

Original Article

HIV/AIDS Knowledge and attitudes of Southern Iranian students

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Abstract

This study aimed to explore Iranian primary school students' attitudes and knowledge about HIV/AIDS. The knowledge and attitudes of 597 primary school students from all areas of Ahwaz were assessed by anonymous questionnaires in November 2007. None of the students answered all the knowledge questions correctly, and results indicated that there were many misconceptions about the routes of transmission. Sneezing and coughing, contaminated food, water or hands were incorrectly identified as routes of transmission. The knowledge increased with age ($P < 0.001$). The sources of pupils' information primarily included: Television (66.8%), family members (20.2%), friends (10.6%) and school teachers (2.4%). Also some pupils believed that there was some treatment (38.3%) or an effective vaccine (63.4%) for HIV/AIDS. The result of this study revealed that most primary school students in Ahwaz had a lack of proper knowledge about HIV/AIDS. There is a need to promote an AIDS education in Ahwaz and also all Iranian schools, to improve socio-cultural factors in next years.

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INTRODUCTION

Today it is estimated that the number of people affected worldwide by HIV/AIDS has reached almost 34 million. In 2007 there were 2.5 million new cases and the number AIDS related deaths were almost 2.1 million (1). IRAN is a Middle Eastern country that is facing rapidly growing HIV/AIDS epidemic (2). In IRAN the first case of Human immunodeficiency Virus (HIV) was reported in 1987 (3), this was followed by a rapid increase in the number of Cases (4). In 2007, officially there were 66000 Iranians living with HIV/AIDS, of which 11000 were females (5). Of all cases with a known transmission route, 85% were injecting drug users and 10% were reported acquiring the infection through sexual contacts (2). There are several factors that contribute to the higher risk of HIV infection among young people e.g. first sexual experiences, the higher proportion of sexually transmitted disease, addiction that begins usually at this age, and so on (6). On the other hand, there is a chance to establish protective health-behavior patterns in young people, which might endure in to adulthood. Since there are uncontrolled sexual contacts, high prevalence of addiction, absence or limited sex education and higher marriage age in Iran, the Iranian youth are counted as a high risk group for HIV infection. Also because of fears among most Iranian people that AIDS education promotes high risk behaviors, sex education about HIV transmission has no place in schools and universities in Iran (7).

Since there is no complete cure or effective vaccine to prevent HIV/AIDS giving the early stage of the HIV/AIDS epidemic awareness and appropriate knowledge play an important role in preventing the further spread of HIV/AIDS among the general population. In Iran there's no research investigating about the attitudes

of primary school students towards HIV/AIDS. So in this research the common knowledge and attitude of a group of Iranian primary school students about HIV/AIDS and methods of preparation have been evaluated.

Methodology

The target populations of the study were pupils of 20 primary schools which had been chosen randomly in the city of Ahvaz (capital of Khoozestan).

There were 597 pupils practicing in the study. All the 3rd, 4th and 5th grade students of each school who were present in the class room on the day of the research team's visit, agreed to participate in the study. Questionnaire included questions on 29 items: personal and familial socio-economic information; AIDS knowledge; attitude towards moral and social problems concerning AIDS; sources of information and educational issues due to AIDS and willingness to learn. The AIDS knowledge scale was computed by summing all correct responses.

The questions were answered using the options "Agree", "Disagree" and "I don't know". After completion of data collection, it was reviewed, organized, tabulated and statistically analyzed. The data was evaluated by Chi-Square test, analysis of variance (One-way ANOVA) and Spearman's correlation test using the Statistical Package of Social Science (SPSS Inc., Chicago, IL) for windows version 14 and P value of <0.05 was considered statistically significant.

Results

The study included 597 students, 18.9% were males and 81.1% were females. They were aged 9-11 Years (mean 10 Years), and were studied in 3rd, 4th and 5th grades of primary school (table 1).

Table 1: characteristic of respondents in the study

Characteristic	n	%
Sex:		
Female	482	81.1
Male	115	18.9
Education:		
3 rd grade	103	17.3
4 th grade	247	41.4
5 th grade	247	41.4

95.6 Percent of students has ever heard about "HIV/AIDS". "Television and radio" were the main sources of information (66.8%) followed by "family members" (20.2%), friends (10.6%) and only 2.4% of students mentioned "Teachers and School" as the main source of information about HIV/AIDS (Table 2). The majority of students didn't have accurate knowledge about HIV/AIDS modes of transmission (table 3), about 33% of students believed that food and 27.6% believed that water; and 19.2% believed that sneezing and coughing would transmit the virus. Also we had many restrictions to ask about sexual contacts and behaviors in most of schools, cause of rules of schools in Iran, but there are many sexual contacts or marriages in Khoozestan state of Iran, before 15 years old, mostly in girls. While only 15.8% of girls knew that sexual contacts can transmit HIV infection.

Table 2: Number and percentage distribution of students according to their sources for HIV/AIDS information.

Sources of information	n	%
TV & Radio	458	66.8
Family members	237	20.2
Friends	63	10.6
Teachers	46	2.4

In response to a question about the best way of learning about HIV/AIDS, 48.9% of the students believed that parents and 40.6% believed that TV would be the best options for learning about it. However, teachers and appropriate books were also expressed by some other students. Finally as a supplemental question, the students were asked a question about the ways of fighting HIV/AIDS, 38.3%believed that there's some treatment for it and 63.4%believed that there is an effective vaccine for it.

Table 3: Modes of transmission as reported by the 500 primary school students (%). Response to the question "Which of the following ways can HIV/AIDS be transmitted?"

Mode	Correct answers	Percent choosing correct answer
Sexual contact	Yes	14.5
Blood transfusion	Yes	63.6
Sharing of the needles	Yes	49.1
Homosexuality	Yes	11.1
Mother-to-child	Yes	14.1
Tattoo	Yes	23.2
Sneezing and coughing	No	80.8
Food-borne	No	67
Water-born	No	72.4
Non hygienic barber shop	Yes	30.5
Dirty hands	No	84.8

Discussion

The study found that knowledge of HIV/AIDS was generally not satisfactory. Given the early stage of the HIV/AIDS awareness and appropriate knowledge may play an important role in preventing the further spread of HIV/AIDS among the general population. This may expressed a wish to obtain more information about AIDS, and most surveyed students believed that AIDS could be a threat to their society. This finding is similar to that of American and European investigators one decade ago, when the AIDS epidemic was emerging (8, 9, 10, and 11). A significant number of factors have contributed to the spread of

HIV/AIDS, not only poverty, illiteracy and status of women but also denial and increase in mobility and industrialization (12). Even in countries where HIV infection has a low rate, early actions are essential to avoid serious impacts on economic activities (13). Several studies has examined the AIDS knowledge level and found different levels of knowledge about AIDS regarding causes and modes of transmission and means of prevention across cultures (14, 15, 16, 17, and 18).

There were no significant difference between the knowledge of female and male students, and this finding is consistent with the studies of Brook and Green et al (19, 20). However, Agrawal et al. found that boys had better knowledge than girls and their explanation for this finding was that

boys feel freely than girls to talk about matters relating to sex and HIV/AIDS (21). Knowledge increased with age, the knowledge of 5th graders were significantly ($p < 0.05$) higher than the 3rd graders. This incensement also found in other studies (22, 23). Television was the most common means of obtaining information about HIV/AIDS; this is consistent with the study by Brook and Li et al (24, 11). Also in two studies in Bangladesh and Thailand, mass media were the main source for HIV/AIDS information (21, 25). In contrary some other studies in Saudi Arabia and also in south East Asia have shown that television and other mass Medias are not the first source of information for students (12). There were many misconceptions about how HIV is transmitted, e.g. by sneezing and coughing, contaminated foods and water, shaking hands, etc. This is consistent with most researches such as Tavoosi et al, Agrawal et al, Dicemente et al, Sikand et al and Al-Mazrou et al (7, 26, 27, 28, and 12). In answer to the question about the treatment of AIDS, 33.7% believed that there is a cure for AIDS. Misconception concerning a "cure" for AIDS is one of the

risk factors for contracting the disease (7). This miss information is reported by some other researchers (7). Overall, only 7.4% of teachers had been talked about this disease, and we believe that repeated talks especially with teachers and advisors in schools would have an important influence especially on primary school students and after some years in society. Therefore, better knowledge does not necessarily lead to behavioral change (29, 30, and 31).

CONCLUSION

In general, the study revealed a variable lack of knowledge about HIV/AIDS among Iranian students. The study reports that there's poor knowledge towards HIV/AIDS and modes of transmission and also showed that there are several limitations for learning about this problem in Iran's schools. Cause of that in religious societies like Iran there are restrictions for teaching and talking about sex beliefs and behaviors, but students (as well as the general populations) should be instructed about all aspects of AIDS by the teachers and programmers in schools.

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