

Drug Consumption in Romania: Anthropological and Medical Aspects

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Abstract: *Objectives:* These include the presentation of: the main causes of drug use; the influence of polydrug use on the physical condition and body mass index; the importance of understanding the consequences of medical, psychological and social consequences of illicit drug use in prevention.

Materials and methods: The transversal study was carried out in 2015 in Bucharest on a group of 44 drug users (31 male, 13 female). Volunteer subjects were aged between 19 and 43 years old (mean age, 31.27 ± 5.81 years). A questionnaire with 46 items was used for this study and 8 items are related to this particular paper, referring to drug use, ways of administrating it and to the linkage between illegal and legal drugs, and also to the physical condition of the participants to the study. The quantitative results were analysed using SPSS version 19 and Excel.

Results: Of this sample, 43.2% of the subjects had started using drugs out of curiosity, 38.6% because of the environment (entourage), 4.5% for entertainment (fun), 4.5% because of family, school or work related issues and 2.4% because of social affirmation desire. Used more drugs 47.7% of the participants, 36.4% only heroin, 6.8% used only new psychoactive substances ("legal drugs" or "ethnobotanics", the commercial name of new psychoactive substances), 4.5% only marijuana and 2.3% methadone. 75% of consumers used drugs by injection (parenteral or intravenous), 15.9% smoked the drugs (pulmonary) and 6.8% use both ways of administration. 18.2% of the respondents did not associate the consumption of illegal drugs with legal drugs, while the rest did make the association (with alcohol-9.1%, cigarettes-27.3% and coffee-2.3%). Combined drug use with alcohol and smoking 29.5% of the subjects and 81.8% noticed that after drug use their physical condition deteriorates. Consumers from the study noticed a deterioration in their physical condition after 2 (13.6%) – 3 (27.3%) years, after 1 year (11.4%) and after few month (6.8%). 53.85% of women and 19.36% of men are underweight.

Conclusions: This study shows that the polydrug use was prevalent among consumers. It was found that the polydrug use had negative effects on health, causing psychological disorders (cognitive, emotional and behavioural), and degradation of physical and nutritional status, after a shorter or longer period of time. Knowing the effects of medical, psychological (cognitive, emotional and behavioural) and social aspects of illicit drug use among young people is essential to prevention.

Keywords: Polydrug, Nutritional status, Medical anthropology, Illegal drugs, Sleeping pills.

INTRODUCTION

Contemporary society is facing one of the biggest problems, namely drug use. The number of consumers in almost all countries of the world is very large and is continuously growing. Drug abuse is an anthropological phenomenon that has an unexpected growth at the beginning of this millennium [1]. "It is estimated that a total of 246 million people, or 1 out of 20 people between the ages of 15 and 64 years, used an illicit drug in 2013. That represents an increase of 3 million over the previous year but, because of the increase in the global population, illicit drug use has in fact remained stable" [2]. The consumption of sedatives, sleeping pills and antidepressants is more common among girls, while boys prefer to use drugs, such as: cannabis, heroin, cocaine, crack cocaine, new psychoactive substances [3].

Drug use and drug trafficking is a worldwide dynamic phenomenon, being strongly influenced by a multitude of social and economic factors. The process of globalization, considering that it is characterized by the free movement of people, goods and capital, by the development of new information and communication technology, but also the globalization of organized crime, determined new challenges in the propagation and spread of this phenomenon. In this context, the measures taken by each country, but also by the international specialized organizations, did not stop its expansion or becoming endemic to a geographical area or state [4].

The use of legal and illegal drugs has risen every year since the 1970s and gradually expanded across all continents, becoming one of the plagues of our times. This scourge is of major concern to all those responsible for the health of the population and for those who strive to create and implement preventive, therapeutic and social recovery programs. The 'contagious personality', the epidemic spread capacity and the involvement of young people make us consider drug ab/use a social problem [1].

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Europe is facing a double challenge: developing effective responses to new problems and also continuing to address the needs of drug users undergoing long treatments [5]. The market for drugs in Romania was at a low level a decade ago, our country being used more frequently as a transit point to Western countries. After a short time, drug use in Romania became an attraction for those who sell illusions and destroy increasingly younger lives [1]. It is estimated that almost a quarter of the adult population of the European Union (EU), respectively more than 80 million adults used illegal drugs at any time during their life. In most of the cases, they used cannabis (73.6 million), estimates of the consumption of other drugs during the life is lower: cocaine (14.1 million), amphetamine (11.4 million) and ecstasy (10.6 million). Consumption levels throughout life varies considerably between countries, from about a third of adults in Denmark, France and the United Kingdom (UK) less than one in ten in Bulgaria, Greece, Cyprus, Hungary, Portugal, Romania and Turkey [5]. Drug use and drug trafficking is a complex phenomenon, characterized by permanent mutations, which experienced new forms of expression in Romania, requiring more and more varied approaches [4].

"Because of their psychoactive and dependence-producing properties, psychoactive substances, including narcotic drugs, have the potential to harm individuals' health and lead to societal harm. The nature and severity of the harm relate to many factors, including the properties of the psychoactive substance itself, the form and mode of administration used, the characteristics of the person taking the substance, and the social context in which it is taken" [6].

Substance-related disorders are a widespread public health problem, causing disabilities in multiple operation level. A percentage of 37% of the population has used illicit substances at least once. Over 15% of the population aged 18 years in the US have serious substance-use problems. About two-thirds to three-fourths of patients with substance use disorders have comorbid psychiatric diagnoses [7].

All of the emotional disorders, anxiety, depression, loneliness, frustrations and interpersonal conflicts constitute risk factors that can lead to drug use. The prevention of toxic consumption must begin at a relatively low age (even in primary school) and consists of proper family education, encouraging healthy habits and promoting good family communication. Over time, there were addressed, diversified and applied various

strategies to combat and decrease the consequences, both in individual and psycho-socio-medical drug use, as affirmed Bălăceanu *et al.* [1]. It was concluded that strategies to prevent drug use should primarily focus on young people, without blaming or stigmatizing. They should be informed in order to be aware of the great danger of drug use. The scientific research in the field of drug consumption focused on explaining the relationship between drug use and the interaction of different risk factors, of personal, family and social matters, show that the development of consumption patterns is not directly proportional to the force of these factors [8]. The complexity of human nature, as subject therapy (in interdisciplinary team, of the person in the situation of consumption) requires a complex composition of human structures placed under charisma of mission in favour of the man without religious profile [9].

The objectives of this study are to:

- Present the data on the main causes of drug use, most commonly consumed drugs and also the association with other drugs (legal and illegal), route of administration;
- Present data on the influence of drug use on physical condition and body mass index;
- Present the data on the importance of knowing the consequences of medical, psychological (cognitive, emotional and behavioural) and social aspects of illegal drug use prevention.

MATERIALS AND METHODS

This cross-sectional study was conducted between July-August 2015, in Bucharest, attended by a batch of 44 drug users (31 male – 70.5% and 13 female - 29.5%). The age of the volunteering subjects is between 19 and 43 years-old (mean age, 31.27 ± 5.81 years). A questionnaire with 46 items was applied. We used eight items that relate to drug use, the administration ways of drugs, the association of illegal drugs with alcohol, tobacco or coffee, as well as to the physical condition of the participants in the study. The results were statistically analysed using SPSS version 19. The statistical tool used is the nonparametric Chi-square. Excel spreadsheet was used to calculate the body mass index (BMI).

Study Limitations

This study consists of a relatively small number of subjects. This research represents the first stage of a

more complex study which aims to track how the human body in terms of medical and psychological terms.

Participants were included in the study was done on a voluntary basis with their written, informed and freely expressed *consent*. The study complied with the ethical rules of scientific research; by always respecting the principles of confidentiality and anonymity, the subjects were informed that they could withdraw at any time during the study.

RESULTS

The main causes of drug use, the drugs used, the type of the drug administration, the association of drugs with alcohol, tobacco, coffee, the influence of polydrug use on the physical condition and body mass index, the period of time after which the damage

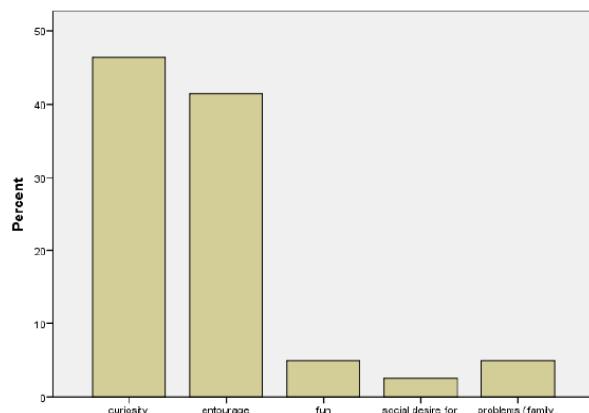


Figure 1: Batch distribution depending on the cause that led to drug use.

caused by drug use are represented in the following figures and tables.

We noted that the start of drug use was determined by curiosity for most of the participants, both for male and female consumers (Figure 1 and Table 1). Between the two genders, there is no statistically significant difference (Pearson Chi Square=1.706 (4), p=0.790), related to the cause of drug use.

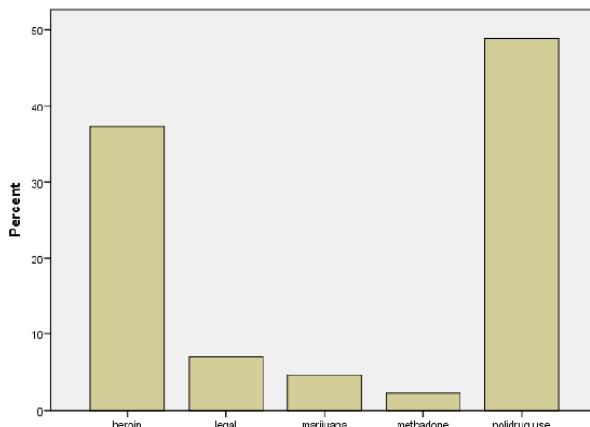


Figure 2: Batch distribution depending on the drug consumed.

Most of the participants of both genders consumed a variety of different types of drugs (Figure 2). No male subjects used only marijuana and no female person used only methadone (Table 2). Thus for the type of drug used, there is no statistically significant difference (Pearson Chi Square=7.555 (4), p=0.109) between the two genders.

Table 1: Batch Distribution by Gender and the Cause that Led to Drug Use

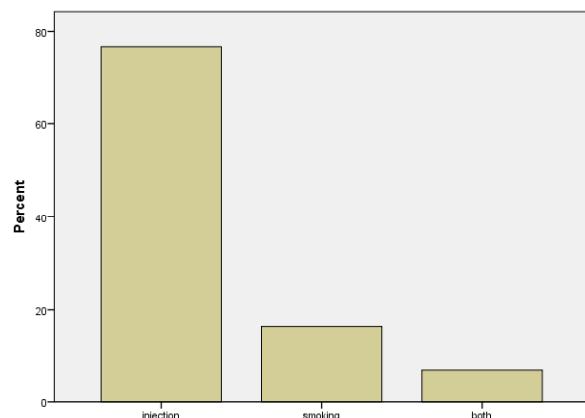
Count		Which is the Main Reason you First Started using Drugs for					Total
		Curiosity	Entourage	Fun	Social Desire for Affirmation	Problems (Family, School, Work)	
gen	male	13	12	2	1	1	29
	female	6	5	0	0	1	12
Total		19	17	2	1	2	41

Table 2: Batch Distribution Depending on Gender and the Drug Used

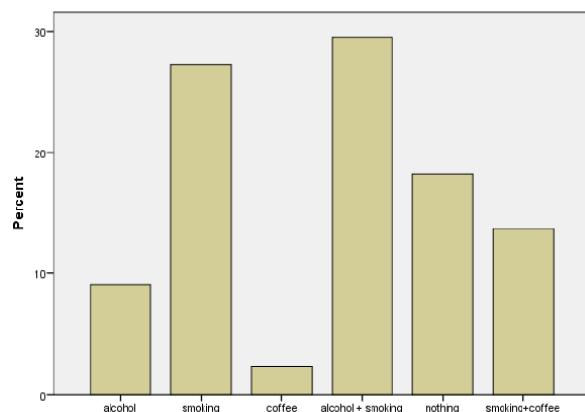
Count		What Drugs do you Use					Total
		Heroin	"Legal"	Marijuana	Methadone	Polidrug use	
gen	male	12	1	0	1	16	30
	female	4	2	2	0	5	13
Total		16	3	2	1	21	43

Table3: Batch Distribution Depending on Gender and the Type of Drug Administration

Count		Which Way do you Administrate the Drugs			Total
		Injection	Smoking	Both	
gen	male	25	4	1	30
	female	8	3	2	13
Total		33	7	3	43

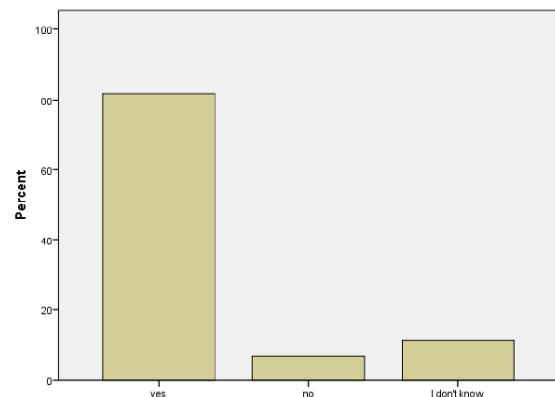
**Figure3:** Batch distribution depending on the type of the drug administration.

For both genders, most of the consumers used drugs by injection, parenteral or intravenous (Figure 3 and Table 3). In this study, only two subjects sniff (intranasally) the drug. There is no statistically significant difference (Pearson Chi-Square=2.978 (2), p=0.226) between the two genders on methods of administrating the drug of choice.

**Figure 4:** Batch distribution depending on the association of drugs with alcohol, tobacco, coffee.

We noticed that most of the subjects, both men and women, combined drug use with alcohol, cigarettes and coffee (Figure 4 and Table 4). There is no statistically significant difference (Pearson Chi

Square=1.088 (5), p=0.955) between the two genders regarding illicit drug combination with alcohol, tobacco, and coffee.

**Figure5:** Batch distribution depending on the physical condition degradation due to drug use.

Most of the respondents noted that their physical condition deteriorated after drug use. There is no statistically significant difference (Pearson Chi-Square=5.141 (2), p=0.076) between the two genders (Figure 5 and Table 5), which means that the drug use is unforgiving, affecting the physical condition of men and women.

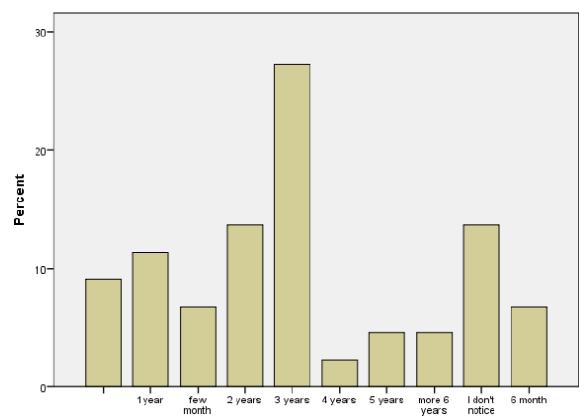
**Figure 6:** Batch distribution depending on the period of time after which the damage caused by drug use was noticed

Table4: Batch Distribution Depending on the Gender and Association of Drugs with Alcohol, Tobacco, Coffee

Count		You Normally Combine Drugs with						Total
		Alcohol	Smoking	Coffee	Alcohol + Smoking	Nothing	Smoking+Coffee	
gen	male	3	8	1	10	5	4	31
	female	1	4	0	3	3	2	13
Total		4	12	1	13	8	6	44

Table5: Batch Distribution Depending on Gender and on the Physical Condition Degradation due to Drug Use

Count		Did Your Physical Condition Deteriorate after Drug Using			Total
		Yes	No	I Don't Know	
gen	male	28	1	2	31
	female	8	2	3	13
Total		36	3	5	44

Table6: Batch Distribution Depending on Gender and on the Period of Time after which the Damage Caused by Drug Use was noticed

Count		If Yes, How Long after Starting Taking Drugs Did You Notice									Total
		Physical Condition non-Deteriorate	1 Year	Few Month	2 Years	3 Years	4 Years	5 Years	More 6 Years	I Don't Notice	
gen	male	3	5	1	4	9	0	2	2	2	31
	female	1	0	2	2	3	1	0	0	4	0
Total		4	5	3	6	12	1	2	2	6	44

Most consumers from the study of both genders said that they noticed a deterioration in their physical condition after 2–3 years, with no statistically significant difference (Pearson Chi-Square=13.575 (9), p=0.138) between the two genders (Figure 6 and Table 6).

Larger percentage of overweight women than overweight men, therefore the negative influences of drug use on body mass index (BMI) was more evident in the case of women than men (Table 7).

DISCUSSION AND CONCLUSION

Most subjects of this study started using drugs out of curiosity. Brajević and colab. [10] noticed that hedonism is the most important reason of drug use. Heroin addicts consider the psychological motivation the main factor determining drug use. There are two major types of drugs, illegal drugs (hallucinogens,

cannabis/marijuana/hashish, cocaine, heroin, methadone, amphetamine, etc.) and accepted, legal drugs (caffeine, tobacco, ethanol/alcohol, opioids – drugs used legally in medical treatments, etc.). Recreational drugs have strong biological and mental effects. The main causes of drug use are: ‘curiosity’, ‘willingness to try something new’ and ‘to experience everything’, to ‘raising intellectual performances’ and ‘even the desire to simply be modern’ [1].

In this study, polydrug use is common for almost half of the subjects, the users combining heroin, marijuana, ketamine, methadone with new substances with psychoactive properties. The emergence and spread of polydrug use and also the emergence of new psychoactive substances on the drug market, with a very high accessibility and availability in the pathology associated with the consumption of psychoactive substances, caused by the practice of polydrug

Table7: Batch Gender Based on Genders, Depending on the Weight Status Categories of BMI

Weight Status/Lot		Male		Female	
		N	%	N	%
	< 16	0	0,00	0	0,00
Underweight	16-16,99	1	3,23	2	15,38
	17-18,49	5	16,13	5	38,46
Total		6	19,36	7	53,85
Normal weight	18,50-24,99	24	77,41	6	46,15
Overweight	25-29,99	1	3,23	0	0,00
Obese	>30	0	0,00	0	0,00
Total		1	3,23	0	0,00
General total		31	100,00	13	100

practice and also of still unknown effects of consuming psychoactive substances with psychoactive properties, are considered part of significant changes that have occurred in recent years and which could influence the drug phenomenon [4].

A major destination for controlled substances, Europe has a more limited role as a transit point for drugs destined for other regions. European drug markets of the past years are impacted by "new psychoactive substances", which are not regulated by international treaties on drug control. They are generally produced outside Europe and can be obtained through online distributors, specialized shops and sometimes the illicit drug markets [5].

A study conducted by National Antidrug Agency shows that, following interrogations in the online environment, a shy interest in "ethnobotanics" ("legal drugs") was noticed in 2008, a peak of interest being recorded in the first part of 2010. The upward trend recovered in the Autumn of 2010, while the last months of 2010 bring a slight downward trend, followed by a strong recovery and decline in April 2011. Decreased interests and recoveries are related to certain legal measurements to impose control of substances as "legal drugs" and to administrative interventions of local and central communities. A growing interest is noticed for the legal status of psychoactive substances, but also for effects they are causing [11].

The research report on risk assessment associated with the consumption of new substances with psychoactive properties among children and young people from Romania, published in 2011 [12] shows

that 55.9% of the respondents declared that they have also used other "legal" products in the last 30 days. Approximately 1 in 10 respondents said they frequently use illicit drugs besides the consumption of "legal" drugs. Sixteen of the respondents declared they used to combine "legal" drugs with alcohol, three in combination with illicit drugs, two in combination with alcohol and other psychoactive substances, and one in combination with alcohol and illicit drugs. Hence, besides alcohol and psychoactive mixtures, the following substances are used: heroin, amphetamine, glue, cocaine, diazepam, Valium, rofedex, marijuana, prenadez, tusin.

In this study several subjects, both men and women, associated illegal drug use with alcohol, tobacco and coffee. Consumption of new psychoactive substances, after 1-6 months of daily use, can cause severe health issues: large weight loss (15 kg), loss of appetite, fever, and decrease in immunity, gastritis, teeth problems, personality disorders, psychotic disorders, prolonged insomnia, and physical exhaustion. After a variable time period and depending on administration ways and the life style of the consumer, they can cause death [12].

75% of the consumers participating in the survey used drugs by injection, increasing the risk of infectious diseases. According to the National Drug Strategy 2013-2020 [4] the prevalence of infectious diseases associated with drug use among drug consumers, registered by routine monitoring, indicates a trend: small increase for hepatitis B virus (13.1% in 2010, compared to 10.3% in 2009) and HIV (4.1% in 2010, compared to 3.3% in 2009) and a slight decrease for

hepatitis C virus (from 71.3% in 2009 to 63.9% in 2010).

"Among people using drugs, PWID (people who inject drugs) are one of the most vulnerable and marginalized groups. They experience a range of health, socioeconomic and legal challenges, often with poor outcomes, not least of which is the elevated risk of death compared with the general population. Approximately 40 per cent of the estimated global total number of PWID living with HIV reside in Eastern and South-Eastern Europe, mostly in the Russian Federation and Ukraine. Hepatitis C has the potential to pose serious health problems for those infected, with the possibility of liver failure, liver cancer and premature death. While an estimated 2.2 per cent of the global population are infected with hepatitis C, this proportion is 25 times higher among PWID, estimated at 52 per cent for 2013, or 6.3 million PWID worldwide" [2]. Today, both heroin use and HIV problems remain central - but they sit in a context that is more optimistic in terms of developments and more informed in terms of what constitutes effective public health responses. The complexity of the problem, however, is now far greater because many of the substances were virtually unknown in Europe 20 years ago [13].

Most consumers surveyed noticed the deterioration of their physical condition in 2-3 years. This research shows that a large percentage of women (53.85%) and men (19.36%) who participated in the study are underweight, therefore drugs have negative effects on the health and nutritional status of consumers, particularly for women.

"The immediate consequences of the use of psychoactive substances are reflected primarily in the health of the drug user and may even culminate with the death of the person. The monitoring of non-fatal consequences of psychoactive substance use is difficult, but provides important information about the features and emerging trends in drug use, being very useful in the rapid adoption of intervention measures. One of the indicators used for this purpose is the registration and supervision of registered medical emergencies among drug users. In Romania, this indicator is implemented at national level by the National Antidrug Agency, since 2010" [14].

CONCLUSION

It was confirmed that 'curiosity' is the main trigger of drug use, but also the increased availability and accessibility of drugs (the number and accessibility of sales outlets, the efficiency of promotion and distribution methods, price, etc.) for both "legal" and illegal drugs, which increase the risk of use of these substances.

Drug consumption, especially polydrug use, has negative effects on health, causing psychological disorders (cognitive, emotional, behavioural), and also degradation of physical status, weight loss, after a shorter or longer period of time.

Knowing the medical, psychological (cognitive, emotional and behavioural) and social effects of illicit drug use among young people is essential in prevention. Media campaigns for preventing drugs use do not have a direct effect on the formation or change of behaviour aspects, but have an important role in the transmission of information, awareness and stimulation of interpersonal communication. The messages sent through media should reflect the social reality and should be adapted to the target group.

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