Alcohol and Psychoactive Substance Use Among University Students in Edirne and Related Parameters

Yasemin GÖRGÜLÜ¹, Diğdem ÇAKIR², Mehmet Bülent SÖNMEZ¹, Rugül KÖSE ÇINAR¹, Mehmet Erdal VARDAR¹

1Department of Psychiatry, Trakya University Faculty of Medicine, Edirne, Turkey
2Clinic of Psychiatry, Muğla Milas State Hospital, Muğla, Turkey

ABSTRACT

Introduction: Alcohol and psychoactive substance use and effects are an important issue among adolescents and young adults. Different results are reported about frequency of alcohol and psychoactive substance use among university students in the studies carried out both in our country and in different places around the world.

Methods: Frequency of alcohol and psychoactive substance use among Trakya University students (n=1385) and related parameters were studied cross-sectionally. A self-report questionnaire was administered.

Results: Alcohol was the most common substance used (30%), followed by tobacco (29.9%) and marijuana (3.1%). Frequency of alcohol and psychoactive substance use was found to be higher among males with higher amounts of pocket money, whose parents experience more conflict in their relationship and belong to families with higher education and income level.

Conclusion: Frequency of alcohol and psychoactive substance use among Trakya University students was found to be lower than other region in our country and especially than those reported in studies which are carried out in other countries.

Keywords: Alcohol drinking, tobacco, marijuana, university students, substance misuse

INTRODUCTION

Substance use and related behaviors among adolescents and young adults is a great and important problem in the sense of public health. Substance use is related with depression, addiction, violence and other health risks (1). Biological sensitivity towards addictive effects of psychoactive substances is high in adolescence and young adulthood (2).

Cultural aspects of the social environment effect the use of alcohol and other substances. University students who show late adolescence characteristics, live some of the biological, psychological, social and economic problems. In these years, accelerated biological change and a lot of personality conflict make them unstable in point of emotions. Should be considered that the period of youth is the novelty seeking term for individuals (3). Should not be neglected that acquisition of undesirable behaviors can be effect from the social environment. Social structure, traditions, customs, religious beliefs, various social events and speed of social change has an impact on alcohol and drug consumption. Individuals shape their behaviours according to the rules set by society (4). There is a major impact of cultural attitudes and beliefs on the behavior of alcohol and substance use. In the cultures that, alcohol and drug use is acceptable, utilization rates are higher (5).

Studies have been conducted to determine the frequency of alcohol and psychoactive substance use among adolescents and young adults and different results were attained. The data on the prevalence of smoking, drinking, and substance use among the general population were consistent with our results.
The rate of alcohol and illegal substance use in the university students all over the world varies between 13.5-42% for tobacco; 23.2-87.6% for alcohol; 6.6-46.7% for marijuana; 2.4-13.3% for cocaine (14,15,16,17,18,19,20,21). In Turkey, among the university students; rates vary between 27.3-64.4% for tobacco; 30.4-70% for alcohol; 2.3-11.7% for illegal substances like marijuana, cocaine or heroin (22,23,24,25).

The relationship between substance use and the demographic variables of age and gender are widely studied. In most of the studies substance use was found to be higher among males compared to females (19,21,22,26,27). Some of the studies show that there is no difference in the rate of alcohol consumption according to gender (22,23). Moreover it is also reported that males begin using alcohol at an earlier age than females (28).

Socio-economic status influences the frequency of substance use among adolescents. In societies with low socio-economic level, where immigration and unemployment is intensive; factors such as harsh living conditions, familial conflict due to financial strain, coping ability of individuals and depression direct adolescents towards substance use (29,30). Although some researchers report that substance use is observed more frequently in societies with low socio-economic status, others report that substances such as alcohol and tobacco can be obtained more easily and consumed more commonly by those at high socioeconomic levels (31,32).

A study stated that the risk of substance use is six times greater for those whose friends use substances. It was determined that 50.2% of those who use substances and 15.2% of those who do not use substances have friends who use substances (33). Farell and White determined that both peer pressure and peer substance use are significantly related with frequency of substance use and the relationship between peer pressure and substance use is stronger among females compared to males (34).

It was asserted that the education level of an individual’s family has an effect on substance use in adolescence (35). It was found that high education level of parents is related to increased alcohol use and rate of getting drunk (32,36). Parental alcohol and substance abuse is significantly related with alcohol and substance use of adolescent (32,37,38). Steinberg et al. found that adolescents for whom there is insufficient familial monitoring use substances more regularly and those who use substances have friendships with people who share similar ideas (resemble them) (39). Cohen et al. (40) found that when parents whose children use tobacco and alcohol spend more time communicating with their children, the level of alcohol and tobacco use decreases among the children. In the same study it was determined that close relationships within families decreases the children’s rate of contact with substance abusing friends. Destructive attitudes in the family double alcohol usage and quadruple tobacco use.

Family structure is another variable, which influences substance use among adolescents. The possibility of adolescents using drugs increases in the case of parent absence due to reasons such as divorce, separation or death. Adolescents from single parent households are more likely to engage in criminal behavior (committing crime, illegal drug use) than those from two parent households (41,42).

We hypothesized that alcohol and substance use in Trakya University students, in Edirne, is high compared to other countries and cities in Turkey. Another hypothesis of the study is substance use characteristics can be affected by age, gender, socio-cultural structure and familial factors. Edirne has always been a significant centre due to its location in the main route connecting Anatolia to Europe. The through highway plays an important role in global transport that connects Europe to the Anatolian and Middle East. This route is known as an important way of substance traffic. Thus, achievement to the substances is expected to be easy. In Edirne, due to being border to Europe, western lifestyle is prevail, social tolerance is high and social perspective on alcohol and drug use is not very solid. Therefore, psychoactive substance use in Edirne is expected to be excessive.

METHODS

In this cross-sectional study, 1385 first-year university students at Trakya University in 2011 were asked to complete a survey within course hours and on a voluntary basis. The study was approved by the ethics comitee of the Trakya University. Surveys of seven participants were not accepted and excluded from research.

Survey results were obtained from 1378 university students and evaluated. Survey responses were anonymous. The survey form used in the study was compiled from questionnaires used for “The European School Survey Project on Alcohol and Other Drugs (ESPAD)” (43) and contained questions about sociodemographic status and familial factors. Survey forms of the study were composed of questions about age, gender, course success, economic conditions, substance use and sociocultural level of parents, relationship with parents, reasons for substance use and access to illegal substances. In order to determine the rate of substance use, they were asked whether they use tobacco, alcohol, marijuana, ecstasy, thinner-bally, cocaine, heroin, amphetamine-LSD (lysergic acid diethylamide), captagon and drugs given with special prescription (eg benzodiazepines, biperiden). In an effort to increase validity; a fictitious substance called Zipolin was included in the list and those who indicated use of this substance were excluded from the study.

Statistical Analysis

After survey forms were filled in, data were entered into Statistical Package for the Social Sciences (IBM SPSS Statistics, NY, USA) 20.0 program. These data were evaluated with chi-square analysis. Significance limit was accepted as p<.05.

Prevalence of substance use among students and the effect of sociodemographic difference on substance use rate were analyzed.

RESULTS

The study group was composed of 1378 university first-year students (508-36.8% male, and 870-63.2% female). Age average of students is 19.65±1.28 years.

When we group students according to the rate of single substance use, alcohol was used by 415 students (30.1%), tobacco was used by 413 students (29.9%), marijuana was used by 43 students (3.1%), ecstasy was used by 8 students (.6%), cocaine was used by 5 students (.4%), thinner-bally was used by 4 students (.3%), heroin was used by 3 students (2%), amphetamine-LSD was used by 3 students (2%), drugs given with special prescription were taken by 3 students (2%) and captagon was used by 2 students (.1%). Of the 757 students (54.7%) that stated that they did not use any of the substances, 27.1% of them were male and 72.9% were female.

The rate of tobacco, alcohol, marijuana, ecstasy, thinner-bally, cocaine, heroin, amphetamine-LSD, captagon and special prescription drug use among university students is significantly higher for males compared to females (Table 1).
Substances which are most frequently used by university students are alcohol, tobacco, and marijuana in our study. Other illegal substances are used rarely. Therefore, we assessed the results on the data related to these three substances.

When substance use according to family income is analyzed with binary chi-square analysis, tobacco and alcohol use among children of families whose income level is above 2500 TL (~1000 €) (respectively 50.6%, 51.9%) is significantly (p<0.001) higher than those whose family has lower income level. When we evaluate rate of substance use according to average weekly pocket money, rates of weekly alcohol, tobacco and heroin use increase as the weekly pocket money increases (p<0.001).

The rate of alcohol and tobacco use among adolescents whose mother has high level of education (respectively 45.5%, 38.8%; p<0.001 and p=0.013) and who works (respectively 41.0%, 36.9%; p<0.001 and p=0.003) is significantly higher compared to those whose mother has a low level of education and does not work. It was determined that having a father with graduate university qualifications results in a significant increase of alcohol and tobacco use (respectively 40.7%, 39.0%; p<0.001 and p=0.007) however there was no relationship between fathers regularly working and their children’s substance use (p=.648 and p=.124).

Students were asked to evaluate their academic success as good, ordinary or bad. Tobacco use rates significantly increased with decreasing reports of academic achievement (respectively 24.8%, 32.1% and 47.8%; p<0.001).

When the effect of parental marital status or absence of mother or father on substance use is evaluated with binary chi-square analyses; the rate of alcohol and tobacco use among those who live with a single parent due to divorce is significantly higher than those who live with both parents and live with a single parent due to loss of a parent. The rate of alcohol use among those who live with a single parent due to divorce is 48.8%, those who live with both parents is 28.1%, and those who live with a single parent due to loss of a parent is 29.0%. The difference is significant (p=0.002).

The rate of tobacco use among those who live with a single parent due to divorce is 48.8%, those who live with both parents is 27.8%, and those who live with a single parent due to loss of a parent is 29.0%. The difference is significant (p<0.001).

When the effect of parental conflict is considered; the rate of alcohol and tobacco use among adolescents whose parents cannot get along with each other and have problems is significantly higher than those whose parents get along well with each other. When the difference between parent relationships and rate of substance use is compared with binary chi-square analyses, it was found that a problematic relationship between mother and father significantly increases the rate of tobacco, alcohol and marijuana use (Table 2).

When the rate of substance use is compared according to the level of students’ getting along with parents is compared with binary chi-square analyses, it was observed that not getting along with parents increases marijuana use compared to getting along well or in medium level; getting along well in medium level significantly increase the rate of alcohol and tobacco use compared to getting along well (Table 3). It was observed that not being sufficiently supported by parents significantly increases the rate of alcohol, tobacco and marijuana use among students who have indifferent parents compared to those who have concerned and support-
not smoke. Alcohol use rate is 64.7% for those whose mother drinks alcohol and 27.4% for those whose mother does not drink alcohol; marijuana use is 10.3% for those whose mother drinks alcohol and 2.7% for those whose mother does not drink alcohol. The mother’s use of tobacco increases the rate of tobacco and alcohol use (p<.001); the mother’s alcohol consumption increases the rate of alcohol (p<.001) and marijuana (p=.01) use significantly. It was determined that the father’s use of tobacco does not have significant effect on the rate of substance use. The rate of tobacco use is 36.1% for those whose father drinks alcohol, 26.6% for those whose father does not drink alcohol; the alcohol consumption rate is 49.8% for those whose father drinks alcohol and 22.1% for those whose father does not drink alcohol. It was determined that the alcohol drinking habit of the father increases the rate of tobacco use (p=.01) and alcohol (p<.01) and the difference is significant.

33.9% of students use substances in order to have fun, 18.5% use since their friends use as well, 18.5% use in order to avoid problems, 15.1% use due to getting bored, 7.7% use due to the influence of their girlfriend/boyfriend, 5.2% use in order to calm down, 7% use with the effect of internet and 4% use in order to sleep. When they are asked to arrange reasons of using substances in order of importance, the first reason was using substance together with friends, the second reason was avoiding problems and preventing boredom, the third reason was to have fun. When the location of substance use were evaluated, it was found that students mostly (26.5%) use substance in their homes, 18.8% use in amusement places, 12.5% in the street or abandoned places, 7.2% use in the house of friends, 4.1% use at school. 80.8% stated that they have no difficulty in accessing the substance. Concerning the way they obtain the substance, 49.1% of students stated they obtained from friends, 29.1% from drug dealers; 10.9% from their boyfriend/girlfriend; 5.5% from their family. Having friends who use substances increases use of tobacco, alcohol and marijuana significantly (Table 6). There was a significant increase in the rate of tobacco and alcohol use among those whose relatives use substances compared to those whose relatives do not (Table 7).

**DISCUSSION**

The aim of this study was to determine frequency of alcohol, tobacco and psychoactive substance use among university students aged between 18-21 at Trakya University, as well as conditions which increase the risk of substance use.

Rates of alcohol and psychoactive substance use differ significantly in the studies carried out with university students in our country and in different regions around the world. In our study it was determined that students of Trakya University mostly use alcohol, tobacco and marijuana. Similarly, they are the most widely used psychoactive substances in many studies composed at universities in our country and the world (14,16,22,25,44). Although the most commonly used substances are similar, usage rates vary among the different studies. Contrary to our hypothesis, the rate of alcohol and illegal substance use was lower in Trakya University students when compared to the other international and Turkish studies (14,15,17,18,23,24,25,44,45,46). However, the rate of alcohol and illegal substance use in Altındağ et al.’s study is similar to our study (22). In our study, the rate of tobacco use among university students was close to Akvardar et al.’s (23) and Tankulu et al.’s (45) studies. University students, due to come from around the country, show a variety of cultural and demographic and they don’t fully demonstrate the social characteristics of Edirne. The university first-year students were included in the study. They may not yet fully adopt and show social cohesion to the socio-cultural characteristics of Edirne. Also, in recent years, smoking ban is implemented seriously across the country; national alcohol and substance abuse struggle programs are implemented and encouraging publications and advertisements taken under control. These can be the reasons of the lower values in the rate of alcohol and substance use. In addition, methodological differences between the studies and the lack of individual declaration of the truth about illegal substance use may have likely caused it.

The survey that was carried out in Kosovo includes 261 students. From all questioned students, 36% smoked cigarettes every day, 12.6%...
In the study of Akfert et al. (6) carried out with university students, the most common reason for using was out of curiosity (63%). The rate of tobacco and alcohol use was higher among males compared to females (45). In the study carried out with 498 students from 3 universities in the Mediterranean Region, Turkey, it was determined that 45.4% of students drink alcohol (54.1% for males and 34.1% for females). The risk of drinking alcohol was increased 6.3 times by student's smoking, 4.1 times by being male, 3.8 times by the mother drinking alcohol, 2.8 times by the fathers drinking alcohol and 2.1 times by siblings drinking alcohol. It was determined that a large amount of money spent monthly by student is another risk factor which increased alcohol consumption (46). In our study, the use of nearly all the illegal substances is significantly higher among males compared to females. Although the rate of marijuana use is lower in our study, it is five times higher among males compared to females. In a study carried out with 396 students of Hatay University in 2006, the rate of life long tobacco, alcohol and drug use was 73.2%, 56.6% and 9.6% respectively. Tobacco, alcohol and drug use was found to be higher among males. Similar to our study, the use of tobacco and alcohol was high among those whose father and brother or sister had tobacco and alcohol using history. The rate of drug use was found to be higher for those who stated their close relatives use drugs (44). In our study, similarly with Altındağ et al.’s (25) the rate of substance use was found to be higher for those whose friends use substance as well. The difference in data between studies in Turkey is striking. In this case, either the methodological differences between the studies or different socio-cultural structures in different regions may have caused it. Moreover, some of the participants, due to these substances are illegal, may not report accurately. These difference’s causes are needed to investigate in further studies.

Similarly with Tot et al.’s (32) in our study there was a significant increase in the rate of alcohol use among families in which parents use alcohol and the education level of the mother is high. Similarly with our study, it was determined that the rate of smoking is significantly high for adolescents whose academic performance is low. In the 2004 National Survey on Drug Use and Health of USA (48), it was observed that the rate of alcohol use is higher among families whose income level is high, which is similar to our study. Both of our study and similar studies shows once again that behavior stiles of the family, as a risk factor, may predispose young people to use the substance.

In a study carried out with 7382 university students in Kars which is located in the Eastern Anatolia Region, it was determined that the rate of tobacco use was 32.2%. The mother’s and friends’ use of tobacco, as well as high amounts of pocket money increased tobacco using. 37.3% of students tried alcohol at least once, 3.8% tried drugs at least once and the most common reason for using was out of curiosity (63%). The rate of tobacco and alcohol use was higher among males compared to females (45). In the study carried out with 498 students from 3 universities in the Mediterranean Region, Turkey, it was determined that 45.4% of students drink alcohol (54.1% for males and 34.1% for females). The risk of drinking alcohol was increased 6.3 times by student’s smoking, 4.1 times by being male, 3.8 times by the mother drinking alcohol, 2.8 times by the fathers drinking alcohol and 2.1 times by siblings drinking alcohol. It was determined that a large amount of money spent monthly by student is another risk factor which increased alcohol consumption (46). In our study, the use of nearly all the illegal substances is significantly higher among males compared to females. Although the rate of marijuana use is lower in our study, it is five times higher among males compared to females. In a study carried out with 396 students of Hatay University in 2006, the rate of life long tobacco, alcohol and drug use was 73.2%, 56.6% and 9.6% respectively. Tobacco, alcohol and drug use was found to be higher among males. Similar to our study, the use of tobacco and alcohol was high among those whose father and brother or sister had tobacco and alcohol using history. The rate of drug use was found to be higher for those who stated their close relatives use drugs (44). In our study, similarly with Altındağ et al.’s (25) the rate of substance use was found to be higher for those whose friends use substance as well. The difference in data between studies in Turkey is striking. In this case, either the methodological differences between the studies or different socio-cultural structures in different regions may have caused it. Moreover, some of the participants, due to these substances are illegal, may not report accurately. These difference’s causes are needed to investigate in further studies.

In a study carried out Mersin University students, alcohol use was higher for those whose parents drink alcohol. There was no relationship found between tobacco use and parents’ use of tobacco (25). Similarly in our study it was determined that alcohol use is significantly higher for those whose parents consume alcohol. Our study determined that the mother’s use of tobacco significantly increases the rate of tobacco use among university students and similar to the study above, the father’s tobacco use does not have a significant effect on tobacco use. These results show that substance use within a family should be considered concerning its effects on substance use among young people.

In the study of Akfert et al. (6) carried out with university students, ‘communication’ of students who tried smoking is worse, and there is ‘authoritarian oppressive attitude’, ‘disharmony in parent relationship’ and ‘indefiniteness and misuse in relationship’ among family members of adolescents who tried alcohol. In our study, it was observed that alcohol, tobacco and other substances are used more commonly among students who cannot get along with their parents, whose parents cannot get along with them, where the attitude of family is authoritarian-oppressive, indifferent and overprotective, who do not experience sufficient support from their family and who are exposed to physical violence. Troubled family background restricts of the healthy development of young people and directs them to use substance. This may be a guide for preventative interventions in the fight against alcohol and substance use.

In the study carried out with students of Mersin University, there was no relationship observed between substance use and school success or parent’s being together, divorced or at least one deceased (25). In our study the rate of tobacco and alcohol use was found to be higher among those whose parents got divorced and live in a single parent household or whose school success is low compared to those who live together with both parents. It was determined that tobacco use is significantly higher amongst those who report their school success to be below ordinary and quite bad. There was no relationship between alcohol and school success. Similarly, in our study it was determined that the rate of smoking is significantly higher amongst those whose school success is bad, and there is no relationship between alcohol and school success.

Our study was carried out with self-report survey forms, which may pose a restriction in the sense of the reliability of data. However, the powerful aspect of study is the magnitude of the sample and it’s uniqueness. There is an absence of such a study in this region of Turkey with a similarly large sample size.

As a result, there are differences in the reported rate psychoactive substance use in different regions of our country. However, the rate of psychoactive substance using is lower among Trakya University students compared to other regions of Turkey and especially when compared to the results of studies carried out in other countries. The results of this study also show that positive interventions for familial and peer-relationships and interventions to increase academic success are very important for fighting substance use. For future researchers; repetition of this study several years later may help to understand the change in types and rates of substance use.

It was thought that determination of prevalence of substance use among young people and conditions which would increase the risk of substance use would serve as a resource for similar studies in the future, provide data for health and education policies in order to prevent substance use among young people and direct studies carried out for prevention of substance use.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study has received no financial support.

Çıkar Çatışması: Yazarlar çıkar çatışması bildirmemişlerdir.

Finansal Destek: Yazarlar bu çalışma için finansal destek almadıklarını beyan etmişlerdir.

REFERENCES


