

## Addiction and Covid-19 Disease: Risks and Misconceptions

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### Letter to Editor

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Coronavirus disease-2019 (Covid-19) disease, which is now a global health problem, might endanger some vulnerable groups including addicts at a higher risk. Apart from that fact, there are currently some misconceptions around the relationship between addiction and chance of becoming infected by new corona virus, with some supporting the idea of protective effect of addiction against Covid-19 disease. In this letter, we have attempted to make the situation clear by providing related evidence on the vulnerability of addicted people against this disease.

Covid-19 disease which belongs to coronavirus family, was first reported in Wuhan region of China in November 2019 and has now become an epidemic.<sup>1</sup> There are many unknowns about this virus, but the thing which has not changed since the beginning of the epidemic is the susceptibility of some people to involvement with this virus. Studies on the disease have shown that some groups of people such as patients with cardiac disorders, respiratory diseases, elderly patients, and addicts are at higher risk of infection and mortality than others.<sup>2</sup> A recent study by Saeedi et al. showed that the mortality rate of addicted patients due to Covid-19 infection is higher than their non-addict counterparts.<sup>3</sup>

Addiction is one of the social problems which affects health systems around the world including Iran's and has been regarded as one of the social determinants of health (SDH) according to the World Health Organization (WHO) commission on SDH.<sup>4</sup> Among narcotics, opium has been a popular plant in Iran for centuries and substance abuse is a social anomaly with multiple

psychological and behavioral consequences causing numerous individual and social harms.<sup>5</sup> Based on a previous study, about 2.8% and 9.0% of Iranian adults are addicted to opium, which reaches to 22.0% in some areas.<sup>6</sup> This issue is significant from two aspects: first, living conditions of addicted people and lack of hygiene and second, the increase in the probability of getting the disease in this special group.

Furthermore, there has recently been a misconception in social media, community, and even a recently published paper<sup>3</sup> on the protective effect of opium consumption against Covid-19 disease, which can lead to addiction of more people.

In contrast, most studies have shown that opium consumption is considered a risk factor for viral infections for a number of reasons, including higher risk for pulmonary infections because of prior cardio pulmonary comorbidities, mucociliary dysfunction, weakened immunity, special health seeking behavior coupled with insufficient access to health services, housing problems, and inability to use rehabilitation services.<sup>7</sup>

Among the above mentioned reasons, addicts' pre-existing comorbidities expose them to higher risk of Covid-19 infection.<sup>8</sup> Although, the possible mechanisms of virus pathogenicity are not well understood yet, Nabati et al. indicated that increased level of interleukin 6 (IL-6) taken from plasma of opium addicted patients leads to cytokine storm which is the common etiology of mortality in patients with Covid-19.<sup>9</sup>

To sum up, there is still need for further studies to determine the accuracy of this issue, but in light of the above, it seems that this social issue needs special attention including raising public awareness and information.

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