ORIGINAL RESEARCH ARTICLE

Impact of education in promoting the knowledge of and attitude to HIV/AIDS prevention: a trial on 17,000 Iranian students

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Summary: The aim of this study was to assess the impact of an educational course on knowledge and attitude of students regarding HIV/AIDS prevention in Tabriz, Iran. The study was conducted by self-assessment technique among university students before and after an educational training programme. The findings showed that the knowledge of students increased significantly ($P < 0.05$). The attitude to the problem also improved positively in the subjects ($P < 0.05$). It is concluded that short-term training courses and continuous educational programmes (i.e. peer education, etc.) should be provided to young students through the course materials in the universities and schools promoting the awareness and attitude to this ever-increasing health problem.

Keywords: HIV, AIDS, education, Iran, knowledge, attitude

INTRODUCTION

There are no reliable data on the prevalence of AIDS in Iran. Official figures by the health authorities in Iran claim there are only 7510 cases in Iran, while this number has been estimated to be more than 30,000 cases by the World Health Organization.[1]

The high-risk groups for AIDS include prisoners, addicts, sex workers, and youths.[2] Some studies show that there is a lack of knowledge of this epidemic and, further, there is a negative attitude in the high-risk population, especially young people, in relation to preventive strategies and this situation increases the risk of disease. Research reports from Africa, Asia and Latin America have also indicated that educational programmes may be effective in preventing the diseases at the community level.

The aim of this study was to assess the impact and efficacy of educational methods on the promotion of the knowledge and attitude of students to HIV/AIDS prevention in Tabriz, Iran.

METHODS

Data for this study were collected by self-assessment techniques using a validated questionnaire. The questionnaire included two sets of questions: 30 questions to assess the knowledge, and three more questions, the second part, to evaluate the attitude of students. A sample of 17,000 of students of Tabriz University and Tabriz University of Medical Sciences participated in the study. The way to complete the questionnaire was explained. Each group of the educational programme had 20-40 students. The educational programme consisted of a 45-minute interactive discussion on preventive strategies and modes of transmission of AIDS.

Forty senior medical students were trained as coordinators of the discussion groups by the University. They were from the departments of infectious diseases, psychiatry, and community medicine. In the second stage of the study, 10% of the study subjects (1778 students) were randomly selected and same self-assessment techniques were applied to assess the impact of the educational intervention on improvement of knowledge of and attitude to HIV/AIDS prevention.

The Likert scaling method was used to measure the knowledge and attitude of students both before and after intervention. The Kolmogorov-Smirnov test was used to check the normal distribution of the data, and the paired *t*-test was used to compare the pre-test data versus post-test data.

RESULTS

Table 1 presents the frequency distribution of basic characteristics of the study subjects. The mean age (standard deviation) of students was 20.9 (1.20) years. As the gender distribution of all the university students in Iran

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Table 1 **Basic characteristics of study subjects**

	Frequency	Percent
Age (years)		
18–19	424	24.4
20–21	819	47.1
22–23	347	20
24+	149	8.5
Total	1739	100
Gender		
Male	530	30.2
Female	1223	69.8
Total	1753	100
University		
Medical	1627	91.5
Non-medical	151	8.5
Total	1778	100

Table 2 **Effect of education on the promotion of knowledge and attitude**

	Before education (%)	After education (%)	Percent changed	Significance
Knowledge	80	90	12.5	<0.05
Attitude	49	55	12.2	<0.05
Knowledge (male)	82	90	9.7	<0.05
Knowledge (female)	78	90	15.3	<0.05
Attitude (male)	49	53	8.1	<0.05
Attitude (female)	49	56	14.2	<0.05
Knowledge (medical)	80	92	15	<0.05
Knowledge (non-medical)	75	81	8	<0.05
Attitude (medical)	51	59	15.6	<0.05
Attitude (non-medical)	28	32	14.2	<0.05

usually indicates, the majority, 69.8%, of our study subjects were female.

Table 2 shows the effect of education on the promotion of knowledge and attitude among the university students in Tabriz, Iran. There was a significant increase in knowledge and attitude of the study subjects regarding AIDS prevention (13% and 12%, respectively).

Although a significant increase in the knowledge and attitude was observed in both male and female students, educational intervention had more effect on the knowledge and attitude of female students, compared with male students. The baseline level of awareness and attitude was, however, higher in male students compared with females (Table 2).

Our findings showed that medical students compared with non-medical students are more alert to the preventive strategies of the disease both in terms of awareness and attitude (Table 2).

There was a positive association between the baseline level of knowledge and age in all groups. The improvement of knowledge and attitude after the educational programme was also significant in all age groups.

DISCUSSION

Public education has to be used as a key element for prevention of AIDS.[3,4] This has proved to be successful in the USA and some other areas in recent years.[2,3,5,6]

This study was conducted to develop an educational programme to be integrated into the educational curriculum of university students on the preventive strategies for AIDS regarding the epidemiological situation of the disease at present and in the near future. Our findings show that educational intervention can play a key role in reducing the increasing rate of AIDS occurrence in youths in Iran.

It is also seen that female students performed better than male students in terms of the study objectives, indicating that female students pay more attention to prevention, and they are more alert than male students to the disease. This might be reflecting the fact that female students are more sensitive to AIDS as the prevalence of disease is generally higher in women. Both medical and non-medical students showed similar, significant performance.

According to the recent report of UNAIDS, 15–24-year age groups account for about 50% of all new HIV infections worldwide,[7] indicating that emphasis must be made on the preventive strategies (i.e. education, training courses, etc.) and must be made understandable to the youth, as they form the major high-risk groups in the community.[8,9]

It is concluded that the short-term training courses and continuous educational programmes (i.e. peer education, etc.) must be provided to young students in the universities and schools through the course materials to promote the awareness and attitude of youth to this ever increasing health problem.[10] Course materials should, of course, meet youth demands, and must be acceptable and desired by these age groups.[11,12]

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