

THE ASSOCIATION OF THE SEXUAL PRACTICE WITH PROTECTIVE METHODS AND SELF-EFFICACY OF THE STUDENTS OF VLORA UNIVERSITY TO HIV INFECTION

Rezarta Lalo, PhD candidate, MSN

Faculty of Public Health, University “Ismail Qemali”, Vlora Albania

Gjergji Theodhosi, Prof.Dr.

University of Medicine Tirana

Fatjona Kamberi, PhD candidate, MSN

Faculty of Public Health, University “Ismail Qemali”, Vlora Albania

Abstract

Introduction: Regardless the fact of whether a country has a low or a high prevalence rate of AIDS, reducing the vulnerability of young people to HIV infection is the principal defense against the epidemics of the future.

Purpose: To establish the association of the sexual practice with knowledges about prevention measures and self-efficacy of the students of Vlora University to HIV infection.

Methodology: This is a descriptive study where quantitative method was used for the data and information resulting from a survey structured in the form of a questionnaire. The study participants were 721 randomly selected students from the Vlora University. For statistical analysis of the data was used statistical program SAS version 9.1.

Results: The average age of the students was 20.75 ± 2.2 years, 56.45% were female and 43.55% male. 29% of the students manifest risky sexual practices and 71% safe practices. In total we notices that 46.66% of the students did not have good knowledge on preventive measures to HIV/AIDS. The Chi-square=0.3113>0.05 indicator does not show statistical significance between students' sexual practices and knowledge of preventive measures. In the students with safe practices 58% of them have very good and good knowledge, the ones with risky sexual practices only 55% have very good and good knowledge

Conclusions: The students of Vlora University do not have the sufficient knowledge on the preventive measures. HIV/AIDS-related education programs should include specific interventions to change practices, along with preventive measures knowledge

Keywords: Practices sexual, condom use, protective measures, HIV infection, University of Vlora

Introduction

Regardless the fact of whether a country has a low or a high prevalence rate of AIDS, reducing the vulnerability of young people to HIV infection is the principal defense against the epidemics of the future (UNAIDS 2001). There have been 22 years since the first case of HIV infection was diagnosed in Albania (the National Strategy for the Prevention and Control of HIV spreading in Albania 2010-2015). Based on the data from Public Health Institute up to November 2013 there are 671 cases of reported HIV individuals in Albania, 70% males (469 cases) and 30% females (202 cases), 77 cases of the age group 18-25 years old. Only for the time period January-November 2013 there were 93 individuals that were positive for HIV. According to the National Strategy for the Prevention and Control of HIV/AIDS in Albania 2004-2010 “..there is a potential danger for HIV spreading especially among the drug users who exchange the used syringes and other means with other users, in individuals who have unprotective sex with multiple partners, males who have sex with males and some population”.

Geographical location of the country and several risky behaviors among its population may lead to a further spread of HIV across the country (Dragoti.E et al.,2005). Immigration of different types of people, especially low income groups, is very common. Public Health Institute reports that 54 % e HIV infections in Albania are acquired out of the country so more risky remain the partners of males who work and live abroad. Another important issue is internal migration of people. This includes students who move to cities or urban areas after high school to continue their studies or to work (the National Strategy for the Prevention and Control of HIV spreading in Albania 2010-2015).

Previous researches indicate that the lifestyles of students on university campuses are placing them at risk of contracting the HIV (Anarfi J.2000; Tagoe M. et al., 2009) as the university environment has been shown to promote sexual activity among the general student population (Ngubane L.2009; Sadgrove J.2007). Additionally, the pressure from fellow students to live up to the standard such as buying latest mobile phones, expensive clothes, jewelry has been shown to influence young women to engage in transactional sex (Kwaku Oppong Asante 2013). Further research has indicated that although knowledge about a disease is a prerequisite for change of behaviour, an increase in knowledge about HIV does not predict behavioural change (Onah HE et al. 2004).

As cited in Cogging and Segal, Lau & Muula (2004) note 75%–85 % of HIV infection worldwide occurred through sexual contacts. They further note barrier contraception, especially condoms is the best method to reduce both infectiousness and susceptibility to HIV. Despite the increasing condom use, Lau & Muula (2004) note cultural, gender, economic, and service-delivery limitations hinder its consistent and broad use of in HIV and STIs prevention. They further conclude there has been widespread reluctance to use condoms during sexual intercourse because often times the individuals report lack of sensation or pleasure when using condoms.

Alcohol and drug use are believed to increase sexual risk taking. Several studies (Yitayal Shiferawet al.,2014; Adedeji S Adefuyeet al., 2009; UNAIDS 2004) including the report of the Biological Screening and Behavior (May 2008), have documented this relationship. The use of marijuana, which is more prevalent among university students (Mohler-Kuo M, Lee JE et al., 2003; Johnston LD et al., 2007), was significantly correlated with inconsistent condom use.

According to NARHS (National HIV/AIDS and reproductive health survey Nigeria 2003) report, quite a number of students in tertiary institutions have the knowledge of the preventive measure of HIV/AIDS, like the use of condoms and not sharing needles etc. However, students would rather not know their HIV status, if they can help it. So they shun the HIV test while others describe it as unnecessary. The most disturbing is the fact that many people have expressed their minds by saying that if by chance they suffer from any of the AIDS related symptoms, they would rather remain silent and keep it to themselves than subjecting themselves to HIV screening test. According to UNAIDS (2007) it is important for individuals to know their HIV status, in order to protect themselves and to prevent infecting others. Knowledge of one's HIV status serves as a critical factor in the decision to seek treatment.

In an age in which the use of technology has improved communication and information delivery, college student television broadcasts, student cell phone number registration to transmit prevention messages periodically, use of blogs, students newspapers are all approaches that can be considered in designing HIV prevention interventions for college students. All these communication channels should emphasize the importance of condom use and minimizing the number of sexual partners. All these should occur only after an assessment of HIV prevention needs assessment on college campuses (Twahafifwa N. 2013; Bounbouly Thanavanh et al.,2013; Adedeji S Adefuye et al., 2009).

Purpose

The main aim of this study is to establish the association of the sexual practice with knowledge about prevention measures and self-efficacy of the students of Vlora University to HIV infection.

Objectives of the study

To assess students' sexual practices of Vlora University as possible risk factors to HIV infection.

To assess student`s knowledge on preventive measures against HIV infection.

To assess the association of sexual practices with socio-demographic parameters of students.

To evaluate the association of student`s sexual practices with their knowledge on protective measures to HIV infection.

Methodology of the study

This is a cross-sectional descriptive study conducted at the University "Ismail Qemali" during the period from May to June in 2014. This is a quantitative method which uses the data and information resulting from a survey structured in the form of a questionnaire. The survey was conducted among 721 randomly selected UV students. During the drafting of the questionnaire was consulted a range of materials and questionnaires were considered models used roughly similar studies. Each correct answer in the section on sexual practices is estimated at 1 point. Sexual practices of students have categorized in safe sexual practices and risky sexual practices based on their mean and median score: Accordingly, those scoring less than median scores for practice were classified as “risky” practices, and those scoring equal and more than median scores were classified as “safe” practices. According to knowledge of preventive measures was assessed according to the answers of the 12 questions in the knowledge of preventive measures section about HIV/AIDS infection. Each correct answer had 1 point and the total was classified in this category:

10-12 points - Very good knowledge

7-9 points - Good knowledge

0-6 points - Not very good knowledge

Data analysis

An expert in statistic was used for data coding and analyses to enhance the research validity. For statistical analysis of the data was used statistical program SAS (Statistical Analysis System) version 9.1. A P values $\leq 0,05$ were accepted as statistically significant.

Pilot study

The validity and reliability of measuring instruments was tested in a pilot study in a group of 30 students of Public Health Faculty. These 30 students did not know that they were part of a pilot group. After evaluation was certified that there were not evident problems or difficulties in understanding the questions.

Ethical principles

For the realization of this study initially assured permission from the rector of Vlora University and the deans of various faculties and the approval to conduct this research study was obtained from the University "Ismail Qemali" Vlore Council of Ethics before the study commences. Studies which collect personal information on subjects, to be designed in an ethical manner to protect individuals participating in the study, also based in Helsinki Declaration. Informed consent was obtained from the participants after informing them about all the relevant issues of the study. There was no discomfort observed during questionnaire completion and the participants were assured of confidentiality.

Results of the study

There were 721 students who participated in this study. According to socio-demographic data, 56.45 % of the participants were females and 43.55 % males. The higher percentage of the females that participated in the study is because there are more females than males who attend Vlora University (the Statistics Office of VU). This shows the precision of the used methodology in our study. 66% of the students live in the city and 34 % in the village. 83% are single, 7.4% are married, 8.9% live with another partner, 1% divorced. 88% state their economic level is average. 80% are muslims, 7% catholics, 12% orthodox, and 1% atheists. 52% live with their families, 36% rent, 8% in the dormitory and 4% rent out of the school premises. 40 % of the participants were nursing students`, 60% were students from other disciplines. The mean age of the participants was 20.75 ± 2.2 years with maximal age of 40.

Table 1: Evaluation of sexual practices and perceived HIV risk of respondents

Variables	Number	Percentage
Do you have performed sexual intercourse?		
Yes	485	67.27
No	236	32.73
Total	721	100.00
Sexual violence		
Yes	8	1.65
No	477	98.35
Total	485	100.00
Perceived HIV risk		
No risk	266	54.96
Little risk	98	20.25
Moderate risk	7	1.45
Good risk	3	0.62
Don't know	110	22.72
Total	484	100.00

Table 2. Correlation between sexual practices of the students and their socio- demographic variables

Sexual practices					
Variables	Safe practices		Risky practices		Total
	N	(%)	N	(%)	N (%)
Gender	Female	184	8	192	
		37.94	1.65	39.59	
	Male	(95.83)	(4.17)	(100.00)	
		160	133	293	
	Total	32.99	27.43	60.41	
		(54.61)	(45.39)	(100.00)	
	344	141	485		
	70.93	29.08	100.00		
Statistic		DF	Value	Prob	
Chi-square		1	95.6030	<.0001	
Sexual practices					
Variables	Safe practices		Risky practices		Total
	N	(%)	N	(%)	N (%)
Subject	Public Health	129	24	153	
		26.60	4.95	31.55	
	Faculty	(84.31)	(15.69)	(100.00)	
		215	117	332	
	Faculties	44.33	24.13	68.45	
		(64.76)	(35.24)	(100.00)	
Total	344	141	485		
	70.93	29.08	100.00		
Statistic		DF	Value	Prob	
Chi-square		1	19.2221	<.0001	

Table 3. The analysis of factors associated with reporting moderate to good perception of HIV risk among sexually experienced respondents

<i>Perception of HIV risk</i>						
<i>Variables</i>	<i>Perception of HIV risk</i>	Moderate risk	Good risk	Total		
	<i>Variables</i>	N (%)	N (%)	N (%)		
Risk factors	Alcohol and/or drug use during sex	Yes	20	1	53	10.93
		No	4.13	0.21	2	432
			85	0.42		
			17.52			
	Condom use during sex	Never	13	2	108	
		Sometimes	2.68	0.42	22.27	
		Always	56	1	212	
			11.55	0.21	43.71	
			36	0	165	
			7.42	0.00	34.02	
	Multiple sexual partnership	1 partner	29	1	239	
		2 or more	6.86	0.24	56.10	
			12.77	0	187	
				0.00	43.90	
	Age at sexual debut (in year)	≤18	75	2	272	
≥19		15.50	0.42	56.08		
		30	1	213		
		6.19	0.21	43.92		
(Alcohol and/or drug use during sex)		Statistic	DF	Value	Prob	
Chi-Square			4	22.1121	0.0002	
Likelihood Ratio Chi-Square			4	14.9974	0.0047	
Mantel-Haenszel Chi-Square			1	9.9306	0.0016	
(Condom use during sex)		Statistic	DF	Value	Prob	
Chi-Square			8	15.2929	0.0537	
Likelihood Ratio Chi-Square			8	17.1021	0.0291	
Mantel-Haenszel Chi-Square			1	8.9231	0.0028	
(Multiple sexual partnership)		Statistic	DF	Value	Prob	
Chi-Square			20	34.7693	0.0214	
Likelihood Ratio Chi-Square			20	35.1555	0.0193	
Mantel-Haenszel Chi-Square			1	4.9446	0.0262	
(Age at sexual debut (in year)		Statistic	DF	Value	Prob	
Chi-Square			8	23.5966	0.0027	
Likelihood Ratio Chi-Square			8	20.4893	0.0086	
Mantel-Haenszel Chi-Square			1	15.5860	<.0001	

Table 4: The distribution of students according to their knowledge on preventive measures.

AIDS-related preventive measures item	Correct response		Incorrect response	
	No	%	No	%
1. Using condom during sex could reduce the risk of contracting HIV	559	78.40	153	21.60
2. A condom is not reliable	411	57.64	301	42.36
3. A condom interferes with sexual pleasure	212	29.73	500	70.27
4. My partner opposes using condom	344	48.25	368	51.75
5. Abstaining is the best measure of protecting oneself	395	55.40	317	44.60
6. You cannot get HIV from a partner that you have known for more than a year	483	67.74	229	32.26
7. You may not use a condom with someone who could give you gifts in return	558	78.37	153	21.63
8. Drug and alcohol use may reduce the ability to use a condom	403	56.60	308	43.40
9. Having only one sexual partner can reduce the risk of contracting HIV	489	68.68	222	31.32
10. There is a vaccine that stops getting HIV	142	19.75	571	80.11
11. Even though I do not have a condom, I will perform sexual intercourse anyway	300	42.08	412	57.92
12. I should refuse to have sexual intercourse without a condom	304	42.64	408	57.36

Table 5. Correlation between knowledge of preventing measures and socio- demographic variables

Variables		Not good knowledges	Good knowledges	Very good knowledges	Total
		N (%)	N (%)	N (%)	N (%)
Gender	Female	199 28.31 (50.12)	163 23.18 (41.06)	35 4.98 (8.82)	397 56.47
	Male	129 18.35 (42.16)	155 22.05 (50.65)	22 3.13 (7.19)	306 43.53
	Total	328 46.66	318 45.23	57 8.11	703 100.00
		Statistic Chi-square	DF 2	Value 6.4335	Prob 0.0401
Variables		Knowledge of preventing measures			
		Not good knowledges	Good knowledges	Very good knowledges	Total
		N (%)	N (%)	N (%)	N (%)
Subject	Public Health Faculty	115 16.36 (40.35)	139 19.77 (48.77)	31 4.41 (10.87)	28 40.54 (100.00)
	Others Faculties	213 30.30 (50.96)	179 25.46 (42.82)	26 3.70 (6.22)	418 59.46 (100.00)
	Total	328 46.66	218 45.23	57 8.11	703 100.00
		Statistic Chi-square	DF 4	Value 11.2745	Prob 0.0236

Table 6. Evaluation of association between knowledge of preventing measures and sexual practices of the students

Sexual practices					
Knowledge of preventing measures					
The scale of measuring	Not good knowledges	Good knowledges	Very good knowledges	Total	
	N (%)	N (%)	N (%)	N (%)	
Safe practices	141 29.75 (41.96)	164 34.60 (48.81)	31 6.54 (9.23)	336 70.89	
Risky practices	62 13.08 (44.93)	69 14.55 (50.00)	7 1.48 (5.07)	138 29.11	
		Statistic Chi-Square	DF 2	Value 2.3341	Prob 0.3113

Table 6.1. Evaluation of association between knowledge of preventing measures and sexual practices of the students

Sexual practise	<i>I should refuse to have sexual intercourse without a condom</i>					
	Strongly disagree	Agree	Don't know	Disagree	Strongly agree	Total
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
Condom use during sexual intercourse?						
Never	21	28	21	37	3	110
Sometimes	4.34	5.79	4.34	7.64	0.62	22.73
Always	31	44	34	75	22	206
Total	6.40	9.09	7.02	15.50	4.55	42.56
	23	54	28	29	34	168
	4.75	11.16	5.79	5.99	7.02	34.71
	75	126	83	141	59	484
	15.49	26.04	17.15	29.13	12.19	100.00

Pearson Correlation = 0.0889

Table 6.2. Evaluation of association between knowledge of preventing measures and sexual practices of the students

Sexual practise	Knowledge of preventing measures					
	<i>Drug and alcohol use may reduce the ability to use a condom</i>					
	Strongly disagree	Agree	Don't know	Disagree	Strongly agree	Total
N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
Alcohol and/or drug use during sexual intercourse?						
Yes	6	19	4	12	12	53
No	1.24	3.93	0.83	2.48	2.48	10.96
Total	47	165	79	47	93	431
	9.71	34.09	16.32	9.71	19.21	89.04
	53	184	83	59	105	484
	10.95	38.02	17.15	12.19	21.69	100.00

Pearson Correlation = 0.0359

Table 6.3. Evaluation of association between knowledge of preventing measures and sexual practices of the students

Sexual practise	Sexual Practice			
	<i>Condom use during sexual intercourse?</i>			
	Never	Sometimes	Always	Total
N (%)	N (%)	N (%)	N (%)	
Alcohol and/or drug use during sexual intercourse?				
Yes	9	29	15	53
No	1.86	5.98	3.09	10.93
Total	99	183	150	432
	20.41	37.73	30.93	89.07
	108	212	165	485
	22.27	43.71	34.02	100.00

Pearson Correlation = 0.0728

Table 6.4. Correlation between variables of sexual practices of the students

Sexual practise	Sexual Practice		
	Having multiple sexual partners		
	1 partner	2 or more	Total
	N (%)	N (%)	N (%)
Alcohol and/or drug use during sexual intercourse?			
Yes	7	33	40
No	1.65	7.78	9.43
Total	231	53	384
	54.48	36.09	90.57
	238	86	424
	56.13	43.87	100.00

Pearson Correlation = 0.2613

Sexual practise	Sexual Practice		
	Having multiple sexual partners		
	1 partner	2 or more	Total
	N (%)	N (%)	N (%)
Condom use during sexual intercourse?			
Never	82	18	100
Sometimes	19.34	5.14	23.58
Always	84	92	176
Total	19.81	21.70	41.51
	72	76	148
	16.98	17.93	34.91
	238	186	424
	56.13	44.77	100.00

Pearson Correlation = 0.2654

Discussion:

In this study we evaluated the relation of the sexual practices with their knowledge on the preventive measures and the socio demographic variables.

According to sexual practices of the participants in the study 67% (or 485 students) have had sexual intercourse and 33% no (**table 1**). 44% of the students who had sexual intercourse had it over the age of 19; 51% at the age of 15-18 and 5% under the age of 14. We notice that the age of first sexual practice is very young. According to similar study in USA high rate of sexual initiation at early age was reported (Adefuye SA et al., 2011), but in another similar study most of the participants were initiated their first sexual intercourse at the age range of 19 years or more (Yitayal Shiferaw et al., 2014). In our study we notice that the tendency to have sexual intercourse is higher in males than females. 34% of the males report sexual relations in the age group 15-18 years old, 5% 14 or younger. The higher percentage in

females is over the age of 19 for the first sexual intercourse. The early age of sexual intercourse seen more in males than females is stated in most of the studies conducted in Albania. According to the study of Yitayal Shiferaw et al.,2014 it was noted that the majority sexually active respondents and having multiple partnerships were found to be female students. Other similar studies have similar results as our study (Aras et al.2007; Adedeji S Adefuye et al., 2009; Nigatu Regassa et al., 2011). We see that 56% of students state to have had 1 sexual partner, 17% 2 partners, 14% report 3 partners and 1% more than 6 sexual partners. So almost 44% of the students have had more than one sexual partner. 22 % of the students never use a condom during the sexual act, 44% sometime and 34% always. These results show a very small use of protective means to HIV during sexual acts at students of VU, which is similar to other studies (Adedeji S Adefuye et al., 2009; Twahafifwa N. 2013; Yitayal Shiferaw et al.,2014; Merkuri.L 2013). For the alcohol and drug abuse 89% of the students do not use them and 11% declare to have used them before or after sexual act. There is a low percentage but considerable of the alcohol or drug use before and during sexual act as a risky factor for HIV transmission. These results are similar to the study conducted from Adedeji S Adefuye et al., 2009 who stated that “...*alcohol and drug use alter judgment, remove inhibitions and engender high risk sexual behaviors...*”, but the results of his study showed no significant differences in alcohol and/or drug use in the context of sexual activity. Previous studies (Bruce KE et al., 2001; Lance L. et al.,2001) have shown that individuals engaging in HIV risk behaviors often engage in other high risk or illegal behaviors. These findings will indicate that more attention needs to be focused on the role of alcohol and drug use in the participation HIV sexual risk behaviors in the design and implementation of HIV prevention programs for college students. Only 1.65% of the students report sexual violence, a low number compared to other studies (Karl Peltzer et al., 2013; Campbell JC et al.,2008; Richter L et al., 2013). These studies also show that women who experience intimate partner violence are at risk for HIV through high-risk heterosexual contact. According to the National Strategy for the Prevention and Control of HIV spreading in Albania 2010-2015 “... *the sexual and family violence in Albania remains hidden and it is promoted from the patriarchal and traditional behaviors of some minority groups...*” which explains the low number of sexual violence in our study. 55% of the students think they are not at risk for HIV infection, 23% do not know, 20% think they have low risk and only 1% think they are in average and high risk for HIV. These data show a low perception to the risk of HIV/AIDS at the students of VU. These results are similar to other studies (Adedeji S Adefuye et al., 2009; Bologa.D et al. Kosove 2008). Perception of risk may be a strong motivating factor for behavioral change, particularly

if the individual perceives control over the risk behavior. The tendency to systematically underestimate personal risk termed 'optimistic bias (Donal E. Carlston - 2013) and treating HIV infection as a distant possibility (Macintyre K. et al.,2004; Adedeji S Adefuye et al., 2009) have been reported among college students.

Table 2 analyzes the relation between the sexual practices and socio demographic variables: gender, field of study. The indicator Chi-Square $< .0001 < 0.05$ shows that there is a statistical important significance in the practices among both genders. 95.83% of females and 54.61% of males use careful sexual practices, so females are more careful in sexual practices than males, this result is on contrary to other results from Yitayal Shiferaw et al.,2014. The relation between the field of study and the sexual practices of the students, Chi-Square $< .0001 < 0.05$ shows a statistical important significance. We notice that 84.31% of the nursing students use protective sexual means meanwhile 64.76% of the students of other fields of study use safe sexual practices. So, the nursing students practice sex more safely, similar to the results of other studies (Namaitijiang Maimaiti et al. 2010)

In order to determine the risk level “ moderate” or “ high” we estimated the answers that stated a) low and moderate risk and b) excluding the answers “ there is no risk” or “ I do not know”.

The relation between the risk perception of HIV infection and risk factors (**table 3**) we notice:

1. *The use of alcohol and drugs before and during the sexual act.*

Chi-Square = $0.0002 < 0.05$ shows a statistical important significance between the risk perception of HIV infection from the students who use alcohol and drugs and those who don't. 4% of the total of students use alcohol and drugs and think that they have a high or moderate risk, 18% of the students do not use alcohol and still have a high or moderate risk of HIV infection. So, the students who do not use alcohol and have a better risk perception of HIV infection, as the students who abuse alcohol and drugs have low perception in contrast with other studies (Adedeji S Adefuye et al., 2009; Yitayal Shiferaw et al., 2014) which state that “...Even though the number of students who are reported alcohol and/ or other drug use; multiple partnerships; and inconsistent condom use were high, most strikingly students who have these risk behaviors were significantly perceived themselves as having a moderate to good risk of being infected with HIV than they do not....”

2. *The use of condom during sexual act*

Chi-Square = $0.0537 > 0.05$ shows a casual significance, with no statistical significance between the risk perception among the students who use the condom and those who don't. So we may say that a student that has good risk perception might not use the condom as another student with low

perception that might use the condom, this in contrary to other studies mentioned in point 1.

3. *The number of sexual partners during the life time*

Chi-square $<0.0214 <0.05$ shows a statistical important significance between the students related to their sexual partners and risk perception of HIV infection. From the students with one sexual partner and that have a perception to the risk infection are 8%, in comparison to 13% of the ones who had more than one sexual partner and have a perception to the risk of HIV infection. These results are similar to other studies (Adedeji S Adefuye et al., 2009; Yitayal Shiferaw et al., 2014)

4. *The age of the first sexual intercourse*

Chi-square $<0.0027 <0.05$ shows a statistical important significance between the students according to their age at first sexual act and their risk perception of HIV infection. From the students who had their first sexual intercourse before the age of 18 and have a perception to the risk are 16% in comparison to 6% of the ones who started sexual intercourse over the age of 19 and have a risk perception to HIV infection. So, the students who had early sexual intercourse do have a perception of HIV infection, which is similar to other studies (Adedeji S Adefuye et al., 2009; Yitayal Shiferaw et al., 2014).

Table 4 analyzes the level of knowledge on preventive measures to HIV infection. The results show that the students answered wrong some of the questions:

70% answered wrong the question 3 (a condom interferes with sexual pleasure); 58% wrong the question 11 (even though I do not have a condom, I still have sexual relation), 57% wrong question 6.12 (I should refuse to have sexual relations without a condom), 51% wrong question 6.4 (my partner opposes using condom), 45% wrong the question 6.5 (abstaining is the best measure of protecting oneself), 43% wrong question 6.8 (drug and alcohol use may reduce the ability to use a condom) and 42% wrong question 2 (the condom is not reliable). These results show a higher percentage of the wrong answers of our students compared to other similar studies (Twahafifwa Ndahekeleka Tupavali Nghamwa 2013; Zulma Hernandez 2003). In total we notice that 46.66% of the students did not have good knowledge on preventive measures to HIV/AIDS.

Chi-square $=0.0401 <0.05$ shows a statistical significant change on *the knowledge about the preventive measures and gender (table 5)*. Males have better knowledge than females on the preventive measures, 57.84% of males have very good and good knowledge, 49.88% of the females have very good and good knowledge in contrast to other similar studies where females had better knowledge (Wondemagegn Mulu et al. 2014). *The field of study* shows a coefficient Chi-square $=0.0236 <0.05$ which shows a statistical

significant change on the knowledge of preventive measures of the nursing students compared to non nursing students. 59.64% of the nursing students have very good and good knowledge, but only 49.04% of the non nursing students, similar to the study conducted in Mylazia (Namaitijiang Maimaiti et al. 2010).

Table 6 shows that 29% of the students manifest risky practice and 71% safe practices which shows a better result compared to a similar study where 43.6% were having risky practice (Thanavanh B et al. 2013). This table also presents the relation of the knowledge of the preventive measures with risky practices of 474 students with sexual experience. The Chi-square=0.3113>0.05 indicator does not show statistical significance among the students with various sexual practices. In the students with safe practices 58% of them have very good and good knowledge, the ones with risky behavior only 55% have very good and good knowledge. These results are contrary to the results of Thanavanh B et al. 2013 who stated that level of knowledge significantly contributed to level of sexual practices.

Table 6.1 shows the Pearson Correlation = 0.0889. Not statistically significant was found between the knowledge (12) and sexual practice (condom use during sex). Sexual risk behaviors increasing among adolescents over time and the need to improve the impact from programs that promote healthy sexual habits is required (Espada JP.et al.,2015).

Table 6.2 shows the Pearson Correlation = 0.0359. Not statistically significant was found between the knowledge (8) and sexual practice (alcohol/drug use during sex). We can say that the students who think that alcohol and drugs lower the ability to use the condom and the students who think the opposite are the same exposed to unsafe sexual practices. The knowledge does not affect the exposure to the risks. The results in contrast with other studies were the alcohol consumption and legal and illegal drug use were associated with unprotected sex (Sanchez ZM.at al.,2013).

The Pearson Correlation = 0.0728 in **Table 6.3** shows Not statistically significant between two sexual practices for the use of condom and the alcohol and drug consumption during the sexual relations. We can say that it is expected that both types of students may manifest the same sexual practices of the use of condom. This is contrary to the study of Yitayal Shiferaw et al.,2014 who found that there was statistically significant association between drinking alcohol/ illegal drugs during sex and inconsistency condom, which means that the students who abuse with alcohol and drugs do not use the condom systematically.

Table 6.4 shows the Pearson Correlation = 0.2613 which is interpreted as a weak or moderate relation of the variable the number of sexual partners and the sexual practice of the use of alcohol and drugs. So, the students that abuse with alcohol and drugs and the ones who do not, are

expected to have the same behavior in relation to the sexual partners. The Pearson Correlation = 0.2654 shows a weak to moderate relation between having some sexual partners and the sexual practice of condom use during sexual relation. So it is expected that the students who have one partner and the ones who have more than one have the same behavior on the use or not of condom during sexual relations. This is contrary to another studies (Yitayal Shiferaw et al.,2014; Sanchez ZM.at al.,2013) who found that there was statistically significant association between the above variables.

Limitation of the study:

There were several limitations to the study. First, we restricted this study to only Vlora University and did not include others universities students. This limits the generalizability of the study findings to other districts of Albania and to all students of similar age.

Sensitive issues like partner's emotional and psychological characteristics of the participants which can influence HIV risk perception and sexual practices were not collected. These make this study to be deficient in assessing all factors responsible for HIV risk perception and sexual behavior. Moreover, since this is a cross-sectional study, the direction of causal relationships cannot be determined.

Finally, because of the self-administered questionnaire, social desirability bias may have occurred. However, the anonymity of the questionnaires hopefully encouraged students to be honest in their responses.

Despite all of these limitations, we believe this study might be a reasonable source of information for researchers and policymakers.

Conclusion:

The students of Vlora University do not have the sufficient knowledge on the preventive measures. Their knowledge on preventive measures, which were better in nursing students and male students did not affect their sexual practices. The association of the sexual practice with protective methods and self-efficacy of the students is not statistically significant that shows that even though they have good knowledge on protective measures or not, they are equally exposed to risky behavior. Even though the students are involved in risky sexual practices as the early sexual relations, the inconsistent use of condom, the number of sexual partner etc, they had low perception of the risk of being infected with HIV/AIDS. HIV/AIDS-related education programs should include specific interventions to change practices, along with preventive measures knowledge in a manner of addressing different issues in various categories of students based on the observed deficiencies.

Acknowledgments:

Thank you to all student of Vlora University participating in the study for making this article possible! A special thank you also goes to co-authors for their cooperation and support.

References:

Report of the Study of Biological and Behavioral Surveillance, 2008. (Albania Bio-BSS, 2008).

The National Strategy for the Prevention and Control of HIV spreading in Albania 2010-2015. Raport of Public Health Institute PHI november 2013.

Dragoti E. et al. 2005 Rapid Assessment and Response on HIV/AIDS in Albania. UNICEF Tirana

UNAIDS: The global strategy framework on HIV/AIDS. Geneva; Switzerland: UNAIDS; 2001.

UNAIDS. 2004 report on the global AIDS epidemic. 2004. [cited 2011 May 24]. Available from: <http://img.thebody.com/unaidspdfs/unaidspdfsummary2004.pdf>

UNAIDS, 2007. Report on the global AIDS epidemic. Available from <http://www.unaids.org> Anarfi J: Universities and HIV/AIDS in Sub Saharan Africa: A Case Study of the University of Ghana, Legon. Accra, Ghana: Paper prepared for ADEA Working Group in Higher Education; 2000.

Tagoe M, Aggor RA: Knowledge, behaviour, perceptions and attitudes of university of Ghana students towards HIV/AIDS: what does behavioural surveillance survey tell us? J Health Hum Serv Admin 2009, 32(1):51–84.

Ngubane L: Understanding influences surrounding sexual initiation among female university students. Durban, South Africa: Honours research dissertation. University of KwaZulu-Natal; 2009.

Namaitijiang M. et al., Knowledge, Attitude and Practice Regarding HIV/AIDS among University Students in Xinjiang www.ccsenet.org/gjhs Global Journal of Health Science Vol. 2, No. 2; October 2010.

Sadgrove J: ‘Keeping up appearances’: Sex and religion among University Students in Uganda. J Religion in Africa 2007, 37(1):116–144

Onah HE, Mbah AU, Chukwuka JC, Ikeme AC: HIV/AIDS awareness and sexual practices among undergraduates in Enugu, Nigeria. Niger Postgrad Med J 2004, 11(2):121–125.

NARHS, 2003. National HIV/AIDS and reproductive health survey Nigeria.

Mohler-Kuo M, Lee JE, Wechsler H: Trends in marijuana and other illicit drug use among college students: Results from four Harvard School of Public Health College Alcohol Study surveys: 1993-2001. J Am Coll Health 2003, 52(1):17-24.

Johnston LD, O'Malley PM, Bachman JG, Schulenberg JE: Monitoring the Future national survey results on drug use, 1975-2006: College students and

- adults ages 1945. Volume II. NIH Publication No. 07-6206. Bethesda, MD: National Institute on Drug Abuse;2007.
- Bruce KE, Walker LJ: College students' attitudes about AIDS:19862000. AIDS Educ Prev 2001, 13(5):428-437.
- Lance L: HIV/AIDS perceptions and knowledge: heterosexual college students within the context of sexual activity: suggestions for the future. Coll Stud J 2001, 35:401-410.
- The Oxford Handbook of Social Cognition Donal E. Carlston - 2013 - Psychology. Oxford University Press.
- Yitayal Shiferaw et al., 2014 Perception of risk of HIV and sexual risk behaviors among University students:implication for planning interventions. <http://www.biomedcentral.com/1756-0500/7/162>
- Adefuye SA, Abiona TC, Balogun JA, Amosun SL, Frantz J, Yakut Y: Perception of risk of HIV and sexual risk behaviours among students in the United States, Turkey and South Africa. Journal of Social Aspects of HIV/AIDS 2011, 8(1):19–26.
- Adedeji S Adefuye et al.,2009 HIV sexual risk behaviors and perception of risk among college students: implications for planning interventions. BMC Public Health 2009, 9:281 doi:10.1186/1471-2458-9-281.
- Nigatu Regassa et al.,2011 Attitudes and practices on HIV preventions among students of higher education institutions in Ethiopia:The case of Addis Ababa University. Educational Research (ISSN: 2141-5161) Vol. 2(2) pp. 828-840 February 2011
- Twahafifwa Ndahekeleka Tupavali Nghaamwa.“The perceptions of students about risky behaviour that could make them vulnerable to HIV infection” Assignment presented in fulfilment of the requirements for the degree of Master of Philosophy (HIV/AIDS Management) Stellenbosch University <http://scholar.sun.ac.za> December 2013.
- Merkuri.L “ Evaluation of the knowledge, attitudes and behaviors about sexually transmitted infections to Albanian university students. Thesis of desertacion Tirane 2013
- Peltzer et al. Mental health, childhood abuse and HIV sexual risk behaviour among university students in Ivory Coast BioMed Central Ltd 2013.<http://www.annals-general-psychiatry.com/content/12/1/18>.
- Richter L, Komárek A, Desmond C, Celentano D, Morin S, Sweat M, Chariyalertsak S, Chingono A, Gray G, Mbwambo J, Coates T: Reported physical and sexual abuse in childhood and adult HIV risk behaviour in three African countries: findings from Project Accept (HPTN-043). AIDS Behav 2013.

- Campbell JC, Baty ML, Ghandour RM, Stockman JK, Francisco L, Wagman J: The intersection of intimate partner violence against women and HIV/AIDS: a review. *Intern J Inj Control Safety Prom* 2008, 15(4):221-231.
- Oppong Asante *Reproductive Health Journal* 2013, 10:17. HIV/AIDS knowledge and uptake of HIV counselling and testing among undergraduate private university students in Accra, Ghana.
- Bologa.D et al. Kosove 2008 “Knowledge, attitudes, practices and behavior study on HIV/AIDS with young people in Kosovo” Prism Research.
- Wondemagegn Mulu, Bayeh Abera, Mulat Yimer. Knowledge, Attitude and Practices on HIV/AIDS among Students of Bahir Dar University. *Science Journal of Public Health*. Vol. 2, No. 2, 2014, pp. 78-86. doi: 10.11648/j.sjph.20140202.16
- Thanavanh B et al. *Journal of the International AIDS Society* 2013, 16:17387 Knowledge, attitudes and practices regarding HIV/AIDS among male high school students in Lao People’s Democratic Republic
- Lau, C., & Muula A.S., (2004). HIV/AIDS in Sub-Saharan Africa: School of Public Health, University of California, Los Angeles, Cali, USA; and Department of Community Health, University of Malawi College of Medicine, Blantyre, Malawi.
- Macintyre K, Rutenberg N, Brown L, Karim A: Understanding perceptions of HIV risk among adolescents in KwaZulu-Natal. *AIDS Behav* 2004, 8(3):237–250.
- Aras S, Orsin E, Ozan S & Semin S (2007) Sexual behaviours and contraception among university students in Turkey. *Journal of Biosocial Science* 39(1): 121–135.
- Espada JP, Escribano S, Orgilés M, Morales A, Guillén-Riquelme A. *AIDS Care*. 2015. Sexual risk behaviors increasing among adolescents over time: comparison of two cohorts in Spain.;27(6):783-8. doi: 10.1080/09540121.2014.996516. Epub 2015 Jan 14. PMID:25587688
- Sanchez ZM, Nappo SA, Cruz JI, Carlini EA, Carlini CM, Martins SS. Sexual behavior among high school students in Brazil: alcohol consumption and legal and illegal drug use associated with unprotected sex. *Clinics (Sao Paulo)*. 2013 Apr;68(4):489-94. doi: 10.6061/clinics/2013(04)09. PubMed PMID: 23778342; PubMed Central PMCID: PMC3634973.