

A Case of Suicide Related with Covid-19



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SUMMARY

The worldwide public health problem of suicide, requires a multidisciplinary assessment, given its economic, cultural, social and psychological aspects. The global COVID-19 pandemic that originated from the Peoples Republic of China in the last months of 2019 has the potential to trigger mental disorders and even suicidal attempts through fear, psychosocial pressures and as a result of disruption of the customary daily life styles. In this report we discuss a case of completed suicide of a 34-year old male who had confined himself to his home, after stocking up large amounts of food, drinking water and cleaning materials in response to the COVID-19 pandemic in our country using site investigation reports, medico-legal autopsy and psychological autopsy of the deceased. It was found out that the victim was following the internet and the television daily for news on the COVID-19 outbreak in the country. One week before the event, he had left his workplace telling his colleagues that he would confine himself to his home for 15-20 days to clean up the premises. Washed banknotes and blister tablets were found in the house as well as stocked water and cooked food. The deceased had twice consulted hospitals for fear of COVID-19 infection 2 days before his demise. It was discussed that he might have the diagnosis of “mixed anxiety and depression”. Evaluation of his experiences, discourses and behaviours within the span of 3-4 days before the act and the site investigation have suggested that he might have attempted suicide as a response to stress.

Keywords: COVID-19, suicide, psychological autopsy

INTRODUCTION

Suicide is an important public health problem in our country as well as in other countries. It requires a multidisciplinary approach for evaluation since it has economic, cultural, social and psychological impacts. The discipline of forensic medicine plays an important role in the preparation of mortality statistics by carrying out the postmortem examinations on completed suicides which represent the most serious dimension of suicidal behaviour (Demiret al. 2018). According to the World Health Organization (WHO) (2014) reports, the worldwide prevalence of suicide was 11.4 per 100.000 population in 2012.

The “New Coronavirus Disease (*Severe Acute Respiratory Syndrome Coronavirus 2-SARS-CoV-2, COVID-19*)” is the latest globally spreading infection that emerged in the city of Wuhan/China, in 2019 following the *Severe Acute Respiratory Syndrome Coronavirus* (SARS-CoV, 2002-2003), Bird Flu (H5N1, 2004), Swine Flu (H1N1, 2009) and

the *Middle East Respiratory Syndrome* (MERS-CoV, 2012-2013) epidemics (Çirakoğlu 2011, Zandifar and Badrfam 2020, Morales 2020). COVID-19 is a disease with flu-like symptoms of fever, coughing, shortness of breath which may lead to intensive care requirement for acute respiratory failure syndrome, multiple organ failure in individuals with chronic diseases (Morales 2020, Guo 2020, Lake 2020). Isolation and quarantine are the most effective measures in combatting this disease (Lake 2020).

The virus first appeared with unknown causes on 31/12/2019 at a pulmonary diseases clinic in the Chinese city of Wuhan leading to extensive loss of life before appearing in Thailand, Japan and South Korea (WHO 2020a). It was declared as a pandemic by WHO on 11/03/2020 after the rapid worldwide increase of cases (WHO 2020b). In Turkey, the first case was diagnosed on 12/03/2020 and the first incidence of death occurred on 18/03/2020 (WHO 2020c); schools and universities were shut down on 16/03/2020; regulations obligating the public to stay at home and banning intercity

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travel were issued on 28/03/2020 and controls preventing entrance and exit to metropolitan cities were implemented as of 03/04/2020 (Republic of Turkey Ministry of Internal Affairs General Directorate of Provincial Administration 2020).

One of the most significant effects of this pandemic is on the mental health of humans as biopsychosocial beings. During epidemics and pandemics, the fear of death, feelings of loneliness and anger created by isolation and quarantine, the difficulties and stress experienced by the limitation of face-to-face communication, may lead to mental problems including panic disorder, anxiety and depression (Zandifar and Badrfam 2020, Qiu et al. 2020).

The psychological impact of the COVID-19 pandemic will gain further significance after the acute period. As far as we know, there has not been any publication in the literature on cases of suicide that may be related to the COVID-19 pandemic until the preparation and submission of this article.

The aim of the present study was to examine by autopsy methods a suicide case completed during the first weeks of the COVID-19 pandemic in Turkey and thereby to demonstrate the psychosocial effects of the COVID-19 pandemic on this case.

CASE

Investigation at the Site of the Event

It was reported on 02/04/2020 that a 34-year old male individual had shot and killed himself with a rifle in the house where he lived alone. Investigations at the site of the event necessitated an entry by removing the frame of the living room window as the entrance door was locked with the key left in the lock and the windows were closed. The individual was found lying on his back on the bedroom floor and there was an Emerald Magnum 12 caliber semi automatic hunting rifle 40 cm away from the right shoulder of the body. There were 4 cartridges loaded in the chamber. An empty cartridge was found 1 meter away from the body and 15 cm away from the rifle. A suicide note was not found at the site of the event.

About 20 liters of partly used domestic cleaning material and hand disinfectants, and large quantities of unused face masks and gloves in boxes were stored in the house, with used gloves left at various locations. A 20-liter demijohn and a 10-liter cooker full of drinking water were found on a sofa in the living room. Also, ordered pita with minced meat sufficient to feed one person for about ten days was left open on a tray on a plastic chair in the living room. On the same plastic chair fifty-lira and hundred-lira banknotes were found washed with detergent together with a debit card, the business card of a taxi rank and a cell phone. There were tablets and capsules of medicines removed from their blister wraps and left over

for drying on a metal tea tray placed on the floor of the living room. Any item that could represent suspicious/legal evidence was not found.

Forensic Autopsy

The autopsy was performed by the Forensic Medicine Department of Pamukkale University Faculty of Medicine. The nasopharyngeal swab evaluated by PCR was COVID-19 negative (-). It was reported that the individual was a male wearing only a green T-shirt, black shorts and trousers, appearing to be 35-years of age with a body height of 1.72 meters and weighing about 72 kg, There was a circular contact shot rifle wound of 20x18 mm dimensions with smooth edges on the thoracic front wall, to the left of the sternum. An ecchymosed ring of 2-mm width was observed around the wound without any burn, soot or unburnt gunpowder traces. A rectangular ecchymosis of 15x10 mm dimensions was observed on the top edge of the entry hole caused by the iron sight of the rifle. Segmental fractures were observed on the left 3rd, 4th and 5th ribs and 850 mL blood was observed in the left thoracic cavity. A 5-cm long and 2-cm wide white plastic fuse was observed on the interior of the left thoracic wall at the posterolateral neighbourhood of the fifth rib. Many deformed pellets with a diameter of 1.5 mm were present embedded to the posterolateral wall on the left thoracic wall. It was observed that the left lung was mostly lacerated, while the lung parenchyma was contusive. The stomach was empty. Significant findings were not made in the other organs. A traumatic lesion or sign of violence suggesting the presence of a third party during the incident were not found.

Psychological Autopsy

The legal file and the inquiry records on the suicide were investigated; and the suicider's mother, maternal uncle and friends were contacted by face-to-face interviews and phone calls whereby it was found out that the individual was the youngest of 3 siblings, a lycée dropout, single and without a regular job whose financial requirements were met mostly by his family. He had lost his father after a cardiovascular event about 10 years previously and had been living alone for 3-4 years. He frequently visited his mother and a sister living in another city; and sometimes helped his relations and friends as a porter at the vegetable-fruit market.

Since childhood he had been easily irritable with damaging behaviours when angry. He had completed his military service without any problems. He was withdrawn in the recent years, contacting a limited social circle but remained to be anxious, irritable, highly critical, tending to dramatize everything in his mind. He did not use alcohol or substance, did not have a known history of psychiatric or physical disorders or self harming behaviour and had not made any psychiatric

consultations. A grandmother, who had developed odd behaviours after losing her husband, had committed suicide by hanging herself.

His mother had not observed any problems during his last visit some 3 months previously. His friends had noted that in the few weeks before the event he had been closely following the news on the COVID-19 pandemic; that he had consulted a hospital a few days before his death with suspicion COVID-19 infection due to fever. When found without a problem and sent home, he had consulted another hospital and a medical treatment with paracetamol, clarithromycin, multivitamin preparations was started for upper respiratory tract infection diagnosis.

Details of the inquiry file indicated that he did not have a criminal record. According to the witness accounts, he had left his place of work about 1 week before his suicidal attempt saying that he was going to confine himself home for 15-20 days after cleaning up the premises. He had been accessible only on the phone and had requested for the telephone charging device he had forgotten in the place of work, but refused to open the door to the person who brought it and asked for it to be thrown in through the window. When talking to his mother three days before the incident he had said "this virus nuisance came about, I will lock myself in the house".

On the basis of these findings, it was considered that his condition could be "mixed anxiety and depression" induced by the COVID-19 pandemic stressor; and that he had committed suicide most likely under the stress he experienced as indicated by the observations at the site of the event and his experiences, statements and behaviours 3-4 days before the incident.

DISCUSSION

In this report we aimed to present the psychological impact of the COVID-19 pandemic through the investigation by psychological autopsy methods of a completed suicide attempt.

Oğuzhanoğlu et al. (2018) reported after investigating completed suicide incidents in the city of Denizli during 2009-2010 that factors such as psychiatric disorder history, stressful life events and lack of social support correlated with suicides and that psychiatric disorders and unemployment increased the risk of suicide independently of other factors. This was verified by another study reporting that negative life events can be considered among risk factors leading to suicide (Green et al. 2020).

COVID-19 pandemic is an adverse experience resulting in significant stress worldwide, including our country. Not

only the fear of disease and death but also difficulties of the imposed social isolation are important in relation to suicidal attempts and psychological disorders, as can be seen in the case discussed here and in the corroborating conclusions of the report by Qiu et al. (2020). Examining the perceptions, anxiety levels and avoidant behaviours of individuals during the H1N1 pandemic, Çirakoğlu (2011) reported that females tended to be more anxious and avoidant. A survey carried out with a total of 52.730 participants from 36 centers representing the general population in China showed that about 35% of the participants were experiencing psychological distress which was more prevalent among females (Qiu et al. 2020).

Hence, the anxiety and psychological distress, that would rather be expected in females, was triggered by the pandemic in the male gender in the case discussed here, resulting in psychotic characteristics leading to suicide. This can be explained by the intensity of anxiety and the premorbid characteristics of the individual who was the youngest and the only male offspring, continuously supported and protected by the family, an apprehensive individual with low expectations, experiencing difficulties in overcoming problems and anger control when challenged emotionally. He might have experienced difficulties in developing suitable coping strategies during the COVID-19 pandemic in the absence of the accustomed family support.

According to the review by Bachmann (2018), completed suicide attempts are thrice more prevalent among males, frequently with the use of firearms. The presence of psychiatric disorders such as depression, substance abuse, psychotic disorder and a history of suicide in the first degree relatives of especially bipolar disorder patients increases the risk of suicide. In the case discussed here, a rifle had been used in accordance with the literature and the history of completed suicide attempt by the grandmother leads us to consider that the risk could have been increased.

Evaluating the imposed social isolation during the COVID-19 pandemic, Bo et al. (2020) reported observing many cases of anxiety, loneliness, anger, depression, insomnia, post-traumatic stress disorder due to factors including isolation, fear and the media. In a total of 714 cases diagnosed with COVID-19, the incidence of post-traumatic stress disorder was 96.2%. Qiu et al. (2020) have also reported that post-traumatic stress disorder incidence was elevated during the COVID-19 pandemic especially among immigrants, individuals aged 18-30 and above 60 years and those with high level of education which require strategic planning for emergency psychological aid.

The case discussed here was evaluated by the psychological autopsy approach which is a systematic retrospective method of examining suicides. The primary aim of the method is to evaluate the mental disorders and life events that may

lead to suicide and involves the use of multiple sources of information including investigating the site of the event, the judicial, medical and psychiatric records in addition to face-to-face and phone call interviews with the acquaintances of the suicider (Oğuzhanoglu et al. 2018). The retrospective evaluation of the case discussed here demonstrated that the mental problem might have developed with concerns about being infected with COVID-19 and displayed with anxiety symptoms. Also, storing excessive amounts of disinfectants, cleaning materials, masks, food, and water and washing items such as banknotes and tablet medicines suspected to be infective indicate symptoms of compulsion. These symptoms suggest deteriorations in the assessment of reality.

China faced problems in the attempts to provide psychological interventions during the COVID-19 pandemic. Establishing a coordinated scientific intervention system based on the evaluations of the psychological problems by the public health centers was considered (Duan and Zhu 2020). It was stressed that psychological evaluations should be a part of the healthcare system during periods of crisis such as the COVID-19 pandemic when mental disorders are known to increase (Zandifar and Badrfam 2020). There are known studies carried out in Turkey and the world, undertaken to prevent suicide and backed up by the WHO and the European Union (WHO 2014, WHO 2018, Dumon and Portzky 2014, Özgüven and Alici 2016). Highly useful online volunteer psychiatric support systems have been set up by many associations and institutions in our country during the COVID-19 pandemic.

In conclusion; this case of completed suicide attempt shows that the COVID-19 pandemic has led to significant psychological effects in addition to physical and socio-economic damages coupled with high disease and mortality rates as is the case in all global crises. We suggest the formation of plans on immediate action and psychiatric support for community mental health in addition to follow-up plans all over the country as part of the pandemic management during the COVID-19 pandemic.

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