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Attitudes towards substance addiction: A study of Turkish University students

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Substance addiction has become one of the important issues in the world. The studies concerning substance use reveal the extent of the problem. According to the results of such studies, the number of the people using illicit drugs has increased profoundly in recent years. In this study, it was tried to find out how common substance use among Turkish university students. Moreover, it was aimed to determine the students' attitudes towards addicts. In order to measure the students' attitudes towards addicts, the revised version of "Attitude Scale towards Individuals with Drug Abuse Problems" developed by Tansel (2006) was used. Totally 572 university students responded the survey. The results showed that nicotine and alcohol were the substances most frequently used by the students. Besides, it was seen that university students' attitudes towards addicts were reasonably negative. What is more, it was determined in the study that, the students' gender, faculty that they attended, students class level, their parents educational backgrounds, students' smoking and drinking habits were the factors influencing the students' attitudes towards addicts.

Key words: Substance use, drug, addiction, university students, attitude.

INTRODUCTION

Drug or substance is a kind of chemical which influence and cause changes in human mind by leading a state of intoxication. There are various kinds of substances which are commonly used by people. It is possible to classify these substances as licit or illicit. Thus, it might be stated that not all drugs are illegal. For example, caffeine, alcohol and tobacco are technically legal drugs. Although they damage both body and mind, their uses are legally permitted. Moreover there are lots of substances listed by WHO and which are used illegally as brain depressant and effect the users negatively like opioids, cannabis, cocaine, stimulants, inhalants and so forth. Illegal substances are so harmful that countries across the

world have been trying to control them (Ambekar and Deb, 2009; UNODC, 2008). Mainly four terms frequently encountered in the related literature when we search on drug or substance use as: substance use, misuse, abuse and dependence/addiction. Substance use refers using alcohol, nicotine or drugs without having any negative consequences. Generally, it might used in a social occasion (like a party), for recreational purposes, just for a trial as an experimental use or for some other reasons like religious rituals. If an individual experiences negative consequences due to his/her alcohol or drug use, it is termed as misuse. One step beyond misuse is generally called substance abuse which might be defined as

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carrying on using the substance in spite of its negative effects. Dependence or addiction is a kind of behavioral phenomena in which substance use takes priority than other behaviours (Ambekar and Deb, 2009). As human beings we are actively involved in different activities in our daily lives, consciously or unconsciously these activities might be pervasive and they might become habitual. Some of these habitual activities are regarded as addictive. The degree of addictiveness differs depending on the kind of activity and individual. Today, we see various forms of behaviours in social life which is counted as addictions; such as, gambling, sex, work, food, shopping, internet and computer gaming (Ross et al., 2008).

As one of the most common addiction types, substance addiction is considered as a brain disease because of substances influence on brain. These influences could be long lasting, and might lead to harmful behaviors seen in people who abuse drugs (NIDA, 2007). Early studies on substance abuse and addiction misconceived these concepts and people who used drugs were thought to be a kind of morally defective and lack determination, so they were not able to control their behaviours. Likewise, people saw drug use as a kind of moral failure rather than a health problem. However, scientific researches showed that addiction must be seen as a kind of disease influencing both brain and human behaviour (Volkow, 2007).

RESEARCHES ON THE PREVALENCE OF SUBSTANCE ADDICTION

Substance addiction has become one of the most important social problems not only in Turkey but in the whole world in recent years. Drug-related problems are seen as major threat to the security and social well being. The increase in the rates of substance use among young people has been started to be regarded as one of the outstanding social problems. Thus, researches on this issue have been made to come to understand the prevalence of substance addiction. It should be noted that in different studies prevalence rates of various licit or illicit substances were researched. In the existing study it was aimed to show how prevalent licit (e.g., nicotine and alcohol) and illicit substance (e.g., drug, inhalers and so forth) use among Turkish university students was in the following paragraphs various studies depicting the prevalence of substance addiction from different parts of the world were mentioned.

The findings of international studies on addiction have similar conclusions showing the increasing rate and negative consequences of substance related problems on the social life. To illustrate, the European Commission has been searching on the extent of drug-related problems in the member states of EU with the help of Eurobarometer studies. As a result of these studies it was

seen that young people in EU found it easy to access some illicit drugs and easier to have substances like alcohol and tobacco (European Commission, 2008). Similarly, 25% of adults were estimated to use illicit substances at least once in their lives. Levels of drug use varied based on the country. While in Denmark, France and the UK about one-third of adult population were estimated to use drugs at some point in their lives, these rates decreased to less than 10% in Bulgaria, Greece, Cyprus, Hungary, Portugal, Romania and Turkey (EMCDDA, 2014). Although alcohol and drugs are taboos in Islamic states, alcohol consumption and drug using rates have risen sharply in the recent years. Drug use is an important problem in Iran as well. According to the national authorities, Iran is among the countries with the highest prevalence of opiate use. The use of crystallized heroin and amphetamine-type stimulants has increased. Moreover, the drug addiction has expanded in social groups like younger adults and women (UNODC, 2014). The studies carried out by Merchant et al. (1976) and Sahraian et al. (2010) proved that the alcohol consumption and drug addiction rates were lower than western states. Although the rates were comparatively lower, the problem has been getting severe. As one of the crowded Islamic countries, Turkey has been experiencing the same problem and it is a known fact that prevalence of drug use has increased dangerously during the recent years. According to the formal reports by Turkish Monitoring Centre for Drugs and Drug Addiction (TUBİM, 2011), around 2.7 % indicated use of any illicit substance during their lifetime, and cannabis was the most prevalent one of these illicit substances. The rates of lifetime tobacco and alcohol use were found out to be around 57% and 44% respectively.

Attitudes towards addicts

Attitude is an essential concept in social studies. Social studies focus on attitude and the related concepts since attitudes are believed to influence individuals' thoughts, feelings and behaviors (Baron and Bryne, 1977; Allport, 1935). There are researches on addiction supporting before mentioned views that attitudes on addiction might influence individuals' decisions and views. People have stereotypes about individuals who are addicted to some illicit substances. Stigma, rejection and punitive responses to addicts are common in society. Generally, these negative responses make it difficult for addicts to recover and integrate into the social life (Grace, 2006).

Researches to find out about the views of medical professional towards addicts are of the most common type of studies (e.g., Grace, 2006; Vargas and Luis, 2008; NCETA, 2006; Vogt et al., 2005; Greenwood, 1992; Roche et al., 1991; Abed and Neira-Munoz, 1990). The findings of these studies did not seem to be coherent. For instance, Grace (2006) stated in his study

that medical professionals may be biased regarding substance abuse. In the study carried out by Vargas and Luis (2008), nurses expressed their personal conceptions towards alcoholic drinks and their statements showed ambivalent conceptions. While some nurses conceive alcoholic drinks as something negative, some of them attribute beneficial characteristics. In another study by Abed and Neira-Munoz (1990), it was reported that the majority of doctors were prepared to help despite the fact that they consider substance addicts as unreliable; they saw the addicts as the addicts themselves were responsible for their problem and the doctors did not treat substance addiction as a medical problem.

Education is another field in which the attitude towards addicts is concerned. In such studies sometimes educators (e.g., Broadus et al., 2010) and sometimes students from different class levels (e.g., Mousavi et al., 2014; Shrestha, 2010; Martin et al., 2007; Tansel, 2006; Tekten, 2006; Çirakoğlu and Işın, 2005; Altintas et al., 2004; Türkşen and Atakan, 2003; Tot et al., 2002; Lindström and Svenson, 1998; Herken et al., 1997) were investigated. Broadus et al. (2010) discovered in their study that educators viewed substance abuse as a coping mechanism rather than a moral failure; but they had contradictory beliefs about regarding it as a disease. Because it was found out in the study that educators with less college education were likely to see addiction as an inheritable disease. Another study by Mousavi et al. (2014) reinforced the idea that positive attitudes towards drugs, having friends who use drugs, unsupportive parents, individual characteristics and impulsiveness were the risk factors increasing the liability. Correspondingly, Shrestha emphasized based upon the result of his study that peer group influence was one of the factors for using drugs and having positive attitudes towards drug use. The studies carried out in Turkey (e.g., Tansel, 2006; Tekten, 2006; Çirakoğlu and Işın, 2005; Altintas et al., 2004; Tot et al., 2002; Herken et al., 1997) also had clues about the factors influencing attitudes towards drug use or addiction. In these studies it was indicated that students' gender, field of study, parents' educational background, being in drug friendly environments, using/or not using drugs were the factors affecting their attitudes towards drugs and drug use.

In some other studies, people's views on the issue were tried to be determined from different parts of the world (e.g., New Zealand Ministry of Health, 2009; Yen et al., 2007; Yanakiev, 1999; Hakkarainen, 1996). According to the results of the study done by Ministry of Health in New Zealand (2009), half of the participants considered that drug problems were community problems which could only be resolved through the active support of the entire community. Especially the parents with dependent children were likely to consider that drug problem was an important social issue. Yen et al. (2007) found that substance use could be included in the group of behavioral problems syndrome. It was stated that family based preventive approaches for substance use

should be implemented for adolescents with negative family environments.

In the present study, it was aimed to find out about Turkish university students' attitudes towards addiction. The overall purpose of this research was to investigate university students' attitudes towards drugs and individuals with drug abuse problems. This study was guided by three research questions:

1. What were the students' attitudes towards substances under different boundary conditions?
2. What were the university student's attitudes towards individuals with substance abuse problems under different boundary conditions?
3. To what extent students' attitudes towards substances influenced their attitudes towards individuals with substance abuse problems?

METHODOLOGY

Study sample

The target population of the study (N= 4628) included the students studying at first cycle programmes (bachelor degree) of one of the newly founded Turkish universities during 2012 to 2013 academic year. The university was selected as research site because of practical reasons (its accessibility for the researcher).

There were 4628 bachelor degree students attending five different faculties at Bozok University during 2012 to 2013 academic year. Four of these faculties provided regular daytime education and evening education programmes. Faculties in the scope of the study were selected randomly and the paper surveys were distributed to the students who agreed to participate in the study. As a consequence, students from three selected faculties (Faculty of Arts and Science, Faculty of Economics and Administrative Sciences and Faculty of Theology) administered the surveys (Since the Faculty of Theology was newly founded and it had limited number of students compared to the other faculties, it was tried to reach quite a few students. The detailed information concerning the participants was shown in the Table 1. Seen in the table, there were more female participants (62.1%) than male participants (37.9%). 47.4% of the participants were from the Faculty of Arts and Sciences, 43.7% were from the Faculty of Economics and Administrative Sciences and 8.9% were from the Faculty of Theology. Nearly the half of the participants (47.2%) were the 1st grade students, 20.6% were the 2nd graders, once again 20.6% were the third grade students and 11.5% were the 4th grade students.

Data collection instrument

In order to measure the students' attitudes towards addicts, the "Attitude Scale towards Individuals with Drug Abuse Problems" developed by Tansel (2006) was revised by the researcher. The instrument was a five-point-Likert scale and had the responses like (1) Disagree; (2) Somewhat agree; (3) Agree; (4) Highly agree; and (5) Completely agree. The scale had five subscales (see Table 3) and 22 statements (originally the scale had 23 statements but one statement was omitted after the analysis). Exploratory Factor Analysis showed that the scale explained 53.52% of total variance; internal consistency coefficient alpha was .88. Factor loadings ranged from .34 to .69; item total correlations ranged from .34 to .60. According to EFA results KMO was .92 and the Barlett test (0.00)

Table 1. Personal details about the participants.

Variable	Type	N	%
Gender	Female	355	62.1
	Male	217	37.9
Faculty	Faculty of Arts and Sciences	271	47.4
	Faculty of Theology	51	8.9
	Faculty of Econ and Adm. Sci.	250	43.7
Grade	1 st	270	47.2
	2 nd	118	20.6
	3 rd	118	20.6
	4 th	66	11.5

Table 2. Construct validity and reliability analysis of the scale.

Subscales	Number of items	Explained variance %	Factor loadings range	Reliability coefficient	Item-total correlations range
1. Personal relations with addicts	6	32.044	.33 - .72	0.80	.30 - .43
2. Perceived characteristics of addicts	5	8.874	.46 - .71	0.45	.30 - .54
3. Social relations with addicts	4	8.714	.39 - .76	0.76	.38 - .74
4. Personal manners against addicts	4	7.257	.54 - .62	0.75	.36 - .54
5. Social and family interactions	3	5.982	.71 - .73	0.80	.56 - .59
Total Variance Explained: 62.870		KMO: 0.854	Reliability coefficient for the scale: 0.857		

Table 3. Descriptives depicting university students' attitudes towards addicts.

Subscales	N	X	Sd
1. Personal relations with addicts	572	1.86	.919
2. Perceived characteristics of addicts	572	2.88	.818
3. Social relations with addicts	572	2.56	1.143
4. Personal manners against addicts	572	3.19	1.083
5. Social and family interactions	572	1.83	1.054
Composite scale	572	2.46	.696

was statistically significant (Table 2). Therefore it might be stated that the scale was satisfactorily valid and reliable.

Data analysis

The data were analyzed by SPSS (Version 20). Percentages and frequencies were used to analyze demographic variables. To describe students' attitudes toward addicts, descriptive statistics such as mean and standard deviation and to compare participants' responses in terms of demographic variables, independent samples t-test and One-Way-ANOVA were used. The skewness index of scale was 0.168 and kurtosis index was -0.624. These results indicated that parametric statistic procedures to analyze the data were suitable.

FINDINGS

Descriptive statistics depicting the existing situation of the participants' substance addiction showed that 49.5% of the students stated that they never used cigarette; 24.8% stated that they just tried; 5.1% stated they quit smoking; 20.6% stated they were smoking regularly. As for alcoholic drinks, 73.3% of the students stated that they never used alcohol; 18.4% stated that they just tried; 1.4% stated they quit drinking alcohol; 6.9% stated they were still using alcohol. None of the students stated that they were using drugs; 98.4% stated they never used; 0.9% stated they just tried and 0.7% stated they quit

using drugs. Just a few students (0.3%) stated that they used other types of stuff (like antidepressants) except for the ones mentioned above.

As for the descriptive statistics showing university students' attitudes towards addicts (Table 3), it was found out that students' attitudes towards addicts were reasonably negative ($X = 2.46$). Out of five subscales, the most negative responses were in the subscale titled "social and family interactions" ($X = 1.83$) subscale while relatively the most favourable responses were in the "personal manners against addicts" ($X = 3.19$).

When the statements existed in the scale were analyzed in details (Table 4); the statements that the students agreed most were "I believe addicted individuals take pleasure from distressing other people" ($X = 3.54$) and "I am not rude to addicted individuals" ($X = 3.52$). The statements which the participants least agreed upon were "I want to get married to an addicted individual." ($X = 1.55$) and "My friend's being addicted does not disturb me." ($X = 1.64$).

Comparing attitudes towards addicts according to the participants' demographic characteristics

There was a statistically significant difference in students' attitudes towards addicts based on the participants' gender [$t_{(570)} = 6.549$; $p < 0.05$] (Table 5). It was seen that male students' attitudes towards addicts were more positive than the female students.

Similarly the variables like the faculty that the students attended [$F_{(2,569)} = 3.486$; $p < 0.05$] students' class level [$F_{(3,568)} = 5.266$; $p < 0.05$], students' smoking habits [$F_{(3,568)} = 34.611$; $p < 0.05$] (see Table 6) were seen to influence their attitudes towards addicts.

Mother's educational background [$X^2_{(4)} = 29.441$; $p < 0.05$], father's educational background [$X^2_{(4)} = 12.325$; $p < 0.05$], students' drinking alcohol [$X^2_{(3)} = 42.420$; $p < 0.05$] were also of the factors influencing the students' attitudes. On the other hand it was found out that students' parents' marital status (students' fathers' and mothers' being alive and living together or separately) [$X^2_{(2)} = 2.752$; $p > 0.05$] did not influence the students' attitudes (see Table 7).

DISCUSSION

This study examined the university students' attitudes towards addiction in Turkey. Therefore, it might be stated that the findings of the research contributed to the studies in the field. The specific purposes of the study were (1) to find out about the university students' attitudes towards substances (2) to investigate their attitudes towards addicts (3) to analyze the personal factors influencing students' attitudes towards addicted people. The results showed that nicotine and alcohol were the substances

most frequently used by the students. Besides, it was seen that university students' attitudes towards addicts were reasonably negative. Moreover, it was found that there were statistically significant differences between the students' responses based on their gender, faculty, class level, using substances like alcohol and nicotine, mothers' and fathers educational backgrounds.

Present study found that nicotine and alcohol were of the substances which were most frequently used by the students. 20.6% of the students participating in the study stated that they were regularly smoking; the rate of the students who responded that they were drinking alcohol was 6.9%. As for drugs, the rates of drug users were seen to be lower; none of the students expressed that they were using drugs or inhalers regularly; just 0.3% replied that they were taking antidepressants. Based on the results it might be claimed that the rate of the students who were using substances was below the average of national statistics. The results of the researches on this issue also proved our claim. For instance, Tot et al. (2002) determined the rate of the smokers between university students as 35% in one of the crowded cities in Turkey. Likewise, Türkşen et al. (2003), Yılmaz (2007) and Yıldırım (1997) found out the rate of the smokers higher than our findings. When it comes to alcoholic drinks, the researches by Kaya and Çilli (2002) and Yıldırım (1997) revealed that the students who were using alcoholic drinks were above 20%. An international comparison between the rates of substance use would show that the students' participated our study had lower liability to substance use as well. In the study carried out by Mousavi et al. (2014) in the USA, 4.80% of the pupils indicated using drugs and almost 2.80% of them said that they used drugs regularly (like weekly, monthly, every two months or sometimes). Martin et al. (2007) stated that of the young people between the ages of 12 to 18 surveyed in Australia, 54% used drugs. Tobacco use was prevalent and the rate of high school students who regularly used nicotine was seen to be 31%. The rate of the ones who used alcohol at least once a year was found to be about 60%.

Additionally, it appeared that students' attitudes towards addicts were reasonably negative. The students who responded in the survey were not in favour of having friendly relationships with the individuals who were addicted. They were even disturbed by their friends being addicted. The research results regarding the aspect were similar to the previous studies (e.g., Tansel, 2006; Tekden, 2006). It is a known fact that people are usually against substance use not only in Turkey but in other states. As a matter of fact, there are research results showing that people strictly opposed substance use. To illustrate, even though the substance use rates were high, in Finland, Norway and Sweden almost 90% of the people said they were against substance use and opposed the idea of legalizing it (Hakkarainen, 1996). It was explained in some studies that even medical professionals,

Table 4. Descriptive statistics showing the students' responses to the statements in the scale.

Subscales	Statements	n	X	S
Personal relations with addicts	My friend's being addicted does not disturb me.	572	1.64	1.152
	I want to have a girl/boyfriend who is addicted	572	1.76	1.306
	I want to have a sexual intercourse with an addicted individual.	572	1.68	1.253
	I support addicted individuals' getting married.	572	2.34	1.468
	I do not feel uncomfortable if I have an addicted friend.	572	2.19	1.424
Perceived characteristics of addicts	I want to get married to an addicted individual.*	572	1.55	1.063
	I do not mind addicted individuals.	572	2.78	1.553
	I think addicted individuals regard social values.	572	2.88	1.468
	I believe addicted individuals take pleasure from distressing other people.	572	3.54	1.394
Social relations with addicts	I think addicted individuals do not lack personal development.	572	2.76	1.514
	I think addicted people are not risky for social life.	572	2.45	1.372
	I do not break off when I learn an individual whom I just meet is addicted.	572	2.78	1.540
	I get in touch with an addicted individual.	572	2.89	1.551
Personal manners against addicts	I do not break off if my housemate brings drugs to home.	572	2.20	1.456
	I eat out with an individual whom I know that he/she is addicted	572	2.35	1.404
	I do not despise addicted individuals.	572	3.15	1.425
	I think addicted individuals are member of the public.	572	3.11	1.449
Social and family interactions	I am not rude to addicted individuals.	572	3.52	1.387
	I treat addicted individuals with tolerance.	572	3.02	1.428
	I might employ an addicted individual	572	1.82	1.170
	I do not hesitate introducing an addicted fellow to my family.	572	1.75	1.233
Total	I do not hesitate introducing an addicted fellow to my friends.	572	1.93	1.324
		572	2.46	.696

Table 5. Students' attitudes towards addicts based on the participants' gender.

Groups	n	X	Sd	Df	t	P
Female	355	2.31	.645	570	6.549	.000
Male	217	2.69	.714			

as key people to help addicted people, were biased regarding substance use (e.g., Grace, 2006; Vargas and Luis, 2008).

Furthermore, it was determined in the study that the students' gender, faculty that they attended, students class level, their parents educational backgrounds, students' smoking and drinking habits were the factors influencing the students' attitudes towards addicts. There are findings of the studies suggesting gender as one of the important factors affecting attitudes towards drugs and drug addicts (e.g., Martin et al., 2007; Tekten, 2006; Çırakoğlu and Işın, 2005; Herken et al., 1997). Mousavi et al. (2014) counted gender, family, friends and individual characteristics as the factors related with drug use. The results of the study by Tansel (2006) also indicated significant differences between attitudes of

students with drug abuse problems depending on students' gender, field of study, parents' educational status, being or not being close to drug containing environment, using or not using substances.

IMPLICATIONS AND CONCLUSIONS

There are lots of factors influencing the university students' attitudes towards addiction. In this study it was found that the students' gender, faculty, class level, parents' educational status, students using or not using substances impacted their attitudes towards addicts. Considering the results, it might be stated that male students and students who smoked or drank alcohol tended to be more permissive towards addiction. What's

Table 6. Students' attitudes towards addicts based on the participants' faculty, class and smoking habits.

Variable	Groups	n	X	sd	Sum of squares	df	Mean square	F	P
Faculty	Faculty of Econ. and Adm. Sci.	250	2.50	.723	3.352	2	1.676	3.486	.031
	Faculty of Arts and Science	271	2.46	.700	273.814	569	.481		
	Faculty of Theology	51	2.22	.467	277.166	571			
Class	1 st	270	2.46	.705	7.500	3	2.500	5.266	0.01
	2 nd	118	2.32	.563	269.667	568	.475		
	3 rd	118	2.43	.714	277.166	571			
	4 th	66	2.74	.772					
Using cigarette	Never used	283	2.31	.612	42.836	3	14.279	34.611	.000
	Just tried	142	2.28	.623	234.330	568	.413		
	Quit	29	2.58	.823	277.166	571			
	Still using	118	2.98	.683					

Table 7. Students' attitudes towards addicts based on the participants' parents' marital and educational status and participants drinking habits.

Variable	Groups	n	Mean rank	df	X ²	P
Parents' marital status	Parents' living together	531	283.88	2	2.752	.253
	Parents' got divorced	17	291.65			
	Has lost father/mother (or both)	24	340.90			
Mother's educational background	Elementary	58	286.40	4	29.441	.000
	Lower sec.	316	297.14			
	Upper sec.	116	260.19			
	Undergraduate	66	227.85			
Father's educational background	Graduate	16	96.97			
	Elementary	13	366.58	4	12.325	.015
	Lower sec.	201	308.52			
	Upper sec.	142	286.33			
Using alcohol	Undergraduate	150	267.43			
	Graduate	66	247.37			
	Never used	419	267.66	3	42.420	.000
	Just tried	105	295.85			
	Quit	40	451.75			
	Still using	8	426.28			

more, the students who attended faculty of theology (as they were to be more conservative and strict in obeying religious practices) and students who were not at the beginning or final stage of higher education had negative attitudes and reject substance use. Furthermore, the students whose parents had higher education degrees were seen to be less permissive about using substances and had negative perceptions about addicts. Parents' bias against substances and addicts could impact the students' perceptions as well. As a result of the study, it might be claimed that students or parents' moral standards and students' tendencies towards substance use also affected their attitudes towards addicts. Finally,

further studies on a larger scale might be done to have better understanding about the factors influencing substance use and attitudes regarding substance use. Designing a qualitative study would help to be more informed about the factors influencing addiction.

Conflict of Interests

The author(s) have not declared any conflict of interests.

REFERENCES

Abed RT, Neira-Munoz E (1990). A survey of general practitioners'

- opinion and attitude to drug addicts and addiction. *British J. Addict.* 85:131-136.
- Allport GW (1935). *Attitudes*. In Handbook of Social Psychology (ed. C. Murchinson). Worcester, MA: Clark Univ. Press
- Altıntaş H, Temel F, Benli E, Çınar G, Gelirer Ö, Gün FA, Kernak A, Kundakçı N (2004). Tıp fakültesi birinci sınıf öğrencilerinin madde bağımlılığı ile ilgili bilgi, görüş ve tutumları [Perceptions and attitudes of first year medical school students on addiction]. *Bağımlılık Dergisi*, 5(3):107-114.
- Ambekar A, Deb KS (2009). *Substance Use Disorders: An Overview. In Substance use disorders: A manual for paramedical staff* (Eds: Rakesh Lal & Atul Ambekar). New Delhi: The National Drug Dependence Treatment Centre.
- Baron RA, Byrne D (1977). *Social Psychology: Understanding Human Interaction* (2nd ed.). Boston: Allyn & Bacon.
- Bloom F (1997). The science of substance abuse. *Science*, 278:15.
- Broadus A, Hartje JA, Roget NA, Cahoon KL, Clinkinbeard SS (2010). Attitudes about addiction: A national study of addiction educators. *J. Drug. Educ.* 40(3):281-298.
- Çırakoğlu OC, Işın G (2005). Perception of drug addiction among Turkish university students: Causes, cures and attitudes. *Addict. Behav.* 30:1-8.
- EMCDDA (2014). *European Drug Report: Trends and Developments 2014*. Luxembourg: Publications Office of the European Union
- European Commission (2008). *Young People and Drugs among 15-24 Year-Olds: Analytical Report*. Flash EN No: 233. http://ec.europa.eu/public_opinion/flash/fl_233_en.pdf
- Grace AWY (2006). A review of attitude of medical professionals toward substance abuse. International Conference on Tackling Drug Abuse. HK SAR: Narcotics Division.
- Greenwood J (1992). Unpopular patients: general practitioners' attitudes to drug users. *Druglink*, July/August, 8-10.
- Hakkarainen P (1996). Use of cannabis and attitudes towards cannabis in the Nordic Countries. *Nordisk Alkoholitidskrift*, 13:51-58.
- Herken H, Özkan Y, Bodur S (1997). Gençlerde sigara kullanımı ile ana-baba tutumu ve sosyodemografik özelliklerin ilişkisi [Smoking habits among youngsters and its relation with parental attitudes and sociodemographical characteristics]. *Genel Tıp Dergisi*, 7:189-193.
- Kaya N, Çilli AS (2002). Üniversite öğrencilerinde nikotin, alkol ve madde bağımlılığının 12 aylık yaygınlığı [12-month prevalence of nicotine, alcohol and drug addiction among university students]. *Bağımlılık Dergisi*, 3(2):91-97.
- Lindström P, Svenson R (1998). Attitudes towards drugs among school youths: An evaluation of the Swedish DARE programme. *Nordisk Alkohol&Narkotikatidskrift*, 15:7-23.
- Martin G, Schlesinger C, Eliana H, Kay T, Swannel S, Shortt A, Fischer J, Bergen H (2007). *Young people and attitudes to drugs: An Australian national survey*. Australia: Australian National Council on Drugs and the Centre for Suicide Prevention Studies in Young People.
- Merchant NM, Pounadeali E, Zimmer SP, Ronaghy HA (1976). Factors related to drug abuse among Iranian university students. *Pahlavi Med. J* (40):516-528.
- Mousavi F, Garcia D, Jimmefors A, Archer T, Ewalds-Kvist B (2014). Swedish high-school pupils' attitudes towards drugs in relation to drug usage, impulsiveness and other risk factors. *Peer J*. 2:e410 <http://dx.doi.org/10.7287/peerj.preprints.254v2>
- NCETA (2006). Health Professionals' Attitudes towards Licit and Illicit Drug Users: A Training Resource. Adelaide: NCETA.
- New Zealand Ministry of Health (2009). *Research into Knowledge and Attitudes to Illegal Drugs*. New Zealand: Acqumen Ltd & UMR Ltd.
- NIDA (2007). *Drugs, Brains and Behavior: The Science of Addiction*. Maryland: NIH Pub. 14-5605.
- Pickard H (2012). The purpose in chronic addiction. *Ame. J. Bioeth. Neurosci.* 3(2).
- Roche AM, Guray C, Saunders JB (1991). General practitioners' experiences of patients with drug and alcohol problems. *Br. J. Addict.* 86:263-275.
- Ross D, Sharp C, Vuchinich RE, Spurrett D (2008). *Midbrain Mutiny: The Picoeconomics and Neuroeconomics of Disordered Gambling*. Cambridge: MIT Press.
- Sahraian A, Sharifian M, Omidvar B, Javadpour A (2010). Prevalence of Substance Abuse Among the Medical Students in Southern Iran. *Shiraz. E Med. J.*, 11(4).
- Shrestha N (2010). Knowledge and attitude toward drug use and sexual behavior among higher secondary level students in Pakhora. *JHAS*, 1(1):1-5.
- Tansel B (2006). *Üniversite Öğrencilerinin Bağımlılık Yapıcı Madde Kullanan Bireylere Yönelik Tutumlarının İncelenmesi* [A reserach on university students' attitudes towards individuals with drug abuse problems]. Mersin: Mersin University School of Social Sciences unpublished master thesis.
- Tekten V (2006). *Polis Okulu Öğrencilerinin Madde bağımlısı Bireylere Yönelik Tutum ve Davranışları* [Police school students' attitudes towards addicts]. İstanbul: Yeditepe University School of Social Sciences unpublished master thesis.
- Tot Ş, Yazıcı K, Yazıcı AE, Erdem P, Bal N, Metin Ö, Çamdeviren H (2002). Mersin Üniversitesi öğrencilerinde sigara ve alkol kullanım yaygınlığı ve ilişkili özellikler [Smoking and drinking habits of Mersin University students and related factors]. *Anadolu Psikiyatri Dergisi*, 3 (4), 227-231.
- TUBİM (2011). *National Report (2010 data) to the EMCDDA by the Reitox National Focal Point: Turkey New Development, Trends and In-Depth Information on Selected Issues*. Turkey: REITOX.
- Türkşen Ö, Atakan C (2003). Üniversite öğrencilerinin sigara alışkanlığı üzerine bir çalışma [A study on university students' smoking habits]. *Çukurova Üniversitesi Eğitim Fakültesi Dergisi*, 2(25):101-106
- UNODC (2014). *Drug Prevention, Treatment and HIV/AIDS: Situation Analysis*. <http://www.unodc.org/islamicrepublicofiran/drug-prevention-treatment-and-hiv-aids.html>
- UNODC (2008). *Get the Facts about Drugs*. http://www.unodc.org/documents/drugs/getthefacts_E.pdf
- Vargas D, Luis MAV (2008). Alcohol, alcoholism and alcohol addicts: Conceptions and attitudes of nurses from district basic health centers. *Revista Latino-Americana de Enfermagem*, 16: 543-550.
- Vogt F, Hall S, Marteau TM (2005). General practitioners' and family physicians' negative beliefs and attitudes towards discussing smoking cessation with patients: a systematic review. *Addiction*, 100(10): 1423-31.
- Volkow ND (2007). How science has revolutionized the understanding of drug addiction, *In Drugs, Brains and Behavior: The Science of Addiction*. Maryland: NIH Pub No. 14-5605. https://www.naabt.org/documents/NIDA_Science_of_addiction.pdf
- Yanakiev Y (1999). *Drug use and attitudes towards drugs among Bulgarian young males*. Budapest: Open Society Institute Higher Education Support Program.
- Yen JY, Yen CF, Chen CC, Chen SH, KO CH (2007). Family factors of internet addiction and substance use experience in Taiwanese adolescents. *Cyber Psychol. Behav.* 10(3):323-329.
- Yıldırım İ (1997). Sigara, Alkol ve Uyuşturucu Kullanan Üniversite Öğrencilerinin Bazı Değişkenler Açısından İncelenmesi [A study on nicotine, alcohol and drug using students based on some variables]. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 13:147-155.
- Yılmaz ME (2007). *Yüzüncü Yıl Üniversitesi Öğrencilerinde Alkol, Sigara Kullanımı ve İlişkili Olduğu Etmenler* [Alcohol and nicotine use among Yüzüncü Yıl University students and related factors]. Van: Yüzüncü Yıl University School of Medical Sciences unpublished master thesis.