2 (1.6)	18 (14.4)	
Cook	3 (2.4)	0 (.0)	3 (2.4)	
Others	9 (7.2)	3 (2.4)	12 (9.6)	
Total	115 (92.0)	10 (8.0)	125 (100.0)	

**Table-IV:** Association between respondents' occupational status and misconception of transmission of HIV by mosquito bite (n=125)

Occupational status	Transmission by mosquito bite			Statistics
	Yes	No	Total	
General duty	9 (7.2)	42 (33.6)	51 (40.8)	χ <sup>2</sup> = 9.45 df = 4 p > 0.05
Tradesman	3 (2.4)	38 (30.4)	41 (32.8)	
Driver	3 (2.4)	15 (12.0)	18 (14.4)	
Cook	2 (1.6)	1 (.8)	3 (2.4)	
Others	3 (2.4)	9 (7.2)	12 (9.6)	
Total	20 (16.0)	105 (84.0)	125 (100.0)	

### Discussion

In this study, 92.0% respondents were aware of transmission of HIV through contaminated surgical procedure, and 8.0% were not aware. It does not correspond with the 2005 population-

based survey report on AIDS awareness in Bangladesh where it was shown that 59% of ever-married women and 42% men of age group 15-54 years were not aware in this aspect<sup>6,7</sup>. The study revealed that 96.8% respondents were aware of transmission of HIV through breast milk. In a study by Hancock T et al<sup>8</sup> in 1999 among high school freshmen and senior students in California, USA, it was found that out of 40% of newborn children of HIV infected mother 25% were infected through breast milk. The awareness on transmission of HIV is quite high among respondents because of education, routine motivation and experience of UN mission service. In the present study it was observed that 97.6% of the respondents were aware and only 2.4% respondents were not aware regarding transmission of HIV through vertical route. It is consistent with a study carried out by Islam MT et al<sup>9</sup> among staffs of ICDDR,B in June 1998, where 82.7% respondents were aware of transmission of HIV regarding transmission of HIV through vertical route.

The study depicts that, only 1.6% respondent had misconception about the transmission of HIV by sharing utensil with AIDS patient and 16% respondents had misconception about transmission of HIV by mosquito bite. The findings are consistent with a study carried out by Oyewale TO<sup>10</sup> in Abuja, Nigeria in 2008 where 15.9% were reported to have misconception that HIV can be contracted through mosquito bite. It was found from the study that, respondents had no misconception about transmission of HIV by touching an AIDS patient, sharing bed or toilet with AIDS patient. This is inconsistent with the findings of Islam MT et al<sup>9</sup> among staffs of ICDDR, Bin June 1998, where 52% respondents had no misconception about transmission of HIV by sharing toilet with AIDS patient.

The association between the awareness or misconception of the respondents regarding the transmission of HIV/AIDS with occupation revealed no statistically significant relationship ( $p > 0.05$ ) (Table-III, IV). The reason for high awareness level maybe because most of the respondents completed their UN mission and from the experience they were aware of the transmission of HIV. Similarly, the misconception regarding transmission of HIV/AIDS through mosquito bites was less due to the fact that almost all the respondents had experience of

servicing in the Chittagong hill tracts which exposes them about the mosquito-borne diseases and its transmission.

## Conclusion

The overall awareness status of the respondents was better among the troops of the Bangladesh Army. Current data support to take appropriate measures to augment the awareness status regarding prevention of HIV/AIDS among the study population.

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