

# The Effect of Gender on Sexual Behavior, Knowledge of Sexually Transmitted Diseases and Contraceptive Methods in College Students in Turkey

## Türkiye'deki Yükseköğretim Öğrencilerinde Cinsiyetin Seksüel Davranışlar, Cinsel Yolla Bulaşan Hastalıkları Bilme ve Kontraseptif Yöntemleri Kullanma Üzerinde Etkisi

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**ABSTRACT Objective:** This study was conducted to examine the effect of gender on sexual behavior, sexually transmitted diseases (STDs) and contraceptive methods in college students in Turkey. **Material and Methods:** The research population was comprised of 396 students in a university school for Health College and Occupational School for health sciences. The sample was the 322 (81%) of the students who agreed to participate after being informed about the purpose of the study. The research data were analyzed using frequency distribution, chi-square analysis and independent sample t test. **Results:** According to the research results, the mean age for female students' first sexual intercourse was 18.85±2.16 and 16.76 ± 2.31 years for males and females, respectively. It was determined that 24.0% of the male students and 13.7% of the female students had sexual intercourse; 59.5% of the male students and 19.6% of the female students reported that they masturbated. The same percentage of male and female students had insufficient information about sexually transmitted diseases. During sexual intercourse, 41.1% of female students' sexual partner and 58.3% of male students used a condom. **Conclusion:** As a result, in this study the male students had their first sexual intercourse earlier than the female students and had a higher percentage of having sexual intercourse (p< 0.05). However, any meaningful difference was not found between male and female students for the knowledge of STDs and the rates of using contraceptive methods (p> 0.05).

**Key Words:** Gender identity; behavior; coitus; knowledge; sexually transmitted diseases; contraception; students

**ÖZET Amaç:** Bu çalışma farklı sağlık alanlarında öğrenim gören yükseköğretim öğrencilerinde cinsiyetin seksüel davranışlar, cinsel yolla bulaşan hastalıkların hangileri olduğunu bilme ve kontraseptif yöntemleri kullanma oranları üzerinde etkisini saptamak amacıyla yapıldı. **Gereç ve Yöntemler:** Çalışma Sağlık Yükseköğretimi ve Sağlık Hizmetleri Meslek Yükseköğretiminde öğrenimine devam eden ve çalışmaya katılmaya gönüllü olan 322 öğrencide yapıldı. Araştırma verileri araştırmacılar tarafından hazırlanan anket formu ile toplandı. Araştırma verileri bilgisayar ortamında frekans dağılımı, ki-kare ve bağımsız gruplarda t testi ile değerlendirildi. **Bulgular:** Çalışma sonuçlarına göre kız öğrencilerin ilk cinsel ilişkiyi deneyimleme yaş ortalaması 18.85 ± 2.16, erkek öğrencilerin ise 16.76 ± 2.31'dir. Erkek öğrencilerin %24'ünün, kız öğrencilerin ise %13.7'nin cinsel ilişkiyi deneyimlediği; erkek öğrencilerin %59.5'inin kız öğrencilerin ise %19.6'sının masturbasyon yaptığı; hem kız hemde erkek öğrencilerin cinsel yolla bulaşan hastalıkların hangileri olduğuna yönelik bilgilerinin çok yetersiz olduğu, cinsel ilişki deneyimleyen kız (%41) ve erkek öğrencilerin (%58.3) partnerleri ile daha çok kondomu kullandıkları belirlendi. **Sonuç:** Sonuç olarak, bu çalışmada erkek öğrenciler daha erken yaşta ve daha yüksek oranda cinsel ilişki deneyimine sahipti (p< 0.05). Bununla birlikte kız ve erkek öğrenciler arasında cinsel yolla bulaşan hastalıkların hangileri olduğunu bilme ve gebelikten korunma yöntemlerini kullanma oranları arasında anlamlı fark bulunmadı (p> 0.05).

**Anahtar Kelimeler:** Cinsiyet; davranış; cinsel ilişki; bilgi; cinsel yolla bulaşan hastalıklar; kontrasepsiyon; öğrenci

One fifth of the Turkish population consist of young people. Young people tend to engage in high-risk behaviors.<sup>1,2</sup> Studies have shown that Turkish youth have insufficient knowledge about sexual health. This is caused by taboos about sexuality.<sup>3</sup> In Turkey, it is a taboo to even talk about sex. Little is known about the sexual behaviors of young people. Previous studies in Turkey have shown that girls have more limitations placed on them than boys regarding sexuality because of the cultural structure. It is known that girls experience sexual intercourse less often than boys before marriage and when they get older, they have fewer sexual partners than boys.<sup>4,6</sup> In a study conducted with Turkish university students, there were clear differences in sexual behaviors and conduct between the genders.<sup>5,7</sup> According to the results of the study the majority of the boys were not virgins, their age at first sexual intercourse age was young, during their first sexual intercourse they had less negative feelings of guilt, embarrassment, regret, fear, and anxiety, and they read more pornography than girls. Being Western or traditional are reported to be two of the factors that influence the sexuality of university students.

In our country sexuality and reproductive health are associated with marriage and single women are often ignored in reproductive health services.<sup>3</sup> It has been determined that young men who have the sexual intercourse do not use adequate protective methods and do not have sufficient knowledge about sexually transmitted diseases (STDs).<sup>1,6</sup> However in the last 10 years, Turkish young people have more access to information about reproductive health from the internet, television, and written media, and have begun to be more open to discussions about their sexual activities.<sup>1</sup>

Health professionals have an important responsibility to inform and counsel young people. In particular, public health nurses have first-hand and close communication with individuals and can help young people to protect themselves from problems by giving them accurate information and effective counseling. Health Sciences students who will work in health related fields need to know about having safe and healthy sexual lives and reflect that

knowledge in their own behaviors. They can be role models and have a positive influence with their educator and counselor roles. However firstly it is important to determine whether or not these students have insufficient knowledge about sexuality, so that problems can be rectified.

This study was conducted for the purpose of examining the effect of gender on the sexual behaviors, knowledge of sexually transmitted diseases (STDs) and contraceptive methods of college students in Turkey.

## MATERIAL AND METHODS

### STUDY POPULATION

This cross-sectional study was conducted in Canakkale Onsekiz Mart University, Canakkale, Turkey, during the 2005-2006 academic years. The study group (N=322) consisted of 81% of all students at the school for health college (n= 223) and occupational school for health sciences (n= 99). There were 107 nursing, 97 midwifery, 19 paramedic, 27 radiology technician, 38 laboratory technician, and 34 emergency medical technician students.

### PROCEDURES

All participants were volunteers. The students were assured that their participation or non-participation would in no way affect their academic progress. The permission from the university administration was received before starting the research. In addition, the proposed study was reviewed and approved by the school administration.

### QUESTION FORM

The research data were collected with a 41 item questionnaire prepared by the researchers. Questionnaires were distributed and completed in students' classes where possible, or were completed on the student's own time and returned to the researcher. The questionnaire form consisted of the questions determining demographic characteristics, sexual behaviors of students and whether they know the sexually transmitted diseases are and whether they use contraceptive methods. A pilot application was conducted on five students who were determined randomly before commencing

the research. The understandability of questions was controlled. These students were excluded from the research.

## DATA ANALYSIS

Frequency was used for categorical variables and average for numerical variables. Chi-square and independent samples t test were applied to determine the effects of independent variables on dependent variables (Dependent variable: sexual behaviors, knowledge of sexually transmitted diseases and contraceptive methods. Independent variable: gender). Significance was set at 0.05 for all statistical tests.

## RESULTS

### DEMOGRAPHIC CHARACTERISTICS OF STUDENTS

The students' mean age was  $20.41 \pm 2.43$  and their age range was 16 to 38 years. The students' families' monthly income average was  $840.28 \pm 449.55$  new Turkish liras (NTL) and their incomes varied between 100–3500 NTL. The students' monthly allowance was an average of  $247.67 \pm 139.08$  NTL with a range of 50–1000 NTL. All of the students were Muslims. The majority of the students were females (88.5%) and they were single (98.1%). Most of the students' families were from the Marmara Region (63.7%) and 78.9% lived outside of Canakkale. The majority (71.1%) of the students' mothers and 48.1% of the students' fathers were primary school graduates. The majority of the students (73.6%) stated that their financial status was good. The students' accommodations are shown in Table 1.

### SEXUAL BEHAVIORS

All of the students specified that their preference was the opposite sex, in other words that they were heterosexual. The average age for the first sexual intercourse for the female students was  $18.85 \pm 2.16$  and for male students was  $16.76 \pm 2.31$ . There was a significant difference between female and male students ( $p < 0.05$ , Table 2). Sexual intercourse had been experienced by 24% of the male students and 13.7% of the female students. The percentage of male students who reported they had

Characteristic (N=322)	X ± SS	
	n	%
Age	20.41 ± 2.43	
<b>Gender</b>		
Male	37	11.5
Female	285	88.5
<b>Marital Status</b>		
Single	316	98.1
Married	6	1.9
<b>Residential Place</b>		
Village	41	12.7
Town	53	16.5
City	228	70.8
<b>Education Degree of Mother</b>		
No education	21	6.5
Primary school	229	71.1
Secondary school	22	14.0
High school	45	14.0
University	5	1.6
<b>Education Degree of Father</b>		
No education	6	1.9
Primary school	155	48.1
Secondary school	51	15.8
High school	69	21.4
University	41	12.7
<b>Location</b>		
Canakkale	68	21.1
Others	234	78.9
<b>Socioeconomic Status</b>		
Very good	5	1.6
Moderate	237	73.6
Poor	77	23.9
Very poor	3	0.9
<b>Housing</b>		
Home	152	47.2
Students dormitory	155	48.1
Other (relatives, girl/ boy friends, acquaintance)	15	4.7

experienced sexual intercourse was significantly higher than that for the female students ( $p < 0.05$ , Table 2). The majority of the female students (83.2%) and male students (81.1%) did not want to have sexual intercourse because of social or family opposition, fear of becoming pregnant and STDs

**TABLE 2:** Sexual experience and behavior according to gender.

Sexual experiences	Female students	Male students	Significant
	X ± SS	X ± SS	
Age at first sexual intercourse	18.85 ± 2.16	16.76 ± 2.31	t=2.89, df=45, P=.006**
	n (%)	n (%)	
<b>Having boy/girlfriend</b>			
Yes	176 (61.8)	24 (64.9)	
Never	75 (26.3)	8 (21.6)	
Not now	34 (11.9)	5 (15.5)	X <sup>2</sup> =.399, df=2, P=.819
<b>Experience sexual intercourse</b>			
Yes	39(13.7)	12(24.0)	
No	246 (86.3)	25(67.6)	X <sup>2</sup> =9.107,df=1, P=.003**
<b>Wanting to have sexual intercourse</b>			
Yes	48 (16.8)	7 (18.9)	
No	237 (83.2)	30 (81.1)	X <sup>2</sup> =.100, df=1,P=.752
<b>Why yes? (n=48)</b>			
For healthy life	26 (54.2)	3 (42.9)	
Curiosity	9 (18.8)	2 (28.6)	
Fixing related	13 (27.1)	2 (28.6)	X <sup>2</sup> =.448, df=2, P=.799
<b>Why no? (n=237)</b>			
Social rules	95 (40.1)	11 (36.7)	
Family oppression	15 (6.3)	1 (3.3)	
Fear of pregnancy	34 (14.3)	9 (30.0)	
STDs	2(0.8)	1 (3.3)	
Sinful	39 (16.5)	6 (20.0)	
More than one reason	52 (21.9)	2 (6.7)	X <sup>2</sup> =9.268, df=5, P=.090
<b>Virginity for you;</b>			
Important	235 (82.4)	32 (86.5)	
Not that it matters	50 (17.6)	5 (13.5)	X <sup>2</sup> =.376, df=1, P=.365
<b>Why important?</b>			
Jealousy	94 (56.3)	16 (66.7)	
Cultural structure	45(26.9)	5 (20.8)	
Religion	22 (13.2)	2 (8.3)	
All	6 (3.6)	1 (4.2)	X <sup>2</sup> =1.102, df=3,P=.777
<b>Do anything to satisfy their sexual needs,</b>			
Nothing	177 (62.1)	-	
Masturbation	56 (19.6)	22 (59.5)	
With partner	52 (18.2)	6 (16.2)	
Sex worker	-	9 (24.3)	X <sup>2</sup> =113.804, df=3, P=.000***

and religious beliefs. There was no significant difference between male and female students for wanting to have sexual intercourse and the reasons ( $p>0.05$ , Table 2). The majority of the female students (82.4%) and male students (86.5%) stated that virginity prior to marriage is important because of social rules and religious beliefs. No significant difference was found between female and

male students ( $p>0.05$ , Table 2). Although 62.1% of the female students stated that they never satisfy their sexual needs, all of the male students used some means to satisfy their sexual needs. The majority of the male students (59.5%) and 19.6% of the female students stated that they masturbate. There was a significant difference between female and male students ( $p<0.05$ , Table 2).

## KNOWLEDGE OF SEXUALLY TRANSMITTED DISEASES

A high percentage of students knew AIDS was a STD. However more than half of the students had never heard about other STDs. There was no significant difference between male and female students ( $p>0.05$ , Table 3).

## USE OF CONTRACEPTIVE METHODS

Condom use was the most common method of contraception (41% of girl students with their boy friends, 58.3% of boy students), followed by oral contraceptives (30.8% of girl students, 16.7% of boy students), and withdrawal (7.7% of girl students, 16.7% of boy students). No significant differences was found between girl student and boy students ( $p>0.05$ , Table 4).

## DISCUSSION

### SEXUAL BEHAVIORS

According to the results of this study, the college students in health-related fields had their first sexual intercourse when they were approximately 18 years old. In this study the male students had their first sexual intercourse earlier than the female students and had a higher percentage of having sexual intercourse (Table 2). Previous studies have also determined that females have more restricted behaviors than males.<sup>8,9</sup> In Spain 41% of the girls and 78% of the boys, in Sydney 39.3% of the boys and 15.8% of the girls had experienced sexual intercourse with their partners.<sup>10,11</sup> The gender factor is one of the determinative factors for experiencing sexual intercourse, and the boys generally had more sexual experience than the girls. In other studies conducted on this subject in Turkey it has been reported that girls' sexual lives are more restricted

than boys, because of the social structure. The results of previous studies are consistent with the results of this study.<sup>4,6,9</sup> According to the results of this study, 83.2% of the female students and 81.1% of the male students do not want to have sexual intercourse because of family pressure, not wanting to become pregnant, STDs and their religious beliefs (Table 2). In the study by Kiliç et al. the reasons for avoiding from the sexual intercourse reported by students were family values (40.2%), fear of STDs (10.0%), fear of becoming pregnant (4.9%), religious beliefs and individual values (41.2%). In the same study lack of confidence (23%), lack of love and respect (17%), not sharing (16%), lack of honesty (15%), problems with family and friends, jealousy, being more sincere and different were also shown as reasons for not having a friend from the opposite sex.<sup>4</sup> Cao et al. reported that 75% of women had a fear of becoming pregnant and 82% of women were too embarrassed to buy contraceptives so they did not want to have sexual intercourse.<sup>12</sup>

Although 62.1% of the female students did not do anything to satisfy their sexual needs, 19.6% of female students and 59.5% of the male students masturbated (Table 2). One study reported that 55% of women and 85% of men masturbated.<sup>14</sup> The results of other studies conducted on this subject reported similar findings.<sup>13,14</sup> The girls' sexual lives were more restricted than the boys because of their cultural backgrounds.

The majority of the female students (82.4%) and male students (86.5%) stated that virginity was important prior to marriage because of social rules and religious beliefs (Table 2). In this study both male and female students thought that women's

**TABLE 3:** Knowing for sexually transmitted diseases.

	Female Students		Male students		Significant
	Yes (%)	No (%)	Yes (%)	No (%)	
AIDS/HIV	253 (88.8)	32 (11.2)	32 (86.5)	5 (13.5)	$X^2=1.68$ , $df=1$ , $P=.682$
Hepatitis B	125 (43.9)	160 (56.1)	13 (35.1)	24 (64.9)	$X^2=.521$ , $df=1$ , $P=.471$
Syphilis	104 (36.5)	181 (63.5)	10 (27.0)	27 (73.0)	$X^2=1.283$ , $df=1$ , $P=.171$
Genital herpes	23 (8.1)	262 (91.9)	23 (8.1)	262 (91.9)	$X^2=.000$ , $df=1$ , $P=.994$
Urethritis	113 (39.8)	171 (60.2)	12 (32.4)	25 (67.6)	$X^2=.754$ , $df=1$ , $P=.381$

**TABLE 4:** Use of contraceptive methods.

Methods	Female Students	Male Students	Significant
	(n=39)	(n=12)	
Condom	16 (41.0)	7 (58.3)	X <sup>2</sup> =2.985
Oral contraceptives	12 (30.8)	2 (16.7)	df=4
Withdrawal	3 (7.7)	2 (16.7)	P=.560
Rhythm	1(2.6)	1 (8.3)	
No contraception	7 (17.9)	-	

virginity was very important. Premarital sexual relations are unacceptable for women Turkish society and are considered an issue of honour. As a result, it is socially forbidden for a woman to engage in this act. In order to present a woman as a virgin on her marriage day, she is subjected to pressure, and kept under the control of both her family and societal norms. However men are free and never made to suffer any of the above pressures. A woman found to be a virgin on her first night of marriage is considered to be a normal person while one suspected to have lost her virginity is made to undergo a series of medical examinations to bring clarity to her situation.<sup>15,16</sup>

#### KNOWLEDGE OF SEXUALLY TRANSMITTED DISEASES

The majority of the student knew that AIDS was a STD (Table 3). However this study provided strong evidence that the students have insufficient knowledge about other STDs. The results of other studies conducted on this subject reported similar findings.<sup>1,6,17</sup>

#### USE OF CONTRACEPTIVE METHODS

The most common method of contraception reported by male and female students was condom use, followed by oral contraceptives, and withdrawal. No significant difference was found between male and female students (Table 4). Other studies conducted in Turkey about the subject have also shown that the students who use a protection met-

hod prefer to use condom.<sup>1,2,6</sup> A study conducted with university students by Repposi et al. in Spain showed that 78% of men and 72% of women use a method of contraception.<sup>10</sup> Condom usage rate varies between 8.5% and 70.1%<sup>2,18-23</sup> The literature shows that both in our country and in other countries, young people who are sexually active do not use enough methods of protection. The results of this research are consistent with these findings. In this study the insufficient usage of methods of contraception in our country suggest that the reproductive health services are not accessible to single women who tend to hide their sexual intercourse.

#### CONCLUSION

According to the results of this study, the mean age of the study group was 20.41 (SD=2.43, range=16-38 years) years. Most subjects were females (88.5%). It was reported that knowledge about sexual health, STDs and contraceptive methods is insufficient among the college students in health-related fields in Turkey. Male students were more sexually active, had their first sexual experience earlier, and had their sexual needs met by more sexual intercourse and masturbation compared to the female students. The students' knowledge about STDs in general was low, but they have more information about AIDS/HIV as a STD. The male and female students who were having sexual intercourse preferred to use a condom. As a result, the female students had more limitations placed on their sexual activities than male students.

It is recommended that education programs be prepared about sexual health, STDs and methods of contraception.

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