A preliminary report on “knowledge, attitude, and practice” on “human immunodeficiency virus” among the students of a college in Bankura

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Abstract

Background: Human immunodeficiency virus (HIV) infection leading to acquired immunodeficiency syndrome (AIDS) is rising faster in Asia-Pacific region of the world. Although self-protection is the best preventive measurement for AIDS. Inadequate knowledge, negative attitudes, and risky practices are identified as the key factor for the AIDS. College students constitute a vulnerable group of AIDS due to their curiosity, lack of knowledge, and risk-prone behavior. Purpose: The study aims to examine the knowledge, attitude, and awareness about HIV infection/AIDS among a group of the college students’ in Bankura district, West Bengal. Method: This study was quantitative and cross-sectional, with a descriptive design. Students have performed self-completed questionnaire, designed to measure their knowledge, attitudes, and awareness to HIV/AIDS. Results: Of the college students, 82% were aware about HIV infection/AIDS. Of which, 4.60% were found outstanding and high level of knowledge and 11.50% of students with excellent knowledge. The major sources of information on HIV infection/AIDS to 80% of respondents were electronic media and print media. Conclusion: From the survey report, we can conclude that AIDS awareness among college students of the Bankura is not satisfactorily.

Key words: Acquired immunodeficiency syndrome, awareness, college students’ knowledge, human immunodeficiency virus, knowledge; attitude and practice

INTRODUCTION

The first case of acquired immunodeficiency syndrome (AIDS) was identified in the United States of America in 1981.¹² Since then, human immunodeficiency virus (HIV)/AIDS has spread drastically many countries over the years. Recent years, HIV/AIDS became a major global health challenges. This disease continues to affect more than millions of people around the world irrespective of their demographic status. In 2013, globally 35 million people were living with HIV infection and about 1.5 million deaths were recorded due to HIV infection/AIDS.¹³ In 2015, the number was about 36.9 million of people living with HIV infection/AIDS.

India is the second most populated country in the world and it has the third largest HIV (after South Africa and Nigeria) epidemic in the world. A recent study¹⁴ estimated that 2.1 million people live with HIV infection and AIDS (PLHA) in India. The decline tendency of HIV infection among the Indian is reported in only few cases. Most of the HIV-positive persons do not report due to the lack of awareness, fearing of social stigma, etc. [Table 1]. It may be mentioned that HIV infection in India was first detected in 1986 among female sex workers in Chennai.¹⁵

Globally, the spread of HIV infection/AIDS remains on the rise especially among college students. Knowing the knowledge base of HIV infection/AIDS is a most powerful

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means of promoting positive attitudes and engaging in safe practices in community people. Youths are most vulnerable to AIDS/HIV infection because they engage in casual life due to insufficient information in this regard.

The nature of college students, their age, ambition, experience of new events and other contextual were the driving factors that increase their risk of exposure to HIV infection/AIDS. The students’ level of knowledge, attitude, and practice (KAP) of HIV infection/AIDS can provide information for the combating situation. Half of all new HIV infections in the worldwide are more prevalent between the ages of 15 and 24. Every day, nearly 6000 young people become infected with HIV, i.e., more than four in every minute. The present study was designed to examine HIV infection/AIDS-related KAP among the students attending colleges in the district of Bankura, West Bengal, India.

### METHODS

#### Study Design

This study was designed with a descriptive cross-sectional survey to collect data from the college students of Bankura district, West Bengal, India, using a self-administered questionnaire. The study was conducted from January 2018 to April 2018. The study participation was voluntary and anonymous.

#### Sample

A convenient sampling method was used to act as volunteer participants from the Bankura Christian College in Bankura district, West Bengal. A total of 130 adult college students (undergraduate: 109 and post-graduate: 21) in the age group 18–23 years were selected for this study.

#### Inclusion Criteria

The following criteria were chosen to be adult volunteer for this study - (a) the college students living in the Bankura district; (b) the age of the participants were between 18 and 23 years; (c) the college students shall be able to read and write in Bengali and English, and (d) they must be college students.

#### Exclusion Criteria

Students excluded in these studies were the medical students. Because it was assumed that their responses would not reflect as HIV prevention was included in the curricula for medical professions.

The different students were approached in their classrooms and invited to participate in this study. After explaining the nature, purpose, and anonymity of this survey, a questionnaire was developed and given to each student who was consented. All the students were assured that their responses would be confidential and that their participation was voluntary. In this survey, the students were free to decline at any time.

#### Instrument

The questionnaire consisted of questions that would take 10–20 min to complete. The pre-tested questionnaire was constructed of questions derived from previous research studies. The questionnaire on knowledge of HIV infection/AIDS among the students consisted of 20 questions, of which 13 questions were related to HIV infection transmission and rest 7 questions were related to other relevant information [Table 4].

A two-point Likert-type scale “Yes” or “No” was used to get the answer. Each correct answer weighs 1 mark and wrong answer weighs 0 mark. Hence, the maximum marks will be 20 and the minimum will be 0. The gradation of marks is as follows: Those have answered 90% and above correct are graded as AA, 80–89% correct as A+, 70–79% correct as A, 60–69% correct as B+, and 50–59% correct as B and those have answered correctly but <50% is marked as C.

### Table 1: Burden of HIV in India [4]

<table>
<thead>
<tr>
<th>Year</th>
<th>Estimated number of new HIV infections in adults (children)</th>
<th>Estimated number of new HIV infections</th>
<th>Prevalence (%)</th>
<th>Number of annual HIV-related deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>106,335 (21,000)</td>
<td>2,225,930</td>
<td>0.34</td>
<td>150,000</td>
</tr>
<tr>
<td>2008</td>
<td>96,124 (20,000)</td>
<td>2,198,559</td>
<td>0.32</td>
<td>140,000</td>
</tr>
<tr>
<td>2009</td>
<td>88,234 (18,000)</td>
<td>2,174,594</td>
<td>0.31</td>
<td>130,000</td>
</tr>
<tr>
<td>2010</td>
<td>84,827 (17,000)</td>
<td>2,156,452</td>
<td>0.30</td>
<td>120,000</td>
</tr>
<tr>
<td>2011</td>
<td>82,100 (17,000)</td>
<td>2,146,839</td>
<td>0.29</td>
<td>110,000</td>
</tr>
<tr>
<td>2012</td>
<td>80,458 (16,000)</td>
<td>2,143,446</td>
<td>0.28</td>
<td>100,000</td>
</tr>
<tr>
<td>2013</td>
<td>78,613 (15,000)</td>
<td>2,127,958</td>
<td>0.27</td>
<td>90,000</td>
</tr>
<tr>
<td>2014</td>
<td>77,351 (12,000)</td>
<td>2,119,881</td>
<td>0.27</td>
<td>80,000</td>
</tr>
<tr>
<td>2015</td>
<td>75,948 (10,000)</td>
<td>2,116,581</td>
<td>0.26</td>
<td>68,000</td>
</tr>
</tbody>
</table>

HIV: Human immunodeficiency virus
Statistical Analysis

The data were analyzed by the SPSS 17 for Windows (SPSS Inc., Chicago, USA) for the assessment of correlation between psychiatric morbidity and sociodemographic and clinical variables. Descriptive analysis was performed using Pearson’s Chi-square and Student’s t-test. To compare different variables and psychiatric status, one-way ANOVA with Tukey's post hoc test was used. Pearson correlation, $P < 0.05$, was considered as statistically significant. Logistic regression analysis was done to assess the correlation amongst sociodemographic and clinical variables and psychiatric morbidity.

### RESULTS AND DISCUSSION

The total number of participants in this study was 130, and the mean age was calculated $20.19 \pm 4.06$ (95% confidence interval [CI] = 19.43–20.95). Student participants had the mean average family members of $6.20 \pm 3.82$ (95% CI = 5.49–6.92). The study indicated that mean HIV knowledge score was $12.81 \pm 3.03$ (95% CI = 12.24–13.37) [Table 2].

HIV knowledge scores are categorized into different grades such as AA (outstanding), A+ (excellent), A (very good), B+ (good), B (average), and C (poor). From this study, we have observed that 4.60% of the college students were outstanding (i.e., AA), 11.50% of students were excellent (i.e., A+), 20.00% of the students were very good (i.e., A), and 25.40% of the college students were good (i.e., B+) HIV knowledge. Remaining 22.30% of students were average (i.e., B) knowledge on HIV and 16.20% of students were very poor knowledge [Table 3].

### FAMILY TYPE

It was observed that the HIV knowledge level was significantly differed among the participants from nuclear
to joint families ($\chi^2 = 6.997; P < 0.05$). The Pearson product moment correlation also supported this finding as there is a negative association ($r = 0.202; P < 0.05$) between the HIV knowledge score and total number of family members, i.e. larger the family size, lower the HIV knowledge level.$^{[17]}$

**Gender**

In this study, we have observed that the majority of the students were female (68.50%) and they had the mean knowledge score of 11.83 ± 2.83, while the male students had 13.95 ± 3.09 [Figure 1]. Thus, male students have significant better knowledge level of HIV infection than the female ones ($t = 3.851; P < 0.001$) and the males have most A (very good), A+ (excellent), and AA (outstanding) than female ($\chi^2 = 14.709; P < 0.001$) as shown in Figure 2.

**Stream**

Figures 1 and 2 indicate that the stream (such as arts, science, and physical education) of the students had a significant role on the knowledge ($F = 10.584; P < 0.001$; $\chi^2 = 34.447; P < 0.001$). The students studying in Bachelor in Arts had the best score (13.59 ± 2.92) even than the students studying in Bachelor in Science (13.55 ± 2.24) and postgraduate students (13.48 ± 1.91). Students studying bachelor in physical education (10.71 ± 3.16) had the lowest score.

**Caste**

Significant caste discrimination ($F = 7.885; P < 0.001$ and $\chi^2 = 18.757; P < 0.01$) was observed in the HIV knowledge. The students from general and OBC category had similar knowledge score, i.e. 13.18 ± 2.92 and 13.16 ± 2.32, respectively, while ST students scored 10.71 ± 3.46 and SC students scored most poor number 9.93 ± 2.46.

**CONCLUSION**

KAP study is very useful tools before any intervention to assess the extent to which individuals or communities are ready to adopt risk-free behaviors. From the above study, we can conclude that college students of Bankura, West Bengal, had moderate KAPs about HIV/AIDS. Negative attitudes to HIV/AIDS and risky practices were also present. Several educational programs with specific interventions to change practices along with knowledge and attitude are recommended to increase KAPs and to prevent new HIV infection among college students.
REFERENCES


15. Eckstein EC. Knowledge and Attitudes of Nurses Regarding Patient with Acquired Immunodeficiency Syndrome. Cleveland, OH, USA: Thesis Presented to the Faculty of the Frances Payne Bolton School of Nursing, Case Western Reserve University; 1987.


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