

### Risky Behaviors of University Students: A Cross-Sectional Study

Hilal Ozcebe<sup>a</sup>, Sarp Uner<sup>b</sup>, Sabahat Tezcan<sup>a</sup>, Nuket Paksoy Erbaydar<sup>c</sup>, Gokhan Teletar<sup>d</sup>

#### Abstract

**Objective:** This study aimed to identify certain risky behavior patterns (unsafe sex, tobacco and drug use, and binge drinking) and the factors affecting these behaviors among first- and third-year students in a university. **Method:** The study included a total of 8407 students enrolled as first- (4392) and third- (4015) year students. A self-administered questionnaire was used for data collection. In data analysis, respecting sampling weights, models were formed by logistic regression method to determine factors that affect the risky behaviors. **Results:** 731 male–1114 female students from the first year and 560 male–1096 female students from the third year were interviewed. Male students were found to be engaged in risky behaviors more frequently than females. Logistic models of the study indicated that gender, place of residence, relationship with parents, and socialization with friends have profound effects on risky behaviors. **Conclusion:** After leaving home, young people develop their own lifestyles, and this study demonstrates that lifestyle is the main effective factor for risky behaviors in this group. Universities need to assume more responsibility to guide students' lives and to provide the facilities and opportunities that encourage and facilitate their adoption of a healthy lifestyle.

**Key Words:** University students, risky behaviours

### Bir Üniversitede Öğrencilerin Riskli Davranışları: Kesitsel Bir Çalışma

#### Özet

**Amaç:** Bu çalışmanın amacı, bir üniversitenin birinci ve üçüncü sınıf öğrencileri arasında bazı riskli davranış modellerini (güvensiz seks, tütün ve uyuşturucu kullanımı ve aşırı alkol) ve bu davranışları etkileyen faktörleri saptamaktır. **Yöntem:** Araştırmanın evrenini birinci (4392) ve üçüncü (4015) sınıflarda kayıtlı 8407 öğrenci oluşturmaktadır. Veri öğrencilerin gözlem altında doldurdukları anket aracılığı ile toplanmıştır. Riskli davranışları etkileyen faktörleri belirlemek için lojistik regresyon yöntemi modellenmesi kullanılmıştır. Bütün istatistiksel analizlerde ağırlıklı yüzdeler dikkate alınmış ve kullanılmıştır. **Bulgular:** Çalışmada birinci sınıflardan 731 erkek–1114 kadın ve

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<sup>a</sup>MD, Prof., Hacettepe University Faculty of Medicine, Department of Public Health, Ankara, Turkey.

<sup>b</sup>MD, PhD, Assoc. Prof., Hacettepe University Faculty of Medicine, Department of Public Health, Ankara, Turkey.

<sup>c</sup>MD, Asst. Prof., Hacettepe University Faculty of Medicine, Department of Public Health, Ankara, Turkey.

<sup>d</sup>MD, Province Health Directory, Sinop, Turkey.

**Corresponding Author: Sarp Uner**, Hacettepe University Faculty of Medicine, Department of Public Health, Ankara, Turkey. Tel: +90 312 3051590, E-posta: sarpuner@hacettepe.edu.tr

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üçüncü sınıflardan 560 erkek-1096 kadın öğrenci yer almıştır. Araştırmada erkek öğrencilerin kadınlara göre daha fazla riskli davranışlarda bulunduğu saptanmıştır. Çalışma verilerinin lojistik regresyon modellemesinde cinsiyet, aile ile ilişkiler, arkadaşlar ile sosyalleşme ve yaşam koşulları ile öğrencilerin riskli davranışları ile anlamlı düzeyde ilişkili olduğu saptanmıştır. **Sonuç:** Evden ayrıldıktan sonra, genç insanlar kendi yaşam tarzlarını geliştirmektedir. Bu çalışma bu grupta yaşam tarzının riskli davranışları etkileyen temel bir faktör olduğunu göstermektedir. Gençlerin yaşamlarına rehberlik etmek ve sağlıklı yaşam tarzını geliştirici ve benimsenmesini kolaylaştırıcı olanakların ve fırsatların sağlanması için üniversitelerin daha fazla sorumluluk üstlenmesi gerekmektedir.

**Anahtar Kelimeler:** Üniversite öğrencileri, riskli davranışlar

## **Introduction**

Adolescence is defined as the transition from childhood to adulthood, during which period young people become physically, psychologically, and socially mature individuals. During this period of their accelerated physical growth, they face both sexual and psychosocial changes, which may give rise to problems in the future. The physical, psychological, and social maturational forces of development combine to determine behavior at any moment. The adolescents confront the overwhelming responsibility of deciding on their future career and lifestyle.<sup>1-4</sup>

After graduation from high school, young people enter a new period in their lives. In Turkey, approximately 1.5 million students apply for the university entrance examination, but only 200.000 of them enter a college or faculty. A majority of these young people leave home to pursue their higher education around the age of 17, and they begin their new life outside their protective home environment.

Young people are generally considered as healthy by health care providers and the community. However, they are vulnerable to health problems that differ from those faced by children and adults. Risky behaviors among young people are usually the major cause of mortality during this period. The primary health problems resulting from risky behaviors may also continue to affect the health of young people in the future.<sup>5-8</sup> Most of the risky and

unhealthy behaviors affect a young person's future life and health. The probability of the presence of more than one risk factor is high, and this increases mortality rates.<sup>6,9,10</sup> As observed in most countries, a decreased influence of family and culture, an earlier occurrence of puberty and late marriages also extend the risk of unprotected sexual activity among young people in Turkey.<sup>11,12</sup> Likewise, the prevalence of smoking and alcohol and substance use has also increased in this country.<sup>13-15</sup>

It is widely known that risky behaviors tend to co-occur<sup>16,17</sup>, and the prevalence of multiple risky behaviors increases with age.<sup>18</sup> In an effort to identify and address these health behaviors, there has been increased attention paid to the provision of youth-friendly environments and health services.<sup>19,20</sup>

Universities are institutions in which many young people receive training, socialize and access a wide range of services such as accommodation, transport and catering. A university should provide an environment in which students positively develop both personally and socially during this significant time in their lives. This development has profound effects not only during the period of higher education, but throughout their lives.

In this study, we aimed to identify the risky behavior patterns (unsafe sex, tobacco and drug use, and binge drinking) among first- and third-year students in our university and the factors affecting these behaviors.

## **Methods**

### **Study design and universe**

This study was designed to determine the risky behaviors of students who graduated from high school and entered Hacettepe University at the beginning of the 2004–2005 academic year immediately after University entrance. Third-year students were selected to observe the frequency of risky behaviors during the course of university education. We preferred third- versus fourth-year students for this purpose, since the latter's possible anxiety about finding employment or their future status in society may have affected their actions.

Our study included of a total of 8.407 students enrolled as first- (4392) and third- (4015) year students of the faculties and colleges of Hacettepe University during the 2004–2005 academic year. The university at which our research took place is one of the largest universities in Turkey and the enrolled students represent a wide range of socioeconomic levels from among the general population. The first- and third-year classes were taken as the strata, instead of particular faculties or colleges. In the study, a stratified sampling method was used, and a representative number of students were chosen from each stratum. The study sample was formed by using the “sampling size where the population in universe is known” formula. While calculating the sample size, the prevalence of mental problems among the general population was taken as approximately 20% (originally reported as 17.2% in the Mental Health Study of Turkey). The minimum required sample size was calculated as 1310 for first-year students and 1278 for third-year students. Thereafter, the numbers of students from each faculty and college to be included in the study were calculated so as to represent the enrollment numbers of each faculty and college. For practical reasons, individual students were not selected but a college or a department was taken as a “sampling unit” and all of the students in the unit were included in the study until the required minimum sample size

was reached. All students enrolled in the selected department, who were present in class on the day for collecting data, were included in the study. The total study population included 1845 first-year students and 1656 third-year students.

A self-administered questionnaire was used by the project team to collect data. The questionnaire was designed to include questions covering certain sociodemographic characteristics and risky behaviors of the students.

All analyses were conducted respecting sampling weights (1/sampling fractions), and data were analyzed by the SPSS versions 15.0 statistical software package (Chicago, IL. Serial: 9907290). Models were formed by a logistic regression method, which was used to model various risk behaviors (given below) and to determine significant predictors of each behavior of interest based on odds ratios (OR) and related 95% confidence intervals (CI). In reaching final models, all potential risk factors for a given risky behavior were included in the model if that factor was: 1) found to be a significant predictor of risky behavior in a bi-variate analyses; 2) found to be a potential confounder and/or effect modifier in a stratified analysis; or 3) known to be a risk factor and/or confounder in previous studies (in the literature).

### **Descriptions of measures**

#### *Risky behaviors*

In this study, risky behaviors of young people were classified into four groups as: unsafe sex, tobacco use, binge drinking and drug use.

— Under the heading of “unsafe sex experience”, students were classified as follows:

- Students without any history of sexual contact or unsafe sex behavior;
- Students who had been engaged in unsafe sexual behavior at least once in their lifetime.

Unsafe sex was defined as having experienced one or more of the following: unprotected sexual activities (vaginal, anal or oral sexual

activity without any protection against pregnancy or sexually transmitted infections); sexual activity with an unknown person; sexual activity without using a condom; or exchange of sexual activity for money.

- Under the heading of “tobacco use”, students were classified as:
  - Students who never smoked or who had quit smoking;
  - Students who currently smoke.
- Under the heading of “binge drinking”, students were classified as:
  - Students reporting no alcohol use or infrequent use of alcohol in small amounts;
  - Students reporting binge drinking (consumption of alcohol in excessive amounts).

If a person consumes excessive amounts of alcoholic beverages on one occasion, it is referred to as “binge drinking” in Turkey; however, we used no limitation regarding the time period or number of drinks consumed in that time period in our definition in the study.

- Under the heading of “drug use”, students were classified as:
  - Students with no history of drug use;
  - Students who used drugs at least once in their lifetime (because of the minimum level of drug use in Turkey, students who used any drug at least once in their lifetime were accepted as the at risk group).

#### *Negative event*

The questionnaire asked about a “negative

event” as relating to the presence of any experience during the past year that depressed the individual’s psychological well-being . Only 1277 of the 1515 students who experienced such an event provided an explanation. Among these, death of a relative or a well-known person ranked first (22.1%), followed by an important problem with a romantic interest during the dating period (19.1%) and failure in school (14.4%).

#### *Positive event*

The questionnaire asked about a “positive event” as relating to the presence of any experience during the past year that had positively affected the individual’s psychological well-being. Only 1217 of 1687 students who had experienced such an event provided an explanation. Among these, success in school ranked first (36.1%). Of the students ranking success in school as their positive event, 78.0% reported admission to university as their happiest life event. Success in school was followed by a new romantic relationship, significant development in a relationship such as engagement or resolution of a problem during the dating period (21.4%).

#### *Relationship with mother and father*

We used a Likert type question to ask about the students’ relationship with their mother and father by using a likert type designed question. The study was conducted after obtaining the written consent of the administrators of the university and the administration of its faculties, colleges and departments as well as the oral consent of the students. Students received no incentives to participate in the study.

69.2% stated that they hang out with their friends at least once a week. It was found that the educational level of mothers was much lower than that of fathers. While 8.9% of mothers were non-educated, this ratio was 1.7% for fathers. Half of the study participants described their family’s income as adequate, whereas 7.4% perceived their family’s income as inadequate (Table 1).

## **Results**

### **Sociodemographic characteristics**

In this study, 1291 male and 2210 female students from the first and third year were interviewed. The mean age of the students was  $21.0 \pm 2.0$  (16-46) years. In our study, more than six of ten interviewed students were female. The percentage of married students was 1.1%. Almost four of ten students in the first and third years were living with their families. Among the students,

Table 1. Some descriptive characteristics of students

Descriptive Characteristics		n	%
Gender	Male	1291	36.9
	Female	2210	63.1
Age*	≤18	140	4.0
	19	633	18.1
	20	679	19.4
	21	852	24.3
	22	607	17.3
	23	267	7.6
	≥24	300	8.6
Grade	First year	1845	52.8
	Third year	1656	47.2
Marital status	Single	3325	95.0
	Engaged	136	3.9
	Married	40	1.1
Place of residency in Ankara <sup>a</sup>	With family	1426	40.7
	Alone	99	2.8
	With friends	771	22.0
	In dormitory	1184	33.8
Frequency of hanging out with friends <sup>a</sup>	Every night	980	28.0
	1-2 times a week	1441	41.2
	1-2 times a month	862	24.6
	Almost none	204	5.8
Mother's educational level <sup>a</sup>	Non-educated	310	8.9
	Primary school graduate	1429	40.8
	Secondary (high) school graduate	916	26.2
	University graduate	775	22.1
Father's educational level <sup>a</sup>	Non-educated	58	1.7
	Primary school graduate	1042	29.8
	High school graduate	894	25.5
	University graduate	1317	37.6
Student's perception of family income	Sufficient	1731	49.4
	Fairly sufficient	1512	43.2
	Insufficient	200	5.7
	Extremely insufficient	58	1.7
Total		3501	100.0

\*Indicates some students did not respond

In the questionnaire, students were asked to evaluate their relations with their parents. Most of the students (91.1%) reported positive relationships with their mothers. On the other hand, 26.7% of the students expressed some difficulties in their relationship with their fathers.

**Risky behaviours and affecting factors**

Frequency of having unsafe sex among students was 19.6%. Unsafe sexual behavior was found to be more common among male students than females. Smoking was found to be a more common behavior than both binge drinking and drug use, and was more common among males. Among the students, 9.6% declared binge drinking. The percentage of drug use at least once in a lifetime was found to be 4.3% among male and 3.0% among female students (Table 2).

Table 2. Risky behaviors of students according to gender

Risky Behaviors	Male* (n=1291)	Female* (n=2210)	Total* (n=3501)
Unsafe Sex	37.5	9.2	19.6
Tobacco Use	32.5	21.5	25.6
Binge Drinking	14.5	6.7	9.6
Drug Use	4.3	3.0	3.5

\*Indicates percentage of students for each risky behavior

Factors affecting the risky behaviors studied were assessed by logistic model analysis and the relevant results are presented in Table 3. The variables that were included in the logistic regression analysis for risk behaviors but excluded by the model, are shown as gray areas in the Table. In addition to these variables, two other variables - class and economic status- were also examined, but not included in the model. Unsafe sexual behavior was higher among males [OR=5.52 (95.0%CI=4.46-6.83)] than females. On the

other hand, unsafe sexual behavior was reported less among students living in dormitories [OR=0.42 (95.0%CI=0.32-0.56)] when compared to those living with their family. With regards to the mother’s educational level, students with non-educated mothers [OR=0.60 (95.0%CI=0.39-0.93)] and students whose mothers had not been educated beyond primary school [OR=0.71 (95.0%CI=0.54-0.94)] reported significantly less unsafe sexual experiences than students whose mothers had a higher education.

Students who revealed their relationship with their mother and father as “bad” reported more unsafe sexual behaviors than others [OR=1.62 (95.0%CI=1.10-2.36)] and OR=1.44 (95.0%CI=1.13-1.82), respectively]. Students who socialized with their friends once or twice a week [OR=2.22 (95.0%CI=1.24-3.99)] or everyday [OR=2.28 (95.0%CI=1.23-4.23)] were found to be more at risk with respect to unsafe sex than students who never met socially with their friends. In addition to the factors described above, the presence of a negative event in the last year was also found to increase unsafe sex [OR=1.39 (95.0%CI=1.13-1.71)].

Tobacco use was reported more often by male students [OR=1.53 (95.0%CI=1.28-1.83)] than females. The correlation between having a bad relationship with the mother or father and increased tobacco use was statistically significant [OR=1.65 (95.0%CI=1.22-2.50)] and OR=1.54 (95.0%CI=1.26-1.89), respectively]. Students who lived alone reported more tobacco use [OR=1.91 (95.0%CI=1.18-3.09)], whereas students living in the dormitory reported less [OR=0.59 (95.0%CI=0.47-0.74)] than students living with their families. Students who met with their friends once or twice a week [OR=2.75 (95.0%CI=1.68-4.49)] or everyday [OR=3.25 (95.0%CI=1.95-5.45)] were found to be more at risk with respect to tobacco use than students who never met socially with their friends. Moreover, the presence of a negative event in the last year was also found to increase tobacco use [OR=1.50 (95.0%CI=1.26-1.79)].

Binge drinking was reported more by male students [OR=2.13 (95.0%CI=1.63-2.77)] than females. Hanging out with friends was found to be correlated with an increased frequency of binge drinking. Students who went out a few nights in a week [OR=17.86 (95.0%CI=2.46-129.53)] or every day [OR=22.84 (95.0%CI=3.13-166.44)] reported more binge drinking than others. Binge drinking was found to decrease in conjunction with a decrease in the educational level of the student's mother. On the other hand, binge drinking was more frequent among students who described their relationship with their mother [OR=2.07 (95.0%CI=1.40-3.08)] or father [OR=1.41 (95.0%CI=1.05-1.88)] as "bad". While living alone was found to increase the frequency of binge drinking

## **Discussion**

University students, emerging from the end of adolescence and entering young adulthood, constitute an important risk group for a variety of risky behaviors. A majority of the young people begin living away from their families to continue their higher education, during which period they decide on certain aspects of their lifestyle. In the course of choosing this lifestyle, sociodemographic features, family structure, relationship with family members and living environment may affect their predisposition to risky behaviors.

Young people learn more about sexuality during their sexual maturation period; therefore, the reproductive and sexual lives of university students become more active when compared to those of high school students. It was found that almost 4 of 5 university students have knowledge about sexually transmitted infections (STIs).<sup>21</sup> According to our results; male students reported more unsafe sexual behaviors than female students (or use boys and girls!!) (37.5% versus 9.2%). Representative researches on the reproductive and sexual behaviors of youth have not yet been conducted in Turkey; therefore, it is not possible to compare these results with the

[OR=2.03 (95.0%CI=1.15-3.61)], living in a dormitory had a negative correlation [OR=0.58 (95.0%CI=0.41-0.82)].

According to our results, drug use was positively correlated with the experience of a positive event in the last year. Drug use was reported more among students who defined their relationship with their father as "bad" [OR=2.15 (95.0%CI=1.42-5.25)]. While living in a dormitory was found to decrease the frequency of drug use [OR=0.50 (95.0%CI=0.29-0.87)], living alone had the opposite effect [OR=2.21 (95.0%CI=1.03-5.25)]. Students who met with their friends every day [OR=5.14 (95.0%CI=1.18-22.43)] reported more drug use than students who never met socially with their friends.

larger picture for youth in this country. According to the results of a study conducted in eight universities in Turkey, almost half of the students reported not using any contraceptive method during their first sexual intercourse.<sup>12</sup> In another study among university students in Turkey, the ratio of condom use during the most recent sexual intercourse was 30.0% among those who reported having sexual experiences.<sup>22</sup> These results indicate that risky sexual behaviors are frequent among young people. Although these studies do not reflect the ratio of risky behaviors of university students in Turkey, they clearly show that sexual activities occupy much of young people's daily lives and thus there is an observed increase in problems such as lack of condom use and unsafe sex.

According to our study, 32.5% of the male and 21.5% of the female students use tobacco. Between 1990 and 2000, the overall prevalence of smoking rose from 30% to 35% among male students, and from 28% to 33% among female students in 13 European countries. In Turkey, the prevalence of smoking among young people rapidly increased during the period of their higher education, as also observed in other countries around the world.<sup>23</sup>

Table 3. Factors affecting risky behaviors\*

	Unsafe Sex			Tobacco Use			Binge Drinking			Drug Use		
	Exp(B) <sup>a</sup>	C.I. <sup>b</sup>	p									
Constant	0.04		<0.001	0.07		<0.001	0.03		<0.001	0.002		<0.001
<b>Gender</b>												
Male	5.52	4.46-6.83	<0.001	1.53	1.28-1.83	<0.001	2.13	1.63-2.77	<0.001			
Female	1.00			1.00			1.00					
<b>Frequency of hanging out with friends</b>												
Never <sup>c</sup>	1.00			1.00			1.00			1.00		
Every night	2.28	1.23-4.23	0.01	3.25	1.95-5.45	<0.001	22.84	3.13-166.44	<0.001	5.14	1.18-22.43	0.03
1-2 times a week	2.22	1.24-3.99	0.01	2.75	1.68-4.49	<0.001	17.86	2.46-129.53	<0.001	3.54	0.85-14.68	0.08
1-2 times a month	1.15	0.63-2.12	0.65	1.48	0.89-2.45	0.13	4.35	0.58-32.78	0.15	1.71	0.39-7.51	0.48
<b>Place of residency</b>												
With family member(s) <sup>c</sup>	1.00			1.00			1.00			1.00		
With friend(s)	1.07	0.82-1.40	0.61	1.20	0.95-1.50	0.06	1.04	0.74-1.46	0.06	0.76	0.44-1.34	0.72
In dormitory	0.42	0.32-0.56	<0.001	0.59	0.47-0.74	0.01	0.58	0.41-0.82	0.03	0.50	0.29-0.87	<0.001
Alone	1.62	0.97-2.72	0.07	1.91	1.18-3.09	<0.001	2.03	1.15-3.61	<0.001	2.21	1.03-5.25	0.02
<b>Relationship with father</b>												
Good <sup>c</sup>	1.00			1.00			1.00			1.00		
Bad	1.44	1.13-1.82	<0.001	1.54	1.26-1.89	<0.001	1.41	1.05-1.88	0.02	2.15	1.42-3.25	<0.001
<b>Relationship with mother</b>												
Good <sup>c</sup>	1.00			1.00			1.00					
Bad	1.62	1.10-2.36	0.01	1.65	1.22-2.50	<0.001	2.07	1.40-3.08	<0.001			
<b>Mother's educational level</b>												
Non-educated	0.60	0.39-0.93	0.02				0.19	0.10-0.38	<0.001			
Primary school graduate	0.71	0.54-0.94	0.02				0.26	0.18-0.37	<0.001			
Secondary school graduate	1.02	0.78-1.32	0.90				0.64	0.48-0.86	<0.001			
Higher education graduate <sup>c</sup>	1.00						1.00					
<b>Negative event in the last year</b>												
Absent <sup>c</sup>	1.00			1.00								
Present	1.39	1.13-1.71	<0.001	1.50	1.26-1.79	<0.001						
<b>Positive event in the last year</b>												
Absent										0.48	0.32-0.73	<0.001
Present <sup>c</sup>										1.00		

<sup>a</sup> indicates Odds Ratio; <sup>b</sup> indicates 95.0% CI for Exp (B); <sup>c</sup> indicates reference category

There is no clear definition or cut-off point for binge drinking in Turkey. Therefore, the results of our research should be evaluated carefully. According to our results, binge drinking was reported by 10% of the students. But, a study conducted in the sport academy by Buğdaycı et al. showed that 45.4% of all students consumed alcoholic drinks.<sup>24</sup> The results of our study showed that drinking alcoholic beverage is much higher than binge drinking. On the other hand, studies conducted in Western countries showed that binge drinking is much more common than in our results. Thus, D'Alessio et al. found that the estimated percentage of binge drinking among university students in Italy was 32.9%.<sup>17</sup> Barber and Fairclough showed that binge drinking was reported by 71% of dental students and 75% of law students in Great Britain.<sup>18</sup> The rate of binge drinking among young people in the United States is also much higher than for Turkish youth.<sup>11</sup> This difference may be attributed in part to the influence of cultural belief systems in eastern and western societies. Traditional family life, and Islamic beliefs and values are probably important factors that affect alcohol consumption in young people in Turkey.<sup>25</sup>

The prevalence of drug use in Turkey is also lower than in other European countries and the United States.<sup>8,10</sup> On the other hand, the studies showed that drug use has been recently increasing among youth in Turkey. In our study, the term "drug" encompassed any kind of drug, and this classification might have made it hard to compare our results with other studies. Prevalence studies on drug use show that social inequalities affect drug use and different epidemiologic patterns exist for different types of drugs in Turkey. Socioeconomically disadvantaged youth prefer marijuana, whereas economically advantaged youth prefer ecstasy.<sup>14</sup> Because of the limited rate of drug use among our responders, it is difficult to analyze these data in terms of each type of drug used in this study.

Factors affecting some of the risky behaviors investigated in the study were assessed by logistic model analysis. In

accordance with previous findings in the literature, variables such as gender were found to be among those affecting the dependent variables in some of the four logistic models in the study. Nevertheless, models that were developed during the study indicated "Relationship with Mother", "Relationship with Father", "Frequency of Hanging out with Friends" and "Place of Residency" as variables having profound effects on risky behaviors.

In our study, students who defined their relationship with their mothers as "bad" reported more unsafe sex, tobacco use and binge drinking than their counterparts. Similarly, students who defined their relationship with their fathers as "bad" reported more unsafe sex, tobacco use, binge drinking and drug use than their counterparts. Young people who feel distant from or who cannot get along with their family are more at risk, and this finding is in accordance with other previous studies.<sup>26-28</sup> Huebner and Howell found that interaction between parental monitoring and parent-adolescent communication are more a function of adolescent disclosure than of actual parental knowledge.<sup>29</sup> Communication problems and inappropriate parental guidance could have resulted in this finding. When the relationship with the mother is considered according to gender, it appears that female students have more problems with their mothers when compared to male students. Although students have more troubles in their relations with their fathers when compared to their mothers, a difference between genders was not shown.

The frequency of hanging out with friends is quite high among youth who live alone or with their friends, whereas the frequency is lower for those living with their family. Young people enjoy being together; however, as the frequency of hanging out with friends increases, risky behaviors also tend to increase. Although the students' joint activities were not assessed, it is apparent that the students are deeply influenced by each other. Numerous studies have shown that peer pressure has a significant effect on risky behaviors during adolescence. Some aspects of adolescent

leisure, such as family or conventional activities, act as protective factors against problematic behaviors, while peer-oriented activities or commercial types of leisure contribute to greater risk for risky behaviors.<sup>30,31</sup>

One's living environment is another influential factor on risky behaviors. In our research population, 40% of the students were living with their families. After leaving their families and their hometown, freshmen prefer to live in the dormitories. During their first year, they make new friends at the university, and thereafter decide on their living arrangements during the remaining period of their higher education. Residence in a dormitory may be considered an indicator of low economical status. Unsafe sex behavior was found to be less common among boarding students than students who live with their family. Likewise, prevalences of tobacco, alcohol and drug use were all reported as lower by boarding students than students living with their families. This difference may reflect the more strict regulations in dormitories, or it may be that students with a lower socioeconomical status or having a conservative and modest lifestyle are more likely to live in dormitories than other students. The findings indicate that young people who live alone have different lifestyles than those living in dormitories.

Our study also shows that all risky behaviors are more common among males. According to the results, unsafe sex, tobacco use and binge drinking were more common among male than female students. Other studies have also revealed that gender is one of the main determinants of risky behaviors.<sup>32,33</sup> It is thought that this difference occurs because of the established social gender roles in our society.

Despite the fact that risky behaviors, which may have short- and long-term effects on the health of young people usually begin in the early years of university education and their prevalence tends to increase in later years. In other words, prevalence of smoking and unsafe sex increases in conjunction with the academic year (e.g. third or fourth year of education). Even though no significant difference in the

prevalence of alcohol or drug use was found between the academic years studied here, importance should be attached to both of the behaviors for the students in both years.

Sociodemographic status of the young people is one of the most important factor affecting their life style and behaviors. In this study, sociodemographic status of the students was examined in three categories: place of residency, educational level of mother and of father. These variables are also the determinants of economic indicators. Educational level of father is not found significant in all analyses, but educational level of the mother is found significant for binge drinking and unsafe sex. On the other hand, place of residency is found a risk factor in all models. In this study, lifestyle is found as the most important determinant factor among all sociodemographic status for risky behaviors.

This study indicates that young people need comfortable living environments. Young people are expected to be engaged in health-promoting activities rather than risky behaviors during their university years, during which they usually live away from home and spend more time with, and are influenced more by, their friends. Therefore, universities are one of the most important educational institutions with an opportunity to guide the lives of young people.

There are some limitations to our study, the most important being the disproportion in the ratio of male to female students in our sample versus that in the university. Male students were found to be engaged in risky behaviors more than females. The higher participation of male students in the study contributed to a clearer demonstration of the factors that affect risky behaviors. Secondly, the study questionnaires were applied under observation during class. This may have compelled some students to respond non-truthfully, especially to the questions on drug use and unsafe sex behavior. Thirdly, the researchers avoided giving detailed answer selections for certain questions in order to elicit the most accurate responses possible on a variety of topics. As a result,

the information obtained was limited on some topics, whereas some variables could not be used for certain sections of the analysis. The numbers of participants are different for the evaluation of risky behaviors because students who failed to respond to every question were excluded from the analysis. This could be assessed as another limiting factor in evaluation of the results of this study. Fourthly, this study has the limitation of the methodology of descriptive studies.

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## Conclusion

Our aim should be to raise young people in such a way that they adopt healthy life styles after graduation from universities and join the pool of human resources as productive adults Universities are expected to do more than just provide occupational training. Bringing adults with established healthy life styles into the community and improving the health status of the community are also among the important responsibilities of these institutions.

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