VERSITA

Cent. Eur. J. Med. • 6(6) • 2011 • 732-740
DOI: 10.2478/s11536-011-0077-2

Central European Journal of **Medicine**

Knowledge, attitude and sources of information regarding aids of high school students in Antakya (Antioch) City

Research Article

Yusuf Onlen[1*], Nazan Savas[2], Cahit Ozer[3], Lütfü Savas[1], Faruk Incecik [4], Ali Kanatli[5]

[1] *Mustafa Kemal University, Faculty of Medicine, Department of Infectious diseases and Clinical Microbiology, 31000, Hatay, Turkey*

[2] *Mustafa Kemal University, Faculty of Medicine, Department of Public Health, 31000, Hatay, Turkey*

[3].*Mustafa Kemal University, Faculty of Medicine, Department of Family Medicine 31000, Hatay, Turkey*

[4].*Cukurova University, Faculty of Medicine, Department of Pediatric Neurology, Adana, Turkey*

[5].*Primer Health Care Office, 31000 Hatay, Turkey*

Received 3 September 2010; Accepted 12 November 2010

Abstract: **Aim**: The aim of the current study was to investigate the knowledge of senior High school students, sources of their knowledge, and the socio-economical facts acting on their knowledge about AIDS.

Methods: A cross sectional, descriptive study, included a total of 2838 students (1368 females and 1470 males) from 16 high schools of 4 different types (State, Anatolian, Trade, and Private high schools). A questionnaire composed of 5 different sections was used to analyze the knowledge level separately "what kind of disease is AIDS", "how AIDS can be transmitted", "risk factors for AIDS", "ways of protection from AIDS", and "the sources of their knowledge about AIDS" in sections from 1 to 5 respectively. In the first 4 sections the right answers were graded with a score of 2, wrong answers were graded with a score of 0, and a score of 1was given when the student did not have an idea. The maximum score for the first 4 sections of the questionnaire were 12, 38, 14, and 14 respectively. In the 5th section the probable sources of knowledge of AIDS, such as school, friends, family, newspapers, books, and TV, were questioned.

Results: The mean score received from the questionnaire were 49.50±6.50 (minimum: 27, maximum: 69). The mean score for the females was 49.69±6.46, it was 49.32±6.66 for the males ($p>0.05$). The mean score for the first 4 sections were 8.2±2.15, 24.7±4, 16, 9.70±2.30, and 6.90±1.79, respectively. Statistically, there was no significant difference observed between the 15-16, 17-18, and 19-20 age groups on knowledge about "risk factors for AIDS" ($p>0.05$). However, there were meaningful differences in "what kind of disease is AIDS", "how AIDS can be transmitted", and "ways of protection from AIDS" ($p<0.05$). In aspect of type of high school the knowledge levels of students about AIDS obtained from the questionnaire were statistically different. Concerning the total score of the questionnaire, the students from trade schools received the lowest score, while the highest score of "risk factors for AIDS." were received by Anatolian high school students. The highest score for "what kind of illness is AIDS", "how AIDS be can transmitted", and "ways of protection from AIDS" were received by private high school students.

Conclusion: High school students in this region do not have enough knowledge on AIDS. They need education especially on ways of protection and spread of AIDS.

Keywords: *HIV/AIDS • Knowledge • Attitude • High School Student*

© Versita Sp. z o.o.

1. Introduction

Human immune deficiency virus (HIV) is a serious disease causing viral agent which can lead to a range of clinical pictures from asymptomatic carriage to severe disorder, and even death [1].

Adolescents have a greater chance of acquiring HIV and other sexually transmitted diseases (STD). In contrast to decreases in sexual risk having, adolescents

* *E-mail: onlenyusuf@yahoo.com*

still ace a potentially high risk of STD and HIV infection due to their lifestyle. [2]. Education at high schools is beneficial to the health of the adolescents in order to prevent them from acquiring STDs and HIV infection. Because, they are among the most vulnerable samples in the evaluation of knowledge of them regarding HIV/AIDS is important in planning true preventive measures [3]. In the literature, there have been many STD/HIV prevention programs [4,5].

In Turkey, the total number of the patients with HIV infection was declared at 2711, [6] however, these numbers might be considered too low related to the real patients. In Turkish culture, parents and their children have poorer dialog in terms of sexuality. In addition, sexual information for adolescents regarding sexual relation is ineffective [7].

The fact that the young people cannot have adequate knowledge from correct sources on this issue and also being misinformed about many other related topics causes misunderstanding in dealing with these disorders.

In our country, relationships before marriage and the possibility for sexual intercourse in early ages is getting more common, as in the other countries [8]. As the beginnings of sexual relations are getting earlier, the prevalence of having a risk for STDs is increasing substantially.

The aim of the present study is to investigate the knowledge and information sources of high school students about AIDS and to evaluate the socio-demographical factors that may affect their knowledge about the disorder.

2. Material and Methods

This research is a cross-sectional descriptive study which was carried out in the high schools of Antakya, Turkey. The questionnaire given to the research groups consisted of five different sections. In the first part, there were 6 questions about “what kind of disease is AIDS”, in the second part, there were 19 questions about “how AIDS can be transmitted”, in the third part, there were 7 questions about “risk factors for AIDS”, and in the fourth part, there were 7 questions about “the ways of protection from AIDS”. In the first 4 sections the right answers were graded with 2 points, wrong answers with 0 point, and when the student did not have any idea a grade of 1 point was given.. In the fifth section, they were asked about the source of their knowledge about AIDS. In this section, for every information source, the answer options were as follows: “Never,”, “sometimes” and, “usually”. In the fifth section of the questionnaire, there was also an open ended question about the other sources. Thus, a total point of each section and general total points were obtained for each student. When a student got 2 points from every question of each separate section in the questionnaire, he would receive a maximum of 12 points from the first section, 38 from the second and 14 from the third and fourth sections. Therefore, the total maximum points of each student getting from the questionnaire would be 78. Also in the questionnaire, the age of the student, the education level of his parents and their high school type were evaluated. The study protocol was approved by the human ethics committee of Medical faculty of Mustafa Kemal University.

All the statistical analyses were performed using SPSS 11.5 statistical software. The frequency charts and Kolmogorov-Simirnov, Kruskal-Wallis Test were used. P value lesser than 0.05 was accepted as statistically significant.

3. Results

The current report consists of 2838 students from 16 high schools of 4 different types (State, Anatolian, Trade and Private high schools). From 16 high schools, a total of 2838 students, 1368 females and 1470 males were enrolled to the study. The youngest student was 15 years old and the oldest was 20 years old; the mean age was 16.78±0.75 years. More than half (57.7%) of the students (1638) were from state high schools, 919 (32.4%) from Anatolian high schools, 216 (7.6%) from trade high schools, and 65 (2.3%) from private high schools. None of the students had 78 points which is the maximum point value of the questionnaire. The highest

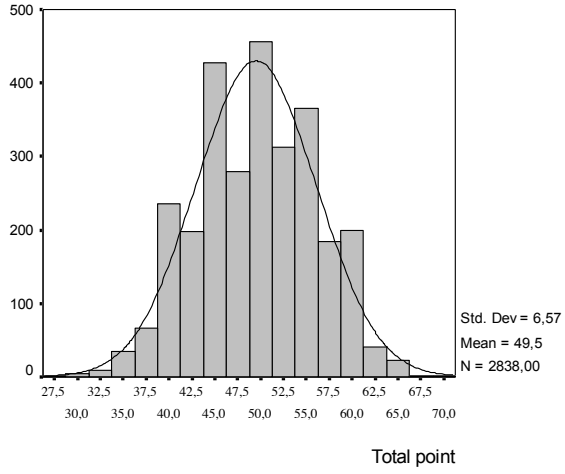

Figure 1 Total score distribution of knowledge levels of the students about AIDS.

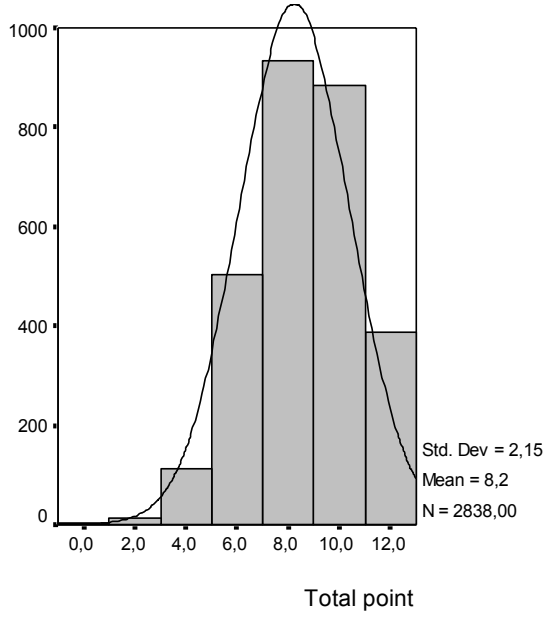

Figure 2 Distribution of general knowldge levels of the students about what kind of disease is AIDS.

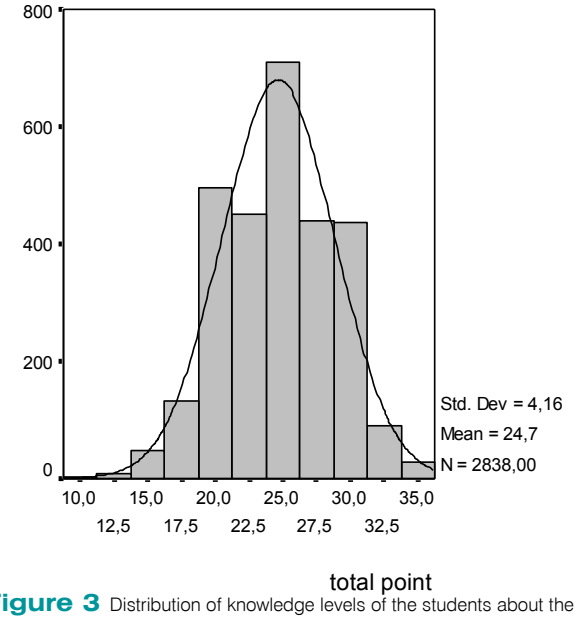

Figure 3 Distribution of knowledge levels of the students about the transmitting ways of AIDS.

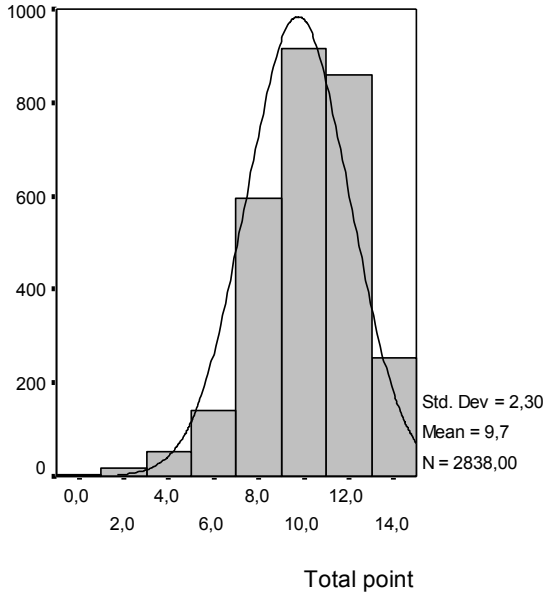

Figure 4 Distribution of knowledge levels of the students about the risk factors for AIDS

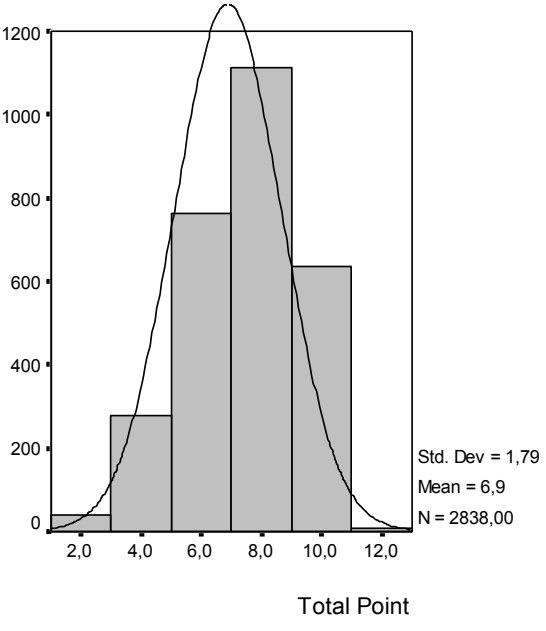

Figure 5 Distribution of knowledge levels of the students about the protection ways from AIDS

point obtained from the questionnaire was 69, the lowest was 27, and the mean was 49.50±6.50. The distribution of the total points was found to be abnormal ($p<0.05$; Figure 1). The distributions of the total points of both genders were not significantly different. The mean of the total points of the males were 49.32±6.66 and the females were 49.69±6.46. The mean point of the first section, "what kind of disease is AIDS," was 8.20±2.15, of the second section, "how AIDS can be transmitted," was 24.7±4.16, of the third section, "risk factors for AIDS," was 9.70±2.30, and of the fourth section, "the ways of protection from AIDS," was 6.90±1.79. The knowledge of the students about "what kind of illness is AIDS, "how AIDS can be transmitted", the risk factors and the protection ways from AIDS was not found to be normally distributed ($p<0.05$; Figure 2-5). The percentage distributions of the students' answers to the questions in the questionnaire are shown in Table 1. The most correct answered questions were "a person can get AIDS by having sex with a partner who has AIDS" (92.1%), "getting married with someone who has AIDS" (87.9%),

Table 1 Distribution of students' answers to the questions about AIDS

	True n (%)	False n (%)	No comment n (%)
What kind of disease is AIDS?			
AIDS is a disease of only homosexuals	188(6.6)	1862(65.6)	788(27.8)
AIDS is not seen in children	478(16.8)	1773(62.5)	587(20.7)
AIDS is a viral illness	2370(83.5)	122(4.3)	346(12.2)
AIDS is a hereditary disease	1126(39.7)	994(35.0)	718(25.3)
AIDS is a curable disease	829(29.2)	1324(46.7)	685(24.1)
AIDS can be protected with vaccine	587(20.7)	1347(47.5)	904(31.8)
How AIDS can be transmitted?			
Homosexual intercourse can increase the risk of transmission of AIDS	1197(42.2)	543(19.1)	1098(38.7)
AIDS can transmit by hand-shaking	75(2.6)	2473(87.1)	290(10.3)
AIDS can transmit by bite of mosquitoes	578(20.4)	1653(58.2)	607(21.4)
AIDS can transmit by kissing someone who has AIDS from her/his cheeks	198(7.0)	2226(78.4)	414(14.6)
AIDS can transmit by kissing someone who has AIDS from her/his lips	883(31.1)	1373(48.4)	582(20.5)
A person can get AIDS from a toilet seat	798(28.1)	1234(43.5)	806(28.4)
A person can get AIDS by having sex with a partner who has AIDS	2615(92.1)	97(3.4)	126(4.5)
AIDS can transmit by sharing the same classroom with HIV positive patient	302(10.6)	1965(69.2)	572(20.2)
AIDS can transmit by blood transfusion	2454(86.5)	102(3.6)	282(9.9)
AIDS can transmit by sharing or reusing unclean syringe and injection devices	2113(74.5)	184(6.5)	541(19.0)
AIDS can transmit by devices of **dentist**	1403(49.4)	634(22.3)	801(28.3)
AIDS can transmit with **razor** used by barber	1363(48.0)	803(28.3)	672(23.7)
AIDS can transmit by sharing the **same manicure and pedicure devices**	1085(38.2)	866(30.5)	887(31.3)
It is possible to get AIDS when a person gets **a tattoo**	899(31.7)	932(32.8)	1007(35.5)
AIDS can transmit by devices of circumcision	1460(51.4)	503(17.7)	875(30.9)
AIDS can transmit by sharing a glass of water, spoon, fork with a person who has AIDS	749(26.4)	1383(48.7)	706(24.9)
A pregnant woman with AIDS can infect her unborn baby	1927(67.9)	267(9.4)	644(22.7)
A mother infected with AIDS can infect her baby by **breast-feeding**	1174(41.4)	635(22.4)	1029(36.2)
AIDS can spread by coughing and sneezing	509(17.9)	1528(53.8)	801(28.3)
Risk factors for AIDS?			
Having more than one sexual partner	2426(85.5)	168(5.9)	244(8.6)
Homosexuality	**931(32.8)**	**720(25.4)**	**1187(41.8)**
Getting married with someone who has AIDS	2495(87.9)	147(5.2)	196(6.9)
Being healthcare professional	423(14.9)	1569(55.3)	846(29.8)
Intravenous usage of illicit drugs	1430(50.4)	484(17.1)	924(32.5)
Being born by a mother infected with AIDS	1956(68.9)	240(8.5)	642(22.6)
Receiving **blood** transfusion frequently	1770(62.4)	341(12.0)	727(25.6)
Ways of protection from AIDS?			
Not wandering on the places where a person with AIDS had already passed.	348(12.3)	2064(72.7)	426(15.0)
Receiving antiviral drugs after having sex with a person who has AIDS	680(24.0)	1322(46.6)	836(29.5)
Having a bath after having sex with a person who has AIDS	389(13.7)	1074(60.0)	745(26.3)
Using latex condom during sexual intercourse	1749(61.6)	251(8.8)	838(29.6)
Separating the private goods of person who has AIDS	1020(35.9)	1197(42.2)	621(21.9)
Setting up exercise regularly	437(15.4)	1619(57.0)	782(27.6)
Well feeding	642(22.6)	1444(50.9)	752(26.5)

Table 2 Knowledge levels of students about AIDS with respect of their socio-demographic properties

Properties		n	Scores for what kind of illness is AIDS Mean±SD	P*	Scores for How AIDS can be transmitted Mean±SD	P*	Scores for risk factors for AIDS Mean±SD	P*	Scores for Ways of protection from AIDS Mean±SD	P*	Total Score Mean±SD	P*
Age group	15-16	966	8.10±2.11	0.00	24.38±4.15	0.039	9.68±2.26	0.071	6.78±1.77	0.010	48.96±6.31	0.00
	17-18	1831	8.32±2.15		24.80±4.15		9.77±2.30		6.93±1.78		49.84±6.66	
	19-20	41	6.90±2.69		24.85±3.97		9.00±2.71		6.24±1.97		47.00±6.56	
Type of High school	State	1638	7.95±2.15	0.00	24.36±4.04	0.00	9.69±2.32	0.00	6.73±1.80	0.00	48.75±6.33	0.00
	Anatolian	919	8.91±1.92		25.55±4.18		10.08±2.12		7.21±1.67		51.76±6.24	
	Trade	216	6.90±1.93		22.62±3.88		8.59±2.42		6.25±1.79		44.37±5.49	
	Private	65	10.10±1.63		26.35±3.83		9.55±2.23		7.52±1.82		53.53±5.54	
Educational level of mothers	Uneducated	552	7.82±2.03	0.00	23.95±4.09	0.00	9.58±2.19	0.185	6.69±1.85	0.00	48.06±6.23	0.00
	Elementary (5 year)	1358	8.02±2.14		24.50±4.08		9.74±2.29		6.73±1.77		49.00±6.40	
	Secondary (8 years) and up	928	8.78±2.13		25.31±4.29		9.81±2.35		7.17±1.72		51.09±6.69	
Educational level of fathers	Uneducated	188	7.72±2.20	0.00	24.03±4.47	0.00	9.62±2.44	0.246	6.70±1.82	0.002	48.09±7.30	0.00
	Elementary (5 year)	1346	7.95±2.09		24.35±3.98		9.67±2.27		6.77±1.76		48.76±6.24	
	Secondary (8 years) and up	1304	8.59±2.15		25.07±4.24		9.81±2.29		6.99±1.79		50.47±6.65	

* Kruskal-Wallis Test

"AIDS can be transmitted by hand-shaking" (87.1%), while the most incorrectly answered questions were "AIDS is a curable disease" (46.7%), "separating the private goods of person who has AIDS" (42.2%), and "it is possible to get AIDS when a person gets a tattoo" (32.8%). The questions that "students had no idea in the questionnaire were homosexuality" (41.8%), "homosexual intercourse can increase the risk of transmission of AIDS" (38.7%), "a mother infected with AIDS can infect her baby by breast-feeding" (36.2%), "it is possible to get AIDS when a person gets a tattoo" (35.5%), "intravenous usage of illicit drugs" (32.5%), "AIDS can be protected with vaccine" (31.8%), and "AIDS can be spread by the devices of circumcision" (30.9%). However, only 4.5% of the students had no idea whether "a person can get AIDS by having sex with a partner who had AIDS".

The knowledge level of the students was compared according to the age groups. No significant differences were observed between age groups 15-16, 17-18 and 19-20 and "risk factors of AIDS" (p=0.071), whereas there were statistically significant differences in "what kind of disease is AIDS" (p=0.00), "total points of questionnaire" (p=0.00), "knowledge level of spread of the infection" (p=0.039) and "the ways of protection from AIDS" (p=0.010) (Table 2).

In aspect of type of high school the knowledge levels of students about AIDS obtained from the questionnaire were statistically different (p<0.05), (Table 2). The Trade school students received the lowest point averages in sections "what kind of disease is AIDS?", "how AIDS can be transmitted?", "risk factors for AIDS", "the protection ways from AIDS" and in the total of the questionnaire. While Anatolian high school students received the highest point for "risk factors for AIDS", private high school students had the highest points for "how AIDS can be transmitted", "the ways of protection from AIDS", "what kind of disease is AIDS", and in the total of the questionnaire.

The mothers of 19.5% of the students were illiterate or literate without formal education, 47.9% were primary school graduates, and 32.7% were high school graduates. The fathers of 6.6 % of the students were illiterate or literate without formal education, 47.4% were primary school graduates, and 45.9% were high school graduates. We have found that the knowledge level of the students of whose parents had higher educational status were signi-

Table 3 The knowledge levels of students about AIDS with regard of their habits of using information sources

Information source		n	Scores for general knowledge about AIDS Mean±SD	P*	Scores for knowledge about spreading ways Mean±SD	P*	Scores for knowledge about risk factors Mean±SD	P*	Scores for knowledge about protection ways Mean±SD	P*	Total Score Mean±SD	P*
Friends	Never	1324	8.11±2.21	0.01	24.43±4.10	0.01	9.66±2.32	0.04	6.81±1.76	0.13	49.00±6.64	0.00
	Sometimes	1277	8.34±2.08		24.83±4.15		9.86±2.27		6.93±1.83		49.96±6.43	
	Usually	237	8.38±2.21		25.12±4.46		9.53±2.26		6.98±1.72		50.03±6.66	
Family	Never	1410	8.03±2.13	0.00	24.25±4.14	0.00	9.56±2.30	0.00	6.87±1.75	0.51	48.71±6.53	0.00
	Sometimes	1082	8.41±2.15		24.94±4.26		9.92±2.42		6.92±1.79		50.37±6.46	
	Usually	346	8.53±2.18		25.12±4.10		9.91±2.39		6.77±1.93		50.16±6.33	
School	Never	1240	8.19±2.13	0.48	24.31±4.17	0.00	9.57±2.30	0.00	6.86±1.75	0.80	48.93±6.57	0.00
	Sometimes	1127	8.29±2.16		24.86±4.07		9.94±2.26		6.87±1.80		49.97±6.45	
	Usually	471	8.24±2.20		25.16±4.27		9.67±2.34		6.93±1.86		50.04±6.73	
Books	Never	879	8.05±2.18	0.00	24.05±4.05	0.00	9.44±2.30	0.00	6.83±1.76	0.65	48.38±6.42	0.00
	Sometimes	1196	8.26±2.08		24.81±4.24		9.85±2.21		6.90±1.72		49.82±6.47	
	Usually	763	8.42±2.22		25.13±4.09		9.91±2.39		6.88±1.93		50.33±6.73	
Newspaper/ Journal	Never	500	7.71±2.01	0.00	23.42±4.07	0.00	9.19±2.31	0.00	6.64±1.77	0.00	46.97±6.26	0.00
	Sometimes	1285	8.24±2.13		24.69±4.11		9.76±2.23		6.91±1.77		49.61±6.47	
	Usually	1053	8.47±2.21		25.21±4.13		9.96±2.33		6.94±1.81		50.59±6.51	
TV/ radio	Never	443	7.83±2.12	0.00	23.75±4.13	0.00	9.15±2.35	0.00	6.73±1.84	0.17	47.45±6.57	0.00
	Sometimes	1211	8.24±2.11		24.72±4.17		9.69±2.25		6.90±1.74		49.56±6.48	
	Usually	1184	8.38±2.19		24.95±4.10		9.10±2.28		6.90±1.81		50.23±6.48	

* Kruskal-Wallis Test

ficantly higher in sections "what kind of disease is AIDS", "how AIDS can be transmitted", "the ways of protection from AIDS", and in the total questionnaire, while there was no significant association between the education level of the students' parents and the knowledge level of students on "risk factors for AIDS" (p=0.185, p=0.246) (Table 2).

The relation between the usage of information sources and knowledge level of students are summarized in Table 3. The frequency of using information sources such as friend, family, school, book and TV/radio have no relation with the knowledge scores in section of "the ways of protection from AIDS" as these subgroups were not found to be significantly different. However, knowledge scores of students using journals/news papers "usually" were found to be significantly higher than the students using these sources "never" and/or "sometimes" in section of "the ways of protection from AIDS" (p=0.00) (Table 3).

4. Discussion

In the current study, we evaluated the knowledge, attitude, and information sources of the last phase of high school students about AIDS. The mean point of the students obtained from the questionnaire was 49.50±6.50 and no student had the maximum point value of 78. According to these results, the knowledge level of students found in the present study was moderate. Comparing this report to previous studies in terms of mean points obtained from the questionnaire is difficult due to some other issues that have been used. In the present study, the distributions of the total points of both sexes were not found to have a significant difference and these results were consistent with several studies in the literature [9-11]. In the study carried out by Albrektsson and co-worker [12] in China revealed that the female students knew more about the routes of transmission than the male students. However Agrawal et al. [13] found that boys had better knowledge than girls in terms of the information.

More correct answers were obtained from first three sections, while the lowest correct answers were found at the fourth section. There were statistically significant difference between first three sections and fourth section in terms of the knowledge (p<0.05). In the first section 83.5% of students confirmed that AIDS was a viral illness, 39.7% stated that AIDS is a hereditary disease, and 46.7% revealed that AIDS is not curable

disease. Most of the students were aware that AIDS is a viral illness but more than one third of them stated that AIDS is a hereditary disease. In study of Nwokocha et al. that was carried out in Nigeria [14], 82.9% of the students stated that AIDS was a viral disease and 87.4% answered that it was not a hereditary disease.

In the second section, the students had relatively sufficient knowledge about several questions of "how AIDS can be transmitted" such as by hand-shaking, mosquito bites, kissing from cheeks, sharing the same classroom, sharing unclean syringe, blood transfusion, and having sex with a partner who has AIDS. However, they had poor knowledge about how AIDS can be transmitted; such as homosexual intercourse, kissing from lips, dental devices, razor used by a barber, manicure and pedicure devices, devices of circumcision, tattoos, breast feeding, coughing and sneezing, using the same toilet seat, and sharing the same water glass, and cutlery. Even though the more correct answers were obtained for the queries in this section than the other ones, the rate of the correct answers of these sexually active students were much lower than the desired level. In the study of Tavoosi et al.which was carried out among the high school students [9]. Their correct answers to the questions about the ways of transmission of AIDS were as follows; AIDS can be transmitted by sexual contact with someone who had AIDS (96%), blood transfusion (94%), sharing of the needle (93%), through usage of the same shaving blade (91%), from the mother to her baby during birth (83%), making tattoo (81%), dental procedures (74%), AIDS cannot be transmitted by hand shaking (91%), kissing and hugging (85%), using public toilet (80%), sneezing and coughing (77%), and mosquito bites (67%). In the studies [9,12, 164 15-18] that are carried out in similar and different groups, the percentage of the ones who know that HIV/AIDS transmitted through sexual intercourse is higher than the results of our study.

In the third section, "risk factors for AIDS," the knowledge level of students were differed between the questions such as having sexual intercourse with more than one partner, being married to someone who has AIDS, being born by a mother infected with AIDS, and such as being homosexual, a healthcare professional staff, intravenous illicit drugs user. Here, it was thought that the sample in our study group did not have sufficient and healthy information about AIDS and those they had confusion about it.

In fourth section, there are also a variable lack of knowledge among students about AIDS; 12.3% students stated that it could protected from AIDS by not wandering on the places where a person with AIDS had already lived in, 13.7% by having a bath after sexual intercourse with a person who had AIDS, 14.4% by setting up regular exercise, 22.6% by healthy feeding. In the study of Nwokocha at al.'s [14], 88.9% of the students revealed that it could be protected from AIDS with regular exercise.

In the present study the knowledge levels of the sample of whose parents had higher educational level were significantly higher in sections "what kind of disease is AIDS", "how AIDS can be transmitted", "the ways of protection from AIDS", and in the total questionnaire. In a previous study done by Ferid, it was reported that those students who belonged to higher socioeconomic group and educated parents had satisfactory knowledge about AIDS [19]. Tawoosi et al.'s showed that the parents' educations were minimally associated with the students' knowledge regarding AIDS [9].

The points of the study about the ways of protection from AIDS are low in comparison to the expectation. The knowledge level of protection ways increases with the frequency of reading of newspaper and magazine as a information sources (p=0.00) and does not change with the frequency of having knowledge from friends, family, school, book and TV/radio. Therefore, only newspapers and magazines giving information about ways of protection and other sources are insufficient. These sources should give more information regarding ways to protect from AIDS. The results of Tavoosi et al.'s and Brook [9, 20] television and radio were thSe most common ways of obtaining information about AIDS, but not the most credible sources. Newspapers and magazines were associated with the most accurate knowledge regarding AIDS. These findings are consistent with the present study.

These results show that high school students enrolled to this study do not have enough knowledge about AIDS and they need further education especially about the ways of protection and the transmission. The education should improve the knowledge, attitudes, and behavior of the students. As the fact that AIDS is an illness that can be prevented as all infectious diseases and the protection is much more safe and economical than the therapy. Teaching them about the protection ways and correcting wrong attitudes is the most effective way for the prevention. Teenage which is the transition period from the childhood to the adulthood is one of the most dynamic decades of life. The lifestyle, attitudes, knowledge levels and interactions with other people affect both the present life and the future.

More than 50% of the world population is less than 25 years old, with one in three people aged 10-24 years [21]. Besides, a high percentage of the young population of the world lives in developing countries. In 1980, while 77.6% of the adolescents are in countries that are still

developing, this rate goes up to 83.5% in 2000 [22]. In many countries, more than 50% of the population has unsafe sex before the age of 16, without contemplating the consequences and without accurate information or contraceptive protection [21]. More than 50% of the patients with AIDS in the world are under age 25 year-old [23].

Evaluating the knowledge level regarding AIDS in samples that has young population like our country is not just a statistical study, but also a study of major importance to assess the knowledge level on sexually transmitted diseases such as AIDS, and to put forward the necessity of education about these diseases in the population. The number of the people who has HIV/AIDS increases in the world since 1981 when the disorder was firstly diagnosed. Informing the young people about HIV/AIDS until the illness has vaccine or cure will play a significant role for the control of the disease. One of the important groups that need to be targeted in such education programs is the young people. Training the young people in early period is important from the aspect of the health of the population in terms of the prevention of the infectious diseases.

References

[1] Zolopa AR, Katz MH: HIV infection and AIDS. In: Current Medical diagnosis and treatment. (Mcphee SJ, Papadakis MA ed). 49th edition The MCGraw-Hill Companies Inc. 2010; pp 1205-1234.

[2] Centers for Disease Control and Prevention Trends in sexual risk behaviors among high school students—United States, 1991–1997: Morbidity and Mortality Weekly Report 1998; 47: 749–752.

[3] Petro-Nustas W: University students' knowledge of AIDS. Int J Nurs Stud 2000; 37: 423–433.

[4] Song EY, Pruitt BE: A review of sexuality education programs for adolescents, 1960-1997. Journal of Health Education 2000; 31: 225-230.

[5] Kirby D: Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy. National Campaign to Prevent Teen Pregnancy, 2001; Washington, DC.

[6] Turkish Health Ministry. Data of General Directorate of Primary Health Care. Ankara: Turkish Health Ministry, 2007.

[7] Aral SO, Fransen L: STD/HIV prevention in Turkey: planning a sequence of intervention. AIDS Educ Prev 1995; 7: 544–553.

[8] Dagdeviren N, Set T, Akturk Z: Sexual activity among Turkish adolescents: once more the distinguished male. Int J Adolesc Med Health 2008; 20(4): 431-439.

[9] Tavoosi A, Zaferani A, Enzevaei A, et al: Knowledge and attitude towards HIV/AIDS among Iranian students. BMC Public Health 2004; 4 http://www.biomedcentral.com/1471-2458/4/17

[10] Brook U: AIDS knowledge and attitudes of pupils attending urban high schools in Israel. Patient Educ and Couns 1999; 36: 271-278.

[11] Green MS, Carmel S, Tsur S, et al: Differences in general knowledge of AIDS, its transmission and prevention among Israelis aged 18–19 years. Eur J Pub Hlth 1991; 1: 75-78.

[12] Albrektsson M, Alm L, Tan X, et al: HIV/AIDS Awareness, Attitudes and Risk Behavior Among University Students in Wuhan, China. The Open AIDS Journl 2009; 3: 55-62.

[13] Agrawal HK, Rao RS, Chandrashekar S, et al: Knowledge of and attitude to HIV/AIDS of senior secondary school pupils and trainee teachers in Udupi District, Karnataka, India. Ann Trop Pediatr 1999; 19: 143-149.

[14] Nwokocha AR, Nwakoby BA. Knowledge, Attitude, and Behavior of Secondary (High) School Students Concerning HIV/AIDS in Enugu, Nigeria, in the Year 2000. J Pediatr Adolesc Gynecol. 2002: 15: 93–96.

[15] Yazdi CA, Aschbacher K, Arvantaj A, et al: Knowledge, attitudes and sources of information regarding HIV/AIDS in Iranian adolescents. AIDS Care 2006; 18(8): 1004-1010.

[16] Yoo H, Lee SH, Kwon BE, et al: HIV/AIDS Knowledge, Attitudes, Related Behaviors, and Sources of Information Among Korean Adolescents. J Sch Health 2005; 75(10): 393-399.

[17] Barss P, Grivna M, Ganczak M, et al: Effects of a rapid peer-based HIV/AIDS educational Intervention on Knowledge and Attitudes of High School Students in a High-Income Arab Country. J Acquir Immune Defic Syndr 2009; 52(1): 86-98.

[18] Gańczak M, Barss P, Alfaresi F, et al: Break the silence: HIV/AIDS knowledge, attitudes, and educational needs among Arab university students in United Arab Emirates. J Adolesc Health 2007; 40(6): 572. e1- e8.

[19] Farid R.Role of information sources and socio-demographic factors on knowledge about AIDS in female adolescents. J Coll Physicians Surg Pak 2005; 15(1): 18-21.

[20] Brook U: AIDS knowledge and attitudes of pupils attending urban high schools in Israel. Patient

Educ and Couns 1999; 36: 271-278.
[21] Population Reference Bureau. World Population Data Sheet. Washington: Population Reference Bureau, 1996.
[22] WHO Technical Report Series No. 731, 2000 (Young people's health-a challenge for society) Report of a WHO study group on young people and "health for all by the year 2000".
[23] McCauley AP and Salter C. Meeting the needs of young adults: Growing numbers, diverse needs. Population Reports 1995; 41: 3-9.