

Psychotropic drugs consumption during COVID 19 lockdown

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Abstract. In order to determine the impact of the pandemic on the consumption of psychotropic drugs during the COVID19 lockdown, a prospective, descriptive, cross-sectional and multicentric study was carried out among 110 drug addicts from two centers in Constantine city in the North East of Algeria. The studied population was predominantly male (96%), aged 20 to 29 years (54%). The most used substances were: tobacco (87.2%), pregabalin (84.4%), cannabis (81.7%) and tramadol (68.8%). Tobacco is the most consumed substance; it is also the most inhaled legal substance in the world. For cannabis, the most widely used substance in the world, neither prohibition nor containment has a significant effect on trafficking networks or consumption of this drug. Concerning the pregabalin and tramadol, their use has increased, especially among adolescents, due to a legal void in the management of psychotropic drugs. During the confinement, 44.54% of the subjects have increased their consumption frequency. Psychological factors specific to Covid-19 seem to be involved. The main disorders reported were anxiety (68%), insomnia (54.9%), nervousness (47.3%), stress (40.7%), aggression (30.8%) and depression (18.7%). Despite the closing of the frontiers, the supply of illicit drugs could continue during the lockdown, the maritime transport. In conclusion, the negative impact of confinement on the mental health of addicts people calls for better care for these drugs abusers.

Keywords: Psychotropic, covid-19, lockdown, drug addicts

1 Introduction

Since the beginning of 2020, the covid-19 pandemic has a considerable impact on stress and anxiety levels, especially among drug users. In addition to the

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pandemic itself, the measures generated, the economic crisis caused weigh heavily on the mental health of this marginalized population most of whom live in precarious living conditions. This context is particularly conducive to the development and reinforcement of addictive behaviours related to the consumption of psychoactive substances, which are products that act on the state of the central nervous system by modifying certain biochemical and physiological brain processes. The objective of this work is to study the consumption of psychoactive substances during the covid-19 pandemic.

2 Patient and Methods

This work is a prospective descriptive, cross-sectional and multicentric study conducted in two centers in the city of Constantine (North East of Algeria). The intermediate centre of care in addictology (CISA) of Zouaghi Slimane (EPSP Bachir Mentouri, Algeria) and the specialized hospital (EHS) in psychiatry of Djebel El Ouahch (Algeria). It was conducted over a period of 5 months from April to August of the year 2021. The survey was carried out among 110 subjects consulting for follow-up and treatment of drug addiction and psychiatric disorders, with an age higher than 15 years, of both sexes (male and female). An individual face-to-face interview with the patients was assisted by psychiatrists at the emergency unit of the psychiatric Center (CISA) of Constantine. The questionnaire permit us to subdivide the answer into 4 parts allowing a description of the socio-demographic characteristics (age, sex, education level, marital status). Medical and psychiatric history (psychiatric and somatic comorbidities). Information on drug use (drugs used, age, reason for first use and frequency of use). The last part of questionnaire is exclusively dedicated to the collection of information related to the impact of the pandemic on the use of psychoactive substances and on addictive behavior. Free, informed, written consent was obtained for all subjects participating in this study. A statistical study was carried out using SPSS software (trial version).

3 Results

3.1 Data on substance use

Drugs consumed Table 1 shows the percentages of consumers of different psychoactive substances; after Tobacco, Cannabis (81.7% of consumers) and Pregabalin (84.4% of consumers) represent the most consumed psychotropic substances, followed by Tramadol (68.8% of consumers) and benzodiazepines (45.9% of consumers).

Frequency of use As shown in figure 1; more than 87% of drug addicts are over users, 8.18% are regular users and only 4.54% are occasional users.

Table 1. consumption rate of psychoactive substances among drug addicts (% of the studied population)

Drug	consummation rate
Alcohol	22,9%
Cannabis	81,7%
Coca"ine	10,1%
Morphine	1,8%
Ecstasy	29,4%
Tramadol	68,8%
Pregabalin	84,4%
Parkidyl	5,5%
Benzodiazepines	45,9%
Tobacco	87,2%

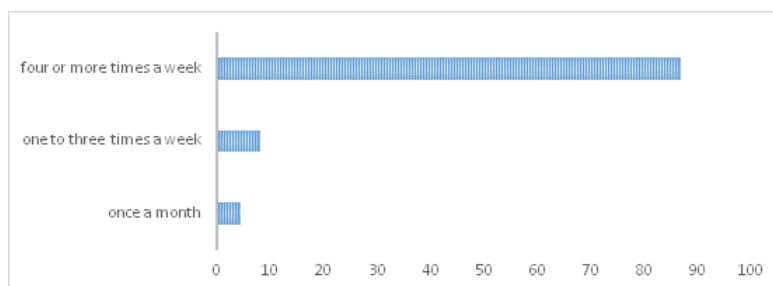


Fig. 1. Frequency of psychotropic drug use.

3.2 Social and psychosocial characteristics of consumption

Age and sex of user: 54% of the drug addicts consulted are between 20 and 29 years old, the majority (96.36%) are men.

Education level: Most (56%) of the addicts dropped out of school in college, 26% in high school and 4% in elementary school. However, 14% of the consulted addicts are university students.

Family status: Single people represent 87% of the interviewed subjects, married 9% and divorced 4%.

Age and reason for first use: The following diagram (figure 2) shows that 44.5% of the addicts started taking psychotropic drugs during adolescence, pre-

cisely between 15 and 18 years of age, while for 31.8%, the beginning of consumption occurred at an age higher than 18 years.

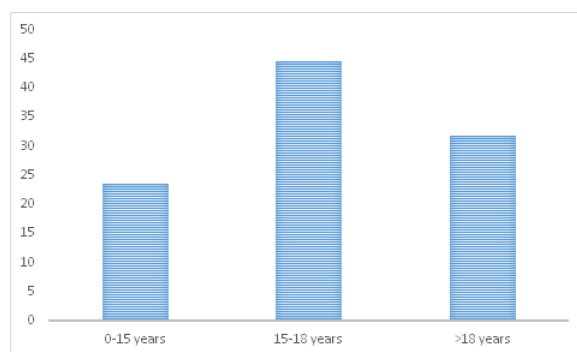


Fig. 2. Age of first use of psychotropic drugs

Figure 3 indicates that in the majority of cases tried psychotropic drugs for the first time in search of pleasure (23%) or just out of curiosity (22%), while 19% did so to relieve stress or to forget a pain (17%).

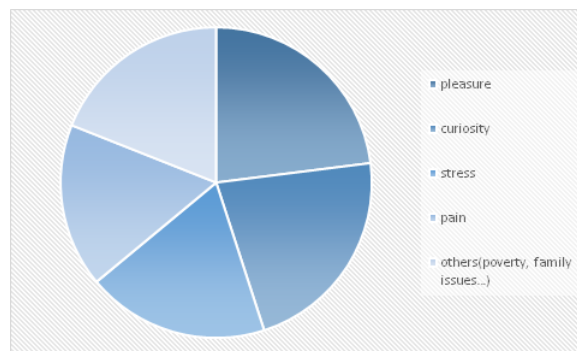


Fig. 3. Reasons for consumption of psychotropic drugs

Comorbidity 20% of these subjects have psychiatric comorbidity with mainly squizophrenia, depression and anxiety disorders (Figure 4).

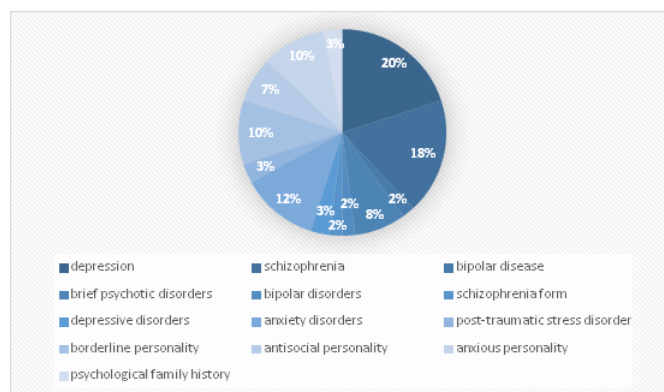


Fig.4. Psychiatric disorders associated with psychotropic drug use

3.3 Psychotropic substance use during the pandemic

Frequency of use: In the figure below (figure 5), 44.54% of the subjects increased their frequency of psychotropic drug intake during the period of confinement while 35.45% of the drug addicts interviewed reported no change.

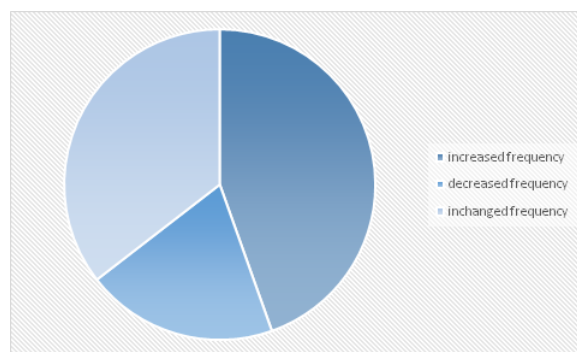


Fig.5. frequency of use during COVID 19 lockdown.

Drug availability: 70% of the interviewed drug users stated that there was no change in drug availability. Despite the confinement measures imposed by the authorities, 92.73% of addicts buy their drug in the habitual manner (direct contact with the sellers).

Price and quality of drugs: 57.27% of drug users claim an increase in drug prices during the lockdown. The majority of consumers (60.9%) did not notice any change in the quality of drugs.

Psychic disorders developed during the pandemic: According to figure 6, anxiety represents the most manifested symptom in the studied population (68% of consumers), insomnia comes second (54.9% of consumers), more than 47.3% of drug users suffered from nervousness, 40.7% anxiety, 30.8% aggression and 18.7% depression.

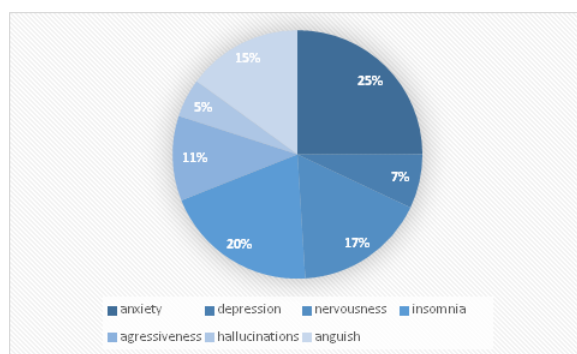


Fig. 6. Psychic disorders developed during the pandemic.

These disorders can be the cause of the increase in consumption frequency of psychoactive substances, as shown in table 2. Among the drug addicts who have developed psychological disorders 47.8% have increased the frequency of consumption.

Table 2: Psychological disorder developed and frequency of use during the pandemic

			of developed disorder		Total
			Oui	Non	
Consumation frequency	Decrease	Number of patient	18	4	22
		% of developed disorder	20,0%	20,0%	20,0%
	Increase	Number of patient	43	6	49
		% of developed disorder	47,8%	30,0%	44,5%
	No change	Number of patient	29	10	39
		% of developed disorder	32,2%	50,0%	35,5%
	Total	Number of patient	90	20	110
		% of developed disorder	100,0%	100,0%	100,0%

4 Discussion

According to the results of our study, tobacco is the most consumed substance; this is a logical result since it is the most inhaled legal substance in the world [1]. In the second position comes the pregabalin; its diverted use has increased in recent years especially among adolescents before its inclusion in the list of psychotropic drugs via the executive decree N 21-196 of May 11, 2021 [2]. It is important to note that the legal vacuum in the management of psychotropic drugs, which lasted several years, has largely contributed to the creation of a parallel market of sale. In the third position comes the cannabis, which is the most consumed drug in the world [3]. It is consumed by 81.7% of the study population, but this seems contradictory given the cessation of trafficking and supply at the onset of confinement, indicating that the logistics of trafficking were reinvented to cope with the crisis and that neither prohibition nor confinement had a truly significant effect on the vast majority of cannabis users, who were able to avoid shortages, but not high prices. For tramadol, which is consumed by 68.18% of the studied population, the number of reported cases of abuse and dependence seems to be constantly increasing; its low cost is the main factor that

explains its large consumption in Africa where it is known as “the cocaine of the poor” [4]. With regard to benzodiazepines, their consumption rate of 45.45% probably reflects the significant psychological impact of the epidemic of covid-19 and its social, professional and economic consequences, given their marked anxiolytic and hypnotic effects [5].

The most age category incriminated in the use of psychoactive substances is that of 15-29 years old (headcount= 79 or 72%), this difference in consumption according to age is statistically significant for Tramadol and Pregabalin ($p < 0.05$). This observation is similar with the results of the surveys on drug use published in the European Drug Report of the year 2021, which show that the use of drugs is still more frequent among young adults (15-34 years). This period represents the time of physical and psychological development and changes in brain structure, as well as cognitive and emotional development, which significantly increases the risk of addictive disorders related to exposure to psychotropic drugs [6].

Since women represent less than 4% of our population, this statement does not necessarily mean that they use less than men do. Women who use drugs always have difficulty expressing it because of shame, fear of stigmatization and guilt. They feel very guilty about their own consumption and fear the gaze of others, which makes it very difficult for them to access addiction treatment centres [7].

We also note that the majority of drug users have a low level of education, but this difference in consumption according to the educational level is not statistically significant ($p > 0.05$). Recent data from the tempo and gazel cohorts have shown that being unemployed and having a low level of education were associated with tobacco and cannabis addiction and that alcohol dependence was more frequently observed in unemployed populations with a higher level of education [8,9]. 87% of our population are over-users of drugs (4 or more times per week). This may be related to the presence of a mental health disability, making the use of substances essential to accomplish daily activities or to reduce the physical and/or psychological dependence symptoms. According to a study based on data from a 2015 Canadian tobacco, alcohol and drug survey and a 2014 general social survey on victimization [10], there is a link between the presence of a physical or mental health disability and the frequency of psychotropic drug use.

The age of first use was between 15 and 18 years for 44.5% of participants, but this difference by age of onset was only significant for tramadol and ecstasy ($p < 0.05$). In Canada, for example, cannabis addiction affects nearly one in four adolescents. Researchers from the University of Montreal confirm the hypothesis that age has a major influence on the neuropsychological effects of these substances in young users, whose brains are still developing. [11].

According to the results of our questionnaire, 44.54% of the subjects increased their frequency of use during the pandemic, psychological factors specific to covid-19 seem to be involved in the substance use behaviour. Loneliness, anxiety, stress, sadness can be amplified during confinement, causing an overall

negative impact on daily lifestyle. The management of these feelings and negative emotions may involve the use of substances.

According to the results of our study 47.8% of the subjects who presented psychological disorders due to the pandemic increased the frequency of consumption. Several studies have found an increase in use during the pandemic [12,13].

The results of the study indicate that the availability of drugs was not influenced by the containment measures. The same observation was made by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), which highlighted the fact that the supply of illicit drugs had been able to continue during the containment period, in particular through maritime transport, which had withstood the constraints of the pandemic better than air transport [14].

Despite the confinement measures imposed during the lockdown, resupply continued to occur through the traditional method of direct sales, with more than 92% of the study population reporting this, along with recommendations to maintain physical distance and stay home. It was assumed that recreational drug users would purchase their substances more often online, because they had no or only limited contact with their dealer. It was also suspected that fear of an imminent collapse of the illegal drug market might lead to precautionary purchases, a phenomenon that was observed for other products at the height of the pandemic. According to a European online infodrug survey [15], almost one in two respondents (n=224) stated that the covid-19 pandemic had not influenced their purchasing behaviour and continued to obtain their substance from the same source.

More than half of the population (57%) claimed an increase in prices during the pandemic, while 39% did not notice any change; this increase in price has been observed in several countries such as France for example [16].

According to the opinions of 60% of the participants in the questionnaire, the quality of drugs has not changed during the containment, while for 39% declare a decrease in the quality of substances consumed. The same result found in Europe following the survey launched by the site infodrug where most of the participants did not see any change in the quality of substances on the black market or could not provide information on this subject [15].

5 Conclusion

The aim of this work was to evaluate the impact of the COVID-19 pandemic on the behaviour of drug addicts in terms of consumption of psychoactive substances, compared to the general population. This category of particularly vulnerable subjects has a higher risk of developing psychological disorders related to the imposed confinement due to the covid-19 pandemic. The physical distancing and social isolation are difficult for their mental health, because they amplify loneliness, anxiety, stress and sadness. Coping with these negative feelings can involve substance use and even relapse for patients who have lost access to health services during confinement.

Although lockdown has been shown to be effective in breaking the spread of the pandemic, it has a negative impact on the mental health of people with substance use disorders, causing them to use more psychotropic drugs or to be deprived of quality care at addiction treatment centres. This pushes us on the one hand to take a more serious interest in the mental health affected during the confinement, and on the other hand to ensure a better care of this population requiring a particular solicitude.

References

1. European Monitoring Centre for Drugs and Drug Addiction. European drug report 2019: trends and developments. [Internet]. LU: Publications Office; 2019 [cité 16 août 2021]. Disponible sur: <https://www.emcdda.europa.eu/publications/edr/trends-developments/2019>.
2. Mounia B. Décret fixant le contrôle des psychotropes: Une liste de médicaments fixée [Internet]. [cité 16 août 2021]. Disponible sur: <https://www.aps.dz/sante-science-technologie/121982-decret-fixant-le-controle-des-psychotropes-une-liste-de-medicaments-fixee>.
3. Carrez R, Lopez F. Entre confinement et répression: comment les usagers de cannabis se sont organisés. *Psychotropes*. 8 déc 2020;Vol. 26(2):165-73.
4. CP RAP MONDIAL DROGUE 2020 AFRIQUE.pdf [Internet]. [cité 16 août 2021]. Disponible sur: https://www.unodc.org/documents/westandcentralafrica//CP_RAP_MONDIAL_DROGUE_2020_AFRIQUE.pdf.
5. Covid-19: Usage des médicaments - 4ème rapport EPI-PHARE [Internet]. EPI-PHARE. 2020 [cité 16 août 2021]. Disponible sur: <https://www.epi-phare.fr/actualites/covid-19-usage-des-medicaments-de-ville-en-france-4/>
6. Rapport européen sur les drogues Tendances et évo.pdf [Internet]. [cité 18 août 2021]. Disponible sur: https://www.emcdda.europa.eu/system/files/publications/13838/2021.2256_FR_02.pdf
7. Coscas S. 12. Femmes et addictions [Internet]. Vol. 2e éd. Lavoisier; 2016 [cité 18 août 2021]. Disponible sur: <https://www.cairn.info/traite-d-addictologie-9782257206503-page-116.html>
8. Jauffret-Roustide M. 27. Les déterminants sociaux des addictions [Internet]. Vol. 2e éd. Lavoisier; 2016 [cité 18 août 2021]. Disponible sur: <https://www.cairn.info/traite-d-addictologie-9782257206503-page-241.html>
9. Melchior M, Chollet A, Elidemir G, Galéra C, Younès N. Unemployment and Substance Use in Young Adults: Does Educational Attainment Modify the Association? *Eur Addict Res*. 2015;21(3):115-23.
10. Canada S. Enquête canadienne sur le tabac, l'alcool et les drogues (EC-TAD): sommaire de 2015 [Internet]. 2017 [cité 19 août 2021]. Disponible sur: <https://www.canada.ca/fr/sante-canada/services/enquete-canadienne-alcool-drogues/sommaire-2015.html>
11. Castellanos-Ryan N, Pingault J-B, Parent S, Vitaro F, Tremblay RE, Séguin JR. Adolescent cannabis use, change in neurocognitive function, and high-school graduation: A longitudinal study from early adolescence to young adulthood. *Dev Psychopathol*. oct 2017;29(4):1253-66.

12. Adaptation of contingency management for stimulant use disorder during the COVID-19 pandemic [Internet]. [cité 18 août 2021]. Disponible sur: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7417964/>
13. Karila L, Benyamina A. Addictions en temps de pandémie. Presse Médicale Form [Internet]. 24 juin 2021 [cité 4 juill 2021]; Disponible sur: <https://www.sciencedirect.com/science/article/pii/S2666479821001397>
14. Jauffret-Roustide M, Barratt M, Dinechin S de, Davies E, Gilchrist G, Hughes C, et al. Consommation d'alcool et d'autres produits psychoactifs pendant la pandémie de Covid-19 dans la Global Drug Survey: une perspective française. Psychotropes. 8 déc 2020;Vol. 26(2):209-19.
15. Covid19-et-consommation-recreative rapport-final-20200630.pdf [Internet]. [cité 19 août 2021]. Disponible sur: https://www.infodrog.ch/files/content/corona/covid19-et-consommation-recreative_rapport-final-20200630.pdf
16. Gérôme C, Gandilhon M. ÉVOLUTION DES USAGES ET DE L'OFFRE DE DROGUES AU TEMPS DU COVID-19: OBSERVATIONS CROISÉES DU DISPOSITIF TREND. 2020.

