



COVID-19 and Substance Use Disorders: Prevention and Treatment Implications

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Dear editor,

The COVID-19 pandemic has posed remarkable challenges to health care systems worldwide; hence, adaptation to the consequences of this pandemic requires novel treatment and prevention strategies. One of such challenges has been to manage opioid dependency during the COVID-19 pandemic. Individuals with substance use disorders (SUDs) are at greater risk for infection for several reasons, including clinical, psychological, and psychosocial conditions, socio-economic changes during the pandemic, and difficulties in access to treatment (1).

Individuals with SUDs are stigmatized and marginalized populations with less access to health care, lower health status, and weaker immune system functions because of malnutrition, substance abuse, chronic infections, and various respiratory/ cardiovascular/ renal/ and metabolic problems. Moreover, they experience a wide range of psychiatric comorbidities and a higher rate of smoking and alcohol consumption, and are more likely to experience homelessness or incarceration. Such conditions may complicate superimposed infection with COVID-19 and higher COVID-19-related complications and death (2).

Strategies such as social distancing or quarantine and the pandemic outbreak itself have been associated with negative emotions such as irritability, anxiety, and sadness. Moreover, economic stress and job loss during the pandemic have increased the prevalence of domestic and social violence. Further, reduced access to drugs/physicians/clinics has exacerbated drug use and led to a relapse of substance abuse, even in those abstained from drugs for a long time (3).

On the other hand, individuals with opioid disorders are at risk for fatal intoxication during the COVID-19 pandemic for many reasons, including increased use of illicit drugs, social isolation, and increased likelihood of

overuse, economic insecurity, and medical care disruption. A study in Kentucky showed that the number of emergency medical services for opioid overdose with and without transfer to the emergency department increased by 17 and 71%, respectively, and that the number of suspected cases of opioid overdose with deaths at the scene increased by 50% during the COVID-19 pandemic (3). Another study in Iran revealed that the COVID-19 pandemic was associated with the most frequent deaths from methanol toxicity. This study revealed that above 2,500 individuals referred to hospitals during a month due to toxic alcohols, above one thousand persons were hospitalized, about 500 patients lost their lives, and 60 survivors became blind (4).

The early detection of COVID-19 infection is vital in people with SUDs for several reasons. Many homeless substance abusers live in crowded groups in shelters with minimal or no air conditioning. Moreover, poor hygiene, high-risk behaviors such as sharing drug consumption materials and equipment, and intoxication expose these individuals to a greater risk for COVID-19 infection.

Since these people are scattered in the community, they are more likely to reveal transmission to others during the prodromal period (2).

While the early detection of COVID-19 infection is vital in this population, it poses challenges for several reasons. As the substance withdrawal or intoxication may mimic COVID-19 symptoms, diagnosing COVID-19 in individuals using substances is not always straightforward. Furthermore, some laboratory tests in SUDs overlap with COVID-19 infection. For example, lymphopenia, leukopenia, elevated aspartate aminotransferase (AST) and alanine aminotransferase (ALT), eosinopenia, and decreased blood oxygen saturation are common COVID-19 symptoms in substance users with no COVID-19 infection. Accordingly, physicians should be aware of the possible overlap of symptoms and tests in substance users and patients with

COVID-19 to avoid ignoring or over-diagnosing patients. Since COVID-19 does not affect the eye pupils, pupil size is the best guide to differentiate opioid withdrawal or intoxication symptoms from those of COVID-19 infection (2).

Appropriate interventions for drug users can be classified into three main categories. The first category is to reduce the risk of providing care to drug users and includes the following measures: applying standard hygiene protocols in care settings with outstanding recommendations and equipment for hand washing and disinfection, preparing masks, hand gels, and essential information about COVID-19 for attendees at the centers, recommending drug users to avoid sharing cigarettes, pipes, water pipes, hookahs, and other equipment needed for drug use, providing clean needle and syringes, attending care centers only at pre-scheduled intervals and observing social distancing, having scheduled delivery of medicines at home for such individuals, teaching clinics to complete the tablet delivery process with minimal hand contact, and limiting the number of clients, observing social distancing in service offering places (5). The second major category is the application of protocols to provide opioid replacement therapy. Since achieving an adequate maintenance dose of buprenorphine is faster and safer than methadone, and the withdrawal symptoms of buprenorphine are milder than methadone, buprenorphine seems to be the best alternative treatment for those who want to initiate treatment. Furthermore, polypharmacy caused by COVID-19 infection has more negligible effects on buprenorphine metabolism than methadone; hence, the risk of its withdrawal or toxicity is lower, and there are fewer risks in overdose cases. However, switching to other opioids is not recommended for patients already on methadone treatment. Moreover, since the termination of methadone maintenance therapy (MMT) and buprenorphine maintenance therapy (BMT) arouses stress and requires more attendance at medical centers, it is not recommended during the COVID-19 pandemic (2). Moreover, a more flexible opioid replacement program is recommended during the COVID-19 pandemic, and medications can be provided for a more extended period. Prolonged-release buprenorphine (PRB) products such as long-acting (monthly) injectable or transdermal buprenorphine which provide effective therapeutic plasma levels of the drug by weekly or monthly injections are other alternative choices; such products not require frequent visits nor dispensing of large quantities of take-home medication. These options have been at the forefront of the COVID-19 risk response in some European and American countries (5). Patients should be informed as there is a risk of overdose with increasing access to medication at home, and, if necessary, naloxone can be prescribed at home for high-risk patients (6).

The third main category of interventions for substance abusers is psychosocial interventions. Internet-based psy-

chotherapy is highly recommended during the COVID-19 pandemic. Online counseling, including phone calls, video chats, and text messages, well provides the grounds for cost-effective psychological evaluation and treatment. Cognitive-behavioral therapy, including coping skill training and crisis intervention, has been introduced as an effective intervention for drug abusers. Since social and family support is an essential predictor of adherence to treatment and the main factor of psychological resilience to disaster, these individuals need more social support during pandemics (2).

In conclusion, health care professionals dealing with SUDs should be aware of the risks and challenges they will face during and after the COVID-19 pandemic. Addiction care should be reinforced, not delayed to prevent the complications of SUD and COVID-19 and the transmission of the coronavirus.

Footnotes

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