

Use of Psychoactive Substances by Nightclub- and Festival-goers in Georgia: Results of a Pilot Online Cross-sectional Survey

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Citation | Otiashvili, D., Beselia, A., Kutelia, L., Mgebrishvili, T., Tabatadze, M., Vardanashvili, I., Kirtadze, I. (2020). Use of Psychoactive Substances by Nightclub- and Festival-goers in Georgia: Results of a Pilot Online Cross-sectional Survey. *Adiktologie*, 20(1–2), 19–27; doi 10.35198/01-2020-001-0008.

BACKGROUND: Attendees of electronic dance music (EDM) events are at increased risk of the use of psychoactive drugs. The nightlife industry has been developing dynamically in Georgia. There has been no research investigating the scale and nature of drug consumption in the local nightclub setting. **AIM:** The aim of the study was to assess psychoactive drug use and related behaviour among nightclub-/festival-goers in the country. **METHODS:** An online survey among EDM attendees covered socio-demographics, drug use, and club/festival attendance. Uni- and bivariate analysis was conducted using SPSS. **RESULTS:** The final analysis included 313 valid questionnaires. The mean age was 24.4. More than two-thirds of the respondents had been to clubs/festivals more than five times in the past year. Three-quarters of them had used illicit drugs in the last 12 months, out of whom 80% reported using drugs in the last 30 days. Of those who had used drugs in the last month, 81.5% had used cannabis and 70% MDMA/ecstasy. The use of dissociatives, hallucinogens, and amphetamines, including new psychoactive substances, was also reported. More than

half had used two or more different substances during their last episode of use. Half of those who had been under the influence of drugs in nightlife settings reported using alcohol as well. Males and frequent nightclub visitors were more likely to use psychoactive substances. Drug use in clubs was associated with using fewer different drugs if compared with using in other settings. Getting drugs for free from friends was common. **CONCLUSION:** The survey recruited a self-selected sample of mostly young frequent nightclub/festival attendees. Illicit drug use, including in the EDM setting, was prevalent. Cannabis and MDMA/ecstasy were the most commonly used drugs. Poly-substance use and mixing drugs with alcohol were common. The results suggest high rates of high-risk psychoactive substance use by EDM attendees in Georgia and warrant the need for an in-depth investigation of the risks associated with this phenomenon. Future studies should investigate the potential role of mediating factors for drug use and associated risks in the nightlife setting and explore strategies for prevention and harm reduction.

Keywords | Club Drugs – Online Survey – Georgia

Submitted | 9 July 2020

Accepted | 7 October 2020

● 1 BACKGROUND

The prevalence of psychoactive drug use among attendees of electronic dance music (EDM) events exceeds the prevalence among the general population (EMCDDA, 2018; Palamar, Griffin-Tomas, & Ompad, 2015). Frequent visitors to nightclubs and electronic music festivals report higher rates and higher frequency of drug use if compared to non-attendees (Hannemann, Kraus, & Piontek, 2017; Palamar, Acosta, & Cleland, 2019; Palamar, Acosta, Ompad, & Cleland, 2017; Parsons, Grov, & Kelly, 2009). In Europe 55% of regular visitors to nightclubs had used cannabis in the past 12 months, 37% had used ecstasy, and 22% had used cocaine (Brunt et al., 2017). Studies in the US report a high prevalence of illicit drug use among club-goers, with the most prevalent substances being ecstasy, ketamine, cocaine, LSD, and amphetamines (Kelly, Parsons, & Wells, 2006; Ramo, Grov, Delucchi, Kelly, & Parsons, 2010; Yacoubian, Boyle, Harding, & Loftus, 2003). Use in a nightlife setting can be associated with the increased risk of negative mental and physical consequences and increased sexual risk behaviour (Calafat et al., 2011; Kelly, 2005; Lawental, Surratt, Buttram, & Kurtz, 2018). Psychoactive substance use in EDM settings may lead to a range of adverse effects, such as cognitive impairment, hyperthermia, depression, coma, or death (Kelly, 2005; Maxwell, 2005). Many individuals who attend EDM events use multiple illicit substances, thereby increasing their risk of more severe acute and long-term negative effects (Ramo et al., 2010; Sañudo, Andreoni, & Sanchez, 2015). In many instances the use of unknown substances was reported, which may increase the risk of unintended health consequences (Moore, Dargan, Wood, & Measham, 2013; Palamar, Salomone, & Keyes, 2020). Drug-facilitated risk and/or violent sexual behaviour is common among attendees of EDM events. This behaviour includes unprotected sex with non-regular partners (Ding, He, Zhu, & Detels, 2013), group sex, and sex with multiple partners (Bao et al., 2015; Buttram & Kurtz, 2015; Chen et al., 2015). European studies found that the use of psychoactive substances at EDM events was associated with elevated and pronounced sexual health risks (Mitcheson, McCambridge, Byrne, Hunt, & Winstock, 2008). Among adults who use psychoactive substances at EDM events, 70% of the women and 42% of the men reported experiencing unwanted sexual touching while attending an EDM event at some point in their lifetime (Hardcastle, Hughes, & Quigg, 2015).

On the basis of UNODC data, the prevalence of problem/injecting drug use in Georgia (52,000; 2.02% of the population aged 15-64) is the third highest in the world (Public Union Bemoni & Curatio International Foundation, 2017; UNODC, 2017). The results of the last European School Survey Project on Alcohol and Drugs suggested that the lifetime prevalence of the use of new psychoactive substances, inhalants, sedatives, and illicit substances (other than marijuana) among 16-year-old Georgian school students is twice that in the European Union (NCDC, 2016). The use of psychoactive substances in the nightlife setting has not been well studied in Georgia, but the rapid expansion of the country's night economy and available data on the

extremely high prevalence of drug use in different groups of the population suggest that substance use in clubs and at festivals will rise. The electronic music scene has been developing dynamically in Tbilisi, the capital of Georgia, turning the city into a centre of EDM events, with a number of nightclubs and festivals considered to be among the best in Europe (Janney, 2017; Ravens, 2019; Wilson, 2018). The night-time economy in Tbilisi is expected to continue to grow – in early 2018, the mayor of Tbilisi appointed a special night economy head for the city and announced that developing and supporting the nightlife infrastructure is one of the city government's priorities. Reports through media and social networks indicate that psychoactive substances are present at high rates in Tbilisi clubs and at EDM festivals. In 2018, the Ministry of Health reported 2277 admissions to emergency departments as a result of psychoactive drug intoxications during EDM events (Amiranashvili, 2019). In May 2018, the police raided two popular Tbilisi nightclubs during anti-drug operations (Reuters, 2018). Mass demonstrations then demanded drug policy reform and freedom of expression. Available studies (Beselia, Kirtadze, & Otiashvili, 2018; Subeliani et al., 2020) suggest the visible presence of the use of psychoactive substances among club/festival attendees, polydrug use, the mixing of psychoactive substances with alcohol, and a lack of knowledge and awareness of the health-related risks of their behaviours. In addition, because of the strict drug-related legislation in Georgia, with illicit drug consumption being criminalized (Otiashvili, Tabatadze, Balanchivadze, & Kirtadze, 2016), drug use in the nightlife setting may have a lasting negative effect on the life trajectories of the (largely young) individuals who consume psychoactive substances in clubs and at festivals. Thus, understanding the nature and extent of drug consumption behaviours in the nightlife setting and elaborating prevention and risk reduction approaches is an important public health and social objective. The aim of the current pilot study was to investigate and provide initial data on the use patterns of psychoactive drugs and, related to this, the potentially risky behaviour of nightclub- and festival-goers in Georgia.

● 2 MATERIALS AND METHODS

2.1 Sample and recruitment

The target population for this survey was adults (older than 18) attending electronic dance music events. To be eligible, individuals should have visited nightclubs or EDM festivals in Georgia at least once in the past 12 months, and should have been fluent in Georgian to be able to fill in the Georgian language online questionnaire. No restrictions on nationality or residence status were applied. Targeted recruitment was performed through online advertising, Facebook boosting, and through closed Facebook groups of Georgian ravers. The group administrators and members shared the study banner with their group members and assisted in facilitating the dissemination of information. The data collection took place in November-December 2018.

2.2 Procedures

The Bio-ethics Committee of the Faculty of Arts and Sciences, Ilia State University, approved the study protocol. We used the free web-based platform Kobotoolbox® (<https://www.kobotoolbox.org/>) for this study. Prior to accessing the questionnaire menu, all the participants provided their informed consent. After completing the study eligibility screener, eligible participants were forwarded to the online questionnaire. All eligible participants were asked to answer questions in the socio-demographic section of the questionnaire. Those who did not report the use of psychoactive drugs in the past 12 months completed the survey with only their socio-demographic data entered. Finally, those who reported using illicit drugs in the past 12 months answered all the remaining drug use-related questions. The questionnaire was developed locally on the basis of the previous experience of the research team. We tested the usability and functionality of the electronic questionnaire with three potentially eligible respondents. Following the pre-testing, the questionnaire was further refined and finalised.

2.3 Measures

The questionnaire (including the consenting process) took about 15 minutes to complete and included 18 restricted/categorical multiple-choice and open-ended responses. Socio-demographic information included age, gender, sexual orientation, employment status, and having a regular legal income. Nightclub and festival attendance was measured through the respondent's frequency (how many times in the past year) and history (how long have you been visiting) of attending EDM events in Georgia. Drug use was measured through asking whether the respondent had used in the past 12 months (yes or no) and past 30 days (yes or no), and asking what particular drug was consumed during the last episode. Drug use in clubs/festivals was measured through asking the frequency of being under the influence in a club/at a festival in the past 12 months, the particular substance consumed during the last episode in the nightlife setting, and whether or not alcohol was also used in those instances. In relation to the last episode of drug use in a club/at a festival we asked where/how the drug was obtained and consumed (consumed at home prior to visiting a club; brought in and consumed at the event; obtained in a club and consumed). If the respondent indicated that they obtained the drug inside a club/at a festival, we asked from whom and how it was done (purchased; received for free from a friend; received for free from an unknown individual). Finally, we also asked whether the respondent had experienced a severe drug intoxication which he/she could call a drug-related overdose in the last 12 months, and whether he/she knew the general rules for providing first aid during an overdose.

2.4 Data analysis

The data was analysed using SPSS Statistics v.23. Descriptive statistics were reported using frequency tables for categorical variables and using means and standard deviations for continuous variables. 95% confidence intervals were also reported. Bivariate analyses were conducted using a *t*-test for continuous dependent variables and a *chi*-squared test for categorical variables. Since this was a pilot exploratory study and the sample size was relatively modest, the analysis was largely limited to descriptive statistics. We hypothesized that the reported prevalence of use of psychoactive substances in the study sample would exceed the reported rates in the general population, and that males and frequent nightlife attendees would show higher rates of use if compared to females and less frequent attendees. The significance level for rejecting the null hypothesis was set at $\alpha=.05$.

● 3 RESULTS

3.1 Sample characteristics

Out of 373 respondents who entered the online survey, 60 reported not attending a club or festival in the past 12 months and were therefore considered ineligible and were not forwarded to the full questionnaire. The 313 eligible respondents (170 males, 135 females, four others, four unknown) were of the mean age of 24.4 (SD 5.5); about three-quarters had visited clubs/festivals more than five times, and almost half had done so more than 20 times in the past 12 months. The participants' basic socio-demographic characteristics and nightlife attendance patterns are presented in *Table 1*.

3.2 Drug use estimates

More than three-quarters of the sample ($n=243$) had used illicit drugs in the past 12 months (past-year users) and 61.9% ($n=194$) reported using drugs in the past 30 days (past-month users). Only 12 respondents reported consuming drugs through injecting during their last episode of drug use. Almost every past-year user ($n=234$) reported using drugs at least once in a club/at a festival during the past 12 months. Consuming drugs always or often while attending clubs and festivals was reported by 132 respondents (42.2%). The main substances used during the last episode of drug consumption in a club/festival setting were MDMA/ecstasy and cannabis (*Table 2*). The use of dissociatives, hallucinogens, amphetamines, cocaine, and new psychoactive substances (NPS) was also reported. A quarter reported using two drugs during their last episode of drug use, and another quarter reported using three or more drugs. There were no significant gender differences in terms of the types of drugs consumed, except for MDMA/ecstasy – males were more likely to have consumed it during their last episode of drug use ($p=.02$). The majority of the respondents ($n=203$; 64.8%) reported mixing drugs and alcohol in nightlife settings in the past 12 months. Of those, slightly more than half

Variable	Male n (%)	Female n (%)	Other n (%)	Unknown n (%)	Total n (%)
Gender	170 (54.3)	135 (43.1)	4 (1.3)	4 (1.3)	313 (100)
Age, mean (SD)	24.4 (6.7)	22.1 (3.6)	25.0 (-)	19.0 (-)	24.4 (5.5)
Sexual orientation					
Heterosexual	129 (41.2)	99 (31.6)	1 (0.3)	2 (0.6)	231 (73.8)
Gay	24 (7.7)	0 (0)	1 (0.3)	0 (0)	25 (7.9)
Lesbian	0 (0)	2 (0.6)	0 (0)	0 (0)	2 (0.6)
Bisexual	10 (3.2)	29 (9.3)	0 (0)	0 (0)	39 (12.4)
Other	2 (0.6)	4 (1.3)	2 (0.6)	1 (0.3)	9 (2.8)
How many times have you visited a club/festival in the past 12 months?					
1–5	23 (7.3)	32 (10.2)	0 (0)	0 (0)	55 (17.5)
6–10	26 (8.3)	23 (7.3)	1 (0.3)	0 (0)	50 (1.6)
11–20	45 (14.4)	31 (10)	1 (0.3)	1 (0.3)	78 (24.9)
21 or more	76 (24)	49 (16)	2 (0.6)	3 (1)	130 (41.5)
Never	0 (0)	0 (0)	0 (0)	0 (0)	0
Don't remember	0 (0)	0 (0)	0 (0)	0 (0)	0
How long have you been visiting clubs/festivals?					
Less than 1 year	17 (5.4)	21 (6.7)	1 (0.3)	0 (0)	39 (12.4)
1–3 years	63 (20)	49 (16)	1 (0.3)	3 (1)	116 (37)
More than 3 years	80 (25.5)	58 (18.5)	2 (0.6)	1 (0.3)	141 (45)
Don't remember	9 (2.9)	7 (2.2)	0 (0)	0 (0)	16 (5.1)
Current employment/occupation status					
Employed	91 (29)	64 (20.4)	3 (1)	1 (0.3)	159 (50.8)
Student/employed	36 (11.5)	36 (11.5)	0 (0)	2 (0)	74 (23.6)
Unemployed	11 (3.5)	3 (1)	0 (0)	1 (0.3)	15 (4.8)
Student/unemployed	30 (9.6)	31 (10)	1 (0.3)	0 (0)	62 (19.8)
Other	1 (0.3)	1 (0.3)	0 (0)	0 (0)	2 (0.6)
Do you have a regular income?					
Yes	139 (44.4)	107 (34.1)	3 (1)	3 (1)	252 (80.5)

Table 1 | Socio-demographic characteristics and nightlife attendance patterns of participants (N=313; refuse to respond not shown)

reported consuming alcohol to mix with a drug for the desired effect or to deal with a drug-induced hangover. Some 25 respondents (8%) reported experiencing a severe intoxication that they labelled as a drug overdose in the past 12 months, and 149 (47.6%) claimed they knew how to provide first aid during an overdose episode.

3.3 Source of illicit drugs and consumption patterns

Almost half of the respondents reported bringing drugs with them to the venue (n=152; 48.5%), and 69 (22%) reported consuming drugs prior to visiting a club/festival during their last episode of being under the influence in a nightlife setting. Only 49 respondents (15.6%) reported obtaining the illicit substance inside a club/at a festival. Of those, 38 said friends gave them drugs for free, and another four said they were given drugs for free by an unknown person.

3.4 Association between attendance of a club/festival and drug use

In a bivariate analysis males ($p<0.01$) and frequent club/festival-goers ($p<0.01$) were more likely to have used drugs in the past 12 months. There was no association between the frequency of club/festival visits and being under the influence in a club/at a festival in the past 12 months. The frequency of attendance was associated with a regular personal income ($p=.001$). In addition, those with a regular income and frequent attendance of club/festivals were more likely to have used drugs in the past 12 months ($p=.004$), but not in the past 30 days ($p=.398$). Finally, consuming drugs in clubs/at festivals was associated with using fewer different drugs if compared with using drugs in other settings ($p<0.01$).

Variable	Last used in a club/at a festival, n (%)*		
	Female (n=135)	Male (n=170)	Total
Cannabis/hashish	44 (32.5)	81 (47)	130 (43)
Ecstasy/MDMA	57 (42)	101 (59.4)	161 (53)
Hallucinogens – LSD, mushrooms, mescaline, psilocybin	5 (3.7)	14 (8.2)	19 (6.2)
Ketamine	7 (5.1)	17 (10)	24 (7.8)
Synthetic hallucinogens – LSD-type, NBOMe	6 (4.4)	7 (4.1)	13 (4.3)
Amphetamine/methamphetamine	4 (3)	6 (3.5)	11 (3.6)
Cocaine/crack	6 (4.4)	2 (1.2)	8 (2.6)
Buprenorphine	0 (0)	0 (0)	0 (0)
Synthetic cannabinoids	0 (0)	4 (2.4)	4 (1.3)
Lyrica, gaba gamma	0 (0)	0 (0)	0 (0)
Synthetic cathinones, bath salts	0 (0)	0 (0)	0 (0)
Synthetic ecstasy/MDMA	0 (0)	0 (0)	0 (0)
Sedatives	0 (0)	0 (0)	0 (0)
Opioids (tramadol, morphine, codeine)	0 (0)	0 (0)	0 (0)
Fentanyl	0 (0)	0 (0)	0 (0)
Heroin	0 (0)	0 (0)	0 (0)
Methadone	0 (0)	0 (0)	0 (0)
Antihistamines	0 (0)	0 (0)	0 (0)

Table 2 | Drugs consumed by past-year users during the last episode of use in a club/at a festival (N=305) (Note: Because of the low numbers of respondents in other gender categories, only the data for *females* and *males* is presented)

* Exceeds 100% because of the use of multiple substances

● 4 DISCUSSION

This cross-sectional web-based survey recruited a non-random self-selected sample of mostly younger nightclub/festival attendees. Since no incentives for participation were provided and we did not want potential respondents to be discouraged by the length of the questionnaire, we developed a brief 18-item instrument to collect pilot data related to basic socio-demographic characteristics of the respondents and patterns of illicit drug use.

The use of illicit substances including in an EDM setting was prevalent in our sample. Cannabis and MDMA/ecstasy were the most frequently used drugs, followed by dissociatives and hallucinogens. The most frequently consumed substances in a club/festival setting were MDMA/ecstasy, cannabis, and ketamine. Elsewhere, studies report on a high prevalence of psychoactive drug use among nightclub and electronic music festival attendees (Day et al., 2018; Parsons et al., 2009; Yacoubian et al., 2003). Similarly to other locations (Day et al., 2018; Kurtz, Surratt, Buttram, Levi-Minzi, & Chen, 2013; Moore et al., 2013), ecstasy and cannabis products seem to be the most popular substances consumed in the Georgian nightlife setting. For example, a recent study reported that ecstasy was a dominant substance used at major music festivals in Czechia and the Slovak Republic (Mackulak et al., 2019). Other studies have found a relatively high share of cocaine/amphetamine-type stimulants and new psychoactive substances among the spectrum of illicit drugs consumed in the nightlife envi-

ronment. However, the use of NPS in both the club/festival environment and conventional (non-club) settings was relatively low in the present study. The low prevalence of cocaine use was in line with the results of previous research with Georgian drug-using populations, suggesting a traditionally small presence of this substance in the local drug scene (Beselia et al., 2019).

Similar to the findings of other authors (Hannemann et al., 2017; Sañudo et al., 2015), the consumption of two or more substances was common in our sample. In addition, many respondents reported mixing drugs with alcohol in a club/festival environment. These findings speak about an increased likelihood of negative effects associated with combining psychoactive substances, specifically suggesting the increased risk of an overdose. Interestingly, the results also suggest that using drugs in clubs and at festivals was associated with a decreased likelihood of consuming multiple substances if compared to using in other settings. This finding warrants further in-depth investigation.

Compared to the female respondents, the male participants were more likely to report consuming drugs in the past 12 months. This (expected) finding probably reflects the established gender gap in the Georgian drug-using scene. Previous research with the high-risk drug injecting population and a general population survey suggested an extremely low prevalence of illicit substance use among Georgian women (Bemoni Public Union & Curatio International Foundation, 2016; Kirtadze et al., 2018). Research has shown

that, among other factors, orthodox socio-cultural norms and stigmatization from the side of the broader public, family members, and healthcare providers could have contributed to a relatively low level of experimentation with drugs, but also towards a reluctance to admit drug use and seek the help of drug-related services among Georgian women (Kirtadze et al., 2013; Otiashvili et al., 2013, 2014). Not surprisingly, the share of females among clients of drug-related services in the country is extremely low and varies between 2% and 5% (Beselia, Gegenava, et al., 2018). However, this gender gap might be narrowing, specifically within the context of nightlife (and other recreational) drug consumption. Two-thirds of the female respondents in our sample admitted taking illicit substances in the past 12 months.

We did not find an association between the frequency of attending clubs or festivals and drug use in a club/festival setting. We were unable to assess in detail the drug use trajectories of the participants – whether club drug use was associated with initiation into drug use. Some studies report that festival and club drug users are largely established drug users (Fox et al., 2018) and the initiation into drug use did not necessarily occur in a nightlife setting (Palamar, Acosta, & Cleland, 2018). This is obviously a subject for future research in the Georgian nightlife context. What is evident is that the prevalence of substance use in our sample remarkably exceeds the known prevalence of use in other (non-problematic, non-regular user) population groups.

The majority reported consuming drugs prior to visiting clubs/festivals or bringing the drug with them into the club or festival. One in six in our sample reported obtaining drugs inside a club/festival venue. When obtaining inside a club or festival venue, the vast majority reported that they were given the substance for free, mostly by friends but also by someone they did not know. Available research suggests that distribution through social networks represents a remarkable segment of illicit drug supply (Belackova & Vaccaro, 2013; Bright & Sutherland, 2017; Hamilton, 2005). In an Australian study by Bright et al. it was found that more than 60% of the study sample (a non-random self-selected sample of regular ecstasy users) sourced ecstasy primarily from friends or acquaintances (Bright & Sutherland, 2017). The authors suggested *“that no single person supplies the friendship group, but that users source ecstasy independently and supply to members of the group to ensure a consistent supply of quality product, and to minimize the risks of health harms and criminal justice consequences”*. In Georgia distribution schemes for conventional drugs have traditionally been influenced by small-scale “freelance” dealing and the massive kitchen-based self-production of injectable drugs (Kirtadze & Otiashvili, 2015; Otiashvili, Kirtadze, & Bergen-Cico, 2017; Otiashvili et al., 2016). Recent studies, however, suggest the diffusion of alternative distribution models employing the internet and mobile applications, in particular among recreational drug users (Beselia, Gegenava, et al., 2018). The perceived advantages of non-contact drug procurement include security and a wider selection of products, and it is possible that the perceived quality of drugs could have played an important role in this shift (Griffiths & Mounteney, 2017; Mikhaylov &

Frank, 2018; Rhumorbarbe, Staehli, Broséus, Rossy, & Esseiva, 2016). The “not-for-profit” social supply component of drug distribution in the Georgian context deserves close attention in future studies. Among other questions, future research should investigate whether this phenomenon is specifically characteristic of club/festival drug use culture or is applicable to other drug consumption settings too.

This study is not without limitations. Inadequate generalizability is seen as a main limitation of online surveys (Bauermeister et al., 2012). In general, the recruitment methods utilized for web-based studies may tend towards recruiting a younger and economically advanced population, resulting in a potential underrepresentation of other socio-demographic groups lacking online skills and with poorer access to the internet (Brown et al., 2014). Nevertheless, we believe that the inherent characteristics of our target population (younger and economically stable enough to be able to attend music events regularly) testifies to the relatively low risk of this specific selection bias in our study. We cannot exclude the possibility that our sample may differ from other club-/festival-goers. However, we believe that any access to this invisible (to researchers) group is of value. Even if we are unable to measure the prevalence estimates for the larger population, we are able to understand patterns of specific behaviours and measure the associations between variables of interest (Pasek, 2015). In addition, in future studies we will be able to look at how those variables change over time. The study instrument was developed locally and lacks standardization. However, to estimate the prevalence of drug use we used standard prevalence items. In addition, prior to launching the online survey we tested the usability of the questionnaire with potentially eligible individuals. It is our belief that the instrument in its final shape served the purpose of this pilot study well.

Further, a potential bias may be introduced through the self-selection of respondents who are more motivated and interested in the topic being researched (Grundmann, 2017). To encourage participation, our survey was brief and the questionnaire was reasonably short. However, this approach bears its costs. We could not assess drug use patterns and the possible risks in sufficient detail. Neither were we able to look at the participants’ knowledge and perceptions related to the effects and potential harms associated with the use of specific substances or methods of consumption.

Despite these limitations, this study has important implications. This was the first study to collect initial data on patterns of psychoactive drug use among club and festival attendees in the country. We believe that the study served its purpose well and its findings have provided useful guidance for future in-depth research to investigate the specific risks associated with psychoactive drug use in the Georgian nightlife setting and possibly propose mitigation strategies.

● 5 CONCLUSIONS

This exploratory survey is the first endeavour to collect quantitative data on an emerging public health phenomenon in Georgia and it provides an initial insight into the nature and the extent of the use of psychoactive substances in the nightlife setting in the country. Its findings have primary implications for the public health field in the country, but also contribute to the ongoing international debate. The online survey attracted a self-selected sample of young individuals, the majority of whom attend EDM events on a regular basis. The majority of the respondents used multiple psychoactive substances while attending EDM events and mixed them

with alcohol. The use of unknown substances (received from unknown sources) was also reported. These findings suggest a high-risk pattern of use and point to the potential for harmful health effects. The consumption of illicit substances was reported outside the nightlife setting as well. The primary usage of the findings of this study will be for planning future research, including qualitative studies, which should explore personal and environmental factors impacting on the drug-related behaviour of nightlife attendees. The ultimate goal of the research should be developing strategies and interventions to prevent and/or minimize the potentially negative health and social consequences associated with the consumption of psychoactive substances in EDM settings.

Ethics approval: This study was performed in line with the principles of the Declaration of Helsinki. Approval was granted by the Bio-ethics Committee of the Faculty of Arts and Sciences, Ilia State University.

Consent to participation: Informed consent was obtained from all the individual participants included in the study.

Authors' contributions: David Otiashvili: conceptualization, methodology, validation, data curation, supervision, writing – original draft. Irma Kirtadze:

conceptualization, methodology, validation, data curation, formal analysis, supervision, writing – review & editing. Mzia Tabatadze: methodology, validation, writing – review & editing. Lika Kutelia: investigation, writing – review & editing, visualization. Tamar Mgebrishvili: investigation, writing – review & editing, project administration, visualization. Ada Beselia: investigation, writing – review & editing, project administration, visualization. Irina Vardanashvili: data curation, formal analysis, writing – review & editing.

Declaration of interest: The authors declare they have no conflict of interest.

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