
AWARENESS ON HIV/AIDS AMONG THE BLOOD DONORS OF A
CITY HOSPITAL

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Abstract

This descriptive cross-sectional study was carried out on 'HIV/AIDS awareness' among the blood donors of Dhaka Medical College Hospital. The aim of the study was to assess the level of awareness among blood donors on HIV/AIDS and to assess their knowledge regarding its prevention and control. A total of 110 (87.3% male, 12.7% female) donors participated in this study. Their mean age was 24.9 ± 5.2 years. More than 60% of the respondents had primary or secondary level of education. Two-thirds (66.11%) of them donated blood for their relatives, while the rest did it for donation's sake.

Although 93.6% of the respondents heard about AIDS (TV being the most common source), none had a good or excellent level of awareness about the disease. About mode of transmission, 20.9% had average and very few had a good level of knowledge regarding its prevention.

When asked for an opinion about the country's risk for HIV/AIDS, more than half (54.2%) had the view that the country was at a risk from the disease and nearly three quarters (72.5%) were of the opinion that mass awareness campaigns on HIV/AIDS could improve the situation.

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Introduction

Human Immunodeficiency Virus (HIV) has spread relentlessly around the globe after the first clinical evidence of the disease named AIDS (Acquire Immunodeficiency Syndrome).¹ Once HIV starts damaging the human immune system it ultimately develops AIDS and ends in death.² More than 20 million deaths have occurred since the first AIDS case was diagnosed in 1981, and almost 38 million people (ranging 34.6-42.3 million) are living with HIV. The epidemic remains extremely dynamic, growing and changing characters as the virus exploits new opportunities for transmission.³ But knowledge about the virus and its transmission still remains incomplete.⁴

AIDS was first diagnosed in Bangladesh in 1989.¹ Surveys in Bangladesh show that most people who engage in high risk behaviours do not know how HIV

is transmitted and are unaware that their behaviour puts them at risk.⁵ In Bangladesh alarm bells began ringing on the blood safety front when the source of infection of about 150 odd known HIV positive people was traced to blood transfusions. The main culprit is a flourishing blood business established by professional blood donors and private, unregulated blood banks. The annual demand for blood transfusion in Bangladesh is estimated to be around 200,000 to 250,000 units. At present this demand is hardly met.⁶

A study was done in six different districts in Bangladesh among the professional blood donors about knowledge and attitudes of HIV/AIDS. A few of the respondents (10%) had heard of HIV/AIDS, with a further few having any knowledge on how it is transmitted. Although some were aware of AIDS as being a preventable disease, they had no information on how to prevent it.⁷

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Considering the global situation and the country's potential risk of having cases of AIDS in the near future, it was thought worthwhile to conduct a study among the high-risk population like blood donors to assess their knowledge about AIDS.

Materials and Methods

This descriptive study was conducted between March and June 2005. A total of 110 purposively selected blood donors at Dhaka Medical College Hospital (DMCH) blood bank were interviewed. A pre-tested structured questionnaire was prepared for face to face interview for data collection. The respondents' level of knowledge was measured on a 1 – 5 Likert Scale, where 1 meant 'grossly dissatisfactory' and 5 was 'excellent' with 'poor' 2, 'average' 3, 'good' 4 in between. There were 15 questions altogether – 11 questions for assessing the level of general awareness about the disease, 3 questions specifically for assessing the knowledge about mode of transmission and two questions particularly for determining their level of knowledge about the measures to be adopted to prevent the disease at the individual and national level. As there was more than one question in assessing the respondents' knowledge, combined scores were used to measure their level of performance.

Results

Of the total respondents, 50% were < 20 years of age, and almost all (95.5%) were less than 35 years, the mean being 24.9 ± 5.2 years. Majority (87.3%) of the respondents were males, most (83.6%) being Muslims, 10 (9.1%) were Hindus and the rest 8 (7.3%) Christians. More than 60% were married. Nearly half (48.2%) of them were secondary level educated, followed by 18.3% higher secondary, 13.6% primary, 10.9% post-graduate and the rest (9.1%) being graduate level educated. Over one-third (34.5%) of them were related to business, 20.9% were service-holders, 17.3% students, 10.9% house-wives and the rest had jobs like driving (7.3%) or others. A few (3.6%) were unemployed. Looking into the two groups of occupation, it was seen that knowledge on HIV/AIDS was significantly poor amongst the drivers, unemployed etc. compared with the service holders etc. (Table 1).

More than one-quarter (27.2%) had an income of < Tk 4000, about one-third (32.7%) had income between

Table-1: Association between occupation and level of knowledge about HIV/AIDS:

Occupation Group#	Level of knowledge			Chi-square value	p-value
	Average	Poor	Grossly dissatisfactory		
Group I	16 (84.2)*	27 (50.0)	4 (19.0)	17.162	0.001
Group II	3 (15.8)	27 (50.0)	17 (81.0)		
Total	19	54	21		

*Percentages in parentheses.

– Chi-square (χ^2) statistics was used to analyse the data and the level of significance was 0.05, with df 3.

– Group I comprised of Service-holders, housewives and students, while Group II consisted of businessmen, drivers, unemployed and others.

Tk 4000 – 6000, 11.8% between Tk 6000 – 8000, 10.9% between Tk 8000 – 10000 and the rest 17.3% had income of Tk10,000 and above. Knowledge on HIV/AIDS was significantly more among those who were bracketed in the well to do (Table 2).

Two-thirds (65.5%) of the respondents donated blood once in their lifetime, while 23.6% donated twice. The rest 10.9% did the same > 2 times in their lifetime. Nearly two-thirds (65.7%) of the respondents got information on AIDS from television followed by newspapers, friends, and posters. Books, AIDS patients and Health workers were not found to play any significant role in enriching the respondents' knowledge about the disease. Knowledge was associated directly with their level of education (Table 3).

Table-2: Association between income and level of knowledge about HIV/AIDS

Income (Tk)	Level of knowledge			Chi-square value	p-value
	Average	Poor	Grossly dissatisfactory		
<5000	2 (10.5)*	22 (40.7)	14 (66.7)	13.442	0.004
≥ 5000	17 (89.5)	32 (59.3)	7 (33.3)		
Total	19	54	21		

* Percentages in parentheses.

– Chi-square (χ^2) statistics was used to analyse the data and the level of significance was 0.05, with df 3

Table-3: Association between education and level of knowledge about HIV/AIDS

Education	Level of knowledge			Chi-square value**	p-value
	Average	Poor	Grossly dissatisfactory		
Primary-secondary	5 (26.3)*	35 (64.8)	17 (81.0)	13.935	0.003
Above secondary	14 (73.7)	19 (35.2)	4 (19.0)		
Total	19	54	21		

* Percentages in parentheses.

** Chi-square (χ^2) statistics was used to analyse the data and the level of significance was 0.05, with df 3

The respondents were asked about the mode of spread of HIV/AIDS. Of those who knew the answer, almost all of them said that one gets the infection by having sex with an infected HIV person (Table 4).

When asked about prevention of HIV transmission through blood, approximately 60% of the respondents said that it could be prevented by using screened blood, 42.7% said that the same could be prevented by using disposable syringes. Sixteen respondents (15.5%) however expressed their ignorance as to how it could be prevented. Regarding overall prevention of HIV/AIDS, 40% of the respondents believed that HIV/AIDS could be prevented by using condom while having sex, followed by 35.2% saying avoiding sex with infected persons, 22.5% said avoiding blade or razor sharing, and 12.7% said one should stick to social and religious bindings. Ten (9.8%) respondents frankly admitted that they did not have any idea about its prevention.

Table-4: Respondents' knowledge about mode of transmission of the disease.

Knowledge about mode of transmission	no	%
How does the disease occur:		
Sex with HIV infected person	63	95.4
Through breast feeding	54	82.3
Sharing infected needles	12	18.1
By needles/syringes	29	43.1
Homosexuality	14	21.2
Transfused with HIV infected blood	01	1.5

- Total will not correspond to 100% because of multiple responses.

Discussion

The mean age of the respondents was (24.84 \pm 5.15). Most of the respondents were males (87.3%) similar to another study conducted by Bhuiya *et al.*⁷ where the mean age of the respondents were 30 years. In this study, 93.6% of the respondents heard about HIV/AIDS. In a study by Shahidullah *et al.*⁸ some 97% of the respondents had heard the name of HIV/AIDS. Though not enough, most people at least seems to know about AIDS.

As a source of information, books and health workers were found to be the least helpful, and is also reflected in the study by Bhattacharya *et al.*⁹ Regarding knowledge about STDs and HIV, about 90% did not know what STDs means. When asked about relationship between STDs and HIV/AIDS, the majority (99%) of the respondents did not have any idea about this. Awareness of syphilis and gonorrhoea varied from 12% among teenagers to over 30% among women aged 30 years or older.

In this study 40% of the respondents believed that using condom could prevent HIV/AIDS that is consistent with a study conducted by NIPOORT in The Bangladesh Demographic and Health Survey (BDHS) 2004.¹⁰

In case of respondents' view about mode of transmission, 95% answered that it took place through sex with HIV infected person, more than 80% mentioned through breast feeding, 68% via infected blood, 44% by infected needles or syringes, 21.2% for homosexuality, and 18% for sharing needles (drug users). Bhattacharya *et al.*'s¹⁰ study on transmission of HIV/AIDS however showed somewhat contrasting figures, such as, 86% for sharing drug needles, 83% for picking up a discarded needle or syringe, 81% through sex with an injecting drug user, 75% for mother-foetus, 50% for donating blood and 44% through breast feeding.

This study reveals that most of respondents heard the name of HIV/AIDS but the overall awareness such as consequences of the disease, high risk groups and relation of HIV/AIDS with sexually transmitted disease is not sufficient. Knowledge regarding transmission and means of transmission is also not adequate. It is evident from the study that nearly one third of the respondents who had education above primary and secondary level had average knowledge about the disease. Awareness of HIV/AIDS is also more among the relatively high income group.

Conclusion

Despite the fact that till today, Bangladesh is a low prevalence country for HIV/AIDS, risky behavior all over the country and neighboring epidemic countries make Bangladesh vulnerable. In this study inadequate knowledge of the blood donors about HIV/AIDS make a potential risk of its outbreak in the near future if this knowledge gap is not addressed. The people will also not be able to protect themselves efficiently. This study suggests further work on HIV/AIDS awareness in the country among the different target groups who are at risk of developing the disease. Inadequate knowledge of the blood donors about HIV/AIDS makes a potential risk of its outbreak in near future if this knowledge gap is not properly handled.

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