

## Substance Use in Refugee Camps and Local Community: Şanlıurfa Sample

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### ABSTRACT

**Introduction:** Although substance use has increased in recent years in Turkey, it is still lower than in other European countries. Turkey is home to the largest Syrian refugee population. In this study, it was aimed to evaluate the prevalence of tobacco, alcohol, and substance use among local people living in city centers and refugees living in refugee camps in Şanlıurfa.

**Methods:** The study was based on a cross-sectional epidemiologic survey conducted with a total of 6041 people, 4040 (67%) from camps and 2001 (33%) from districts. Face-to-face interviews were accompanied by local interviewers or interpreters who spoke Arabic, and a survey form used in our country for drug addiction screening was used. According to the number of samples selected, households with proportional distribution were chosen from the districts, which were selected from the address based from Turkish Statistical Institute. In the refugee camps, interviews were conducted in tents selected using a random numbers table according to the number of samples.

**Results:** The lifetime prevalence of tobacco use was 22.3% (n=902) in the camps, whereas in the districts this rate was 33.5% (n=670). The lifetime prevalence of alcohol use was found as 0.2% in the camps and 3.5% in the districts. The lifetime prevalence of substance use was found as 2.6% in the camps and 4.3% in the districts. The most commonly used substance type was cannabis. Some 45.7% of the people who used a substance in the camps were male and 54.3% were female. In districts, these rates were 64.4% and 35.6%, respectively.

**Conclusion:** Alcohol and substance use rates are low in Turkey compared with most countries in the world. Substance use in the city center is higher than in refugee camps in Şanlıurfa. Substance use is a significant mental health problem that concerns every community including refugees. Identifying characteristics and attitudes related to substance use may help to improve policies regarding protective measures.

**Keywords:** Alcohol drinking, substance use, prevalence, refugee

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### INTRODUCTION

Substance use is a public health problem because of its frequency, the diseases, deaths, and occupational and social impairments caused by it, and most importantly, it is preventable. According to the World Drug Report 2016 (1), 247 million people in the world use drugs, and in Europe this number is 88 million, which means one in every four adults and one in every five young people uses substances (2). According to 2011 data in our country (3), 2.7% of the population tried to use a substance at least once. This figure corresponds to approximately 1.5 million people with today's projection.

Epidemiologic studies in Turkey are usually conducted with specific populations, especially students, and in these studies, substance use, including cannabis, which is the most commonly used substance among students, is observed at lower rates compared with other European countries (4-6). In these studies, the prevalence of substance abuses among university students ranged from 2.3% to 6.6%, where the

substance use rates varied according to the study year, study population, and study design (7-9).

Turkey is home to the largest Syrian refugee population due to its open-door policy and the large border with Syria (10). As of March 28th, 2019, the total number of Syrian refugees in Turkey was 3.651.635.228000 Syrians migrated to Turkey, living in 26 shelters set up in 10 cities. Approximately 3000 of the remaining refugees are scattered in different cities of Turkey. Most of the Syrian refugees live in Şanlıurfa because it is located in the Southeastern Anatolia region of Turkey and is the province closest to the Syrian border. In this province, approximately 451.000 migrants live, which corresponds to 22.17% of the population in Şanlıurfa province. Approximately 42.000 people live in refugee camps and the rest live in district centers outside the camps, but it is not clear how many refugees live in city centers due to insufficient records (11).

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Living in refugee camps has some different characteristics to living in the city. When refugees enter Turkey, they are registered by the Turkish Disaster and Emergency Management (AFAD) officials and are taken to one of the refugee camps where they are given ID cards. In the camps, the basic needs of refugees are provided such as shelter, free food, healthcare services, security, social activities, education, religious services, translation services, safety, banking, and communication (12). In general, the healthcare services provided to refugees are accepted as adequate and appropriate. The Syrian American Medical Society stated that a satisfactory health condition was observed in all refugee camps over the period (13). The government provides translators but sometimes it may not be enough to establish a good communication when they do not speak Arabic well. This can also create difficulties when communicating with physicians while receiving healthcare (14). Another problem in migrant camps is the lack of education. In 2014, primary education enrollment rate in Syria was stated to be the second-lowest in the world. This has resulted in an existing educational problem with many children entering the camps already. The Turkish government has provided free enrollment to schools but 70% of school-age refugee children have not attended school (15). Besides, refugees can bring many difficulties and stress factors with them. These may be various forms of violence, loss of a family member, and loss of employment. Camp life can also add different challenges. Unmet basic needs, problems with adaptation to a new culture and language, unemployment, and discrimination may be listed among them (16). These stress factors may cause mental problems. These distinctive sociodemographic features of camp life are expected to make some differences in terms of substance abuse as well as some mental problems. For example, the ways of accessing the substances, sociocultural characteristics or declaring use of substances clearly may affect the prevalence of substance use in this population. Thus, there are reasons that are expected to increase substance use rates as well as reasons that are expected to decrease in the refugee population. Accordingly, it was hypothesized in this study that the prevalence of substance use would be similar in the refugee camps and the districts. Although many studies about psychiatric problems in refugees have been conducted, there are insufficient data on substance use in this population. In this study, it was aimed to evaluate the prevalence of tobacco, alcohol, and substance use among people living in district centers and refugee camps in Şanlıurfa. According to evidence-based data, it is thought that the struggle at the provincial level can be improved. To our knowledge, this is the first study to determine the frequency of tobacco, alcohol, and substance use in an immigrant population comparative to the indigenous population in Turkey.

## METHOD

### Participants

This is a cross-sectional epidemiologic study. We took effect size=1 due to the sampling method. To determine the sample size for the local people living in the city centers, the prevalence of substance use reported as 2.7% in a study conducted with the general population of our country was used. Since the prevalence of 2.7 is very low compared to the unknown prevalence (50%), and the population is very large, we narrowed the margin of error (3). It was aimed to reach at least 1791 people with a prevalence of 2.7% in the 95% confidence interval (CI), 0.75% of margin of error, and effect size=1 according to the population of Şanlıurfa aged 15–64 years, which was stated as 1.147.041 people by Turkish Statistical Institute 2018 (17). This number was proportionally distributed according to the population density of the 15–64 years' age groups of districts. Data were collected from 20% more households than were previously determined to mitigate the risk of missing data, and as a result, 2001 usable data sets were reached from households in 13 districts. To determine the sample size for refugee camps, because there

was no previous study in the camps, 50% prevalence was taken. Because this was the first study of substance abuse among refugees in Turkey, and there may have been a variety of barriers such as communication problems, minority, stigmatization, fear of deportation, it was aimed to reach 3875 people with a 1.5% of margin of error, effect size=1, and 95% CI according to the 42.000 people living in the camps who were aged between 15 and 64 years. Data were collected from 20% more people than were previously determined for the same reasons and 4040 people from four camps were reached. Twenty-four percent of households could not be found on site, refused meetings or did not complete the meeting, and this rate was 17% in the camps. The survey was conducted through face-to-face interviews in the addresses obtained from Turkish Statistical Institute.

### Measures

This study was performed with the survey forms used in the 2011 and 2018 studies on the prevalence of substance use in Turkey (3, 18). The European Drugs and Drug Addiction Monitoring Center (EMCDDA) Model Survey was used for the creation of the Survey Form and some changes were made by Turkish Drugs and Drug Addiction Monitoring Center to make it unique to our country. The Survey Form was chosen in this research because it makes statistically reliable estimates of the prevalence of substance use in Turkey integrally, it is comparable with the other regions of Turkey and the other similar studies conducted in Europe, and it allows to analyze the results in terms of various demographic factors.

### Procedure

The research was conducted by an independent research organization in the field. Ethics approval was obtained by Gazi University Ethics Commission (Number: 21/12/2017-E.181661). Before the research started, a preliminary information letter was sent by the Research team to the addresses determined for the local people for information. An Arabic version of the same form was delivered to the camp administrations and distributed to people living in the camps. One full-day training was provided to the people who would gather data on the field and each field team was made up of one woman and one man. Arabic-speaking data collectors from the region were preferred for conducting surveys, but if this could not be achieved, translators who spoke Arabic were added to the work team, especially in immigrant camps. The consent of the respondent was obtained before the face-to-face meeting was held. The collected data were entered into handheld tablets electronically and transmitted to the central data collection center in real time. Households were selected for proportional distribution research based on the number of samples determined in the districts. According to the number of samples selected for the districts based on addresses from Turkish Statistical Institute, 20% more household addresses were obtained. Local people who were not present at their addresses were visited 3 times at different times of the day, and when there was a refusal to participate or they were absent again, a backup sample was selected. In the Akçakale, Ceylanpınar, Harran, and Suruç Camps, which are four camps located in Şanlıurfa, again, according to the population density of the camps, the number of calculated samples was determined proportionally and interviews were conducted with the occupants of the tents determined using a random numbers table. When there were people who did not want to participate in the study, interviews were held with the backup sample. In the camps, each tent is designated as a household. In this study design, it was planned to conduct an interview with an individual from each household and this was strictly followed.

### Statistical Analysis

The Statistical Package for the Social Sciences (SPSS Inc., Chicago, IL, USA) v. 15.0 software program was used to construct the databases and perform the statistical analysis. Quantitative variables are reported as mean and standard deviation, and qualitative variables are reported as percentages.

**Table 1.** Reasons for not participating in the study

Reasons	%	n
<b>Not related with participants</b>	<b>36.8</b>	<b>620</b>
Address not found / Insufficient address	3.4	57
Refused by apartment / Site officer	1.5	25
Nobody at home	30.6	516
Empty house	1.3	22
<b>Related with participants</b>	<b>63.2</b>	<b>1065</b>
The interview is taking too long – quit	3.1	52
Too sick to be able to participate - refused	0.4	7
Too busy - refused	26.3	443
Worried about safety - refused	7.9	133
Absolutely do not participate surveys - refused	18.7	316
Not interested in the subject - left half	1.8	30
The questions are very inconvenient - left in half	2.3	39
Other - refused	2.7	45
<b>Total</b>	<b>100.0</b>	<b>1685</b>

Categorical variables were compared using Pearson's Chi-square and Fisher's exact test. P-values <0.05 were considered statistically significant. Odds ratios (OR) were calculated with 95% CIs. There were no missing data.

## RESULTS

Twenty-four percent of households and 17% in the camps could not be found on site, refused a meeting or did not complete the meeting. The reasons for not being able to interview participants are shown in Table 1. The most common reasons for not being interviewed were the absence of anyone at home (30.6%), being too busy to participate (26.3%), and absolute refusal to participate (18.7%).

The sociodemographic data of the participants are given in Table 2. A total of 6041 people, 4040 (67%) from camps and 2001 (33%) from districts were reached. Some 47.7% of the participants in the camps were female (n=1846), and 54.3% were male (n=2194). The mean age was 38.2±0.21 years (median: 36 years). Some 40.9% of the participants in the district were female (n=819), and 59.1% were male (n=1182). The average age was 35.28±0.3 years (median: 34 years).

One-fifth (22.3%, n=902) of the camps stated they tried a tobacco product in their life time such as cigarettes, cigars, pipes, and hookahs. In the districts, this rate was 33.5% (n=670). Respectively, of the male and female participants in the camps, 40.7% (n=751) and 6.9% (n=151) stated they used a tobacco product in the past. In the districts, this rate was 46.5% for men (n=550) and 14.7% for women (n=120). The age group in which the participants in the camps and districts used tobacco products for the first time included at most 16–20 years, with 44% of the participants in the camps and 47.4% of the participants in the districts stating that they used tobacco products for the first time in this age group. The most smoking age group was 35–44 years (30.6%) of those living in the camps and 25–34 (28.8%) of those living in the districts. The rate of tobacco use was higher in married people (92.4% in camps, 75.2% in districts) than in singles.

Almost all (99.8%) of the participants in the camps (n=4031) had never tried alcohol. In the districts, this rate was 96.5% (n=1931). In both camps and districts, the rates of alcohol intake were extremely low (Table 3).

The prevalence of substance use was found as 2.6% in the camps and 4.3% in the districts (Table 3). There was a statistically significant difference between the camps and districts in all prevalences of tobacco, alcohol, and substance use. When we look at the types of substance used, 104 (2.57%) people living in the camps were using cannabis, and one (0.02%) was using anabolic steroids, whereas in the districts 75 were using cannabis (3.75%), one was using synthetic drugs (0.05%), three were using ecstasy (0.15%), three were using methamphetamine (0.15%), two were

**Table 2.** Main characteristics of participants

		Camp		District	
		n	%	n	%
Number of total participants		4040	67	2001	33
Sex	Female	1846	47.7	819	40.9
	Male	2194	54.3	1182	59.1
Age	15–24	541	13.4	490	24.5
	25–44	2407	59.6	557	52.6
	45–64	881	21.8	400	20
	65+	208	5.1	58	2.9
Education	None*	1580	39.1	367	18.3
	Primary school**	911	22.5	598	29.9
	Secondary school***	1025	25.4	502	25.1
	High school****	415	10.3	373	18.6
	Master degree or university	109	2.7	161	8
Working status	Employed	2874	71.1	1125	56.2
	Unemployed	1166	28.9	876	43.8
Marital status	Married	3639	90.1	1438	74.1
	Single	401	0.9	563	25.9

5 years and below formal education.

\*\* 5–7 Years of formal education.

\*\*\* 8–10 Years of formal education.

\*\*\*\* 11–12 years' formal education.

**Table 3.** Prevalences of tobacco, alcohol and substance use

		Camp		District		Crude Odd's Ration (CIa)	p
		(n=4040)	% *	(n=2001)	% *		
Tobacco	Never used	3138	77.7	1.331	66.5***	<b>1.75 (1.55-1.97)</b>	<b>&lt;0.001**</b>
	Life Time	902	22.3***	670	33.5	<b>1.75 (1.55-1.97)</b>	<b>&lt;0.001**</b>
	-Last 12 months	863	20.7***	632	31.1	<b>1.42 (1.26-1.61)</b>	<b>&lt;0.001**</b>
	-Last 30 days	860	20.6 ***	624	30.7	<b>1.67 (1.48-1.89)</b>	<b>&lt;0.001**</b>
Alcohol	Never used	4031	99.8	1931	96.5***	<b>16.23 (8.09-32.57)</b>	<b>&lt;0.001**</b>
	Life Time	9	0.2***	70	3.5	<b>16.23 (8.09-32.57)</b>	<b>&lt;0.001**</b>
	-Last 12 months	4	0.1***	39	1.9	<b>20.05 (7.15-56.20)</b>	<b>&lt;0.001**</b>
	-Last 30 days	4	0.1 ***	24	1.2	<b>12.24 (4.24-35.35)</b>	<b>&lt;0.001**</b>
Substance	Life Time	105	2.6***	87	4.3	<b>1.70 (1.27-2.27)</b>	<b>&lt;0.001**</b>

\* Column percentage of all participants.  
 \*\* Pearson Chi-Square.  
 \*\*\* Reference category.  
 a Confidence interval.

**Table 4.** Types of substances that participants used

	Camp		District	
	n	% *	n	%
Cannabis	104	2.57	75	3.75
Synthetic drugs	-	-	1	0.05
Ecstasy	-	-	3	0.15
Captagon	-	-	1	0.05
Methamphetamine	-	-	3	0.15
Cocaine	-	-	2	0.10
Heroin	-	-	2	0.10
Anabolic Steroids	1	0.02	-	-
Others**	-	-	-	-

\* Column percentage.  
 \*\* Amphetamine, Hallucinogens, LSD, Solvents were never used in any participants.

using cocaine (0.10%), two were using heroin (0.10%), and one was using Captagon (0.05%) (Table 4).

Table 5 shows the distribution of substance use in terms of socio-demographic data. Substance use according to the sociodemographic data was statistically different between the camps and districts. Some 45.7% of the people who used a substance in the camps were male and 54.3% were female; in the districts, these rates were 64.4% and 35.6%, respectively. Substance use was most commonly seen in the camps among the 25-34 years' age group (30.5%), whereas individuals aged 15-24 years in the districts (36.8%) used substances more frequently. The statistical difference was due to the 15-24 years' age group. Primary school graduates (35.6%) who lived in the camps and those who had no education (43.8%) were the most frequent users of substances. The frequency of substance use decreased as the level of education increased. The statistical difference between the camps and districts was due to the uneducated group. It was observed that married individuals living in camps and districts used substances more often than singles, but this difference was more obvious in the camps.

Considering the effect of alcohol or tobacco use on the prevalence of substance use (Table 6), it was observed that the frequency of substance use was high in both tobacco (OR: 3.43, CI: 2.32-5.07, p<0.001) and alcohol (OR: 31.12, CI: 8.23-111.64, p<0.001) users in the districts. The

same relation was present for those living in the camps, respectively (OR: 3.73, CI: 2.39-5.83, p<0.001) and (OR: 9.34, CI: 5.19-16.80, p<0.001).

Cannabis use was investigated separately because it was the most commonly used substance in this study and it was determined that other substances were seldom used. The lifetime, 12 months, and 30 days' prevalences of cannabis use are presented in Table 7. There was a statistically significant difference between the camps and districts in the lifetime prevalence of cannabis use.

The mean age at first use of cannabis in the camps and districts was 25.54±0.86 years and 22.75±0.87 years, respectively, and their median age was 25 and 20 years, respectively. Some 11.5% of the participants in the camp and 17.3% of the districts stated that they used cannabis regularly. Participants stated that they obtained the cannabis mostly from the streets or parks. Half of the participants stated that it was very easy to find cannabis within 24 hours. Most (95.2%) of the participants in the camps and 90.7% of the participants in the districts said they wanted to quit cannabis. Of the cannabis users in the camps, 39.4% said they could not stop using cannabis, 43.3% said they used cannabis to start the day, 79.8% experienced regret, and 89.4% experienced concentration problems. In the districts, 52% of cannabis users stated that they could not stop using cannabis, 38.7% stated that they used cannabis to start the day, 38.7% experienced regret, and 76% experienced concentration problems.

**Table 5.** Relationship between substance use and sociodemographic data

		Camp		District		p
		n	% *	n	% *	
Sex	Male	48	45.7	56	64.4	<b>0.009**</b>
	Female	57	54.3	31	35.6	
Age	15–24 a	14	13.3	32	36.8	<b>0.004**</b>
	25–34	32	30.5	25	28.7	
	35–44	27	25.7	13	14.9	
	45–54	17	16.2	11	12.6	
	55–64	10	9.5	3	3.4	
	65+	5	4.8	3	3.4	
Education	Uneducated b	46	43.8	13	14.9	<b>&lt;0.001**</b>
	Primary school	27	25.7	31	35.6	
	Secondary school	20	19.0	24	27.6	
	High school	8	7.6	12	13.8	
	Master's Degree-University	4	3.8	7	8.0	
Marital Status	Married	88	83.8	57	65.5	<b>0.003**</b>
	Single	17	16.2	30	34.4	

TL: Turkish Lira

\*Column Percentage \*\*Pearson Chi-square \*\*\*At least one cell frequency is less than one \*\*\* Fisher's Exact Test

a according to two-way comparisons; the difference was caused by the age of 14–25, and there were significant differences between participants aged 14–25 and all other ages, except participants above age 65.

b according to two-way comparisons; the difference was caused by the uneducated group, there were significant differences between this group and all the others

**Table 6.** Prevalence of lifetime substance use according to participants' lifetime tobacco and alcohol use status

	Substance use								
	District (n=4040)				Camp (n=2001)				
		Yes (n=105)	p	Crude Odds Ratio (CI)		Yes (n=87)	p	Crude Odds Ratio (CI)	
Tobacco use	Yes ( <b>874</b> )	50 (5.7%)	<b>&lt;0.001**</b>	<b>3.43 (2.32–5.07)</b> 1****	Tobacco use	Yes ( <b>658</b> )	55 (8.4%)	<b>&lt;0.001**</b>	<b>3.73 (2.39–5.83)</b> 1****
	No ( <b>3156</b> )	55 (1.7%)				No ( <b>1343</b> )	32 (2.4%)		
Alcohol use	Yes ( <b>9</b> )	4 (44.4%)	<b>&lt;0.001***</b>	<b>31.12 (8.23–111.64)</b> 1****	Alcohol use	Yes ( <b>70</b> )	18 (25.7%)	<b>&lt;0.001**</b>	<b>9.34 (5.19–16.80)</b> 1****
	No ( <b>4031</b> )	101 (2.5%)				No ( <b>1931</b> )	69 (3.6%)		

\* All percentages are presented as row percentage.

\*\* Pearson Chi-square.

\*\*\* Fisher Exact Test.

\*\*\*\* Reference category.

a Confidence Interval.

**Table 7.** Prevalence of cannabis use

	Camp (n=4040)		District (n=2001)		Crude Odd's Ratio (CI)	p
	n	(%)	n	(%)		
Life Time	104	2.6****	75	3.7	<b>1.47 (1.08–1.99)</b>	<b>0.011**</b>
Last 12 months	32	0.8****	26	1.3	1.64 (0.98–2.77)	0.057**
Last 30 days	8	0.2****	6	0.3	1.51 (0.52–4.37)	0.570***

\* Column Percentage.

\*\* Pearson Chi-square.

\*\*\* Fisher's Exact Test.

\*\*\*\* Reference category.

a Confidence Interval.

## DISCUSSION

In this study, the prevalence of tobacco, alcohol, and substance use and their relationship with sociodemographic data were investigated in the refugee camps and districts of Şanlıurfa, which has the second-largest immigrant population in Turkey. The lifetime prevalence of tobacco use was 22.3% in the camps and 33.5% in the districts. When the data of the World Health Organization (WHO) were examined, the prevalence of tobacco uses in 2008 was 31.2%, which decreased to 27.1% in 2012 (19). In a representative study conducted in 2016 with a cross-sectional sample in Turkey, this rate was reported as 51.8% (20). These results indicate that, especially in the refugee camps of Şanlıurfa, the prevalence of tobacco use is lower than the country average. In our study, as in the other studies in this area, the low tobacco use rates in women and young individuals shows the importance of preventive health care practices for these groups.

In our study, the lifetime prevalence of alcohol use was found to be very low both in the camps (0.2%) and the districts (3.5%). In epidemiologic studies conducted about 20 years ago, the prevalence of alcohol use was reported as 14.1% across Turkey (21) and 33.5% in Istanbul province (22). In 2013, the Turkey Public Health Agency reported that 13% of people living in the country used alcohol (23). While the data of Global Alcohol and Health Report published by the WHO in 2014 shows that the consumption of alcoholic beverages in our country is lower compared with many countries; alcohol consumption per capita in countries such as Afghanistan, Morocco, Libya, and Jordan is lower than in our country (24). According to the data of our study, alcohol use in Şanlıurfa remains markedly low compared with the overall country (25). It can be considered that the Syrian refugees, which constitute 22% of the population of Şanlıurfa, and the migration phenomenon, which causes significant changes in the structure of the population (11), has an impact on this result as well as the sociocultural features and religious beliefs. The differences in alcohol consumption in different parts of the world are the result of the complex interaction of many factors. These may be associated with sociodemographic factors, economic development, religious and cultural norms, and the preferred type of alcohol. The 12-month prevalence of alcohol use in the Eastern Mediterranean region is 2.9%, whereas this rate in the European region rises to 21.2%. According to a report published by the WHO in 2018, while alcohol consumption is high in high-income countries of Europe and America, the lowest alcohol consumption is seen in the majority of North African and Eastern Mediterranean Regions (26). It is reported that alcohol consumption increases as countries' income level increases, but the only exception is in Muslim countries with a religiously prohibitive view of alcohol use (27). The results of our study support these data.

According to the results of our study, the prevalence of substance use was found as 2.6% in refugee camps and 4.3% in districts. In 2011, the prevalence of substance use in Turkey was estimated as 2.7% and in 2018 it was reported as 3.1% (3,18). In a cross-sectional study conducted in Turkey, the lifetime prevalence of substance use was reported as 2.8% in 2016 (20). Considering that the reported prevalence of substance use was 1.35% in a study conducted with 72 provinces of Turkey in 2002 (28), it can be said that rates of substance use have been increasing in Turkey. However, when compared with world data of substance use, these rates are still low.

The prevalence of lifetime substance use in the United States in the early 1980s was 6.2% (29), and increased to 11.9% in the 1990s (30). In a report published in 2008, the prevalence of lifetime substance use in the United States was reported as 46.1% (31). The lifetime prevalence of substance use in Europe is 18%. Moldova (6%) and Norway (7%) have the lowest rates in Europe, but even these are higher than in Turkey (32).

Another remarkable finding of our study is that people living in refugee camps (2.6%) use less substance than those living outside the camps (4.3%). It can be thought that some confounding factors might also affect these results. It is well known that substance use is mostly seen in adolescents and young adults (33). In our study, the percentage of participants aged between 15–24 years was 13.4% in the camps and 24.5% in the districts. Therefore, the high number of adolescents living in the districts may explain the higher prevalence rates compared with the camps. Similarly, substance use was more common in people who also smoked cigarettes and drank alcohol. Accordingly, the prevalence of using alcohol and tobacco were lower in the camps than in the districts, and the prevalence of substance use may also be lower in the camps too.

Also, the low socioeconomic level of refugees living in the camps may have restricted access to substances. Besides, the refugees in the camps may be reluctant to mention substance use in relation to the stigma that they are exposed to in many areas. In addition to the fact that all these may have affected the prevalence of substance use in the refugee camps, the cross-sectional design of the study should also be kept in mind when interpreting the results.

According to the results of our study, 54.3% of the substance users living in the camps were women; whereas in districts, this rate was 35.6%. Immigrants, living in a new country, face many health problems due to factors such as language, unemployment, and access to health services (34). One of the most important is mental health problems (35). Ethnic discrimination and stigma are the most important factors affecting the mental health of migrants (36), whereas maintaining social identity continuity can be an important factor for refugees' mental health and well-being (37). It is thought that the results of our study showing less substance use among immigrants who are subject to stigmatization from various aspects are noteworthy in this respect. Influencing each other, curiosity or the dynamics of camp life that we do not know can be the reasons of the higher prevalence of substance abuse among women living in the camps. Another point that needs to be enlightened is whether this is related to the abuse of immigrant women. The total number of substance users is low in our study, and thus it is difficult to generalize our results. Future research that investigates the substance use rates of immigrant women in more detail are considered necessary.

According to another result of our study, the fact that almost 90% of those who started on a substance continued to use it, and that more than 90% wanted to leave presented an unmet demand. In this context, it can be concluded that primary and secondary healthcare, especially preventive health services, should be strengthened. Considering the risk groups in terms of substance use, young men aged 15–24 years, with low education level and who consume alcohol and tobacco should be given priority for preventive health services.

There are some limitations of this study. First, because of the cross-sectional nature of the study, a causal relationship cannot be established. Secondly, tobacco, alcohol or substance use was examined based on the declaration of participants. Data may not reflect reality due to memory factor or stigmatization concern. In addition, security reasons for those living in camps require caution when interpreting the results of this group. On the other hand, although care was taken in the camps to overcome the language barrier, it is necessary to think that it may affect the results. Despite all these limitations, the results of this large sample sized study initially investigating substance use in refugee camps in Turkey are thought to be valuable for community health. As a matter of fact, a 2-year awareness and education program has been planned and started by the Provincial Governorship and Research Team after identifying potential risks for tobacco, alcohol, and especially substance use. At the end of this period, renewal of the research and reevaluation of the current situation are planned.

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**Informed Consent:** The consent of the respondent was obtained before the face-to-face meeting was held.

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