PREVALENCE OF RECREATIONAL DRUG USE AMONG STUDENTS OF THE UNIVERSITY OF SARAJEVO

Original Scientific Paper

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Abstract

Reason(s) for writing and research problem(s): The paper addresses poorly investigated issue of recreational drug use among university students in Sarajevo.

Aims of the paper (scientific and/or social): The general objective of this paper is to report the characteristics and main consumption patterns of recreational drug use among students of the University of Sarajevo. This way the "normalization thesis" (move from being deviant to being normal) of drug consumption could be put on test.

Methodology/Design: Self report questionnaires were used to collect data from the student population. Two-stage cluster sample was utilized, gathering data from 410 participants from all of the faculties that are members of the University of Sarajevo. For the analysis of the collected data descriptive and inferential statistics were used.

Research/paper limitations: The study is cross-sectional, meaning it only depicts state of play in recreational drug use among student population at one point in time. Asking sensitive questions in surveys usually bears concerns about accuracy of results. It usually implies respondents` concerns about the possible consequences of giving a truthful answer as well as tendency to give socially desirable answers, which may cause underreporting of undesirable behavior such as illicit drug consumption.

Results/Findings: The recreational drug use was found to be present among a student population of the University of Sarajevo to a small degree, where close to six percent of students reported using drugs in frequencies which qualifies as occasional consumption. The study also revealed that drug users of illicit drugs are inclined to consume cigarettes and alcohol drinks, and that they usually combine alcohol drinks and marijuana. Most of the five criteria of nor-malization framework of drug use could not be met.

General conclusion: Drug use could not be seen as normalized among university students. Only one normalization criterion (access to drugs) was to a degree met, while the remaining four (drug trying and recent use rates, social and cultural accommodation) were not. More research is needed to identify drug consumption trends.

Research/paper validity: Strategies were used to reduce misreporting where anonymity assurance as well as administration of the questionnaires by a student researcher whom

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respondents may find more sympathetic than university stuff. Internal consistency of findings measured by interlocked items showed high level of data validity. Relying on previous research instruments and a set of actions taken to ensure validity and reliability of data suggest findings are sound.

Keywords

recreational drug use, normalization, students, Bosnia and Herzegovina

INTRODUCTION

The concept of recreational drug use implies occasional consumption of drugs (at irregular intervals), and it is considered that this form of consuming drugs does not create addiction (Parker, Williams, & Aldridge, 2002; Riley, James, Gregory, Dingle & Cadger, 2001). In this regard, recreational drugs are consumed with the intent to create and increase recreational experience, entertainment, or to enhance already existing positive experiences (Järvinen and Ravn, 2011). Recreational drug use is considered to be widespread today, with participation of people of different sex, age, property status, nationality and education (Pedersen and Skrondal, 1999). However, recreational drug use seems to be most important for young people, especially students, who most often enjoy the so-called "lightweight" drugs such as cannabis and ecstasy (Fletcher, Calafat, Pirona, & Olszewski, 2010). According to Measham, Aldridge and Parker (2001), the key factor related to drug use is the leisure time students have. Therefore, Murray (2008, p. 39) considers that it would not be surprising that consuming drugs among students becomes a normal occurrence in the community. In that sense, many existing research highlights the concept of normalization among recreational drug users, arguing that the use of certain illicit substances has "become a relatively normal feature of many young people's life experience" (Duff, 2005, p. 161; Parker et al., 2002; Woodrow, 2012), while findings of Murray's study suggest that recreational drug use is highly normalized among student population (Murray, 2008, p. 68). Furthermore, authors such as Dekleva (1999) and Parker (2005) share the view that recreational drug use includes controlled use. Accordingly, it is fairly certain that controlled recreational consumption of drugs is becoming increasingly present in the social life of young adults (Parker et al., 2002, p. 942). Considering that this kind of drug use implies occasional use, thousands of reasonable and respectable young people are using drugs recreationally (Manning, 2007).

The issue of recreational drug use among the general population, as well as the student population has not been explored in-depth in Bosnia and Herzegovina. These difficulties were further broadened by the fact that the concept of recreational drug use is still not recognized and discussed within the field of drug policy in Bosnia and Herzegovina. This paper presents findings from a self-report survey that was conducted among students of University of Sarajevo on the matter of recreational drug use. The paper addresses several aims: to describe the extent to which recreational drugs are available and tried among students; to explore patterns of recreational drug use and students` attitudes on recreational use of drugs, including connection between drinking alcohol, smoking cigarettes and using drugs. It is concept Parker and colleagues (Measham, Newcombe, and Parker, 1994; Parker, Aldridge, and Measham, 1998,

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cited in Wilson, Bryant, Holt, & Treloar, 2010; Parker et al., 2002) have developed and labelled as "normalization framework". Although the normalization framework has been criticized for its failure to consider the dynamic nature of drug use among young people (Shiner & Newburn, 1997), the framework can still be a useful way to systematically assess the accommodation of illicit drugs among particular populations (Wilson et al., 2010).

Normalization refers to phenomenon of deviant behavior, such as drug use, being considered common, "from life`s rhythms and routines to economic and environmental standards of life" (Parker et al., 2002, p. 942). When positive attitudes towards illicit drugs, characterized for the nineties era and forward, coincide with easier access to drugs, use of drugs may become so prevalent it is considered normal. This is especially valid for university youth, who increasingly experience the period of financial and other dependency and lack of responsibility (Murray, 2008). Normalization framework consists of five dimensions: access and availability of drugs, drug trying rates, rates of recent drug use, social and cultural accommodation of recreational drug use. The first, logical premise of the normalization thesis is that the more **available** drugs become, the more common in social reality they tend to become. Furthermore, if the possession and dealing of recreational drugs is not aggressively persecuted, the weak external control may do little in terms of refraining of youth from drug scene. The more individuals become **initiated** into drug consumption, the more normalized drug use is perceived to be among general (youth) population. Drug trying rates cannot provide the whole picture on drug use, so **recent prevalence rates** need to be examined as well: drug use can be seen as normalized only if those who became more deeply involved with the drugs make great portion of the population. **Social accommodation** of drug use refers "to the extent to which recreational drug use is personally and socially accommodated by abstainers and 'ex' triers" (Parker et al., 2002, p. 947). Finally, **cultural accommodation** deals with the extent to which the recreational drug use is being accommodated in cultural understandings of normality, for example through neutral rather than condemnatory terms of drug taking behavior of celebrities, or viewing recreational, controlled drug use as not harmful by majority of population. "Blurring" of licit (alcohol and cigarettes) and illicit substances consumption differences is also seen as sign of cultural accommodation of drug use into mainstream.

Our findings shall be discussed in regard to the existing body of research evidence on recreational drug use, where the research results presented in this paper can contribute to knowledge and better understanding of recreational drug use in general and among student population in Bosnia and Herzegovina. Finally, our findings may provide a foundation for future research related to the recreational drug use.

DRUG USE IN BOSNIA AND HERZEGOVINA

Bosnia and Herzegovina is facing challenges regarding drugs as many other countries. Through the years, Bosnia and Herzegovina remained a country of drugs transit and storage, while the production of drugs continues to be on small-scale and mostly limited to marijuana cultivation. However, domestic demand for drugs increased slightly, especially for polydrugs (European Commission, 2016, s. 69). There is no reliable data about the prevalence of drug use in Bosnia and Herzegovina, due to the fact that this data is not comprehensively collected by government institutions, and research in this area is very poor. Available data on the prevalence of drug use in Bosnia and Herzegovina mostly derive from European Survey Project on Alcohol and

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Other Drugs (ESPAD) and health surveys that were conducted in both her entities, that is, in Federation of Bosnia and Herzegovina and Republic of Srpska. However, the overall data for Bosnia and Herzegovina is not available. Apart from the ESPAD surveys, the conducted research in both entities included mostly household surveys of the general population, aimed at identifying a broad set of risk-taking behaviors (drug use, smoking, alcohol, population health status, etc.) among the population of different age categories (Ministry of Security of Bosnia and Herzegovina, 2011).

Based on the data from the Health Behaviour of School Children (HBSC) survey that was conducted among school children aged 12-15 years in the Republic of Srpska in 2002, the drug use prevalence rates were found to be very low. Although the same study was undertaken in the Federation of Bosnia and Herzegovina, questions on drug use were not included. Furthermore, a survey conducted in the Republic of Srpska in 2003, revealed that among a sample of 1,422 respondents aged 15 to 25, about 16 % of males and 7 % of females aged 15–25 had used cannabis in past (Savić et al., 2003; cit. in EMCDDA, 2018, ¶11), where 5.6% of them where 15-19 years old and 10.3% were 20-24 years old (Ministry of Security of Bosnia and Herzegovina, 2011). In 2008, UNICEF study in Bosnia and Herzegovina on the drug use among children without parental care, reported some 5 % of respondents using cannabis in their lifetime, while 0.5 % had used amphetamines.[1] Study also showed that prevalence rates were higher for males and children living in institutions as compared with those living with foster parents (UNICEF, 2008; cit. Ministry of Security of Bosnia and Herzegovina, 2011, p.12). According to data from the two household surveys in 2011, lifetime prevalence of the use of any illicit substance in the Federation of Bosnia and Herzegovina[2] was reported at 3.8 % among all respondents, while males reported higher lifetime prevalence of illicit substance use than females, 6.8 % and 0.9 % respectively. A total of 9.4 % of the respondents aged 25–29 reported ever having used any illicit substance, followed by 7.7 % of the respondents aged 20–24, while the lowest substance use prevalence was recorded among respondents aged 40–49. Cannabis was by far the most commonly reported substance used, reported by 3 % of respondents, while all other illicit substances showed lifetime prevalence rates of below 1 % (EMCCDA, 2018). The prevalence of the use of any psychoactive substance in the past in the Republic of Srpska[3] was reported at 4.8 % among respondents, while the lifetime use of psychoactive substances (inhalants, cannabis and heroin) was reported by 1.7 % of the total sample. Tablets/pills (benzedrine, trodon or amphetamines) were reported as most commonly used (2.8 %), followed by cannabis (0.8 %), inhalants (0.7 %), heroin (0.2 %) and hashish (0.2 %) (Matović-Miljanović et al., 2011; cit. in EMCDDA, 2018, ¶5). Finally, the Federation of Bosnia and Herzegovina conducted in 2012 another survey on population health among the adult population, where consumption of drugs or psychoactive substances was reported 0.6% of

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[1] The study included 392 children and adolescents (209 boys and 183 girls) aged between 12 and 20 years (most frequently 15–17 year olds) living in institutions or with foster parents.

[2] This survey was part of the United Nations Children's Fund (UNICEF) 'Multiple indicator cluster survey' (UNICEF MICS) targeting a sample of 6 177 individuals aged 15–49 in 4 107 households (EMCCDA, 2018).

[3] Survey 'Health status, health needs and use of health services' was carried by the Ministry of Health and Social Welfare and the Public Health Institute. The target group were individuals aged 18 and over who had lived in the Entity for one year or more. In total, 1 866 households and 4 178 individuals were sampled using a two-stage stratified sampling method (EMCCDA, 2018).

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adult respondents in Federation of Bosnia and Herzegovina, without distinction in urban and rural areas (EMCDDA, 2014).

First ESPAD surveys have been conducted in 2008 in the Federation of Bosnia and Herzegovina and in the Republic of Srpska with the aim to obtain a detailed data on substance use among youth population, and the last ESPAD surveys have been carried in 2011[4] in these entities. The results of the 2011 ESPAD surveys indicated that the lifetime prevalence for almost all substances in the Federation of Bosnia and Herzegovina was double that of the Republic of Srpska, where cannabis was the most frequently reported illicit substance used by 15-16 year olds in both entities, followed by sedatives in the Federation of Bosnia and Herzegovina and inhalants in the Republic of Srpska. Furthermore, in comparison to 2008 survey data, the results of the 2011 ESPAD study showed that lifetime prevalence of all substances had halved in the Federation of Bosnia and Herzegovina, while lifetime prevalence rates of cannabis, sedatives and ecstasy in the Republic of Srpska remained similar to 2008. However, the combined use of pharmaceuticals and alcohol, and amphetamines have decreased in this Entity, while lifetime prevalence of inhalant use doubled between 2008 and 2011 (Šiljak et al., 2008; cit. in EMCDDA, 2018, ¶9).

Although most studies on drugs in Bosnia and Herzegovina were carried out among primary and secondary school students, few studies included university students as well. According to available data, results of the two studies conducted in Bosnia and Herzegovina in 2001 and 2006 among university students (aged 18–25), revealed a lifetime prevalence of the use of any illicit drug (cannabis, ecstasy, inhalants, LSD, cocaine) of 22.5 % in 2001, and 31 % in 2006. However, more detailed information is available from two drug studies that were conducted among student population of University of Sarajevo and University of Mostar. The former study included 985 students from 12 faculties of the University of Sarajevo, where most of the surveyed students were from the group of health care faculties. According to student responses, the reasons for using drugs were: curiosity (37, 5%), proving among friends (24, 8%), boredom (8.0%), while other reasons offered in the responses are accepted at a very small percentage. Furthermore, 75.4% of surveyed students reported that they have never tried drugs, 22.5% tried and 1.8% of respondents did not answer. Among those who tried drugs, 63.1% used marijuana and 35.1% more drugs. The findings also reported that 17, 1%, of respondents have tried drugs only once, 23, 0% of them 2-5 times, while others have repeatedly or regularly consumed drugs. Regarding the age of respondents when the drugs were used for the first time, 0.5% of respondents were at age of 10 years, 9.0% of respondents were aged 11-15 years, 60.3% of respondents were aged 16-18 years, 11.3% of respondents were aged 19-20 years, and 4.0% were aged 20-25 years. According to the same study, 70.5% of the surveyed reported consuming drugs with friends and peers, and the same percentage of them received drugs from friends from school or university (Cerić, Mehić- Basara, Oruč, & Salihović, 2007). With the aim to examine the prevalence of substance use among students and to determine differences with regard to their socio-demographic characteristics, the second study included 420 participants who were the first year students from six faculties at the University of Mostar. Study reported alcohol to be the most frequently used substance, cigarettes were on the second place, and marijuana on the third place. Namely, study reported that 92,38 % of students have consumed alcohol at least once in their life, 75,7 % of them have

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[4] ESPAD surveys sample included secondary school students aged 15-16 years.

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tried cigarettes during their lives, and 18,8 % of respondents have tried marijuana at least once in their lifetime (Nižić, Penava, & Perić, 2013).

PRESENT STUDY

Sample

This study included undergraduate students of the University of Sarajevo, from 23 faculties and 2 academies. Within the research population, which at the time of the survey counted little over 30,000 (Institute for statistics of Federation of Bosnia and Herzegovina, 2017), a sample of 410 students (260 female and 150 male students) has been randomly selected, in order to ensure that each student had an equal probability of being chosen as the sample. Confidence level utilized in the study was 95%. It is the value criminologists often choose and means the level of confidence we have in making inferences about the data (Bachman & Paternoster, 1997). That basically means that the data represent true values of the population in 95 % of cases and create the space for the error in only 5 percent of the time. The sample was carefully designed in order to have a representative selection of population elements. It was a two-stage cluster sample, with randomly choosing a department and a year in each faculty from where the data were collected, and a random selection of individual respondents. The former are considered primary sampling units, and the latter secondary sampling units. Each faculty contributed equally in terms of primary sampling units (clusters), i.e. the data were collected from one group of students from each faculty. Since the selected students were undergraduates of University of Sarajevo, attending all four years of study, for each faculty a table with years of study and all the courses at the particular faculty was made. Using a random number table, year of the study and the study course were selected for each faculty. Another cluster has been selected too, as an option B in case if there were not enough students in the originally selected cluster to participate in the study. The day when collection of data was organized was not chosen randomly, but it was decided to be the first week day of lecturing for particular unit selected in first stage of sampling procedure. Therefore, the day when the questionnaires were distributed was not selected randomly, increasing the sampling error. However, since there is no reason to assume that the attendance at lectures varies considerably during the week, non-random selection of the very day of the week when data were collected is expected to have little or no influence on results. Students completing the questionnaire were selected by using systematic sampling. The researcher first counted the present students and then randomly selected a student from the cluster, which would represent the 'starting point' and would fill out the questionnaire first, and behind him every nth student. Sampling interval was calculated on spot. The research was conducted in early 2014, during the course of lectures.

Questionnaire

Research instrument used in this study is based on previous survey instruments utilized by ESPAD (2011), Murray (2008), and a review of list of questions usually used in drug surveys (Johnston, 2000). In the questionnaire, emphasis was placed on the recreational use of illicit drugs among the students of the University of Sarajevo. It consisted of four parts and a total of 53 questions. The first introductory part was comprised of certain sociodemographic questions, the second part included questions of socio-psychological nature, the third part of the questionnaire included

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questions on illicit drugs, consumption of tobacco and alcohol products, as well as on attitudes and opinions that students have about them, and the fourth part questioned the presence of illicit drugs in the student environment itself. Part of the questionnaire relating to the use of tobacco products by young people gives a general measure of the degree of use of cigarettes and the frequency of their use in the last month. Alcohol-related issues primarily examine the frequency of alcohol use by students through different patterns (during the last 12 months and the last 30 days), places and consequences of consumption. Questions related to narcotic drugs provide answers to the knowledge of narcotic drugs, frequency, consequences and places of consumption. The self-completion questionnaire was anonymous, and the respondents understood the instructions well and there was no interference when collecting data.

It was stated earlier that normalization thesis (Parker et al., 1998; 2002) shall serve as framework for analyses. Normalization is measured through five dimensions. The first, the access and availability of drugs, was measured through questions dealing with the ease of the purchase of different types of drugs, as well as mode of acquisition and impression of drug dealing presence. Drug trying rates was measured by asking respondents questions usually utilized in drug surveys: have they ever tried drugs in general, and particular drug listed in the questionnaire. Rates of recent drug use were examined by past year and past month consumption of different types of drugs. Social accommodation of recreational drug use was measured by question on prevalence of drug consumption among students. Additional measure referred to the degree respondents consider recreational drug use acceptable, as long as it does not turn into an addiction. Finally, cultural accommodation of drugs is measured by question dealing with the attitude on recreational drugs consumption in relation to alcohol consumption.

Findings

<u>Sample characteristics</u>

Out of the total sample which included 410 students, females (260) were much more involved in the research than male (150). Gender structure of the sample reflects rather good gender structure of student population: while in the sample 63 % of respondents were female, according to the Institute for statistics of Federation of Bosnia and Herzegovina data (2017), proportion of women in the student population was 59 %. Age range was between 18 and 37, with the mean value of 21 and only ten percent of the sample older than 23. Respondents who participated in the research were students of all four years of the undergraduate studies, where the largest number of respondents included students of the first and second year of study at their faculties. 153 students attended the second year of study, 138 students the first year of study, 84 of respondents were third year students and 35 students were attending the fourth year of study. When asked with whom they live while studying, the largest number of respondents answered that they live with their parents (n = 233), then with a roommate (n = 135) while others live alone (n = 38). Four respondents did not answer this question.

When it comes to the subjective attitudes of the respondents with regard to their material status, results show that the majority of respondents considers to have an average material status (n = 370), while a smaller number of respondents consider it to be above the average (n = 26), and 14 of them under-average material status (n=14). Regarding the environments from which respondents come, the most respondents answered that they came from urban

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areas (n = 222), some smaller number of students reported coming from suburban areas (n = 145), while the smallest number of students said they came from rural areas (n = 41), and two respondents did not answer this question.

Access and availability of drugs

Normalization of drug consumption includes access and availability of drugs, without which normalization cannot take place. A key measure of access and availability, developed in previous instruments, is rather straightforward and asks respondents to assess how accessible particular drugs are. The results are shown in table 1.

Table 1. Perceived availability of drugs

	Easy (%)	Difficult (%)	Impossible (%)	Don't know (%)
Cannabis	263 (64,1)	15 (3,7)	2 (0,5)	130 (31,7)
Amphetamines	172 (42)	40 (9,8)	4 (1)	194 (47,3)
Cocaine	116 (28,3)	96 (23,4)	5 (1,2)	192 (46,8)
Ecstasy	130 (31,7)	69 (16,8)	8 (2)	202 (49,3)
Heroin	104 (25,4)	100 (24,4)	6 (1,5)	198 (48,3)
LSD	96 (23,4)	85 (20,7)	9 (2,2)	218 (53,4)
Magic mushrooms	64 (15,6)	72 (17,6)	17 (4,1)	255 (62,2)
Inhalants	215 (52,4)	18 (4,4)	5 (1,2)	171 (41,7)
Sedatives	266 (64,9)	11 (2,7)	1 (0,2)	131 (32)

Most accessible substances perceived to be sedatives. Almost two in three students reported it would be easy for them to get sedatives, closely followed by cannabis. Heroin, cocaine and hallucinogens are considered to be particularly difficult to get by respondents, probably because of the high prices and the fact that these are considered heavy drugs, supply of which is controlled and suppressed with special vigor. Excitants, such as amphetamines and ecstasy, were considered moderately difficult to get. Overall, majority of respondents felt they could access some kind of drug.

When asked whether they acquire drugs themselves, only eight respondents reported that they acquire drugs on their own. The rest were allegedly not purchasing drugs. As to mode of acquiring drugs, 13 (3,2 % of the sample) said they were purchasing it and 26 (6,3 % of the sample) reported getting it "as a gift".

When asked if they have noticed that their colleagues are selling drugs at faculties, 69 (16 %) students reported they did, although the dominant perception (of 47 respondents) is it happens very rarely. Large majority (over 83 %) reported not noticing drug dealing within faculty parameters.

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Drug trying rates and patterns of recent consumption

The more drugs are being tried by large portion of society, the more their usage can be seen as normalized. Fifty respondents (12,1 % of the sample) reported using drugs on at least one occasion in their lives. 21 (5,1 % of the sample) respondents reported consuming drugs in their life in one to two occasions, 23 (5,6 % of the sample) more than two, but less than forty, and six respondents have consumed drugs very frequently (more than 40 times in their lives). Overall, large majority of respondents reported not using drugs, and one in eight reported using it. Of those who reported they did, it was rather rarely. Only 4 % reported they used drugs more than twenty times during lifetime.

It is widely held that person can try drugs and not persist on consumption. These are called experimenters or tasters. Persons on the other side on the continuum- those who have used drugs very often (more than forty times in their lives), are considered heavy users. Finally, those in the middle of two extremes, that is, users who consume drugs occasionally, ranging from three times to few dozen times (but less than forty), shall for the purpose of the study be considered occasional users.[5] Using the frequency criterion, almost half (21 out of 50) of reported users in the sample are considered as experimenters. Another half of reported users (23 respondents, or close to 6 % of the sample) are occasional users. The remainder are considered heavy users ("ever used" drugs more than forty times).

Since there is roughly 2:1 ratio of male to female drug users for most drugs (Measham, Williams, & Aldridge, 2011), it is interesting to inspect the gender- consumption relationship in the current survey. Table 2. indicates there is no significant difference between men and women in lifetime prevalence of illicit drug use. Most of male users are experimenters, and most women consumers are occasional users. Smallest portion in both categories are high-intensity users.

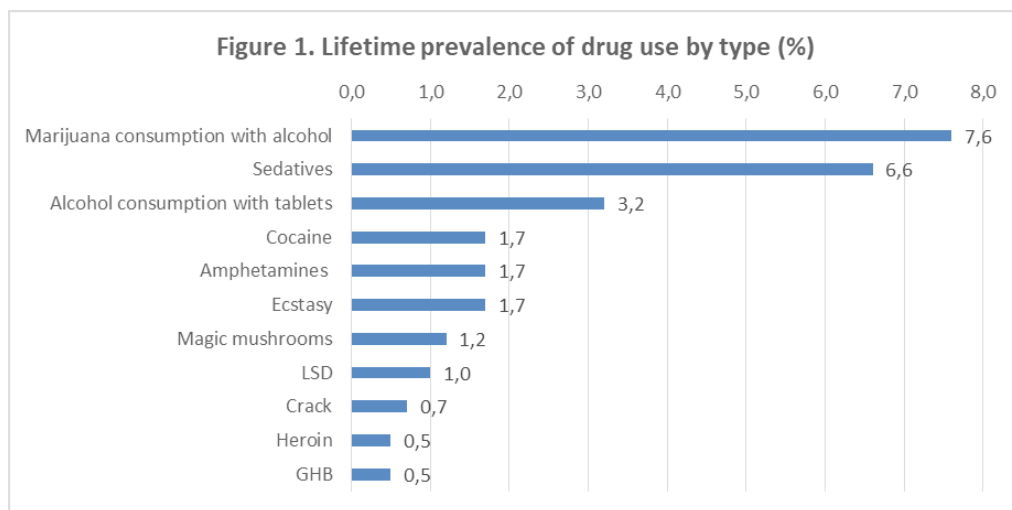Table 2. Lifetime prevalence of drug use by gender

	Gender	
	Men (%)	Women (%)
Abstainer	126 (84,6)	232 (89,6)
Taster	12 (8,1)	9 (3,5)
Occasional	7 (4,7)	16 (6,2)
Heavy	4 (2,7)	2 (0,8)
Total	149 (100,0)	259 (100,0)

Note: $\chi 2=6,6$, p>0,05 by Fisher's exact test

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[5] National Institute on Drug Abuse (1975) has published very useful review of operational definitions in socio-behavioral drug use research. It lists more than twenty studies and classifications of drug use based on frequency of use. Some of studies consider recreational users who use drugs every week, some, on the other hand, consider them if they have used drugs rather rarely (lifetime prevalence of drug consumption of three to nine times).

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Of the 408 students who provided the data on drug consumption during lifetime, drugs were commonly consumed by students aged 19 (n = 14) and 20 (n = 10) years. After this group, there is a group of students at the age of 21 (n = 7) and 22 (n = 7) years. Mean age for the lifetime drug users is 21 years. Based on these results, it can be concluded that consumption of illicit drugs was most common among younger students aged between 19 and 22 (n = 38).

Figure 1. displays lifetime usage of individual drugs. It is evident that combination of alcohol and other psychoactive substances (marijuana and tablets, usually sedatives) prevails the lifetime consumption landscape. Sedatives are also among most frequent drugs to use. Highest number of students reporting to use drugs was close to thirty (27 for sedatives, and 31 for combination of alcohol and marijuana), and lowest two (for heroin and GHB). Use of combination of alcohol and other psychoactive substances and sedatives probably reflects, at least to an extent, easier access to these types of substances. Other drugs were used very rarely. The difference between men and women is significant only for amphetamines ($\chi2=5,4$, df=1, p<0,05) and cocaine ($\chi2=5,4$, df=1, p<0,05) use, with men more likely to try them.

Figure 1. Lifetime prevalence of drug use by type (%)

Drug	%
Marijuana consumption with alcohol	7,6
Sedatives	6,6
Alcohol consumption with tablets	3,2
Cocaine	1,7
Amphetamines	1,7
Ecstasy	1,7
Magic mushrooms	1,2
LSD	1,0
Crack	0,7
Heroin	0,5
GHB	0,5

Recent drug consumption reveals even more conservative picture when compared to drug trying rates. Analyses show that during one month preceding the survey (see table 3), drugs were not consumed by large portion of the sample. Only fourteen respondents reported any drug use, although very rarely (typically one or two times). Cannabis was not offered as a pre-coded category in questionnaire, but based on data from EMCDDA (2014; 2018), ESPAD (2011), Cerić et al. (2007) and Nižić et. al. (2013) it is reasonable to assume it is drug of choice for very recent consumers. Findings further suggest that combination of cannabis and alcohol, and sedatives are preferred psychoactive substances by students in the year preceding the survey. Any drug consumption (probably cannabis) during last year was reported by 6,8 percent of the sample. Heavier drugs, such as cocaine, crack, heroine, hallucinogens were reported to be used

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extremely rarely. There is significant difference between men and women in past year drug use of amphetamines ($\chi2=4,6$, $df=1$, $p<0,05$), with men more likely to use them.

Table 3. Recent consumption by type of drug

	No	In the last 30 days	In the last 12 months
Sedatives	383 (93,4%)	5 (1, 2%)	13 (3,2%)
Amphetamines	403 (98,3%)		4 (1, 0)
LSD	406 (99,0%)		2 (0,5)
Crack	407 (99,3%)		2 (0,5%)
Cocaine	403 (98,3 %)		2 (0,5%)
Heroin	408 (99,5 %)		2 (0,5%)
Ecstasy	403 (98,3 %)		4 (1, 0 %)
Magic mushrooms	405 (98,8 %)		4 (1, 0 %)
GHB	408 (99,5%)		2 (0,5%)
Alcohol consumption with tablets	397 (96, 8 %)	1 (0, 2%)	4 (1,0%)
Marijuana consumption with alcohol	379 (92, 4%)	8 (2, 0%)	16 (3, 9%)
Any drug		14 (3,4)	28 (6,8)

In sum, it is safe to say that drug use among university students is indeed of low intensity, limited to cannabis use, solely or in mix with alcohol. Drug trying rates are very low, with half of drug users only tasting drugs in couple of occasions, and with the remainder being almost exclusively low-intensity consumers of mainly cannabis and sedatives and very rare users of heavier drugs.

Social and cultural accommodation of recreational drug use

To the extent drug use becomes personally and socially accepted by both users and non-users, it can be said drug use is considered common. Table 4. list results concerning respondents` perception on presence of drug consumption.

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Table 4. Perception of drug consumption among fellow students

	Abstainers (%)	Lifetime drug users (%)
Very often	40 (11,2)	10 (20)
Sometimes	47 (13,2)	18 (36)
Very rarely	71 (19,9)	9(18)
Did not notice	199 (55,7)	13 (26)
Total	357 (100,0)	50 (100,0)

Note: $\chi 2$=24,6, df= 3, p<0,001

Large majority of abstainer subsample reported no presence of drug consumption in their social environment. Unlike them, lifetime drug users, probably because of the knowledge of the drug scene, are aware of the consumption to a larger extent. The difference between recreational drug users and abstainers about awareness of drug consumption is statistically significant.

Findings in the table 5. suggest that majority of drug users consider drug use, as long it does not turn into an addiction, acceptable, and the opposite for the non-users. Half of drug users, namely, see recreational drug use as acceptable, and almost three quarters of abstainers as exactly the opposite. The difference between recreational drug users and abstainers about drug use accommodation is statistically significant.
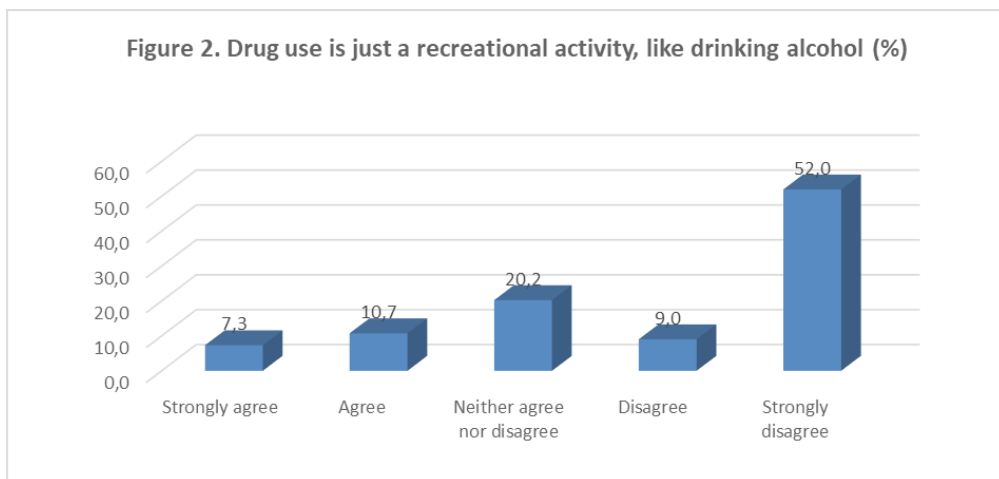
Table 5. Attitudes on drug use accommodation

	Abstainers (%)	Lifetime drug users (%)
Agree	46 (13)	25 (50)
No opinion	43 (12,1)	12 (24)
Disagree	265 (74, 9)	13 (26)
Total	354 (100,0)	50 (100,0)

Note: $\chi 2$=53,9, df= 2, p<0,001

Based on findings in tables 4 and 5, it can be implied that non-users of drugs seem uncomfortable with any drug use and do not see it as socially accommodated into their lives.

Last dimension of normalization thesis refers to cultural accommodation of recreational drug use. As argued by Parker et al. (2002), there are multiple indicators of drug use being accepted as "liveable with" by wider society. One is "blurring" of licit (alcohol and cigarettes) and illicit substances consumption differences. At the question regarding consumption of drugs being as recreational activity just as consumption of alcohol, majority in current survey responded by disagreeing. Slightly over half of respondents strongly disagreed the equivalence of alcohol and drugs. Only one in six respondents agreed with the statement, whereby only little over seven percent strongly agreed.

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Figure 2. Drug use is just a recreational activity, like drinking alcohol (%)

Previous results (see figure 1 and table 3) suggest alcohol goes hand in hand with marijuana consumption. To further explore this pattern, correlation analysis of illicit and licit drug consumption shall be conducted. Table 6. specifies the Spearman ρ correlation coefficients for the three measures of cigarettes, alcohol and drugs consumption for the overall sample.[6] The variables measuring cigarettes and alcohol use were for the sake of easier interpretation reverse coded.

Table 6. Correlation between cigarettes, alcohol and drugs consumption

	Consumption of (illicit) drugs	Consumption of cigarettes	Consumption of alcohol
Consumption of (illicit) drugs	-	,307*	,337*
Consumption of cigarettes		-	,433*
Consumption of alcohol			-

*p<0.001.

As seen on the table 6, there is moderate to strong correlation between all three variables. All correlations are significant at p<0.001 level. The findings can be interpreted in the manner that as the likelihood of cigarettes and alcohol consumption increases, the frequency of consumption of drugs (i.e. higher numbers of drug consumption during the life) also increases. Those who reported to smoke cigarettes were much more likely to report using alcohol than non-smokers. Both cigarette smokers and alcohol users were more likely to use drugs than tobacco and alcohol abstainers. In other words, cigarette smoking and alcohol consumption are moderately associated with the drug consumption, but strongly among their selves.

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[6] Respondents were asked in how many occasions they have used drugs (0- never, 7- 40 or higher), as well as whether they use alcohol and cigarettes (1- completely agree, 5- completely disagree).

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DISCUSSION

As stated previously, the normalization framework can be a useful way to systematically assess the accommodation of illicit drugs among populations. It consists of five components: access and availability of drugs, drug trying rates, rates of recent drug use, social and cultural accommodation of recreational drug use.

In relation to the access and availability of drugs, current research suggests it would be fairly easy to access some soft drugs (cannabis and sedatives), but not the "hard" ones (heroin, cocaine, hallucinogens, etc.). While the substance hierarchy in ease of access reflects that in research elsewhere (e.g. Parker et al., 2002), the percentages do not. Our study, namely, found lower accessibility of cannabis, but higher of heroine compared to research abroad. This comes as no big surprise, however, because lower availability of cannabis was also found in ESPAD survey (2011), where Bosnia and Herzegovina scored lower (19 %) than European average (29 %) on the question dealing with ease of access to particular drugs. As for heroin availability, it is well known that Bosnia and Herzegovina has as a strategic location on the Balkan Route (EMCDDA, 2009), which probably creates situation of greater heroin retail offer than in other countries. Furthermore, according to literature, social context of recreational drug use suggests that recreational consumption of illicit drugs is very often initiated by the persecution of another person, an on that matter, Shewan, Delgarno and Reith (2000) state that drug users most often get drugs from friends or trusted dealers. Nevertheless, our research findings support the claim made by Järvinen and Ravn (2011) that recreational drugs are "received as a gift".

Regarding another focus of our study, which was to determine to what extent recreational drugs are tried and consumed among students of the University of Sarajevo, our study identified that drug trying rates, compared against findings of Parker et al. (2002), are rather low. Only one in eight respondents reported lifetime use of any drug. Research of Cerić et al. (2007) indicated a bit higher drug trying rate among university youth in Bosnia and Herzegovina at portion of one fifth of respondents. Although examination of interlocking items, such as questions concerning lifetime consumption of drugs and consumption of specific listed substances, shows high internal consistency of data, it is still possible that socially undesirable behavior (such as illicit drugs consumption) may be underreported (Tourangeau & Yan, 2007). However, such low lifetime prevalence of recreational drug use is consistent with previous research of drug use among youth in Bosnia and Herzegovina, for ESPAD survey (2011) indicated below average (compared to other European countries) illicit drugs lifetime prevalence.

There was no significant difference between men and women in recreational drugs lifetime prevalence, or (for the majority of drugs) in recent drug use. The results from previous research on gender differences in drug consumption are mixed. 2010 survey from the Republic of Srpska in Bosnia and Herzegovina, which included 4178 individuals (respondents aged 18 to 24 years, and 35 to 44 years), reported that experimentation with illicit drugs in the Republic of Srpska was generally on the side of the female gender, 5.4% in comparison with men 4.2% (EMCDDA, 2014). Other research is suggesting that there are no significant differences by gender when it comes to trying drugs (ESPAD, 2011; Webb et al. 1996; cit. in Murray, 2008, s. 54), while Measham et al. (2001) point out that users of recreational drugs can be equally male and female. In this context, in a research conducted on recreational drug use in Australia among visitors to dance and nightclubs (n=379), Duff (2005) came to the record that men participated

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in drug use with 57% compared to women, 52%. It should be noted that 13% of these respondents reported a mix of part time study and part time work, whilst a 12,7% reported enrolment in university studies on a full time or part time basis. Also, Woodrow (2012) within his drug study among student population, reported that 65.6% of males and 63.9% of females had tried an illegal drug.

When it comes to the age of drug trying respondents, results show that drug use was most present among 19 years old, that is, among students of the second year of undergraduate studies. However, empirical support for this result is found in research studies suggesting that drug use rises with age from 15 to the early 20's (Murray, 2008, p. 57). Other studies, such as one conducted by Riley et al. (2001), have found that 80% of recreational drug users with an age range of 16-47, were between 18 and 23 years. Similarly, Parker and his colleagues (1998, 2002) found that some 25% of research participants in their study were regular recreational drug users by the age of 21 (Duff, 2005, p. 162).

Patterns of illicit drug use among the students of the University of Sarajevo show that illicit drugs are not equally represented among recreational drug users, and that "lighter" drugs are generally consumed for this purpose. As expected, our research results show that combining alcohol with marijuana is rather preferred, which is further substantiated by the fact that 64% of students stated that they could easily obtain marijuana. This finding corresponds with many research findings which indicate that recreational drug use is dominated by cannabis taking and that accessibility is highest for cannabis (Parker et al., 2002; Murray, 2008). Availability is probably one of the reasons for mixture of cannabis with alcohol. Although amphetamine has become popular as a recreational drug during the past decades (Rassool, 2009), our findings show that only four respondents reported consuming amphetamines in the past 12 months, and seven (1,7 % of the sample) during lifetime. This seems to be the low prevalence of amphetamine use if compared to other studies on recreational drug users, where rates od amphetamine use were at much higher percentage such as 81.1% (Riley et al., 2001), and 60-70 % (Measham et al., 2001). However, Parker et. al. (2002) indicate that 10% of young people between 18 and 25 years of age use recreationally amphetamines. Regarding the LSD as the most common drug used by recreational users along with alcohol, caffeine, nicotine, cannabis, and ecstasy (Rassool, 2009, p. 51), our results shows that two students consumed LSD in the course of last year, and four in their lifetime. And while some studies report that prevalence of this drug was at 30.3% among young recreational drug users (Riley et al., 2001), in his study on recreational drug use among the student population, Murray (2008) reported significant reduction in the use of LSD. Ecstasy was reported to be consumed by seven recreational users of drugs during the lifetime, and in the last 12 months prior to our research, ecstasy was consumed by four of students who were recreational drug users. Contrary to our finding, prevalence of ecstasy use was reported high (82%) among recreational users at dance events in Edinburgh (Riley et al., 2001), while in other study that can also relate to the student population, Measham et al. (2001) found rates for amphetamines, LSD and ecstasy in the 60-90% range (cit. in Murray, 2008, p. 42). As for the cocaine, which is reported to be the most commonly used illicit stimulant drug in Europe (EMCCDA, 2017), our findings show that a very small number of students had consumed cocaine. Our results are not in line with studies where prevalence of cocaine use was found to be much higher, for example, 38.5% (Riley et al., 2001), and 41% (Murray, 2008), while Measham et al. (2001) with bearing in mind the well known

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link between student lifestyles and clubbing, found that over 70% clubbers had tried cocaine. Nevertheless, Murray's study (2008) reported a major increase in the availability and trying rates of cocaine. Further, our study found low prevalence of crack use, with only two students reporting its past year use, and approximate results were obtained by Riley et al. (2001) who reported six respondents using this drug. Regarding the recreational use of heroin and GHB among our respondents, both lifetime and past year prevalence rates were for heroin and GHB two respondents each. Low prevalence for heroin use has been found in other studies as well (i.e. Murray, 2008), while in a study conducted in Edinburgh by Riley et al. (2001), none of the participants reported using heroin. However, Patton (2005) found heroin to be least validly reported (along with cocaine), due to the stigma associated with this drug (cit. in Murray, p.58). As for the use of GHB and hallucinogenic mushrooms, it should be noted that low and stable rates of their use have been reported in Europe (EMCDDA, 2017).

It seems that attitudes of non-users are not favorable to drug consumption. Large portion (three in four) of abstainer respondents in current study does not approve any drug use. Earlier research suggests different picture, for majority of abstainer respondents in study of Parker et al. (2002) held approving attitudes on drug consumption. Moreover, only 74 students of the University of Sarajevo agrees with the statement that consumption of illicit drugs is recreational activity just as alcohol consumption. In contrast to our findings, Murray (2008) found much higher percentage of respondents who agree with the latter statement.

Finally, examining the "blurring" of licit and illicit drug consumption was also one of the intentions of this research. Although not testing it *per se*, the results provide support for the Gateway Theory (Kandel, 1975; Kandel & Faust, 1975), based on which a sequential pattern of consumption of licit and illicit substances has been repeatedly observed (e.g. Fergusson, Boden, & Horwood, 2006; Huizink, et al., 2010; Kandel, Yamaguchi, & Chen, 1992). The Gateway Theory suggests drug consumption starts with "gateway" legal drugs (tobacco, cigarettes), followed by marijuana, and may progress to use of harder drugs (tranquilizers, cocaine, heroin). No direct progression from nonuse to illegal drug use practically occurs (Kandel & Faust, 1975). This research did not test propositions of the Gateway Theory, which specifically demands that: relationship between two substances in which the use of one substance consistently precedes the use of another substance (sequencing), increased risk of initiating the use of a second drug once having initiated a first one, and the existence of association when controlling confounding factors. The research merely dealt with the association without considering causation chain, but the logic behind the Gateway Theory seems applicable, especially having in mind that drug users found in this study were almost exclusively tasters and occasional users. The latter suggest the consumers have not yet progressed to heavier drugs, such as cocaine and heroin, but are at first stage of illegal drug consumption, usually limited to cannabis and pills. Later developmental stages may or may not occur, which depends on plethora of factors (personality traits, drug availability, peer influence, etc.). The Gateway model is cumulative, meaning that lower-ranking drugs leading to next level of consumption tend to be used simultaneously. It is possible that users sometimes manifest error type behavior, meaning stopping the consumption of lower-ranking drugs once higher-ranking usage is achieved, but that is usually characteristic of heavy drugs use (cocaine, heroin, psychedelics). In sum, it is plausible to infer that respondents in the research were at lower levels of sequential pattern of drug usage, whose main features are

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cumulative usage of legal drugs (alcohol and cigarettes) and "lightweight" drugs (cannabis, pills) and almost non-existent usage of heavier drugs.

Normalization thesis (Parker et al., 1998; 2002) suggests recreational drug use is accommodated into the lifestyles of otherwise conformist, ordinary young adults and becomes "new normal". Conceptual framework of normalization, utilized in this study, suggests drug use among students of University of Sarajevo is not normalized. Of the five dimensions of the framework, only access and availability of drugs seems to provide some ground for statement that normalization of drug use took place. Others- drug trying rates, rates of recent drug use, social and cultural accommodation of recreational drug use- seem to provide different picture, suggesting drug use, even recreational, is still considered as deviant and rather uncommon. In other words, it is safe to say that drugs are to an extent accessible to young people, but their use seems not to be accommodated into social and cultural fabric and routines of everyday life. Having in mind that the idea of normalization refers to cultural as well as economic circumstances rather than simply to behaviour (Newburn, 2017), a plethora of economic, social, legal and cultural reasons might be contributing to this. As for the economic circumstances, post-war situation in Bosnia and Herzegovina brought tougher economic conditions, especially for many young people. Statistical data for the research period show that the unemployment rate in Bosnia and Herzegovina was 27,5% (such as in the same period of 2013), where the unemployment rate was the highest among young persons aged 15 to 24 years, it was 62,7% (Agency for Statistics of Bosnia and Herzegovina, 2014). Therefore, although certain criminological theories (e.g. Strain Theory) report that poor economic conditions generate crime and antisocial behaviour, our opinion goes in the opposite direction, implying that student unemployment as well as changing economic nature of their families and households in terms of employment, influences their financial reach for the drugs. Furthermore, we considered the lifestyle of students within the theoretical and empirical construct of recreational drug use. In terms of findings that implicate that recreational drug use is inherent to settings such as nightclubs and dance events (e.g. Riley et al., 2001; Duff, 2005), which can relate to a student population that has plenty of leisure time and is well known for its reputation of clubbing, we could say that Bosnia and Herzegovina didn't face the emergence of dance-based movements in great extent as seen in many European countries and worldwide. Therefore, we think that the lifestyles of students in Bosnia and Herzegovina in regard to their leisure time and clubbing differ much from the countries in which studies on recreational drug use took place. Also, our reasons are partly grounded on findings from ESPAD studies in Bosnia and Herzegovina (2011) on substance use among youth population (high school students), that report lower levels of substance use on the key variables, compared with the ESPAD average (ESPAD, 2011). Drug related criminal policy in Sarajevo, where the research took place, influences student behaviour towards drug non-use, since the possession and use of any drugs (even for personal use) is a criminal offence in Canton Sarajevo. Criminal law is used aggressively against drug users in Canton Sarajevo as a part of Federation of Bosnia and Herzegovina, where police officers are focused on arresting persons for consuming and possessing drugs for personal use, even in cases involving use of small amounts of cannabis (Deljkić, 2013). Therefore, such situation could affect students to refrain from using drugs since the existence of criminal record would have implications on their future employment. Finally, any drug use seems not to be culturally acceptable into mainstream Bosnian-Herzegovinian society. Findings from the European Values Survey (EVS, 2016) suggest that vast majority (over 87 %) of respondents do not justify taking even soft drugs. Overall,

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Bosnia and Herzegovina seems to take different path compared to other European countries when it comes to drug use, even recreational: nor recreational drug use can be qualified as widespread, nor it is widely accepted as normal by relevant audience.

CONCLUSION

It is evident that recreational drug use is primarily found among young people, and according to some authors, the rapid spread of drug use for recreational purposes has led to the normalization of drug use in youth culture. Overall, current study found that recreational drug use is present among students of University of Sarajevo, but not to a large extent. One in eight respondents reported to ever try drugs, and only 6 % reported frequencies which qualified them to be labelled as occasional, low-intensity users. Drug of choice was cannabis, solely or in combination with alcohol. Majority of respondents felt they could access some kind of drug, though very rarely by purchasing it. It seems that dominant manner of getting drugs ("gift") underpins occasional nature of drug use among students. Drug use also seems not to be socially and culturally accommodated into Bosnian-Herzegovinian mainstream society, with the majority of abstainer respondents not approving any drug consumption. Correlation analysis showed there is greater likelihood for illicit drug users to use licit drugs, which only reflects drug-benevolent attitudes among drug users, but not among general student population.

Our research evidence does not appear to substantiate a conclusion that drug use among students of University of Sarajevo has become the norm. As we previously discussed, analysis of our findings through the five dimensions of the normalization concept, showed only little evidence for the one dimension, that is, access and availability of drugs. Our findings indicate that the use of drugs is not socially and culturally accepted by many members of the non-drug using population as suggested by the proponents of the normalization thesis, since abstainers in our sample reported being uncomfortable with any drug use, and further reported no presence of drug consumption in their social environment. Therefore, we conclude that beside behavioral and attitudinal aspects in seeking to understand and explain recreational drug use in Bosnia and Herzegovina greater importance needs to be given to socioeconomic, cultural and policy factors in shaping individual decisions and actions to use drugs recreationally.

Although more research is needed on the matter of recreational drug use in Bosnia and Herzegovina, still, we find our research evidence to be a good start in understanding this type of drug use. The current study utilized cross-sectional approach, which provides only a snapshot of recreational drug use among university students. Parker et al. (2002) argue that normalization thesis in respect of sensible recreational drug use can only be comprehensively assessed using long term data. Information on how drug use is changing, what types of drugs are becoming popular and what are correlates of the use can be obtained through longitudinal research designs. Only that way can be argued whether recreational drug use becomes accommodated and what policy options need to be developed to address it.

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