

Substance use during the COVID-19 pandemic: What is really happening?

ARTICLE HISTORY: Received 27 January 2022/Published Online 21 February 2022

The COVID-19 pandemic is associated with increased levels of anxiety, fear, sadness, difficulty adjusting, symptoms of post-traumatic stress disorder and suicidality, both in the general population and specific subgroups. The presence of this type of psychopathology increases the risk of involvement with or worsens the use of addictive substances and alcohol as a maladaptive coping strategy.¹

According to these data, people with substance use disorders are a population at high risk for COVID-19 infection and serious illness. A large controlled retrospective case study in the US found that people with substance use disorders are significantly more vulnerable to COVID-19 and its complications (primarily those with opioid use disorder OR=10.21 and with tobacco use disorder OR = 8.25), and that the course and outcome of the disease (hospitalization, death) was worse than in non-dependent individuals. The main culprits are increased physical co-morbidity (frequent respiratory and cardiovascular problems), poor health and living conditions, marginalization and difficulties in accessing health services.^{2,3}

International epidemiological data during the first months of the pandemic regarding the use of addictive substances do not lead to safe conclusions. A cross-sectional online epidemiological study conducted on a sample of 36,538 adults from 21 European countries between April and July 2020 found an overall decrease in alcohol use, which was mainly attributed to the reduction of heavy episodic consumption, while at the same time an increase in alcohol consumption among people with severe alcohol use was recorded. The use of cannabis and nicotine showed increasing trends, as well as the use of cocaine, but to a lesser extent, while the use of MDMA (ecstasy) showed a decrease.⁴ In a review of 45 cross-sectional studies conducted between December 2019 and November 2020, alcohol use was on the rise overall, despite geographical variations, as was the use of other addictive substances, cannabis in particular.⁵ It should be noted that those who increased alcohol use during quarantine were those exhibiting higher levels of negative emotionality mechanisms.⁶

In Greece, an online cross-sectional survey in April 2020 in the general population during the first lockdown showed a reduction in alcohol use (43.7% of alcohol users reduced or quit), a reduction in cannabis (67.3% quit), while 33.3% increased nicotine use. These changes were attributed to the limitation of alcohol availability, social distancing, changes in daily routine and income reduction.^{7,8} Also, wastewater samples from Athens, analyzed by the Laboratory of Analytical Chemistry of EKPA, showed a significant increase in the use of cocaine (67%), amphetamine (350%) and methamphetamine (37%), and a decrease in the use of MDMA (-38%) during the first lockdown, compared to the corresponding period of the previous year.⁹ Analysis of wastewater samples from other European cities "suggest that levels of use of most drugs appear generally lower during the initial lockdowns, but then appear to bounce back once lockdown was lifted. A comparison with 2019 appears to suggest similar overall consumption of most drugs, and in several cities possibly even higher levels, based on this data source. Exceptions here appear to be MDMA and methamphetamine, two drugs for which the levels observed in 2020 appear lower in most of the participating cities".^{10,11}

There were also changes in the locations of use of the substances, as with the periodic restrictions the use was transferred mainly at home and in open public spaces; in some cases, it was associated with increased intravenous use and cases of intoxication. Finally, intermittent difficulties in drug availability and trafficking have led users to search for other substances, increase experimentation and multidrug use, and make online purchases. In addition, there is concern about the increasing abuse of benzodiazepines, which are either diverted from therapeutic use or appear on the illicit market, often as new benzodiazepines.^{10,12}

According to the European Monitoring Center for Drugs and Drug Addiction (EMCDDA), "the drug market has been remarkably resilient to disruption caused by the pandemic" ... Drug trafficking has adapted to the new conditions with changes in routes and methods of trafficking, and by further enhancing the digital presence of the drug market... "Any reductions in drug consumption seen during the initial lockdowns rapidly disappeared as social distancing measures were eased. In general terms, there appears to have been less consumer interest in drugs usually associated with recreational events, such as MDMA, and greater interest in drugs linked with home use. However, the easing of restrictions ... during the summer was associated with a rebound in the

levels of use". Also, "survey data suggest that those using drugs occasionally prior to COVID-19 may have reduced or even ceased their use during the pandemic, but more-regular users may have increased their drug consumption".¹⁰

Measures taken to control the pandemic have reduced and modified the mental health and addiction treatment services provided. Although services have been adequately restored, there has initially been a 60% reduction in the availability and provision of detoxification services in Europe.¹³ Live contact, mainly at group level, was significantly reduced or stopped altogether for a long period, as well as the frequency of individual appointments. Therapeutic programs sought to respond to the new conditions using technology and telemedicine, providing online group support and psychotherapy. Substitution treatment programs have become more flexible by providing long-term pharmaceutical substitutes (take home) to prevent users from moving. There have also been facilitations in prescribing by treating physicians. Thus, the addicts' contact with the treatment process was maintained, but it was insufficient to meet their increased needs during this period.

In conclusion, it should be noted that substance use appears to have an autonomous dynamism in relation to the pandemic and the consequent psychopathology, being in a "loose" causal relationship with it. Therefore, hasty and untimely generalizations should be avoided, and easy conclusions should not be drawn through extrapolations from previous socio-economic crises of different types or through partial spatiotemporal understandings, which are usually presented by the media in the form of negative alarming information.

Eleftherios Mellos

Psychiatrist - Psychotherapist, "ATHENA" Programme, OKANA - First Department of Psychiatry, Medical School, National and Kapodistrian University of Athens & Secretary of Section on Substance Abuse, Hellenic Psychiatric Association, Athens, Greece

Thomas Paparrigopoulos

Professor of Psychiatry, First Department of Psychiatry, Medical School National and Kapodistrian University of Athens, Eginition Hospital & Chairman of Section on Substance Abuse, Hellenic Psychiatric Association, Athens, Greece

References

1. de Goeij MCM, Suhrcke M, Toffolutti V, van de Mheen D, Schoenmakers TM, Kunst AE. How economic crises affect alcohol consumption and alcohol-related health problems: a realist systematic review. *Soc Sci Med* 2015, 131:131–46, doi: 10.1016/j.socscimed.2015.02.025
2. Wang Q, Kaelber D, Xu R, Volkow ND. COVID-19 risk and outcomes in patients with substance use disorders: Analyses from electronic health records in the United States. *Mol Psychiatry* 2021, 26:30–39, doi.org/10.1038/s41380-020-00880-7
3. Volkow ND. Collision of the COVID-19 and Addiction Epidemics. *Ann Intern Med* 2020, 173:61–62, doi: 10.7326/M20-1212
4. Manthey J, Kilian C, Carr S, Bartak M, Bloomfield K, Braddick F et al. Use of alcohol, tobacco, cannabis, and other substances during the first wave of the SARS-CoV-2 pandemic in Europe: a survey on 36,000 European substance users. *Subst Abuse Treat Prev Policy* 2021, 16:36, doi: 10.1186/s13011-021-00373-y
5. Roberts A, Rogers J, Mason R, Siriwardena AN, Hogue T, Whitley GA, Law GR. Alcohol and other substance use during the COVID-19 pandemic: A systematic review. *Drug Alcohol Depend* 2021, 229:109150, doi: 10.1016/j.drugalcdep.2021.109150
6. Sallie SN, Ritou V, Bowden-Jones H, Voon V. Assessing international alcohol consumption patterns during isolation from the COVID-19 pandemic using an online survey: highlighting negative emotionality mechanisms. *BMJ Open* 2020, 10:e04427, doi: 10.1136/bmjopen-2020-044276
7. Rantis K, Panagiotidis P, Parlapani E, Holeva V, Tsapakis EM, Diakogiannis I. Substance use during the COVID-19 pandemic in Greece. *Journal of Substance Use* 2021, doi: 10.1080/14659891.2021.1941344
8. Panagiotidis P, Rantis K, Holeva V, Parlapani E, Diakogiannis I. Changes in Alcohol Use Habits in the General Population, during the COVID-19 Lockdown in Greece. *Alcohol Alcohol* 2020, 55:702–704, doi: 10.1093/alcal/agaa092
9. Available from: <https://www.kathimerini.gr/society/1090485/to-apo-ty-poma-tis-pandimias-sta-filtra-tis-psyttaleias/>
10. European Monitoring Centre for Drugs and Drug Addiction. European Drug Report 2021: Trends and Developments. Publications Office of the European Union, Luxembourg, 2021
11. The Sewage analysis CORE group – Europe (SCORE). Available from: <http://score-cost.eu/>
12. Zaami S, Marinelli E, Vari MR. New Trends of Substance Abuse During COVID-19 Pandemic: An International Perspective. *Front Psychiatry* 2020, 11:700, doi: 10.3389/fpsy.2020.00700
13. EMCDDA Trendspotter briefing/Impact of COVID-19 on drug services and help-seeking in Europe. Lisbon, 2020