

Original Article

Assessing the level of Knowledge and attitude of the young couples about HIV in Shiraz, Iran.Firooz Esmailzadeh¹, Mojtaba Sepandi^{2,3}, Abdolhalim Rajabi⁴, Zahra Kavosi⁵, Manije Alimohammadi⁶, Yousef Alimohammadi^{7*}¹Department of Public Health, School of Public Health, Maragheh University of Medical Sciences, Maragheh, Iran²Health Research Center, Lifestyle Institute, Baqiyatallah University of Medical Sciences, Tehran, Iran.³Department of Epidemiology and Biostatistics, Faculty of Health, Baqiyatallah University of Medical Sciences, Tehran, Iran.⁴Department of Epidemiology, School of Public Health, Iran University of Medical Sciences, Tehran, Iran⁵Faculty of Management and Information, Shiraz University of Medical Sciences, Shiraz, Iran⁶Pars Advanced and Minimally Invasive Medical Manners Research Center, Pars Hospital, Iran University of Medical Sciences, Tehran, Iran⁷Department of Epidemiology and Biostatistics, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran

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ABSTRACT

Introduction: HIV infection is one of the main public health problems in the world. This study aimed to assess the knowledge and attitudes of young couples married in the city of Shiraz, and eventually suggest an Operational Program for the prevention of HIV in Iran.**Method:** the data collection tool was a questionnaire consisted of 32 questions on transmission and prevention of HIV infection. The young couples were selected through simple random sampling, and the sample size was 400. The data analysis was performed using SPSS 19 software.**Results:** Of the total of 400 cases, 201 (50.25%) were male and 199 (49.75%) were female. The mean age of the couples was 25.96±5.95 years. The most frequent correct answer was related to the knowledge of transmission through sharing needles among drug users (87.4%). Regarding attitude, 94.6% of the subjects agreed with the struggle against HIV. Examining the relationship between knowledge and age showed that they had a significant relationship (P=0.002). There was also a significant relationship between attitude and gender (P=0.004).**Conclusion:** One of the important ways to stop the epidemic and prevent the incidence of new cases of HIV is educating people at an early age.**Introduction**

Acquired Immune Deficiency Syndrome is a manifestation of a range of disorders resulting from impaired cellular and humoral immunity caused by the human immunodeficiency virus (HIV-1) (1-3). Since the onset of the epidemic of HIV infection in 1981, nearly 60 million people have been infected with HIV in the world and 25 million have died of HIV infection-related problems (4). Over the past thirty years and since the first identified case of HIV, this infection has been one of the major

public health problems in the world (5), and the burden of mortality and disability associated with the infection is increasing and is comparable to any other pathogens (6). In recent years, about 13,000 people have got infected with HIV every day, with more than 8,000 deaths (7). In 2012, 35.3 million people worldwide were living with HIV, and this had increased from 17% in 2001 (8). During the last years, the number of new HIV cases decreased globally but in North Africa and Middle East countries this trend is still increasing. (9-11). According to the reports, in 2014,

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approximately 27041 people were diagnosed with HIV in Iran, while the World Health Organization estimated the patients to be about 800,000 ones (12). Currently, the highest transmission rate of the infection is observed in the northern neighbors of Iran and the Eastern Mediterranean region (13). The change in the epidemiological form of the disease transmission to sexual transmission and an increase in the rate of infection among the female population of the country (higher than 10%) can be a warning that HIV/AIDS will most likely be epidemic in the future (14). Iranian youth are in danger due to their uncontrolled sexual relations, high prevalence of addiction, lack of sexual education, rising marriage age, and increased overseas trips to the Far East (15). Unlike other health problems that often affect children and the elderly, HIV infection is more likely to occur at the age of 20-49, when a person can have the highest levels of community development. It can lead to a state of social, economic, and political instability (7), with the collapse of family and community structures, leading to a decline in production and a decrease in life expectancy. HIV INFECTION is one of the main obstacles to the development of societies and affects most of the poor (16). In the absence of effective treatment or vaccine, health education to change risk behaviors is the only way to control this disease. Studies have shown that withdrawal misconceptions and lack of knowledge about the disease among adolescents are very common and it is evident that raising awareness about HIV can help reduce the incidence of HIV infection (17). Given the role of knowledge and attitudes of young people about HIV/AIDS, the present study aimed to assess the level of knowledge and attitude of young couples about HIV in Shiraz, Iran.

Methods:

This is a descriptive-analytical cross-sectional study conducted to investigate the knowledge and attitudes about HIV/AIDS in the couples

referred for marriage counseling in Shiraz, Iran. The minimum required sample size was an estimated 400 people who were selected through convenience sampling. The data were collected using a four-part questionnaire, the first of which included personal characteristics (age, sex, occupation, etc.). The second part consisted of 22 three-option questions (yes, no, I do not know) related to the knowledge of transmission, the disease factor, transmission and incubation periods, symptoms, ways of preventing and treating the disease. The third part comprised 10 points of view based on the 5-point Likert scales (from totally disagree to agree) about attitudes toward HIV/AIDS. The Reliability and Validity of the questionnaire had been measured in previous studies (18). Regarding knowledge, if the couples gave correct answers to 70-100% of the questions, they would be considered well-informed, but if 50-70% of the questions were answered correctly, they would be considered to have moderate knowledge. In case less than 50% of the answers were correct, their knowledge would be considered poor.

As far as the attitude was concerned, the 5-point Likert Scale was first turned into a 3-point one, including disagree, agree and no idea. Then, to calculate the overall attitude score, each question was scored 1 to 3 according to the answer. The total score of attitude was 10-30, based on which the subjects were ultimately classified into four groups of poor, moderate, well-informed and excellent attitude (10-15 = poor, 15-20 = moderate, 20-25 = well-informed, and 25 - 30 = excellent). To do data analysis, descriptive and analytical methods were used. The former included simple frequency and percentages, and the latter included chi-square and t-test. The analyses were performed using the SPSS 19 software.

Results

The descriptive statistics are shown in table1. In the Knowledge section, most of the correct answers were related to the transmission of the infection through the use of a single syringe by addicts, and the least correct responses were

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respectively related to the followings: identifying a person's contamination from his/her appearance, transmission of the disease through insect bites, swimming pools, toilets, bathrooms, and shared dishes (Table2). Regarding attitude, 94.6% of the participants agreed with actions against HIV, and 95.7% believed that their community was at risk for HIV infection. 69.6% of the subjects wanted to participate in the HIV Infection prevention program and 77.4% of the individuals believed that following the moral and Islamic standards could prevent the transmission of HIV/AIDS (Table 3). 20.2% of the subjects had good knowledge of the disease (well-informed), while 26.6% and 53.2% had moderate and poor

knowledge, respectively. There was no significant correlation between knowledge and education, occupation, gender and place of residence in all the cases ($P > 0.05$), but knowledge had a significant relationship with age (P -value = 0.002). Regarding the couples' attitudes, 15.4%, 21.6%, 47.6%, and 15.4% had excellent, good, moderate and poor attitudes, respectively. The Chi-square test did not show a significant relationship between attitude and education, occupation, and place of residence ($p > 0.05$), but there was a significant relationship between attitude and gender ($P = 0.004$). In all the cases, attitudes toward women were higher than men.

Table 1. Descriptive feature of understudy couples.

Variables	n	percent
Gender		
male	201	50.25%
female	199	49.75%
Education level		
Elementary	24	6%
Under diploma	208	52%
Academic education	168	42%
Residence area		
city	337	84.1%
rural	63	15.9%
Job-status		
Unemployed	5	1.3%
housewife	68	17%
self-employment	160	39.7%
employed	100	25%
student	39	9.8%
other	28	7.1%

Table 2. Distribution of young couple responses about knowledge assessment questions.

Knowledge information	correct	wrong	I don't know
Is the cause of HIV/AIDS a virus?	63.9	20.9	15.9
Is HIV/AIDS a communicable infection?	61.9	24.7	13.4
Does the cause of HIV/AIDS attack the immune system?	80.9	4.6	30.4

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Is the length of the AIDS incubation period about several months to several years?	65	4.6	30.4
Is HIV a Communicable infection?	82.8	8.8	8.4
Is HIV infection transmissible in the incubation period?	60.5	10.1	29.4
Can AIDS be long-term asymptomatic?	81.5	6.7	11.8
Is blood test the only way to diagnose HIV?	59.9	16.1	24
Can a test result be negative in HIV patients at a specific period?	35.3	20.7	44
Can HIV infection be transmitted through a mother infected to her child, as well as blood and blood products, and unsafe sexual relations?	85.2	5.5	9.3
Can HIV infection be transmitted through insect bites, swimming pools, toilets and baths, common dishes and kissing?	14.2	73.2	12.6
Can an infected person be identified by appearance?	11.7	74.1	14.2
Is HIV infection preventable?	74.4	13.4	12.2
Is education the most important and the best method of prevention of HIV?	82.1	6	11.9
Are injection drug users, infected mothers' fetuses, and blood recipients at risk for the infection?	84.3	4.7	11
Is AIDS currently curable?	24.6	48.7	26.7
Is AIDS 100% Fatal?	29.7	25.8	44.5
Is the cause of HIV infection disease be found in genitals secretion?	50	14.8	35.2
Can kissing a baby transmit the disease from the infected mother to the child?	15.7	68.5	15.7
Does the use of a common syringe among injection drug users increase the risk of HIV transmission?	87.4	3.8	8.8
Do all people in the community need to be educated about HIV/AIDS?	86.8	3	10.3
Does HIV/AIDS have a vaccine?	32.5	45.9	21.6

Table 3. Distribution of young couple response about attitude assessment questions.

<i>Attitude question</i>	<i>agree</i>	<i>No idea</i>	<i>opposite</i>	<i>No answer</i>
Our community is at risk of HIV/AIDS	94.9	3.5	0.8	0.8
The fight against HIV/AIDS is essential in Iran	94.6	2.7	0.8	1.9
Only high-risk people become infected with HIV	78.2	10.9	9.3	1.6
A person with HIV is not allowed to attend the community	74.7	11.7	10.5	3.1
People with HIV are worthless creatures	81.7	10.1	6.6	1.6
It is only the responsibility of the government and authorities to fight against HIV	62.3	11.3	24.5	1.9
Individuals with safe behavior can be immune from the risk of HIV / AIDS	76.3	12.1	8.6	3.1
I would like to participate in HIV prevention programs	66.9	20.6	8.6	3.9
A person with HIV is solely responsible for his or her illness	58	11.3	29.2	1.6
Compliance of the ethical fundamental in an Islamic society can be a preventive factor in the prevention and non-transmission of HIV	75.9	13.2	8.9	1.9

Discussion

There is currently no comprehensive treatment for HIV, and the only way to stop the HIV/AIDS epidemic and prevent new cases of infection is to educate people. HIV/AIDS is a type of behavioral illness (injection drug use, sexually transmitted infections) directly due to a lack of health awareness and social misconduct (19-25). Educating young people on preventing HIV/AIDS was so important that in the 21st United Nations Special Political Meeting, it was stated that governments should ensure that by 2010, at least 95% of young people aged 15-24 years would have been provided with necessary information and trained for awareness of biological interventions to reduce their self-esteem be harmed by HIV (26).

In this research, 20.2% of the couples were well-informed, 26.6% were at a moderate level and 53.2% were at a poor level. Regarding attitude, 15.4% of the couples had an excellent attitude, 21.6% had a good attitude, and 47.6% and 15.4% had moderate and poor attitudes, respectively. This shows that the couples' information about HIV was very low. This result was consistent with the results of other studies so that in the study by Ghorbani (27), the total score of the nurses' knowledge and attitude were very low. In the study by Zargooshi, et al (28), it was found that 89% of sexual relations with women were unprotected. In their study, Zamani et al. (29) showed that men's perpetual injection drug use was 53%. The use of condoms in sexual intercourses was reported 37% as well. The use of condoms by truck drivers and women was 64.8% and 52%, respectively (30). In other studies such as the ones by Panahandeh (31), Fadaei (32), Ranjbar (33), Ballali (18), and Nojoomi (34) only 11.7%, 47.6%, 59.2%, 40.1% and 77.5% of the participants were well-informed about HIV/AIDS, respectively. Studies also showed that misconceptions and lack of awareness about this infection were very common among adolescents and young people (35-44).

Research has shown that the provision of accurate information through appropriate educational methods have increased the level of knowledge and attitude of young people towards HIV (42, 45-50). There is also evidence from many countries all over the world that providing young people with the right information on sexual skills and human communications and raising their awareness could solve health problems, develop puberty and develop responsible attitudes (41) because less trained young people engaged in sexual intercourses and did not use protective methods (51-54) while the cause of contagion in 33.2% of the cases in Iran was sexual relations (38). Epidemiological changes in the transmission of HIV infection, as well as an increase in the rate of infection among the female population of the country (higher than 10%), could be a warning on the epidemic and further spread of HIV/AIDS (14). Today, Iran is at a critical stage of the HIV epidemic, and to prevent the third wave of the disease epidemic, special attention should be paid to HIV prevention programs in the country. As previously mentioned, all studies have considered health education as the best and most effective way to fight HIV infection (47-41, 43, 44, 55-59). Given that the interventions to increase people's awareness and attitudes are often dispersed and not comprehensive, the people already trained are not known. Some groups are trained several times, but the pieces of training often do not cover the groups at risk. Moreover, some contents are repeated, and some important points are not mentioned in the classes, or there are classes in which some participants might have already taken the disease. So there is a need for a comprehensive program that covers all people at risk and can be taught at an early age before they are exposed to HIV transmission, and train people about infectious diseases such as HIV/AIDS. So, health education can decrease the many risk factors such as risky behaviors, and finally, decrease the incidence of infectious diseases such as HIV/AIDS.

Conclusion

Health education can have a very important role in the prevention of many infectious diseases such as HIV/AIDS. So health education can decrease the many risk factors such as risky behavior and finally decrease the incidence of infectious diseases such as HIV/AIDS.

Conflict of interest

It does not have.

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