Sexual activity among Turkish adolescents: once more the distinguished male

Nezih Dagdeviren, Turan Set, Zekeriya Aktürk

Angaben zur Veröffentlichung / Publication details:

Dagdeviren, Nezih, Turan Set, and Zekeriya Aktürk. 2008. "Sexual activity among Turkish adolescents: once more the distinguished male." *International Journal of Adolescent Medicine and Health* 20 (4): 431–39. https://doi.org/10.1515/ijamh.2008.20.4.431.

©Freund Publishing House Ltd. Int J Adolesc Med Health 2008;20(4):431-439

Sexual activity among Turkish adolescents: Once more the distinguished male

Nezih Dagdeviren, MD, Turan Set, MD and Zekeriya Akturk, MD

Department of Family Medicine, Trakya University Medical Faculty, Edirne, Turkey

Abstract: The mean age of first sexual intercourse in Western countries is around 17 years and decreasing. Although Turkey is a bridge between East and West, embracing different cultures, little data are available on sexual issues in the population. *Methods*: A questionnaire was administered to all students in the study year 2004-2005, collecting demographic data, sexual activities, sexual and contraceptive attitudes, and contraceptive knowledge. Of 7,657 applicants invited, 3,970 questionnaires could be analyzed. *Results*: Median age of the participants was 18 years (48.0% female, 52% male). Median age at first sexual intercourse was 17 years for females and 16 years for males. 46.5% of the males and 3.0% of the females had sexual intercourse experience. While 68% of the girls had their first sexual intercourse with their lovers, this ratio was 44.8 % for males (Chi square = 59.963, $p < .001$). Significantly more girls than boys were planning to have their sexual partner as future spouses (Chi square = 55.569, $p < .001$). Three fourth of the males approved premarital sex for males; this ratio was reversed for females (Chi square = 574.838, $p < .001$). Although both sexes disapproved premarital sexual intercourse of women, girls were significantly more conservative in this regard (78.6% vs. 92.5%) (Chi square = 110.460, $p < .001$). *Conclusion*: Although the adolescent sexual intercourse rate in Turkey is low compared with Western countries, there is a tendency to increase. Therefore, sexual education is needed. When augmenting sexual education programs in undergraduate education, gender difference and cultural factors should be further evaluated.

Keywords: Adolescence, sex, gender differences, cultural factors, Turkey

Correspondence: Zekeriya Akturk, MD, Trakya University Medical Faculty, Department of Family Medicine, 22030 Edirne, Turkey. E-mail: zekeriya.akturk@gmail.com

Submitted: February 03, 2008. ***Revised:*** March 01, 2008. ***Accepted:*** March 03, 2008.

INTRODUCTION

Family planning and sexuality are important health aspects in adolescence. Parallel to the high number of adolescents in the developing countries, there is also a high demand on sex-related and reproductive health issues. The World Conference on Population and Development held in Cairo 1994 stressed the importance of expanding reproductive health programs according to the needs of adolescents (1).

The mean age of first sexual intercourse in Western countries is around 17 years, with almost 50% of the adolescents having had an intercourse experience within the last 3 months (2). Most of the data available for Turkey is from studies on university students, a recent publication demonstrating 36.6% sexual experience among first and fourth year university students (3). As in many other countries, however, sexuality has remained a hidden area in Turkey with

relatively less education and research performed.

Turkish adolescents, comprising almost 20% of the population (4), have insufficient knowledge on sexual health. However, they are willing to get education in these areas, having friends, families, and media as their main current information resources (5,6). We were not able to find literature that investigated the connection of cultural factors with sexuality in Turkey.

Turkey is a geographic as well as cultural bridge between West and East. Heaving its roots in the East and with a strong decision to integrate with West leads to a continuous cultural movement and change in Turkey. We believe that investigating adolescent sexuality in a country with Islamic background in its culture melded with Western cultures from day to day, will be valuable for the development of health enhancement activities regarding sexual health. We hypothesized that cultural factors could have an influence on the sexual activity patterns of adolescents in Turkey, a country where sexuality is still a predominantly hidden area. We aimed to investigate the effect of several cultural factors on the sexual behavior of adolescents at the application for higher education in Turkey.

METHODS

We conducted a cross-sectional study inquiring about the sexual activity patterns of adolescents who were applying to different programs of Trakya University in Edirne, Turkey. Students must pass a central examination to enter higher education in Turkey. All successful applicants must register at the same place within a two-week time interval. Trakya University received 8,946 applications from all regions of the country in 2004.

The sample of this study was drawn from the students, who applied to Trakya University in the 2004-2005 study year. The aim was to approach and invite all applicants to participate in the study. 7,657 (85.6%) of the applicants could be reached, and 4,111 students accepted to join the study (response rate = 53.7%). The data from 3,970 students (34.3% of the total population) were analyzed for this study. According to prior studies, the prevalence of sexual intercourse among university students in Turkey is around 36.6% (3). Taking alternative p as 39.1%, a sample of 3,970 persons would give a power of 90.0%.

We excluded data obtained from 141 participants from the study. The exclusion criteria used were inconsistent information in replying to questions (e.g. responding "no" to the question "Have you ever had sexual intercourse?" but answering the question "Who was your first sexual partner?"), responding to less than 50% of the items in the questionnaire, leaving all of the demographic data questions blank or age over 25 years.

Data collection

A questionnaire was developed by the researchers to collect the necessary data. Demographic features, sexual behaviors, and several social and cultural factors were included. The questionnaire was tested in a pilot group and found acceptable with a mean completion time of around six minutes. Ethics approval was obtained from the Trakya University Local Ethics Committee. The participants were informed orally and asked for consent. The questionnaire was applied at the beginning of the study year 2004. Participants filled out the questionnaires in an anonymous atmosphere. The questionnaires were distributed and collected by the researchers and the data entered into a computer spreadsheet for analysis.

Statistical analysis

The results were presented as descriptive data. Mann-Whitney U, Chi square test, and logistic regression analysis were applied to search for statistical significance. Hypotheses were constructed in a two-way manner and p values were presented as two-way values.

RESULTS

The median age of the participants was 18 years (range 16-25). 1,807 participants (48.0%) were female, 1,956 male (52.0%) (207 participants did not disclose information on their gender). 59 participants were married (1.8%) and 3,190 were single (98.2%) (721 participants did not disclose information on their marital status).

The distribution of participants according to high school types "public high schools", "high schools with intensive curriculum", "high schools with religious content" (*imam hatip lisesi*), "private high schools", "high schools preparing for an occupation" and "correspondence schools" were 21.6% (n = 841), 20.4% (n = 793), 0.8% (n = 33), 0.9% (n = 35), 55.7% (n = 2166), and 0.5% (n = 19), respectively. Of the participants, 65.4% (n = 2,129) were from the Marmara region, 13.2 % (n = 429) from the Black Sea, 6.7 % (n = 217) from Middle Anatolia, 6.0% (n = 149) from East Anatolia, 4.3% (n = 141) from the Aegean, 2.2% (n = 73) from the Mediterranean, 1.3% (n = 42) from South East Anatolia, and 1.0% (n = 32) were foreigners.

Age was grouped as "17 and below", 18, 19, and "20 and over". Sexual experience increased with age (Chi square: 14.028, p = 0.003). Consumption of any birth control method at the last intercourse, knowing at least one family planning method, the proportion of participants advocating the dilation and curettage procedure (D&C), and supporters of family planning methods significantly increased with age (Chi square and p, 20.141, < .001; 98.961, < .001; 46.384, < .001; 52.474, < .001; respectively). The attitude of males toward premarital sexual intercourse showed no significant relation with age (Chi square = 1.009, p = 0.799). the attitude of females toward premarital sexual intercourse became more positive with increasing age of the participants (Chi square = 8.195, p = 0.042).

A significant difference was found between males and females with regard to sexual intercourse experience, with 46.5% (n = 872) of males and 3.0% (n = 52) of females (Chi square = 892.135, p < .001) having sexual intercourse experience.

The median age of first sexual intercourse was 16 (min. 10, max. 25) with a median age of 17 (min.14, max.25) among females and 16 (min. 10, max. 22) among males. Age at first sexual intercourse concentrated around 15 to 18 years with a remarkable peak at 16 to 17 years among boys. There was a significant difference between males and females with regard to the age at first intercourse (Mann-Whitney U Z = -3.484, p < .001; see figure 1).

While 68% of the girls had their first sexual intercourse experience with their lovers, this ratio was 44.8 % for males. A statistically significant difference was found between males and females with regard to the identity of the first sexual partner (Chi square = 59.963, p < .001). Almost half of the participants did not use any protection during their last intercourse. Significantly more girls than boys were planning to have their sexual partner as a spouse in the future (Chi square = 55.569, p < .001). No significant difference was found between males and females with regard to protection status at the last intercourse (Chi square = 1.082, p = 0.329). Those who knew at least one family planning method were around 10%

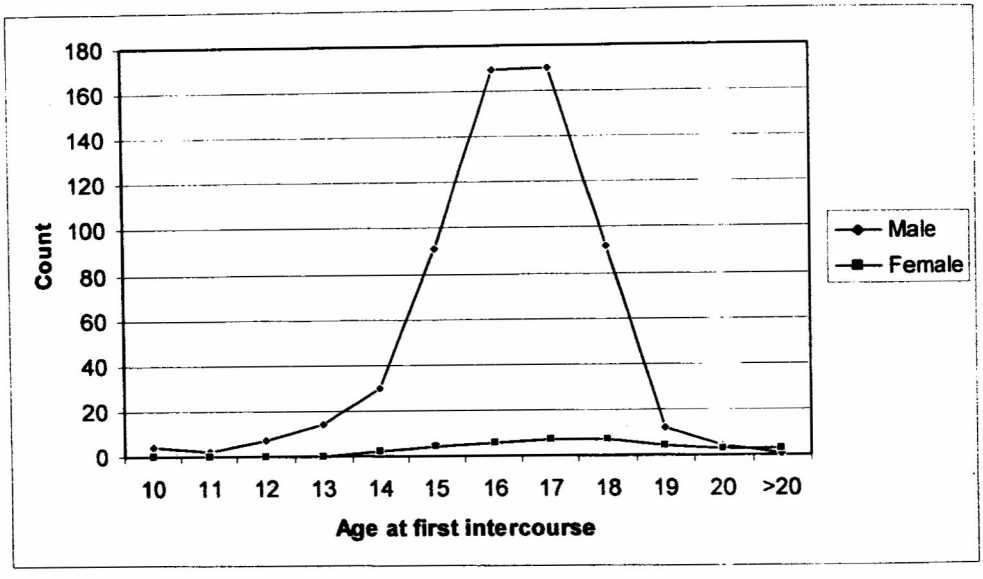

Fig. 1: Age at first intercourse among males and females

of the participants. Girls had significantly more knowledge than did boys (Chi square = 4.678, p = .034). More girls than boys significantly advocated the implementation of D&C (Chi square = 48.522, p < .001). More girls than boys significantly supported the use of family planning methods. Those staying neutral in this issue were twice as high in the boys group (Chi square = 107.568, p < .001). Whereas three quarters of males approved the premarital sexual intercourse of males, this ratio was reversed for females (Chi square = 574.838, p < .001). Although both genders disapproved the premarital sexual intercourse of women, girls were significantly more conservative in this regard (Chi square = 110.460, p < .001).

A significant difference was found between geographic locations with regard to sexual intercourse experience, with the highest numbers coming from the Marmara region (27.1%) (Chi square = 17.000, p = .002). No statistically significant difference was found between the geographic areas with regard to the identity of the first sexual partner, intention to marry the sexual partner, contraceptive usage during the last sexual intercourse, thoughts on D&C, and thoughts on family planning methods (Chi square and p 13.613, 0.627; 6.218, 0.623; 1.976, 0.740; 12.352, 0.136; 8.937, 0.348 respectively). In the Mediterranean and Middle Anatolia regions, knowledge of contraceptive methods was significantly higher when compared with other areas (Chi square = 19.986, p = .001). The premarital sexual experiences of males showed a significant difference with regard to geographic areas. Among the students coming from Marmara, the ratio of those with a positive attitude in this regard was 55.1% followed by Middle Anatolia (47.9%). (Chi square = 27.464, p < .001). The premarital sexual experiences of males also showed a significant difference with regard to geographic areas. The geographic

areas most commonly approving premarital sexual intercourse of females were Middle Anatolia and the Mediterranean areas (19% and 17% respectively) (Chi square = 11.787, p = .019).

A significant difference was found between the type of high school graduated and sexual intercourse experience, with the highest sexual intercourse experience being among those students coming from correspondence schools (41.2%) followed by private colleges (38.2%) and occupational high schools (Chi square = 142.787, p < .001). No relation was found between the high school graduated and the identity of first sexual partner or intention to marry the sexual partner (Chi square and p 14.275, p = .816; 10.767, 0.376 respectively). The relation between contraceptive usage and the type of graduated high school was not analyzed due to too fewer cases in the columns of religious schools, correspondence schools, and private colleges.

The family planning knowledge of the participants was generally low. A significant relation was found between the graduated high school and method knowledge. Whereas none of the high schools graduates with religious curricula could report know-ledge of any contraceptive method, 24.2% of the graduates from private colleges could describe at least one contraceptive method (Chi square = 159.765, p < .001). A signifi-cant relation was seen between attitude toward D&C and the type of school graduated. Graduates of correspondence schools (30.0%) and private colleges (23.3%) had the highest percentage of D&C approvers (Chi square = 167.256, p < .001). Most participants found contraceptive methods necessary. The least supporters of contraceptive methods were from schools with religious curricula (75.8%) and private colleges (66.7%). A significant difference was found between the type of schools graduated and attitudes toward contraceptive methods (Chi square = 138.799, p < .001).

The highest number of opposers regarding the premarital sexual intercourse of males came from the schools with religious curriculum (85.7%). On the other hand, 80% of the graduates from correspondence schools approved such behavior. A significant difference was seen between the graduated schools with regard to their attitudes toward premarital sexual activities of males (Chi square = 99.890, p<0.001). Although most participants were against the premarital sexual activities of females, this percentage increased to 100% among graduates from religious schools. A significant difference between school type and attitudes toward premarital sexual activities of females was observed (Chi square = 16.064, p = .007).

Taking into consideration that some interaction might occur among the variables investigated, we developed a model of variables with a possible effect on sexual intercourse experience and performed a logistic regression analysis. Age (continuous variable), gender, type of high school graduated, geographic origin, attitude toward D&C, attitude toward contraception, attitude toward premarital sexual intercourse of men, and attitude toward premarital sexual intercourse of women (categorical variables) were included in the model. The enter method was used for analysis. Age, gender, attitude toward premarital sexual intercourse of men, attitude toward D&C, and the type of high school were significantly related, with having sexual intercourse experience (see table 1). When we applied the forward conditional method, the order of variables entering the model was as follows: sex, attitude toward premarital sexual intercourse of men, age, and type of high school. Being male increased the likelihood of sexual

Table 1. *Logistic regression analysis computer output*

	B	S.E.	Wald	Sig.	Exp(B)	95% CI
Age	0.344	0.090	14.733	0.000	1.411	1.184-1.682
Gender	2.978	0.290	105.665	0.000	19.639 1	1.132-34.648
High school						
Public high schools			8.003	0.156		
With intensive curriculum	-0.010	0.326	0.001	0.975	0.990	0.523-1.874
With religious content	-3.416	8.878	0.148	0.700	0.033	0.000-1184127
Open lycee	-5.962	18.086	0.109	0.742	0.003	0.000-6.4E+12
Private high schools	0.999	0.849	1.383	0.240	2.715	0.514-14.348
Preparing for an occupation	0.620	0.281	4.863	0.027	1.859	1.071-3.226
Geographic origin						
Black Sea			5.189	0.268		
East Anatolia	-0.907	0.559	2.635	0.105	0.404	0.135-1.207
Middle Anatolia	0.272	0.495	0.302	0.583	1.313	0.497-3.466
Mediterranean	-0.562	0.467	1.446	0.229	0.570	0.228-1.424
Marmara	-0.106	0.312	0.116	0.733	0.899	0.488-1.658
D&C attitude						
Can be used for family planning			5.030	0.081		
Only if medical indication	-0.643	0.312	4.256	0.039	0.526	0.285-0.968
Should never used	-0.325	0.348	0.872	0.350	0.722	0.365-1.430
Family planning attitude						
Not useful			2.532	0.282		
Not sure	-0.677	0.696	0.946	0.331	1.967	0.130-1.988
Useful	-0.920	0.621	2.194	0.139	2.510	0.118-1.347
Approving male premarital sex	2.296	0.289	62.996	0.000	9.931	5.634-17.506
Approving female premarital sex	-0.132	0.250	0.281	0.596	1.142	0.537-1.430
Constant	-9.844	1.890	27.130	0.000	0.000	

intercourse with an odds ratio of 19 and approving male premarital sexual activity increased the likelihood of sexual intercourse by 10 fold. The model could predict sexual activity with 78.8% sensitivity and 89.4% specificity.

DISCUSSION

The age for commencing sexual activity steadily decreased among adolescents. Even 20 years ago, 60% of females and 70% of males were reported to have experienced sexual activity by the end of 18 years (7).

Adolescent pregnancies were still an important public health concern despite slight declines after repeated efforts (8). Still one third of adolescents at the age of 16 years were sexually active in Western countries (9). On the other hand, almost one-fifth of sexually active girls became pregnant, with half being within the first 6 months after starting sexual activity (10). Only a few adolescents used contraceptives. Factors such as wrong and insufficient knowledge, inability to plan the future, insufficiency in communication with the partner, and risk-taking behaviors had an adverse effect on contraceptive usage (11).

Having almost all marriages within the roof of a marriage, Turkey shows some difference from Western countries (4). Our study supports this claim by showing that sexual activity among Turkish girls starts at a relatively later age and is lower when compared with Western countries. However, the insufficient contraceptive usage among sexually active girls in our sample predicts that early and unwanted pregnancies will increase among university students.

The results of this study should be evaluated in the context of the geographic location as well as the cultural and religious structure of Turkey, a country with over 90% of its population being Moslem and coming from an emperorship culture with religious management. However, for over 100 years Turkey has turned its face toward the West, accepted a secular government structure, and is greatly influenced by Western cultures. Although not queried, we can assume that most participants of this study are Moslems as well. Despite the official westernizing policies and great cultural exchanges with Western countries, Turkey also has Islamic countries as neighbors, and the effect of Islam on the population is not negligible. Islam prohibits extramarital sexual activity for males as well as females (12). Also culturally, utmost importance is given to the virginity of a unmarried woman in Turkey (13). A girl is expected to be a virgin until the wedding night. This culture is more strongly valued in Eastern and Middle Anatolia and the Black Sea regions. However, the effect of a male dominant culture is also very obvious, causing a paradox between culture and religion. From the point of premarital sexual activities, the man does not have a similar pressure. Moreover, houses of prostitution are available for men in almost all cities in Turkey.

This study demonstrates a considerable difference between male and female adolescents at the university age. Although the ratio of sexually active males is comparable to those in Western countries, sexual activity among girls is still very low. The reason for this big difference is attributed to cultural control on girls and to the availability of partial evidence of sexual activity among females resulting from hymenal perforation. In reality, males disapproving premarital sexual intercourse for girls is a sign that the cultural attitudes of the population in this area did not change. On the other hand, this finding demonstrates that the effect of Islam on the sexual activity patterns (especially those of men) is not as high as expected. We regarded this finding as a change in moral values with cultural factors predominating, distinguishing the male and allowing him to be more free and unresponsive in his behaviors.

An interesting finding in this study is the peak age of first intercourse among boys. According to the Turkish undergraduate education rules, primary school education starts at 7 years of age, with a formal education of 10 years before entering university. Our study demonstrates

that the peak age of first sexual activity is at the ages of 16 and 17 years, corresponding to the last year of high school. We assume that finishing the high school education and entering another class accompanied by more independence from the family, as well as the drive to prove their maturity can be facilitating factors for students to try sexual intercourse experiences.

Cultural interference may be an explanation for the higher sexual activity rates of students coming from certain areas. Mediterranean and Marmara areas appeal reasonably to more tourists, which might facilitate the cultural exchanges of adolescents with western people, hence, resulting in more sexual activity among students from these areas.

Although some differences were seen with regard to age, gender, type of school, and geographic origins, the contraceptive knowledge of the population investigated was generally low. However, the attitude toward contraception was positive. The anti-natalist policies conducted since 1962 in Turkey (14) should certainly have some effect on this attitude. Unfortunately, it seems that this positive attitude is not accompanied by the necessary education on contraceptive methods.

Interestingly, students from schools with a dense program started sexual activity later than did other students, demonstrating that certainly factors other than culture and beliefs affect sexual activity patterns. One such factor could be the availability of spare time for boys and girls to spend together.

This study demonstrates the importance of cultural factors on the sexual intercourse experiences of students. This opinion is supported by the finding that gender and the attitude toward premarital sexual intercourse of males were the most important factors in logistic regression analysis; type of school, and attitude toward D&C were found significant as well.

It is known that sexuality is affected by the personality of the individual, his/her relationships with others, life circumstances, and the culture in which the person grew up. Hence, health care regarding sexuality cannot be directed on one dimension but rather needs a comprehensive approach (15). The development of sexual identity, physiologic changes in sexual organs, and sexual attitudes and behaviors all ripen and become mature during adolescence. It is vital that during this period, adolescents have health resources that are easily accessible to discuss their problems even in a proactive manner and to receive the appropriate service. In this context, the primary care physician, public health specialists, and public health nurses are important health resources for adolescents during their transition into adulthood.

CONCLUSIONS

In Turkey, the sexual intercourse rate among adolescents is low when compared with Western countries. There is a wide difference between the behaviors and attitudes of males and females. The seemingly protective factors delaying sexual intercourse among girls may be further studied and used as a model to combat unwanted pregnancies and other risks of early and unprotected sexual intercourse in other countries. On the other hand, there is an uncovered need on sexual education in Turkey, which seemingly cannot follow the sexual trends resulting from global influences. While augmenting sexual education programs in undergraduate education, the gender difference and cultural factors should be further evaluated and local policies should be developed with respect to the cultural factors.

REFERENCES

1. United Nations Population Fund. Programme of action. Int Conf Popul Dev, Cairo, 1994.
2. Michaud PA, Narring F, Ferron C. Alternative methods in the investigation of adolescents' sexual life. J Adolesc Health 1999;25(1):84-90.
3. Gokengin D, Yamazhan T, Ozkaya D, Aytug S, Ertem E, Arda B, et al. Sexual knowledge, attitudes, and risk behaviors of students in Turkey. J Sch Health 2003;73(7):258-63.
4. Hacettepe University. Turkey demographic and health survey TDHS-2003. Ankara: Hacettepe Univ, 2004.
5. Dagdeviren N, Özer C, Aktürk Z, Sahin EM, Sahin Ö, Öner L. The sources of knowledge of the Turkish teenages about sexual issues: how reliable are they? Conf Eur Soc Gen Pract Fam Med, 2001:47.
6. Akin A, Özvaris SB. [Adolesanlarin/ Gençlerin Cinsel ve Üreme Sagligini Etkileyen Faktörler' Projesi (Özet Rapor), HÜTF Halk Sagligi Anabilim Dali]. Ankara, 2004:S22-4. [Turkish]
7. O'Reilly KR, Aral SO. Adolescence and sexual behavior. Adolesc Health Care 1985;6:262.
8. Talashek ML, Montgomery AC, Moran C, Paskiewicz L, Jiang Y. Menarche, sexual practices, and pregnancy: model testing. Clin Excell Nurs Pract 2000; 4(2):98-107.
9. Boelskifte J, Saval PM, Rasmussen KL. [Sexual activity and contraception habits among adolescents over the last 14 years. An investigation among 9th grade pupils in the municipality of Viborg]. Ugeskr Laeger 2002;164(24): 3207-11. [Danish]
10. Treffe rs PE. [Teenage pregnancy, a worldwide problem]. Ned Tijdschr Geneeskd 2003;147:2320-5. [Dutch]
11. Cha mbers CV. Childhood and aolescence. In: Rakel RE, ed. Textbook of family practice, 5th ed. Philadelphia, PA: Saunders, 1995:634-59.
12. The Holy Q uran 25/68, Furkan, 2005.
13. Gurso y E, Vural G. Nurses and midwives views on approaches to hymen examination. Nurs Ethics 2003;10(5): 485-96.
14. A ydin E. Changing abortion policy in Turkey. HEC Forum 2000;12(2):177-80.
15. Kaplan HI, Sadock BJ. Concise textbook of clinical psychiatry. Baltimore: Williams Wilkins, 2003.