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DOI: 10.2174/1874944501811010474, 2018, *11*, 474-484

RESEARCH ARTICLE

Club Drugs and Rave Parties: A Pilot Study on Synthetic Drug Consumption Styles in a Sample of Young Italian Ravers

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Received: June 22, 2018 Revised: October 4, 2018 Accepted: October 18, 2018

Abstract:

Introduction:

So-called club drugs, psychoactive substances by definition related to rave and private parties culture, have a strong social impact in terms of health risks, especially for their spread among adolescents and young adults. In addition, polydrug use is a common pattern of consumption in some subcultures, such as the ravers culture. This study explores characteristics, consumption profiles, contexts of use, motives, and levels of satisfaction with life in a sample of synthetic/hallucinogenic substance users.

Methods:

We administered an ad hoc questionnaire to 37 Italian participants (62.2% males) recruited through several rave events in the city of Bologna.

Results/ Conclusions:

The results showed that consumers choose substances belonging to the same "family," such as methamphetamines (MDMA and speed) and psychedelic substances (ketamine and LSD), for specific and contextual motives. The findings are discussed in light of the target sample's socioeconomic conditions, consumer profiles, features of the rave context, and dissatisfaction with some areas of life.

Keywords: Club drugs, Synthetic drugs, Ravers, Consumption profile, Motives, Polydrug use.

1. INTRODUCTION

Club drugs are psychoactive substances linked to rave and private party's cultures, which have been proliferating since 1990. They have remained, over the years, a challenge for public health practitioners, particularly because of their spread among adolescents and young adults [1, 2].

The U.S. National Institute on Drug Abuse [3] in its "Community Alert on Club Drugs" identified four main psychoactive drugs in club drugs: Ecstasy (MDMA), ketamine, methamphetamine, and Lysergic acid Diethylamide (LSD). A growing body of international research highlights the use of club drugs to be associated with serious physical health problems and psychiatric disorders [4 - 6], risky sexual behaviour [7] and violence and crime [8, 9].

The health problems associated with the use of synthetic substances include both acute effects resulting from their use and long-term health damage, which is often different for other types of commonly abused drugs. For example, the consumption of illegal methamphetamines has been associated with various acute adverse effects, including anxiety, headache, tremors, nausea, abdominal cramps, sweating, dizziness, and decreased appetite [10]. MDMA, which initially causes euphoria and mental stimulation, can produce adverse reactions such as hypothermia, seizures, and other problems of multiorgan deficiencies [11]. Long-term damage from synthetic drug use, particularly observed from

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ketamine use, includes addiction problems among chronic users, urinary problems, and other physical forms of harm [12]. In general, consumers with a history of mental health problems are exposed to a higher risk of acute psychological and psychiatric adverse effects, ranging from mood loss, anxiety and aggression, to forms of depression and psychosis [4].

Synthetic drugs have only recently entered the European market [10]. Although their use in the general population is low compared to more traditional drugs, such as cocaine, heroin, and cannabis, they have the potential to penetrate some population groups, especially young people who attend particular social events in nightlife [13].

In fact, epidemiological studies have shown that factors associated with *loisir*, or recreational nightlife, such as certain music preferences and the choice of particular places of entertainment, are important predictors of illegal drug use in several European countries [14]. The use of psychotropic drugs is widespread especially among clubbers and ravers [15, 16]. Several surveys have shown that these "subcultures" have significantly more experience with drugs than the general population, with England reporting 90% of drug use among clubbers compared to 10% of young people in the general population [10, 17]. In particular, some authors [18] have identified a positive correlation between the use of synthetic drugs and alternative music styles in the electronic music scenario. For example, one study [19] showed that individuals who prefer dance music, compared to those who like other genres such as rock or funk, are at greater risk of using illegal drugs.

In Italy, the use of club drugs was observed in a survey [20] of 18- to 30-year-old individuals attending five nightclubs in Rome: of the participants, 78% had a lifetime history of consuming drugs, and 39% had consumed a drug in the previous 12 hours. The researchers found that LSD was most commonly used at 24%, followed by mephedrone at 18.8%, ketamine at 18%, and psylocybin at 4% [20].

An Italian survey [13] analysing wastewater showed an increase in ketamine use from 2010 to 2014, especially in the major towns of northern and central Italy. The concentrations of ketamine detected are similar to those in Spain and Belgium and higher than those found in the United States and in the Czech Republic. They have increased over time, particularly in several major urban areas such as Milan, Rome, Turin, and Bologna. The concentration of this substance seems to have increased in some small cities such as Cagliari, Gorizia, Bari, and Potenza as well. These findings suggest, in line with the EMCDDA report [10], that a general increase in synthetic drug use is related to night-time loisir. In fact, the use of MDMA increasing over the weekends and decreasing on weekdays [21] suggest a relationship between the "darkness world" of nightlife and the consumption of synthetic drugs. Another important phenomenon, common among many subcultures including ravers, is the polydrug use of narcotic substances. A study [22] reported that 75% of dance club attendees use an average of five drugs at the rave. An Italian survey [2] has also shown that there is a high proportion of polydrug users in night-time loisir. Polydrug use presents a challenge to public health due to the unpredictable pharmacological, toxicological, and psychopathological effects of the interaction between different substances on vulnerable individuals. Furthermore, in investigating the relationship between individuals, locations, and choices of consumption, the motivations linked to consumption play an important role [23]. According to the social learning theory, expectations about drug use are defined as beliefs about the effects of consumption and influence when and how an individual decides to take or not take a certain substance [24]. Expectations depend on many factors, including social norms, perceived effect in other people, personal experience with consumption, and affected consumption behaviour. Expectations about the effects are strong predictors of intentions to use some categories of drugs [25] and motivate consumption behaviour. The literature shows different reasons for drug use [26]. Among these, relaxation, intoxication, improvement in socialization, and alleviation of negative moods seem to be the main ones [27]. The wish to use drugs to feel better with others [28], as well as to increase the amount of time spent with others [29], is associated with an increase in consumption. In addition, some "motivational" contexts can influence patterns of consumption of certain drugs as well [30]. The use of synthetic drugs amplifies the sensations of the rave environment, such as the light and music; facilitates socialization; or creates the sense of "being united" [31]. For some consumers, participating in the rave experience can become a spiritual experience [32], which is sought after to feel a sense of belonging to particular social groups [33].

At present, little data is available in the peer-reviewed scientific literature and health professionals have limited knowledge on the subject of polydrug use. In particular, synthetic drugs have an important social impact and contribute significantly to the global burden of diseases [34].

For the above-mentioned reasons, increasing the amount of knowledge on the consumption styles of some subcultures of synthetic drug users and examining their demographic characteristics to understand their motivations and

contexts are of particular interest in terms of public health.

The aim of the present survey is to explore the sociodemographic characteristics, consumption styles, motivations, contexts of use, representations of risk factors, and degree of overall satisfaction with life in a sample of synthetic drug users.

2. MATERIAL AND METHODS

Accurate data on the behaviours of club drug users are difficult to obtain due to the illegal and stigmatising nature of their behaviour, as consumers may be reluctant to participate in large-scale structured research. For this reason, the literature has proposed more suitable approaches, namely, targeted sampling, to balance recruitment effectiveness and an adequate representation of specific subgroups [35]. Specifically, the ethnographic method has proved effective as a recruitment technique for consumer populations. Consumers of club drugs tend to gather at specific locations, such as nightclubs, bars, and rave parties [36]. The target population was then locked into its "natural environment," which is a nonprobabilistic sampling method used with hard-to-reach populations.

2.1. Participants

The sample comprises 37 Italian users (62.2% male) of synthetic and hallucinogenic substances between the ages of 22 and 35 years (M = 26.57, SD = 3.02). The subjects were reached during rave events in the city of Bologna and through the low threshold service of the municipality. No subject were in charge of other welfare services.

Regarding level of education, 45.9% have a high school diploma, 29.7% a middle school diploma, 21.6% a three-year degree, and 2.1% a university degree.

Of the participants, 62.2% (23) declared that they are in employment. With regard to the type of employment, 24.3% (9) have undeclared work, 18.9% (7) work part-time, 10.8% (4) work full-time, and 8.1% (3) work occasionally.

In comparing cohabitation styles, 43.2% (16) live with their friends, 24.3% (9) alone, 21.6% (8) with their parents, and 10.8% (4) with their own partner.

2.2. Tools

A questionnaire specifically designed for the purpose of the survey, inspired by other studies on drug consumption [23] was administered.

The tool comprises 84 variables that investigate:

- Personal data, *e.g*, gender, age, educational qualification, job, and household composition;

- Leisure activities (Likert scale from 1 = "never" to 5 = "daily");

- Consumption of synthetic drugs (type of substances and lifetime use, frequency of consumption, other psychoactive substances consumed, perception of risk factors, personal motivations linked to consumption, and places of consumption;

- Attendance at rave parties (frequency, motivation, and effects of substance use in these contexts); and

- Satisfaction level (Likert scale from "not satisfied at all" to "fully satisfied") with six areas in work, income, relationship with the family of origin, relationships with friends, sentimental relationships, and free time.

2.3. Calculation

The SPSS.20 package was used to conduct the data analysis for descriptive statistics, correlation analysis (Pearson's r), and analysis of variance (ANOVA).

3. RESULTS

3.1. Leisure Activities

With respect to leisure activities, the participants' replies to the question "How often do you do the following activities?" are shown in Table **1**.

Table 1. Averages and standard deviations of attendance at leisure activities.

Leisure Activities (1, 5)	M	SD
Listening to music	4.73	0.45
Joining friends	4.35	0.7
Using a smartphone/iPhone	4.05	1.2
Using a PC	3.68	1.7
Attending discotheques/pubs	3.62	1.34
Playing a musical instrument	2.16	1.7
Reading	2.0	1.05
Playing a sport	1.76	1.11
Volunteering	1.16	0.44
1=never; 5=daily		

3.2. Synthetic Substances/Hallucinogens Lifetime Use and Frequency of Use

The results concerning the questions "Which of these synthetic substances/hallucinogens have you tried at least once in your life?" and "How often do you consume the following substances?" are presented in Table **2**.

Compared to the "other psychoactive drugs" investigated, 59.5% (22) of participants use cocaine; 10.8% (4) use cocaine, heroin, and benzodiazepines; 5.4% (2) use cocaine and heroin; and 2.7% (1) use benzodiazepines.

Table 2. Means and standard deviations of use frequency, and participants' lifetime history with drug use.

Synthetic Substances/Hallucinogens (1, 5)	M	SD	%	N
MDMA	4.35	0.7	100	37
Speed	4.31	0.8	94.6	35
Ketamine	4.30	0.8	73.0	27
LSD	3.86	0.10	91.9	34
Mephedrone	3.17	1.15	48.6	18
Psilocybin	2.50	1.07	70.3	26
1=never; 5=daily				

3.2.1. Usage Setting

When asked about usage, 67.6% (25) said they consume both alone and in groups, whereas 32.4% (12) only consume in groups. Regarding places of consumption, drug consumption appears to be more widespread at illegal self-managed raves and parties (28.9% of responses), followed by discos (20.7%), private parties (19.0%), around friends (14.9%), at home (13.2%), and, in a few cases, at work (3.3%).

3.2.2. Rave Parties

When asked, "How often do frequent raves or self-managed illegal parties occur?" 56.8% (21) said they go to raves every weekend, 29.7% (11) about twice a month, 5.4% (2) about once or twice a year, and 2.7% (1) rarely.

3.2.3. Awareness of Risk Factors

Regarding perception of conditions that may favour the use of synthetic substances, Table **3** lists the means and standard deviations of the answers to the following question: "In your opinion, what are the conditions that may favour the use of synthetic substances? (Please indicate your degree of agreement with the following statements)."

With respect to the degree of agreement on conditions favouring consumption, male and female participants had a few statistically significant differences; male participants attributed more importance to the family ($X_m = 4.47$, $X_f = 3.71$; $P \leq .001$), to not having places of gatherings ($X_m = 3.69$, $X_f = 2.78$; $P \leq .05$), and to economic conditions ($X_m = 3.95$, $X_f = 3.14$; $P \leq .05$).

Table 3. Means and standard deviations of the degree of agreement on the influence of certain conditions on consumption.

Conditions (1, 5)	M	SD
Spending time with drug-using friends	4.41	0.64
Living in a family with parents with problems or addiction	4.19	0.84
Being employed/unemployed	3.89	1.04
Coping with stress and responsibilities	3.78	1.05
Being financially stable	3.65	1.16
Lacking places of socialization and interaction	3.35	1.11
1=completely disagree; 5=completely agree		

3.3. Motivations for Use and Context

As for the reasons related to the consumption of synthetic substances and hallucinogens, the participants were asked to indicate their degree of agreement or disagreement with some statements.

Male participants more commonly listed "strong sensations" and "to relax" as reasons for consuming substances than females ($X_m = 4.47$, $X_f = 3.92$, $P \leq .05$; $X_m = 4.30$, $X_f = 3.42$, $P \leq .05$).

Moreover, participants were asked to indicate their level of agreement or disagreement with statements on the reasons for choosing a rave party context.

The Table **4** below shows the means and standard deviations of the results related to the question "Why do you use synthetic substances?" and about reasons for going to raves and obtaining the desired effects.

Table 4. Means and standard deviations of the degree of agreement on individual motivations for consumption, and on the reasons to attend a rave party.

Motivation (1, 5)	M	SD
To have fun	4.54	0.7
To search for strong sensations	4.27	0.8
To disconnect from one's daily routine	4.18	0.9
To relax	3.97	1.04
To be better with others	3.91	1.23
To avoid boredom	3.78	1
To explore out of curiosity	3.75	1.06
To avoid feeling dissatisfied with current situation	3.54	1.36
To feel relieved from work-related stress	2.97	1.44
Reasons for the Choice of Context (1, 5)	**M**	**SD**
I can listen to the kind of music I like	4.48	0.1
Admission is free	4.25	0.9
I can use drugs without hiding myself	3.85	0.1
There is an increased circulation of synthetic substances	3.82	1.1
1=completely disagree; 5=completely agree		

To investigate the desired effects from the use of synthetic substances in raves, the means of the results in response to the question "What effects do you seek when you consume synthetic substances in a rave?" are reported in Table **5**, which also shows the means and standard deviations of the answers to the question "How much do you think your current situation is satisfactory?", regarding satisfaction levels with life.

Table 5. Means and standard deviations of the degree of agreement on the effects sought in the use of substances at rave parties, and of the degree of satisfaction with life.

Desired Effects (1, 5)	M	SD
Feeling fit and stronger	4.57	0.7
Experiencing a trance state	4.34	0.8
Being more uninhibited	4.08	0.6
Not thinking about problems	4.08	1.01
Getting in tune with others	3.94	0.8
Transgressing	3.62	1.3

Desired Effects (1, 5)	**M**	**SD**
Searching for alternative worlds	3.51	1.3
Doing things I would otherwise not do	2.71	1.4
1=completely disagree; 5=completely agree		
Current Level of Satisfaction (1, 5)	**M**	**SD**
Leisure time	4.0	1.02
Relationships with friends	3.84	0.9
Relationships with family of origin	2.0	1.0
Sentimental relationships	1.86	1.05
Work	1.81	3.02
Income	1.65	0.10
1=not satisfied at all; 5=not satisfied at all		

Male participants, more often than females, stated wanting to be uninhibited ($X_m = 4.47$, $X_f = 3.76$; $P \leq .05$) and experience a state of trance ($X_m = 4.59$, $X_f = 3.92$; $P \leq .05$).

Finally, a statement published in "Il Resto del Carlino," a popular local newspaper, published the statement of an ex-raver during an interview: "The raves are continuously listening to acid house, goa, jungle, techno songs, which together with the drugs, take your head and send you into a trance. Those who go to these parties go there to get out of reality, there are no other reasons." Respondents were asked whether or not they agreed with the above statement, and 78.4% (29) say yes.

3.4. Correlation Analysis

The correlations between the frequencies of use of synthetic substances/hallucinogens are shown in Table **6**.

The frequency of use of some drugs were more significantly correlated with specific individual reasons for consumption than others. We found that the frequency of ketamine use is directly related to the desire to break away from the routine of one's own day ($r = 0.573$; $P < .01$). Mephedrone use is directly related to being unsatisfied with one's current situation, and LSD use with wanting to disconnect from the routine of one's day ($r = 0.382$; $P < .05$) or being unsatisfied with one's current situation ($r = 0.385$; $P < .05$).

Frequency of use and desired effects during a rave also had statistically significant correlations. The frequency of MDMA use is directly correlated with the desire to experience alternative worlds ($r = 0.346$; $P < .05$), and the frequency of ketamine use is directly correlated with the desires to enter a state of trance ($r = 0.463$; $P < .01$) and experience alternative worlds ($r = 0.472$; $P < .05$). The frequency of speed use is directly correlated with the desires to experience alternative worlds ($r = 0.421$; $P < .05$) and be in harmony with others ($r = 0.443$; $P < .01$).

Table 6. Correlations between frequencies of use of different synthetic substances.

	1	**2**	**3**	**4**	**5**	**6**
1. MDMA	-					
2. SPEED	.578**	-				
3. KETAMINE	.317	.385	-			
4. PSILOCYBIN	.190	.085	.420	-		
5. MEPHEDRONE	.423	.200	.590*	.61	-	
6. LSD	.341*	.298	.498**	.43	.599*	-

*$P < .05$; ** $P < .01$

The degree of job satisfaction is positively correlated with satisfaction with income ($r = 0.819$; $P < .01$); family relations ($r = 0.380$; $P < .05$); and sentimental relations ($r = 0.331$; $P < .05$).

The use of ketamine correlates negatively, however, with the degree of satisfaction with income ($r = -0.433$; $P < .05$) and family relationships ($r = -0.443$; $P < .05$).

3.5. Differences Between Those in Occasional Employment and Without Employment

The sample was divided on whether the participant responded "yes" or "no" to the question "Are you currently in employment?"

Compared to the frequency of use, we found a statistically significant difference with regard to the use of MDMA. Those who claim to have an occupation use less than those who declare to be unemployed ($M_{Yes} = 4.13$, $M_{No} = 4.71$, $F = 7.71$, $P < .01$).

Table **7** shows the differences through an Analysis of Variance (ANOVA) between the two groups on degree of satisfaction and reasons for the use of synthetic substances.

Table 7. Means, standard deviations, and Analysis of Variance (ANOVA) between the two groups (job yes/no).

Work	**Yes (N=23)**		**No (N=14)**		***F***	**Sign.**
Satisfaction level	*M*	*DS*	*M*	*DS*		
Work	2.09	0.95	1.36	0.50	7.04	0.012
Income	2.00	1.04	1.07	0.27	10.54	0.003
Leisure time	3.74	1.18	4.43	0.15	4.28	0.046
Sentimental relationships	2.26	1.14	1.57	0.51	4.54	0.040
Relationships with friends	3.83	0.94	3.86	0.77	0.01	0.918
Relationship with family of origin	1.87	1.14	1.86	0.95	0.00	0.973
Use Motivation						
To have fun	4.48	0.59	4.64	0.74	0.55	0.463
To find strong sensations	4.30	0.76	4.21	0.70	0.13	0.722
To disconnect from one's daily routine	3.96	0.93	4.57	0.51	5.15	0.030
To relax	3.78	0.95	4.29	1.14	2.10	0.157
To be better with others	3.70	1.29	4.29	1.07	2.05	0.161
To avoid boredom	3.61	0.99	4.07	1.00	1.90	0.177
To explore out of curiosity	3.91	1.16	3.50	0.85	1.32	0.258
To avoid feeling dissatisfied with current situation	3.17	1.37	4.14	1.17	4.85	0.034
To feel relieved from work-related stress	3.48	1.24	2.14	1.41	9.14	0.005

4. DISCUSSION

Our preliminary results show a high frequency of polydrug use in the population of ravers under investigation. Almost the entire sample consumed MDMA, speed, and LSD at a very high declared frequency. The picture that emerges is that of a target group of young adults, both men and women, who are poorly integrated into their social contexts. More than three-fourths of the sample have a low level of education, and only about 10% have a full-time job. According to some authors [37], polydrug consumption of substances is more widespread among disadvantaged socioeconomic classes.

Even the most popular leisure activities describe a "passive" population that is more involved in leisure activities than in structured sports or hobbies, eg, team games and writing. This "passivity" could be linked to a widespread unemployment situation or to an unsatisfactory employment and economic situation. Some studies [38] have reported that the use of synthetic drugs seems to be more represented among young people with a low socioeconomic level.

Among synthetic drugs, every user reported having a lifetime history with MDMA and used it the most frequently in accordance with studies that, in Italy, see consumption increasing, especially in the north of the country and especially on weekends [21]. Similar to other surveys [39], our study sample reported frequent use of more traditional illicit drugs, particularly cocaine, along with the use of more synthetic drugs.

As far as the perception of risk factors is concerned, it is interesting to note that it is precisely the contexts of primary and secondary socialization, *e.g.*, family and friends, that are indicated as favouring the use of synthetic substances by consumers themselves. Barnes and his colleagues [40] argued that socialisation is the cornerstone of individual and cultural psychological factors when problematic behaviours begin. There are also mechanisms through which a family's influences can increase children's exposure to risky situations.

With respect to the contexts of consumption, participants listed "illegal party or self-managed rave" as the most frequent answer among the other contexts. We need to consider that this type of party, which is illegal, can have a fairly complex organization behind it. Therefore, these social contexts are directly linked to the consumption of club drugs [15]. Only a small percentage of users said they use synthetic drugs alone, and according to other studies [39], the group factor, combined with the sought-after effect of entertainment, is an element that encourages use among young adults. Amusement is the main motivation for the use of synthetic drugs. It should be noted that all consumption motivations

received high scores that were well above the middle of the range of the scale. As is well known, novelty-seeking and sensation-seeking [41] behaviours are individual motivational factors that can determine the conduct of drug abuse.

The analysis of correlations shows interesting consumer profiles: The more respondents reported using MDMA, the more likely they were to consume speed and LSD as well. Furthermore, LSD consumption is directly proportional to ketamine use as well. Crossing from one substance to another, a pattern of use we saw in the consumption styles of our subjects can be fatally dangerous. MDMA and speed, in particular, are two substances capable of increasing serotonin and dopamine concentration levels in the central nervous system. Ketamine and LSD are two psychedelic substances whose summative effect can lead to an unpredictable trigger of the hallucinatory or "trip" experience.

Consumers seem to choose substances belonging to the same "family," MDMA and speed as methamphetamines and ketamine and LSD as psychedelic substances, probably to pursue their specific effects. In particular, ketamine and LSD, as channels to experiment with alternative worlds, *i.e*, dissociation from reality, correlate directly with the desire to break away from the routine of one's day. The perceived vulnerability of young people and their low expectations for the future, *e.g*., job insecurity leading to a prolonged moratorium, amplify the need to try experiences that distract them from reality [42].

Moreover, for some, drug use is a means to fight or modulate emotions, feelings of discomfort, boredom, and dissatisfaction. The correlation between the frequency of mephedrone consumption and dissatisfaction with one's current situation highlights this [27].

The main motivation behind the choice of a rave event may be related to the type of music proposed at these parties, *e.g*, goa, trance, jungle, techno, and hard-core music, as well as the free availability and accessibility of substances. According to the literature [18], music, dancing, and the use of synthetic substances are constituent features of a rave event.

The motivation to "feel fit and more strong" could be configured as a performance need induced by the type of context [30]. The rhythm, sounds, and psychedelic lights, possibly combined with illegal substances, not only increase performance (such as drug speed), but also raise serotonin levels and, at the same time, reduce the feeling of fatigue so that an individual can dance all night. Because techno music mainly comprises steady beats and a repetitive melody, where every musical moment feels the same, or at least very similar, to the previous one and the next, a listener may be induced into a trance-like state." This makes a listener feel like time is frozen. Trance, besides a specific genre of electronic music, also means a modified state of consciousness. Rouget [43] defined it as a state of transient consciousness characterized by phenomena such as insensitivity to external stimuli, attenuation of consciousness, and psychic dissociation. Ketamine use positively correlates with the desire to "reach a state of trance" and the desire to "not think about problems." LSD positively correlates with the motivation "to do things that I would not otherwise do," and MDMA and speed positively correlate with the want to "search for alternative worlds" and "to get in tune with others." The use of substances opening towards the unconscious (entactogen) and towards others (empathogen) is typical of rituals where music acts as a promoter for modified states of consciousness. The link between music, the ability to induce such states, and the intake of psychoactive substances is very close and can lead to seeing rave parties as real workshops of dissociation [44]. For Fontaine and Fontana [45], the aim of a rave experience is to "exit" from one's regulated social life and live "an escape." Salvatore [46] argued that those who participate in a rave try to cancel their individual identities to feel part of the group. Individuals are pursuing the experience of "collective fusion."

From the survey data, some areas of daily life, *e.g*, job satisfaction, income, sentimental relations, and relations with the family of origin, were correlated with dissatisfaction. On the contrary, areas with the highest level of satisfaction were leisure and peer groups. Almost half of the sample lived with their friends, probably to share their daily lives and prolong their studies and life habits, eg, studying, socialization spaces, and consumption styles. Some individuals choose hedonism and nightlife at the expense of other areas of life.

Finally, work is supposed to act as a protective factor against the use of synthetic substances. Employed individuals tend to consume less MDMA. Compared to the quality of life, those who work are usually more satisfied in all areas of life than those who do not work, except in the areas of friendship and leisure.

Interestingly, people who are employed and people who do not take drugs for different motivations. Those who do not work consume drugs because they are not satisfied with their current situations and would like to disconnect from everyday life, whereas those who work consume them because they are stressed by work [47, 48]. This phenomenon manifests as a negative circuit in which drugs seem to be able to "respond" to a wide range of human needs [49, 50].

CONCLUSION

This survey has several limitations. First, the study's limited number of participants are not generalizable. The ad hoc self-report only allows a first exploratory survey and lacks information related to substance dependence, health status, and personality variables, which could better clarify the vulnerability of the sample. The correlational investigations and the comparison between groups only allow researchers to analyse co-occurrences and are insufficient in investigating causal relationships.

However, although this is a pilot study, the preliminary results seem to be in line with those of other studies on synthetic drug use and night-time loisir [2]. The survey has not only made it possible to trace some consumption profiles and increase knowledge on what effects are sought by which substances but has done so in contexts of consumption that are difficult to access.

Despite the high levels of drug use observed in some recreational settings, only 11 European countries report the adoption of harm prevention and harm reduction actions in such settings [10]. A recent Italian study [51] showed that emergency services need access to reliable training on new synthetic drugs. Future surveys should contribute to this field by studying target groups, such as ravers, with a new methodological frame (including more structured assessment tools), to design effective intervention strategies for people with problematic recreational drug use within particular youth meeting environments.

ETHICAL APPROVAL AND CONSENT TO PARTICIPATE

Not applicable.

HUMAN AND ANIMAL RIGHTS

No humans/animals were used for the studies that are bases of this research.

CONSENT FOR PUBLICATION

Written informed consent was obtained from all the participants prior to data collection.

CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

ACKNOWLEDGEMENTS

Authors would like to thank Miriam Monopoli for helping in collecting data.

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