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Knowledge, Attitude and Practice of Islamic Azad University students about the prevention of AIDS in 2013

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A B S T R A C T

Teaching preventive measures is the only method of reducing the risks of infection with HIV among youth. The objective of this study was to determine the levels of Knowledge, Attitude and Practice of the students of the Islamic Azad University (Damghan campus) about the prevention of AIDS in 2013. 450 students were randomly selected out of the total number of 5425 students Islamic Azad University (Damghan campus). Data collection was performed through a self-explanatory questionnaire which contained demographic information and questions regarding awareness, perception, and behavior. The scientific validity and reliability coefficient of 95% was confirmed using Cronbach's alpha coefficient was approved by 90%. The data were scrutinized using the SPSS software, X2 test, T test, and analysis of variance. The study's findings indicated that the state of awareness in respect to the AIDS issue in 46.8% of the students was adequate, in 40.8% average, and in 12.4% inadequate. In this study, the audiovisual media composed the utmost source of information for %49.9 of the students. For the perception aspect of undergoing the HIV test, 85.6% of the students gave their consent and also 52% were opponents of segregating AIDS stricken individuals. It was determined that schematization of the authorities in the direction for promoting of educational programs, both quantity and quality-wise, in the context of AIDS control and prevention through mass media and also inclusion of the AIDS topic in the health sciences among other academic fields for the purpose of teaching the measures in preventing and controlling AIDS would be an exigency.

Introduction

Acquired Immunodeficiency Syndrome (AIDS) is one of the numerous diseases

which jointly cause significant difficulties for health and treatment systems from the

perspectives of its overwhelming mortality rate, sociological proportions for epidemic frequency and prevalence among society's young and active members, and also expensive costs of care and treatment for its patient. Control and prevention, and treatment of patients are the important functions of health and treatment centers in different countries of the world (UNAIDS/WHO. (2002).

The earliest report of AIDS emerged from the U.S in 1981 involving several homosexuals (Davis et al., 1998). Dissimilar to the notion held by the general public on the basis that AIDS was exclusively related to intravenous drug addicts and homosexuals in the western countries, it has been transparently characterized that this disease never grants any individual immunity for survival because of their different races, territorial borders, genders, and age criteria. AIDS is the greatest and the most lethal infectious disease and it ranks as the fourth cause of mortality in the world (Tabarsi et al., 2012). This disease is one of the major obstacles in the path of society's development and to a tremendous extent targets active and young cross section of any society. The total figure of AIDS stricken individuals in 2007 has been estimated to surpass 33.2 million of which youth between the ages of 15 to 24 make up one half (Aghakhani et al., 2012; Kim, et al., 1999).

The increase in the frequency of prevalence of the AIDS infection in Iran has been at an alarming rate in the recent years (UNAIDS/WHO. 2002). The statistics of the Health Treatment and Medical Educations Ministry indicates the number of the AIDS stricken individuals at 21435 by the month of June of 2010. According to the asserted statistics, the transmission of AIDS in Iran has been at 69.8% via

injection with shared instruments (e.g.; needles) in intravenous drug users, 8.9% through sexual relations (e.g.; sexual intercourse), 1.2% through receiving blood and blood products transfusion, 0.6% by mother to infant breastfeeding, and 19.5% by unspecific factors (Emamzadeh-Fard et al., 2012).

At the present time, a vaccine for this ailment does not exist and the disease is not curable. Therefore, the only method for combating AIDS is by prevention which takes shape through education. Studies have exhibited that the family's role in educating and giving awareness to youngsters in relation to AIDS is extremely unsubstantial (ahanbakhsh Sefidi et al., 2012; Davis et al., 1998; Kassaian et al., 2012). Various conducted studies on the basis of awareness and perception among the students of different cities of Iran such as Tabriz, Yasooj, Tehran, Toyserkan, Shiraz, Qazvin, Gilan, Yazd, and Hamedan and the other countries like China, Japan, and Turkey have evaluated the level of awareness for those individuals subjected to the studies as average to adequate. There has also been a negative perception towards the disease among the studies' subject individuals (Khosravanifard et al., 2012; Tavoosi et al., 2004; Lotfi et al., 2012; Jamshidi Makiani et al., 2010; Kolahi et al., 2011; Mirzazadeh et al., 2012; Mostafavi et al., 2012; Xiaodong et al., 2007; Maswanya, et al., 2000).

In this study, the nature of awareness, perception, and behavior of the Islamic Azad university students on Damghan campus about the methods of transmission and prevention of AIDS in 2013 was determined.

Materials and Methods

Research Type, Place and Instruments

The present study was a descriptive-analytical one that was performed in the cross sectional form and by the method of surveying 450 students of the Islamic Azad University (Damghan campus) in the school year of 2013. The tool of the study was a self-explanatory questionnaire (The scientific validity and reliability coefficient of 95% was confirmed using Cronbach's alpha coefficient was approved by 90 %) which was completed by the students on the campus (the library, classrooms, cafeteria, and etc.). Of the total number of 450 questionnaires that were distributed among the students from the different colleges, all of them were completed and returned. The prepared questionnaire contained four segments of demographic information and questions regarding awareness, perception, and behavior of which the segments for the awareness, the perception, and the behavior included 14, 10, and questions, respectively. The level of awareness, based on the grades they had received, was divided into three sublevels of inadequate (less than 4 points), average (5 to 8 points), and adequate (above 8 points).

Validity of the Question Form

5-part Likert scale was used to measure attitudes. The perception questions included the kind of perception regarding risk of transmission, gathering information, and methods of prevention and treatment. The average value of awareness grade (a total of 12 questions for which in each case of a correct response received 1 point, for an "I don't know" response received 0 points, and for an incorrect response received -1 point that their overall total

result could vary from the minimal value of -12 up to the maximal value of 12) (SD=2.9) possessing the grade of 2.5 with the minimal value of -6 points and the minimal value of 10 points.

The average value for the awareness on the grounds of the methods for transmission of AIDS (a total of 14 questions for which in each case of a correct response received 1 point, for an "I don't know" response received 0 points, and for an incorrect response received -1 point that their overall total result could vary from the minimal value of -14 up to the maximal value of 14) (SD=3.1) possessing the grade of 5.4 with the minimal value of -4 points and the maximal value of 14 points.

Statistical Surveys

Using the statistical software of SPSS and t-test, and analysis of variance and by taking into account a level of significance of less than 0.05, the gathered data were subjected to scrutiny.

Result and Discussion

Founded on the obtained data on the students' average age, the average age of the study's subject participants (SD=4/4) was at 25.1 with the minimum age of 15 and the maximum age of 41. 46% of the individuals were females and 76.9% of them were singles. The participants with 0.9%, 44.4%, and 54.7% were at the pre bachelor, bachelor and masters levels, respectively. (Figure 1, displays the distribution of frequency with respect to the educational locales of the colleges).

To answer this question "What is the most prevalent method of transmission for AIDS in Iran ? 61.9% answered "an intravenous addiction" which is the correct answer,

37.6% gave the wrong answer, and 0.5% of them did not the method of transmission. (Table 1 exhibits the distribution of frequencies for the correct responses to the questions regarding the level of awareness about AIDS). With respect to the awareness basis, 46.8%, 40.8% and 12.4% had adequate, average, and inadequate awareness, respectively.

(Table 2 exhibits the distribution of frequencies for the level of awareness about the transmission methods of AIDS). The coefficient of correlation between the age and the awareness grade about AIDS was equal to -0.090 which lacked a significant statistical relationship ($P_v = 0.057$). Table 3 is the awareness grade about AIDS in the different groups. The coefficient of correlation between the age and the awareness grade about the transmission methods of AIDS was equivalent to -0.160 which had a significant statistical relationship ($P_v = 0.001$). Table 4 is the comparison of the awareness grades about the transmission methods of AIDS in the different age groups.

Regarding the sources for obtaining information, 42.9% of the students had pointed at the mass media (television) as one of the sources which has assigned the highest figure among all other sources of information to itself (Figure 2).

From the perspective of perception about undergoing the HIV test, 85.6% of the participants agreed to it and also 52% were against segregating AIDS stricken persons.

10.9% of the participants had sought consultation of a physician about AIDS. Diagram 4 displays the absolute and the relative distribution of frequencies for the participants' recommendations in the case of contaminated instruments with infected

blood which is the appropriate method for sterilization. Diagram 5 exhibits the distribution of the absolute and the relative frequencies for the participants' recommendations for disinfecting contaminated environments with infected blood for which disinfection with bleach is an appropriate method. The findings of this study indicated that 10.7% of the participants had already done the HIV test, 84% of the participants had used personal cosmetic accessories when visiting beauty salons or barber shops, and 94.9% of the participants considered the use condoms at times of sexual contacts as a great necessity.

AIDS is one of the world's most important health-related problems because it is a complexity of psychological, behavioral, and emotional problems which jointly lead to a body ailment. The only way of fighting this disease for which there is no cure is prevention and the best alternative for prevention is education. Prevention of the HIV infection through the method of continuous education is an achievable and feasible key task for controlling the AIDS epidemic at least until the time of possessing a vaccine or a suitable medicine. By noting the fact that the younger classes of the societies are more susceptible to the risks of contracting this disease and for the reason that the requirement for the AIDS infection prevention programs is determining the levels of awareness, perception, and behavior of different groups of a society, especially its youngsters, therefore, this study was designed by targeting the objective of determining the levels of awareness, perception, and behavior of the students of the Islamic Azad University (Damghan Campus) regarding AIDS in 2013.

Table.1 The distribution of relative correct responses to the awareness questions among the participants undergoing the study

Question	Correct response	% of correct responses	% of incorrect responses	% of “I don’t know” responses
What is the cause of the disease of AIDS?	Virus	89.8%	5.3%	4.9%
Through which type of test diagnosing AIDS is possible?	Blood antibody test	54.0%	26.7%	19.3%
Which is the most prevalent method of transmission of AIDS in Iran?	Intravenous drug addiction	61.9%	37.6%	0.5%
Which is the best device for preventing the transmission of AIDS through sexual contact?	Condom	93.8%	6.2%	0%
Which chemical compound is used for sterilizing contaminated instruments with HIV?	Cetrimide-C	34.9%	28.9%	36.2%
How is AIDS transmission through the contact between healthy skin and blood?	It is not transmittable	67.1%	19.8%	13.1%
Can it be possible to recognize an individual infected with AIDS by his or her appearance?	No	90.0%	6.0%	4.0%
Does living without any sexual contacts with an AIDS stricken person cause the transmission of the disease?	No	64.2%	26.9%	8.9%
Is AIDS transmittable from a mother to her infant child?	Yes	83.3%	10.7%	6.0%
Is the AIDS agent eliminated by the UV ray?	Yes	62.0%	22.7%	15.3%
Does HIV stay dormant in environment?	No	67.2 %	18.4%	14.4%
Which precautionary measure must be observed for preventing the AIDS transmission while encountering AIDS patients?	Touching	60.0%	33.3%	6.7%

HIV = human immunodeficiency virus; AIDS = acquired immunodeficiency syndrome; UV= Ultra violet

Table.2 The distribution of relative frequencies of correct answers to the awareness questions concerning the transmission methods of AIDS in the participants undergoing the study

Method of transmission	Correct response	% of correct responses	% of incorrect responses	% of “I don’t know” responses
Kissing	No	89.5 %	5.8%	4.7%
Breastfeeding	Yes	69.6%	16.2%	14.2%
Tears	No	81.8%	7.8%	10.4%
Epidermal secretions	No	60.0%	15.6%	24.4%
Perspiration	No	78.9%	7.1%	14.0%
Feces	No	80.9%	6.2%	12.9%
Stool	No	80.8 %	5.6%	13.6%
Shared bathroom and toilet	No	81.8%	8.9%	9.3%
Splash of blood into the eyes	Yes	61.3%	20.3 %	18.4%
Medical measures	Yes	90.0%	4.7%	5.3%
Dialysis machine	Yes	65.3%	13.8%	20.9%
Sauna and swimming pool	No	76.8%	7.6%	15.6%
Physical contacts with animals and animal’s bite	No	68.2%	16.7%	15.1%
Insects’ bites	No	67.1%	22.2%	10.7%

Table.3 Comparison of AIDS related knowledge and background variables

Variable	Group	Average	Standard deviation	PV
Gender	Male	2.2	3	0.026
	Female	8.2	2.9	
Marriage	Single	2.4	2.9	0.409
	Married	2.7	3.2	
College	Science	2.5	2.9	0.001
	Law	1.7	2.8	
	Engineering	3.1	3.0	
Section	Master	2.4	2.9	0.025
	Bachelor	2.7	3.0	
	Pre Bachelor	1.3	3.6	

Table.4 Comparison of knowledge about HIV transmission and background variables

Variable	Group	Average	Standard deviation	PV
Gender	Male	5.2	3.1	0.125
	Female	5.7	3.1	
Marriage	Single	5.4	3.1	0.878
	Married	5.4	2.9	
College	Science	5.8	2.7	0.000
	Law	4.3	2.7	
	Engineering	5.7	3.6	
Section	Master	5.2	2.8	0.033
	Bachelor	5.7	3.3	
	Pre Bachelor	2.3	1.7	

Figure.1 Distribution of relative frequency samples of college graduation

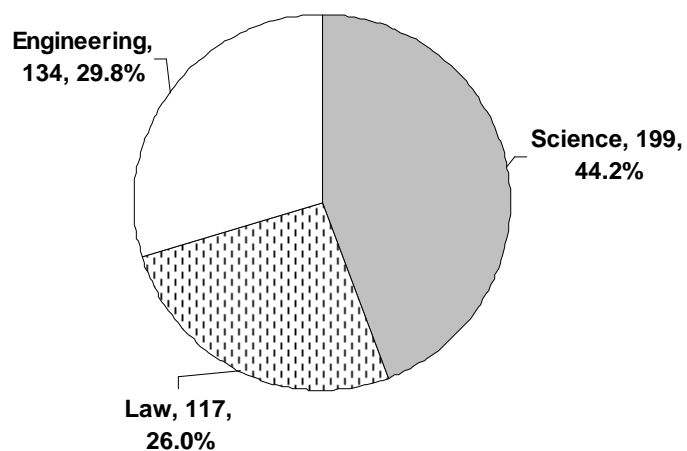


Figure.2 Frequency distribution of samples by source of information on AIDS

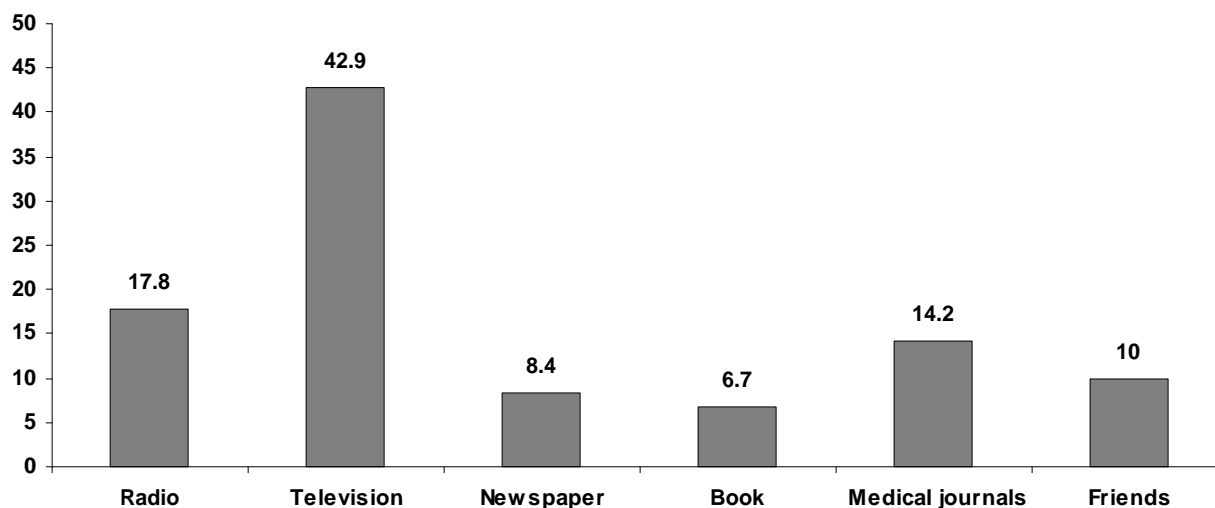


Table.5 Frequency distribution of the mean scores of the samples

Phrase	Agree	Disagree	Impossible
What do you think about the HIV test when suspected AIDS is?	85.6	3.8	10.7
What do you think about removing a person with AIDS?	17.8	52.0	30.2

Figure.3 Frequency distribution of information on AIDS proposal for increasing the supply of samples

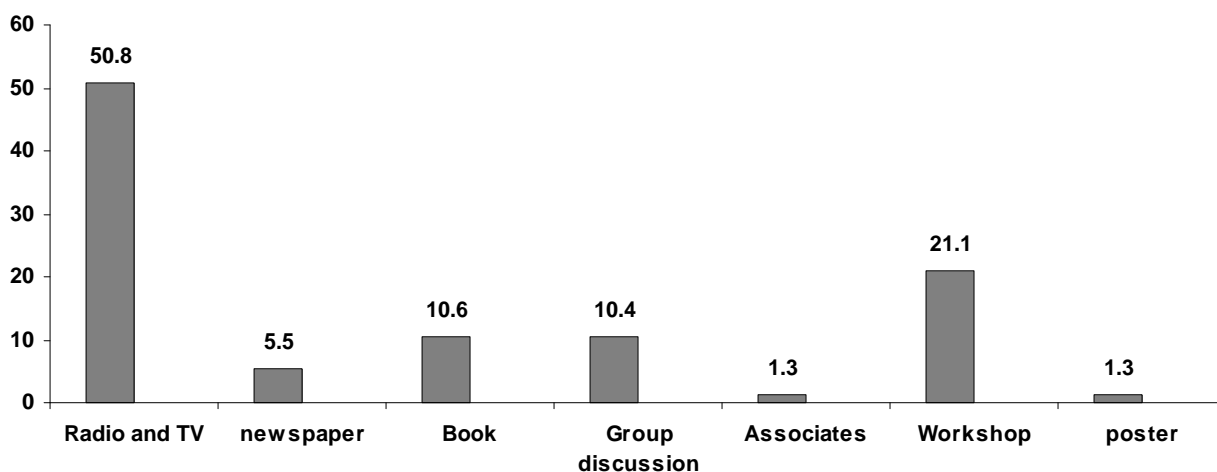
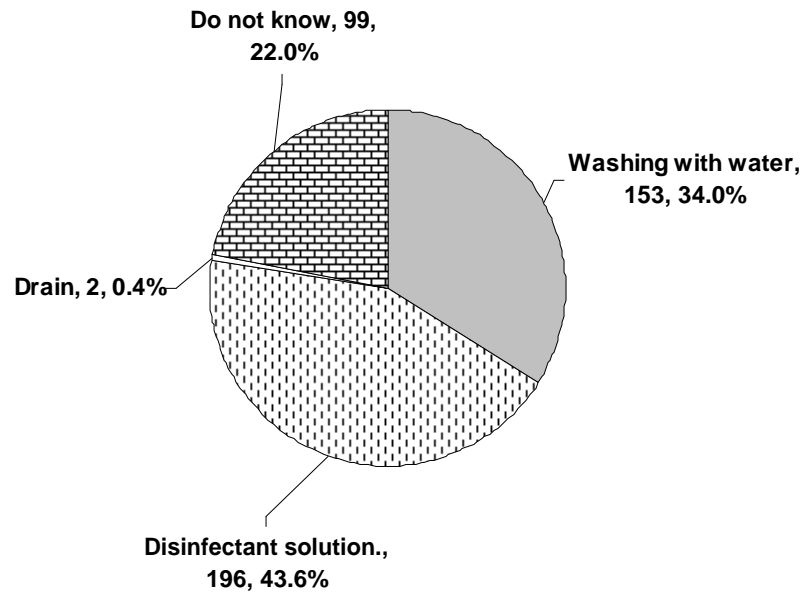


Figure.4 Recommendations relative frequency of samples contaminated with blood samples



Figure.5 Distribution of absolute and relative abundance of advice on environmental contamination of the blood samples



The findings of the present study indicated that the students of different colleges had awareness regarding AIDS. However, this awareness was at an intermediate level approximately similar to the findings of other studies which had been conducted in different cities of Iran such as Tabriz, Yasooj, Tehran, Toyserkan, Shiraz, Qazvin, Gilan, and Yazd (Cities in Iran) and the other nations such as China, Japan, and Turkey (Jahanbakhsh Sefidi, et al., 2012; Kassaian et al., 2012; Tavoosi, et al., 2004; Lotfi, et al., 2012; Jamshidi Makiani et al., 2010; Mirzazadeh, et al., 2012; Xiaodong, et al., 2007; Maswanya et al., 2000; Nokhodian, et al., 2012; Koksai, et al., 2005).

According to the findings of this study involving perusing the awareness, 61.9 percent of the students had submitted correct answers to the most important transmission method of the AIDS. The coefficient of correlation between the age and the grade regarding the transmission methods of AIDS was equivalent to -0.160 which carried a significant relationship (PV=0.001).

22.2% of the students believed that mosquitoes were the transient factors in transmitting the HIV virus and 7.6% of them thought of swimming in public pools as a risk factor for transmission. In all, regarding the methods of transmission through physical contact, animals' bites, shared bathrooms and toilets, urine, kissing, tears, epidermal secretions, perspiration, and feces, the students had wrong assumptions for whose representation the proportional percentage has been presented in Table 2. These incorrect thoughts about the unproven methods such as insects' stings and epidermal secretions could attribute to their unfounded fear in casual interactions with infected and/or sick

individuals. This problem had been reported in the studies of the other researchers. In a study which took place in Japan, 11%, 3% and 4% of the participants believed mosquito bite, shared toilets, and coughing and sneezing, respectively, to be the causes of transmission which indicated that the students' knowledge was minimal in this regard and there is a need for greater education about it (Maswanya et al., 2000; Davis, et al., 1998).

In the studies conducted among the domestic population of students and the students from Nigeria, Spain, and Saudi Arabia (Kerr and Horrocks, 1994; Al Ghanim, 2005). The mass media and particularly the radio and television have formed the richest source of information and this issue could be due to the better accessibility by the students and the people to such media. Therefore, the media are able to have a remarkable impact on social awareness by promoting the educational programs, quantity and quality wise, especially at different times of an entire day when they have more listeners and viewers. Altogether, the findings of this study and the others show that the students' awareness among the Islamic Azad University of Damghan does not enjoy a high level.

For the purpose of prevention, a special attention must be given to promoting the students level of awareness, and a more scrutinizing and more full-scale schematization must be performed. It is even more efficient that suitable educational programs through the mass media (especially the radio and television) and an independent university course to be predicted to enhance the students' awareness. It could also be possible to give the opportunity of continuing a normal life in the society to all individuals among the

various classes of it by educating, changing negative perception, adopting proper behavior, and teaching the preventive measures and methods of transmission to an individual inflicted with HIV.

Since weakness in certain spiritual beliefs, lack in required abilities to battle sexual sensations, deficiency in educating and heightening the required abilities, and also lack of effective cooperation within a family system are the main causes for some youth to acquire a tendency towards the perilous behaviors, therefore an exigency, ever much more tremendous, is needed for teaching of the sexual health for the purpose of strengthening the power to recognize risks and protect oneself, gaining beneficial perceptions about gender and sexuality, building self-confidence and strength to say "No!", and acquiring the skill for analyzing sexual problems to harness this wave of the world's most important venereal disease targeting youth population because of their vulnerability.

This task requires constant and efficacious teaching and it is suggested that an opportunity to be offered to young people by including the topic of AIDS within the Health Sciences in the universities and creating counseling centers for youth, so that they could both receive ample amount of information and choose an appropriate measure in face of danger.

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