



Slovenian
Medical
Journal

Three cases of suicide during the COVID-19 epidemic – the need for action?

Trije primeri samomora v času epidemije
covid-19 – potreba po ukrepanju?

Armin Alibegović,¹ Jože Balažic,¹ Vesna Švab^{2,3}

¹ Department of Forensic Medicine and Deontology, Institute of Forensic Medicine, Faculty of Medicine, University of Ljubljana, Ljubljana, Slovenia

² Department of Psychiatry, Faculty of Medicine, University of Ljubljana, Ljubljana, Slovenia

³ Health Center Sevnica, Sevnica, Slovenia

Correspondence/ Korespondenca:

Armin Alibegović, e: armin.alibegovic@mf.uni-lj.si

Key words:

quarantine; coronavirus; mental disorder; anxiety; suicide

Ključne besede:

karantena; koronavirus; duševna motnja; tesnoba; samomor

Received: 27. 4. 2020

Accepted: 25. 6. 2020



Abstract

According to the data available, the COVID-19 epidemic, similarly as previous epidemics of infectious diseases, caused consequences for the mental health of the population. Mental health is particularly at risk in vulnerable groups such as people with mental disorders, migrants, and people on the frontline of the epidemic crisis. Long-term isolation or quarantine exacerbates the symptoms of anxiety, depression and suicide. Cases presented are connected, even though not directly caused by the health crisis during the COVID-19 epidemic. Therefore, during and after the COVID-19 crisis, as well as during other natural disasters, guidelines for working on mental health issues of the most vulnerable and exposed groups need to be developed, especially in suicide prevention area. A crisis response requires widespread mobilization of services and experts.

Izvleček

Epidemija covid-19 je po dostopnih podatkih podobno kot epidemije nalezljivih bolezni pred njo povzročala tudi posledice na duševnem zdravju prebivalstva. Posebej so bile ogrožene ranljive skupine prebivalstva, kot so ljudje z duševnimi motnjami, migranti in neposredno izpostavljeni stresnim okoliščinam v času epidemije. Dolgotrajna osamitev ali karantena lahko poveča simptome anksioznosti, depresije in samomorilnost. Primeri, ki jih predstavljamo, so povezani, čeprav jih gotovo ni enostavno povzročila zdravstvena kriza med epidemijo covid-19. Zato je torej treba v času krize covid-19 in po njej, kot tudi v času drugih naravnih katastrof, oblikovati smernice za delo na področju duševnega zdravja najbolj ranljivih in izpostavljenih skupin, predvsem na področju preprečenja samomorilnosti. Gre za krizno ukrepanje, ki zahteva široko mobilizacijo služb in strokovnjakov.

Cite as/Citirajte kot: Alibegović A, Balažic J, Švab V. Three cases of suicide during the COVID-19 epidemic – the need for action?. *Zdrav Vestn.* 2020;89(11–12):634–9.

DOI: <https://doi.org/10.6016/ZdravVestn.3070>



Copyright (c) 2020 Slovenian Medical Journal. This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.

1 Introduction

International organisations and communities warn that the COVID-19 epidemic is also an epidemic of mental disorder and distress. European Public Health Alliance has defined special groups of population that are more in danger with regard to men-

tal health during the epidemic. These are the seniors (exposed to loneliness, poverty and comorbidities), the homeless, illegal drug addicts, people with severe mental disorders, migrants, people living in poverty, the disabled, and some other groups (1). These groups have, they write, already shown that their special circumstances make them more vulnerable to infection, while they also have a limited access to protective equipment or are not as well-protected. They also point to poor access to education for children from poorer families and the danger or higher frequency of abuse and violence in the home environment during the pandemic.

Research proof of what is happening during the COVID-19 epidemic in mental health is relatively scarce and comes from the countries that were affected first. In China, it has been shown that the most frequent psychological reaction to the epidemic is increased anxiety, which can be explained by an unreliably long incubation period, and that the virus can be transferred from apparently healthy people. The sense of insecurity and stress exposure have additionally increased the shortage and insufficiency of medical care. Among the very frequent issues were anxiety and depression (16–28 %) and stress (8 %) with sleep disorders (2). Similar results have been reported from Canada: 7 % of the sample of Canadians were very concerned because of the possibility of infection, similarly to the US. In connection with fear there was a rise in the open discrimination to the Chinese (3). From the times of the Ebola epidemic in 2014 and SARS epidemic in 2003, we have learned a lot about the emergence of reactions of excessive fear in the majority of the population. In those times, there was an increased frequency of mental disorders, such as depression and post-traumatic stress, especially with the more vulnerable groups and people who fought the disease in the front lines (ambulance drivers, nurses, doctors, etc.)

(4). The victims of the acute respiratory syndrome in Hong Kong above 65 years were at 30 % of suicide risk and a half of them suffered from anxiety after overcoming the disease (5). Another source of apparent severe consequences was the onslaught of information and disinformation that we have been and still are witnessing across the world (6). Long-term isolation also has catastrophic consequences on mental health, especially for those more sensitive, and reinforces the symptoms of anxiety, depression, and proneness to suicide (7). Quarantine is a risk factor for abuse of psychoactive substances, suicide, violence, self-harm, and child abuse (8).

In Slovenia, there is no data for increased frequency of mental distress during COVID-19, however, some counselling services have (according to the media) noted an rise in calls. Clinical practice and warnings from researchers show that during the epidemic, the most affected were the vulnerable groups, namely those who already had mental health issues, as well as those who are endangered because of poverty and disability, migrants and people who are directly exposed in the front lines for providing assistance, as shown by the three clinical cases described below in anonymised form.

2 Case reports

2.1 Case report 1

A 72-year-old man was treated for depression and alcohol addiction. He also suffered from arterial hypertension and hyperlipidaemia. He came for control check-ups and examinations without any hesitation, followed the instructions from his physicians, regularly took prescribed medications, and his wife actively helped him during the therapy.

Approximately one month before the COVID-19 epidemic was declared, he

was hospitalised for three days for vomiting, nausea, unstable gait, mild chest pain and diffuse headache and symptomatic hyponatremia. At admittance, along with an examination and laboratory tests, a CT of the head was performed, which did not show any expansive formations or signs of fresh haemorrhaging; however, a mild sinusitis and a mild bilateral cerebral cortical atrophy were observed. Radiograms of the stomach and the chest cavity showed no distinction. An ultrasound examination of the stomach did not show any pathomorphological distinctions, except for a small cyst on the left kidney. EDGS (esophagogastroduodenoscopy) showed a small axial hiatal hernia, an active inflammation in the prepyloric region and in the corpus of the stomach, and signs of portal gastropathy. Samples for pathohistological examinations were taken, while rapid urease bioptic test (RUT) was negative. Orthostatic hypotension was excluded. Troponin was negative twice, without dynamic changes; however, pain in the chest did not subside after taking nitro-glycerine and metamizole. After resolving electrolytes and adjusting the therapy, he was released into home care. With consideration of the conducted examinations and the course of the hospitalisation, they assumed that the patient's issues are most likely rooted in psychogenesis. The pain was most likely manifested more with depression, and the problems were exacerbated by the process of withdrawing from alcohol addiction. After the patient's release, it was recommended that with an exacerbation of his clinical condition and further incapacitation, but a vitally stable condition, he would require continued psychiatric treatment.

From the declaration of the COVID-19 epidemic, he adhered to the instructions set because of state of emergency, and stayed at home. He followed news on the advancement of the epidemic in Slovenia and the world, especially on tele-

vision, for at least 20 hours per day. He apparently slept for only a few hours after taking sleep medication (zolpidem). The epidemic-related panic kept progressing. He was completely consumed by ideas of the coming famine, catastrophe, hopelessness, and inevitable death. His anxiety was further fuelled by general insecurity, especially the daily changes to state-mandate instructions and measures, and a general impression of deterioration across all levels of the state. He began drinking alcohol again. His wife calmed him and tried to find professional help; however, because of unclear instructions about the organisation of work in healthcare after the declaration of the epidemic she was asked to be patient. On the eighth day after the declaration of the COVID-19 epidemic, she found him in a half-lying position, hanged from the living room door doorknob with a ligature made from a tie. The police investigation, the coronary examination and the autopsy confirmed suicide. The toxicology analysis of blood and urine, taken during the autopsy, showed a negative result for the presence of alcohol in blood and urine, and therapeutic or barely measurable concentrations of several prescribed drugs in blood (sertraline 0.17 mg/L, zolpidem 0.02 mg/L, diazepam 0.02 mg/L, donepezil below 0.01 mg/L) and urine (sertraline 0.01 mg/L, zolpidem 0.01 mg/L, diazepam below 0.01 mg/L, donepezil below 0.01 mg/L).

The patient had, according to the gathered data, developed a severe bout of depression with psychotic symptoms, which represents a high risk for suicide, especially with the presence of depressive delusions. The epidemic and the media reports can be defined as the trigger factor, which exacerbated his psychic condition. The risk was further increased with alcohol abuse, which decreases judgement and criticality, thereby enabling the execution of a suicide.

2.2 Case report 2

An allegedly 61-year-old man, a migrant from Afghanistan, was apparently in contact with somebody who was positive for the novel coronavirus (SARS-CoV-2). In the third week after the declaration of the COVID-19 epidemic, he returned in late afternoon to his room in the asylum under the influence of alcohol, and spoke angrily that they refused to test him or something to that accord. His roommate did not understand him well. In the room, he continued drinking alcohol, and because of anger and intoxication, he broke a part of the furniture. In the morning, his roommate did not see him. The litre bottle of brandy by the side of the bed was about three quarters empty. Later, they found him hanged on an apple tree in the corner of a large garden next to the building.

Later, they provided the information that the test was conducted and that he was negative. His roommate told the interpreter that their faith opposes holding an autopsy. After the police investigation and the coroner's examination, outside guilt was excluded. For the above-mentioned reasons, there was no autopsy, and a toxicology analysis was not performed.

The data we obtained does not suffice for a thorough professional consideration. However, it is this lack of data that shows that asylum seekers are a group with potentially high risk for poor mental health and that mental disorders in this group can be difficult to recognise, also because of the communication barriers. These disorders frequently include post-traumatic stress disorder, which occurs after surviving through traumatic experience at asylum housing or on the path abroad. As we described above, drinking alcohol makes it easier to ultimately decide for the act of suicide by inhibiting inhibitions. In this case, the COVID-19 epidemic can also be estimat-

ed as the trigger factor and not the cause of the act.

2.3 Case report 3

A 30-year-old man in the sixth week after the declaration of the COVID-19 epidemic suddenly ran in front of a heavy goods vehicle. He did not have any suicidal tendencies before that. He had been prescribed olanzapine because of an anxiety disorder. He received out-patient treatment. According to the gathered data, he made deliveries in a van to a retirement home, where there were several confirmed infections with the novel coronavirus (SARS-CoV-2) among the residents and the staff. While waiting for the results of his test, he paced around his home for several hours, talking to himself, then without an explanation left his house and committed suicide by jumping in front of an oncoming vehicle. The physician confirmed the death of the pedestrian at the scene of the crash. The investigating judge on duty and the district attorney visited the scene of the crash. The investigating judge on duty did not choose to pursue any additional tasks and the physician on duty ordered an autopsy.

Before the autopsy, they submitted the information that the deceased pedestrian had a negative result for the SARS-CoV-2 test. The autopsy confirmed a polytrauma, especially severe injuries to the head and the brain, and most of internal organs. The toxicology analysis of blood and urine, taken during the autopsy, showed a negative result for the presence of alcohol in blood and a very low concentration in urine (0.04 g/kg), and low concentration of olanzapine in blood (0,01 mg/L) and urine (0.02 mg/L).

The collected data points to the conclusion that in this case, the suicide was the result of a psychotic event, namely mistaken convictions and/or sensations.

The psychotic extent of the anxiety has likely occurred before, because the prescribed anti-psychotic is not a drug that would be used for treating anxiety, but for psychotic disorders. It is possible that the patient was not yet finally diagnosed with the psychotic disorder. If he were, the physician would have probably decided that exposure to high stress that people like ambulance crews and delivery drivers experience during the crisis (the sense of endangerment from exposure and witnessing traumatic experience) is not suitable for him. Psychotic episodes of individuals who are sensitive to psychosis are related to stress.

3 Discussion

International recommendations about activities regarding mental health during the epidemic are still very general and promote reducing the stigma and discrimination, the importance of connectedness and care for physical health and routine, avoiding psychoactive substances and that people should seek help, if they need it (9). It is advised to utilise some specific therapeutic tools, such as psychological first aid and holding World Health Organisation's Mental Health Gap (mhGAP Humanitarian Intervention Guide) workshops, especially for those who work with COVID-19 patients, and an instruction that appropriate psychiatric drugs must be provided.

However, in reality, numerous services aimed at protecting mental health and treating people with mental disorders, were closed during the epidemic. There were reports of releases from psychiatric hospitals, numerous out-patient clinics moved their operation online, while community psychiatric teams that operate in certain regions only provided the most essential services, as per instructions. Most of the services were provided by telephone (personal communication).

Psychological counselling was also available from the National Institute of Public Health, the Association of Psychologists, and the Psychiatric Clinic. Help over the internet and telephone was also available from some other associations and social security programmes.

These case studies are a warning that during the time of great stress loads related to the crisis, such as the COVID-19 epidemic, we should pay attention to exceptionally vulnerable groups. These include people, especially men, who are addicted to alcohol or who abuse it, and have mood disorders, people who were previously exposed to trauma and people with severe mental disorders. All of the listed cases have the common denominator in the high level of impulsiveness, which is an important risk factor for suicide. Suicidal actions are defined by numerous internal and external determinants. Abuse of psychoactive substances has been proven to ease the decision for suicide (10).

The epidemic has therefore probably contributed to a higher level of risk of suicide in vulnerable groups. The professionals should be careful to note that when preparing plans on how to manage crises of any type.

4 Conclusion

We emphasise that during and following the COVID-19 crisis, we must act in the framework of other natural disasters. Guidelines for work in mental health related to vulnerable groups must be prepared. This is a crisis action that requires broad mobilisation of services and experts. It is essential to include enough experts for providing support in the crisis in the community, to make sure that they are mobile, adaptable, and able to respond to the needs related to mental health and mental disorders, especially with vulnerable groups.

References

1. European Public Health Alliance. Joint Statement: Vulnerable Groups should be protected during the COVID-19 Pandemic. Brussels: EPHA; 2020 [cited 2020 Apr 24]. Available from: <https://www.mhe-sme.org/wp-content/uploads/2020/04/epha-covid-statement-on-vulnerable-groups.pdf>.
2. Rajkumar RP. COVID-19 and mental health: A review of the existing literature. *Asian J Psychiatr*. 2020;52:102066. DOI: [10.1016/j.ajp.2020.102066](https://doi.org/10.1016/j.ajp.2020.102066) PMID: [32302935](https://pubmed.ncbi.nlm.nih.gov/32302935/)
3. Asmundson GJ, Taylor S. Coronaphobia: fear and the 2019-nCoV outbreak. *J Anxiety Disord*. 2020;70:102196. DOI: [10.1016/j.janxdis.2020.102196](https://doi.org/10.1016/j.janxdis.2020.102196) PMID: [32078967](https://pubmed.ncbi.nlm.nih.gov/32078967/)
4. Dong L, Bouey J. Public mental health crisis during COVID-19 pandemic, China. *Emerg Infect Dis*. 2020;26(7):1616-8. DOI: [10.3201/eid2607.200407](https://doi.org/10.3201/eid2607.200407) PMID: [32202993](https://pubmed.ncbi.nlm.nih.gov/32202993/)
5. Yip PS, Cheung YT, Chau PH, Law YW. The impact of epidemic outbreak: the case of severe acute respiratory syndrome (SARS) and suicide among older adults in Hong Kong. *Crisis*. 2010;31(2):86-92. DOI: [10.1027/0227-5910/a000015](https://doi.org/10.1027/0227-5910/a000015) PMID: [20418214](https://pubmed.ncbi.nlm.nih.gov/20418214/)
6. Thompson RR, Jones NM, Holman EA, Silver RC. Media exposure to mass violence events can fuel a cycle of distress. *Sci Adv*. 2019;5(4):eaav3502. DOI: [10.1126/sciadv.aav3502](https://doi.org/10.1126/sciadv.aav3502) PMID: [31001584](https://pubmed.ncbi.nlm.nih.gov/31001584/)
7. Tsang HW, Scudds RJ, Chan EY. Psychosocial impact of SARS. *Emerg Infect Dis*. 2004;10(7):1326-7. DOI: [10.3201/eid1007.040090](https://doi.org/10.3201/eid1007.040090) PMID: [15338536](https://pubmed.ncbi.nlm.nih.gov/15338536/)
8. Elovainio M, Hakulinen C, Pulkki-Råback L, Virtanen M, Josefsson K, Jokela M, et al. Contribution of risk factors to excess mortality in isolated and lonely individuals: an analysis of data from the UK Biobank cohort study. *Lancet Public Health*. 2017;2(6):e260-6. DOI: [10.1016/S2468-2667\(17\)30075-0](https://doi.org/10.1016/S2468-2667(17)30075-0) PMID: [28626828](https://pubmed.ncbi.nlm.nih.gov/28626828/)
9. World Health Organization. Mental health and psychosocial considerations during the COVID-19 outbreak. Geneva: WHO; 2020 [cited 2020 Apr 25]. Available from: <https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf>.
10. Milčinski L, ed. Psihijatrija. Ljubljana: Državna založba Slovenije; 1986. pp. 519-28.