

## KNOWLEDGE ON AIDS AMONG THE ADOLESCENT STUDENTS OF TWO SELECTED COLLEGES OF DHAKA CITY

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### Abstract

This descriptive study was conducted in Dhaka city among 139 adolescent students selected purposively from two colleges (one boy's and another girl's). To assess the level of knowledge on AIDS among them, a semi structured questionnaire was used. The mean age of the respondents was  $16.8 \pm 0.56$  years, and all were unmarried. Of them, 44% were in the Science group. Majority (81.3%) of them lived with their parents. The average monthly family income of the respondents was Tk. 15,053  $\pm$  13,453. Nearly all of them (91.4%) reportedly heard about AIDS primarily from the TV. 90% of the respondents mentioned that major routes of transmission were sexual, blood transfusion and sharing of needles among the drug addicts. Transmission through breast feeding and trans-placental transmission was known to few. Almost none (only 5%) knew that body's immunity is decreased by the AIDS virus. 90% respondents said avoiding of unprotected sex is the way for prevention. The role of screening of blood before transfusion and use of condom as prophylaxis was also mentioned by 64% and 48.9% of the respondents respectively. Thus, the overall findings of the study indicate that around half (56.1%) of the respondent's knowledge on AIDS was average, while 34.5% and 9.4% had poor and good knowledge respectively. Improvement of existing academic health educational programmes with introduction of sex education as well as utilizing the popular medias like TV are important avenues to make our adolescents aware and remain safe from the emerging dangers of AIDS.

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**Key Words:** HIV/AIDS, adolescents, awareness, Bangladesh

### Introduction

AIDS has become a major public health concern throughout the world and is taking a major toll of human lives and spreading relentlessly<sup>1</sup>. By the mid 1980's it was evident that the virus had spread largely unnoticed with a global effect<sup>2</sup>. WHO/UNAIDS estimates that world wide about 63 million men, women and children have been infected with HIV since the beginning of the epidemic<sup>3</sup>. In Bangladesh, the number of adolescents is around 31 million, or close to 26% of the total population<sup>4</sup>. Available statistics on AIDS patients since 1984 revealed quite a large number from this group of population<sup>5</sup>. It is estimated that about four million people have acquired HIV/

AIDS in the South East Asia region; the majority of new infection occurring during adolescence<sup>6</sup>.

Although Bangladesh has not reported any major figures of HIV/AIDS sufferers, little is known about its awareness amongst the adolescents. Various government and non-government agencies have conducted limited studies focusing primarily on adult population<sup>7</sup>. Adolescents, though vulnerable, have little or no knowledge on AIDS. This study was conducted on a number (139) of college going boys and girls to have some information about their awareness on this emerging problem in Bangladesh.

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## Materials and Methods

This descriptive type of study was conducted between April and June 2003. A total of 139 respondents were selected from two colleges, namely Notre Dame College (Boy's) and Siddeshwari College (Girl's) within Dhaka City. A face to face interview on the basis of their availability were conducted using a semi-structured questionnaire.

The students' knowledge on AIDS was calculated by constructing a score sheet. A total of 31 correct options were present against various questions on knowledge of AIDS. The following method was adopted for scoring:

Each correct answer = 1mark. A score of 3 was assigned to those who could answer  $\geq 3$  correct options against one question. A score of 2 was assigned when one answered at least 2 correct options against a question. A score of 1 was given for at least 1 correct option. Thus the total score for 31 correct answers was calculated, 31 being the highest achievable total mark. Based on this total score the following categories were made:

- Good knowledge: 20 - 31
- Average knowledge: 10 - 19
- Poor knowledge: < 10

All data were edited, compiled and analyzed using statistical SPSS10.1 program.

## Results

Of the total respondents 91 (65.5%) were in the age of 17 years, while 36 (25.9%) and 12 (8.6%) respondents were in the age of 16 years and 18 years respectively. The mean age of the respondents was  $16.83 \pm 0.56$  years. Males (69) and females (70) were almost equal. All the respondents were unmarried. Of the total, 113 (81.3%) respondents lived with their family, while the others had alternate arrangements. Their fathers had a higher education level than their mothers, fathers being mostly service holders while majority of the mothers were housewives. The mean monthly family income was Tk 15,053  $\pm$  13,453.

Regarding respondents' knowledge on AIDS, it was found that all the respondents heard about the name and 83 (59.7%) respondents also knew how it occurs. Almost all (96%) said that AIDS was transmitted through a sexual relationship with an AIDS infected

person, while 93% and 91% respondents respectively said that AIDS is transmitted through blood transfusion from AIDS infected patients and sharing of needle among drug addicts. However, 51 (36.7%) respondents said that AIDS is transmitted during pregnancy from an AIDS infected mother to her newborn and 13 (9.4%) said through breast-feeding. A small number mentioned polygamy, homosexuality and contaminated surgical instruments as being the cause of AIDS.

Respondents were asked about the consequence of AIDS. Their responses are shown in Table-1.

**Table-1:** Distribution of the respondents by their knowledge on consequences of AIDS

Knowledge about consequences of AIDS	No of Respondents	Percentage
Premature death	108	81.9
Decreased immunity of body	7	5.0
Easy entrance of other diseases	5	3.6
Not curable	26	18.7
Others (burden of society, social boycott etc.)	7	5.0

(Total percentage exceeds 100 due to multiple responses)

Prostitutes, blood receiver, sharing needle among drug addicts were high risk groups for contracting AIDS as stated by 133 (95.7%), 129 (92.8%) and 126 (90.6%) respondents respectively. Foetus of AIDS infected pregnant mothers, babies of nursing mothers and health personnel were also mentioned by some to be in the high risk group.

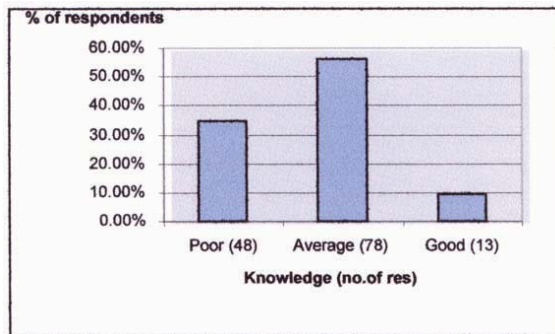
Respondents were asked about preventive measures of AIDS. Among them, 90% said that "avoiding unprotected sex" is the way to prevent AIDS while 64% stated that screening of blood before transfusion and one-half of them mentioned use of condom as a preventive measure. Other responses were: creating mass awareness (18%), using disposable syringes (15%), obeying social and religious customs (36%) and not to become pregnant from an AIDS infected person (5%). Interestingly most of them (91%) claimed TV as their source of information on AIDS.

The respondents' knowledge on AIDS was calculated as per the score described in the methods section. This is shown in Table-2.

**Table-2:** Composite table on scoring of respondent's knowledge on AIDS

Knowledge on different aspects of AIDS	Score obtained by the respondents on various options		
	Score 1	Score 2	Score 3
Transmission of AIDS	4 (2.9%)	3 (2.2%)	132 (94.9%)
High risk group for AIDS	15 (10.8%)	114 (82.0%)	10 (7.2%)
Prevention of AIDS	26 (18.7%)	72 (51.8%)	41 (29.5%)

Respondents' level of knowledge on HIV/AIDS was ascertained on the basis of score sheet. Out of 139 respondents 48 (34.5%) had a poor knowledge and 78 (56.1%) had an average knowledge on AIDS. Only 13 (9.4%) respondents were found to have a good understanding of AIDS (Fig 1).

**Fig-1:** Distribution of the respondents by their level of knowledge on AIDS

Although no statistical relationship could be established between the respondent's knowledge on AIDS and their socio demographic attributes, some significance was seen with their branch of study, i.e. whether they were in the Science, Arts or Commerce group. The students in the Science group seemed to be better informed ( $p < 0.05$ ) than the others (Table-3).

**Table-3:** Relationship between respondent's level of knowledge and branch of study (Science, Arts & Commerce)

Group (Science, Arts, Commerce) of Respondent	Poor Knowledge (%)	Average Knowledge (%)	Good Knowledge (%)	Total
Science	14 (23.0)	38 (62.3)	9 (14.8)	61 (100)
Arts	9 (37.5)	12 (50.0)	3 (12.5)	24 (100)
Commerce	25 (46.3)	28 (51.9)	1 (1.9)	54 (100)
Total	48	78	13	139

$$\chi = 10.750, df = 4, p = 0.030$$

## Discussion

This study attempts to determine the level of knowledge on AIDS amongst adolescent students. One male and a female college were selected for this purpose where the students were in their adolescence ( $16.8 \pm 0.56$  years). Similar age groups have been studied in China, Thailand, Zimbabwe and USA<sup>8-12</sup>. Almost all the respondents heard the name of AIDS which was also true in other studies conducted within the country<sup>13,14</sup>.

Similar to studies by Jingqi C *et al.*<sup>15</sup> and Bari MA *et al.*<sup>13</sup>, more than 90% respondents did mention sexual relation, blood transfusion and sharing of needles as a major route of transmission of AIDS. Although trans-placental transmission was mentioned by 94.3% respondents in a study conducted by Peking University, China<sup>15</sup>, this was relatively unknown in our respondents. The major consequence of AIDS that is decreased immunity and vulnerability to various diseases was not known to many.

While tabulating the score sheet, for disease transmission, 95% respondents received a score of 3. Study conducted in similar groups of respondents showed almost same level of knowledge (90%)<sup>13</sup>. Regarding high risk groups and prevention, majority of the respondents got a score of 2. The level of knowledge on HIV/AIDS focused that average knowledge was found among most of the respondents (56.1%). A similar study on Thai youths<sup>8</sup> revealed same findings. But the level was much lower in other studies<sup>(1,16)</sup> while in the University of Central Florida, the young college students were much more knowledgeable on HIV/AIDS<sup>10</sup>. The students belonging to the Science group were perceptibly more knowledgeable than the other groups. The reasons could be two. One, better students opt for the science group, and two, biology as a subject is covered in this group.

Almost all respondents (91.4%) mentioned the television as a source of information on AIDS. Several studies mentioned this as a powerful medium for gathering knowledge on recent topics including AIDS<sup>(7,12-14,16,17)</sup>.

## Conclusion

Respondents had very little knowledge on the consequences of HIV. Less than half had any knowledge

about the role of condoms in preventing AIDS. Most of the respondents got information from the TV regarding AIDS. Mass media like TV should be more frequently utilized to disseminate information on HIV/AIDS, by focusing in-depth discussion on the consequences and role of condoms in preventing AIDS. The focus group should primarily be the adolescents who seem to be the most vulnerable and least targeted.

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