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Level of Knowledge and Attitude towards HIV/AIDS among Undergraduate Students in Konya, Turkey

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Abstract

Objective: To investigate the level of knowledge and attitude towards HIV/AIDS and AIDS patients among undergraduate students in a public university.

Methods: A cross sectional study was conducted among 246 undergraduate students in the faculty of health science in a public university in Konya, a province of Turkey from October 5 to 30th November 2016. Data collection was carried out using a standard questionnaire. The total knowledge score ranges from zero to thirty-one. Knowledge scores greater than 15 was considered as having good knowledge level on HIV/AIDS. Attitude towards HIV/AIDS patients was assessed using a 10-item questionnaire where scores greater than 6 was considered as positive attitude towards HIV/AIDS.

Results: The study participants ranged from 18 to 27 years. The mean age of the 246 participants was 19.8 ± 1.7 years. About 61% of the students had good knowledge level with total scores greater than 15. Majority of the participants (81%) had knowledge that HIV/AIDS could be transmitted through sharing of syringes/needles. About 70% of the respondents showed negative attitude towards to HIV/AIDS and AIDS patients.

Conclusion: Over half of the students (61%) have good knowledge on HIV/AIDS however only 28% of them have positive attitude towards HIV/AIDS and AIDS patients. Social work students' knowledge was higher compare to students from the other three departments. They also had more positive attitude towards HIV/AIDS and AIDS patients than the other departments. Good knowledge leads to more positive attitude.

Keywords: HIV/AIDS; University students; Transmission disease; Sexual disease; Konya turkey

Introduction

Human Immunodeficiency Virus (HIV), the virus that causes Acquired Immunodeficiency Syndrome (AIDS) is a major global public health problem [1]. Globally, 78 million (69.5 million-87.6 million) people are living with HIV since the start of the epidemic and 35 million (29.6 million-40.8 million) people have died from AIDS-related illnesses at the end of 2015 since the start of the epidemic. Worldwide, 2.1 million (1.8 million-2.4 million) new HIV infections occurred in 2015 and 1.1 million (940 000-1.3 million) people died from AIDS-related illnesses by the end of 2015 [2].

In Turkey, the first HIV/AIDS case was reported in 1985 [3]. At the end of 2011, the total number of HIV/AIDS cases in Turkey was 5224. There is an upward trend in incidence in the last decade and the highest number of new cases was reported in 2011 (n=699). Heterosexual relationship was the most common way of transmission and the majority of cases are usually males. Transmission through IV drug use and blood transfusion has decreased proportionally with time. The highest numbers of cases were reported in 20-29 and 30-39 age groups and the number of cases in 40 and over age groups had been increasing [4]. The number of HIV patients recorded in Turkey reached 6,800. About 1,096 of the HIV patients were diagnosed with AIDS, according to Health Ministry statistics. About 46.1 percent of cases of HIV/AIDS infection in Turkey result from heterosexual sexual intercourse, 9.9% of cases result from homosexual sexual intercourse, and 1.9% of cases result from intravenous drug use, according to the Ministry of Health in 2013 [5]. Patients with a diagnosis of HIV infection comprised a group of 136 persons (80% men, mean age 36 years. Six patients (8%) were university graduates. Heterosexual intercourse was the most common route of transmission (60%), followed by homosexual intercourse and intravenous drug use. Almost all women (24 out of 25; 96%) acquired the infection from their husbands [1]. A study reported that about 13.3% of the respondents having at least one high-risk behavior is related to sex and unprotected sex [6]. There are more new HIV infections that occur each year. This suggests that people are either not learning about the dangers of HIV, or are not able or not willing to practice the precautionary measures. Many people are very ignorant about HIV. A survey recently found out that a third of teens thought there was a 'cure' for AIDS [7]. HIV can be suppressed by combination ART consisting of 3 or more ARV drugs. ART does not cure HIV infection but controls viral replication within a person's body and allows an individual's immune system to strengthen and regain the capacity to fight off infections [1]. Education is a very important measure in preventing the spread of HIV. Even if education is completely successful, it should still have to be an ongoing process. In each generation, a new generation of people becomes adult

and they need to know how to protect themselves from the HIV infection. The older generations, who have probably already been educated, may need the education reinforced, and need to be kept updated, so that they are able to protect themselves and inform the younger generation [8]. Many adolescents living with AIDS do not receive adequate care and support. Many others are not aware of how to protect themselves from HIV/AIDS [9]. Some important aspects of HIV and AIDS program in education include workforce program to mitigate the impact of HIV and AIDS on educational systems, provision of HIV and AIDS prevention education for students and teachers, as well as activities to minimize the impact on children affected by HIV and AIDS. Precautionary measures and treatment of HIV/AIDS is included in many schools [10]. However, there is no HIV/AIDS education program in Turkish universities. The objectives of this current study were to investigate the level of knowledge and attitude towards HIV/AIDS and AIDS patients among undergraduate students in a faculty of health science in Konya province of Turkey.

Methods

Study design and location

This cross sectional study was conducted among the undergraduate students in Konya province of Turkey. The Konya is a major province in the Central Anatolia Region and it is the seventh most populous province in Turkey. The Konya Necmettin Erbakan University (NEU) is one of the public universities of Turkey. The university has 14 faculties, four vocational school and four institutes.

Study sample and data collection

Convenient sampling method was used to recruit participants from the first, second and third year students. The sample of the study was 246. Sample of the study were undergraduate students in faculty of Health Science of NEU. The students who are doing their bachelor degree in Health Management department, Nutrition and Dietetics department, Nursing department and Social Work department. Students who agreed to take part in the study were asked to fill questionnaires. The questionnaires were administered to the students at the end of their scheduled classes. The questionnaires were filled in class and took an average of ten minutes to complete filling them. The filled questionnaires were collected immediately after the classes.

Study questionnaire

This is a self-administered questionnaire with three parts. The first part includes respondents' socio-demographic background, second part is knowledge on HIV/AIDS and the third part is on attitude towards HIV/AIDS and AIDS patients. The questions on knowledge had 31 items and the questions on attitude had 10 items, the questionnaire was adopted from previous study [11]. The questionnaire was originally in English but was translated into Turkish language and translated back into English. Prior to the data collection, pretest of the questionnaire was done to assess its clarity, sequencing and time needed to complete. Pre-test of questionnaire was done on thirty respondents to ensure that the questions are easily understood. The result of the pre-test was used to improve questioning in the questionnaire. Validity test on the questionnaire showed that the Alpha Cronbach was 78 for knowledge and 73 for attitude.

Scoring

For knowledge each right response attracted a score of 1 while a wrong response attracted 0. Total knowledge scores can range between 0-31. Knowledge scores from 0 to 15 were considered as poor while knowledge scores more than 15 were considered as having good knowledge on HIV/AIDS. For attitude, each positive response was awarded a score of 1 while a negative response was scored 0. Attitude towards HIV/AIDS patients was assessed with a 10-item questionnaire. The total scores on attitude can range between 0-10 where attitude scores between 0-5 were considered as negative attitude, and scores from 6 to 10 were considered as positive attitude.

Data analysis

Descriptive statistics was used in describing the study population. Chi-square test was used to identify a relationship between sex, age group, year of study and departments.

Ethical consideration

We obtained ethical approval from the faculty to conduct the study. Prior to data collection, all study participants was given information about the study. All respondents signed the informed consent form before participating in the study.

Results

Two hundred and forty-six students agreed to participate and completed the questionnaire in four departments from faculty of Health Science. Thus we achieved hundred percent response rate of the sample size we set for our study. The mean age of the 246 respondents was 19.8 ± 1.7 years, and ranged from 18 to 27 years. In the study majority of the respondents were female (76%) and half of the respondents (50%) were from first year students. About 34% of the participants were nursing department students and 32% of them were Health Management students (Table 1).

	Knowledge Level					P Value
		Good knowledge (More than 15)		Poor knowledge (0-15)		
Factor	N	F	%	F	%	
All	246	149	61	97	39	
Sex						
Male	59	32	54.2	27	45,8	0.24

Female	187	113	62.6	70	37.4	
Age group						
18-19 years	117	67	57.3	50	42.7	
20 and above	129	82	63.6	47	36.4	0.31
Years of study						
First	123	71	57.7	52	42.3	
Second	96	63	65.6	33	34.4	
Third	27	15	55.6	12	44.4	0.42
Department						
Health Management	78	34	43.6	44	56.4	
Social work	61	46	75.4	15	24.6	
Nutrition and Dietetics	23	15	65.2	8	34.8	
Nursing	84	54	64.3	30	35.7	0
*Chi-square test showed a significant level of 0.05						

Table 1: Difference in knowledge level on HIV/AIDS for all respondents by sex, age, year of study and departments.

Over half of the students (61%) showed good knowledge level with total scores of more than 15. Majority of the respondents (81%) had the knowledge that HIV/AIDS could be transmitted *via* sharing syringes/needles as well as (86%) transmission from unprotect sex with someone who has HIV, and about 78% of them had knowledge that blood test can show whether someone has HIV/AIDS and same time around 80% of the responded believed that HIV/AIDS can be cured. The knowledge level was significantly difference only by departments (P=0.00) (Table 2).

	Knowledge Level					**P Value**
		Good knowledge (More than 15)		**Poor knowledge (0-15)**		
Factor	**N**	**F**	**%**	**F**	**%**	
All	246	69	28	177	72	
Sex						
Male	59	22	37.3	37	62.7	
Female	187	47	25.1	140	74.9	0.07
Age group						
18-19 years	117	30	25.6	87	75.4	
20 and above	129	39	30.2	90	69.8	0.42
Years of study						
First	123	34	27.6	89	72.4	
Second	96	31	32.3	65	67.7	
Third	27	4	14.8	23	85.2	0.2
Department						
Health Management	78	18	23.1	60	76.9	
Social work	61	25	41	36	59	0.01

Nutrition and Dietetics	23	2	8.7	21	91.3	
Nursing	84	24	28.6	60	71.4	
Based on Chi-square test; significant at the 0.05 level						

Table 2: Differences in the distribution of attitude towards HIV/AIDS for all respondents and by sex, year of study, study major and ethnicity.

Table 2 shows participants' attitude towards HIV/AIDS and AIDS patients. Only 28 percent of the respondents have positive attitude towards to HIV/AIDS and AIDS patients. When it comes to gender, male respondents have more positive attitude compare to female respondents and aged more than 20 years old respondents have more positive attitude than age group between 18 and 19. In terms of the departments, respondents from social work department have more positive attitude compare to the respondents from other three departments. Based on the statistical test, the attitude was significantly difference only by departments (P=0.01).

Discussion

The findings of the study showed that generally, health science undergraduate students had good knowledge on HIV/AIDS since 61% of the students had good knowledge. Findings of this current study are similar to a study conducted by Dalia Haroun and his colleagues on "Assessing Knowledge of, and Attitudes to, HIV/AIDS among University Students in the United Arab Emirates". They reported the overall average knowledge score on HIV/AIDS to be 61% [12]. Another study was conducted among health science students ın North West Ethiopia and it was reported that 63.8% of the health science students have good knowledge on HIV/AIDS [13]. The study found that most of health science students (81%) believed that HIV/AIDS could be transmitted *via* sharing syringes/needles as well as (86%) transmission from unprotected sex with someone who has HIV. These findings are similar to a study conducted among university students in central Ethiopia. It was reported that 75.8% of the students had comprehensive knowledge on HIV transmission modes. However with regards to attitude towards HIV/AIDS, only 28% of the students had positive attitude towards HIV/AIDS and AIDS patients. This finding is similar to a study conducted by Samia amd Zarina among undergraduate health science students. They reported that students stated correctly regarding HIV/AIDS transmissions [14]. Most of the studies demonstrated that university students have good knowledge levels on HIV/AIDS however their attitudes towards HIV/AIDS and AIDS patients are generally low. A study from Sana'a city reported that there was a common opinion among students that HIV-infected persons needed to be punished (65.5%) and isolated (41.0%) [14]. Theoretically, good knowledge effects attitude if someone has good knowledge they have positive attitude but this theory was proven some studies while it was totally opposite in some studies. The current study shows that social work department students (75.4%) and nursing department students (64.3%) have good knowledge and better positive attitude towards HIV/AIDS and AIDS patients compare to Health management students. It is interesting that female students have good knowledge level (62.6%) compared to male students (54.2%). When it comes to attitude, the male students (37.3%) have better positive attitude towards HIV/AIDS and AIDS patients compared to female students (25.1%). Another interesting finding in the study is that the nutrition and dietetics department students (65.2%) have better knowledge compared to health management department students (43.6) regarding attitude the health management students (23.1%) had better positive attitude than nutrition and dietetics students (8.7%). The findings clearly show that the universities should provide lectures on HIV/AIDS to increase the students' knowledge and positive attitudes towards HIV/AIDS and AIDS patients. There are some few limitations of the study. The data was collected using self-administered questions. Because of this, information bias may occur since the questionnaires may generate biased and preconceived answered. Another limitation is that the questionnaire did not cover contents related to students' family background, income and residence, when in fact, those factors might directly influence their knowledge and attitudes towards HIV/AIDS. Also, this study was conducted only in one university so the results may be difficult to generalize to all health science students in the country.

Conclusion

Over half of the students (61%) have good knowledge on HIV/AIDS however only 28% of them have good attitude towards HIV/AIDS and AIDS patients. Majority of Social work students (75.4%) have good knowledge score while less than half of the (43.6%) health management students have good knowledge score. Male students have more positive attitude towards HIV/AIDS and AIDS patients than female students. Most of the students (91.3%) from nutrition and dietetics departments have bad attitude towards HIV/AIDS and AIDS patients. It is recommended that, the university should offer health education programs on HIV/AIDS and its prevention for their students in all the faculties.

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