Work 73 (2022) 1103–1108 DOI:10.3233/WOR-220147

# Effect of the COVID-19 pandemic on violence against pre-hospital emergency health workers

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Received 16 March 2022 Accepted 17 June 2022

#### Abstract.

**BACKGROUND:** Violence against pre-hospital emergency health workers is a growing problem worldwide and negatively impacts the effectiveness of emergency services. The social distancing, isolation and quarantine measures that have been employed to reduce the spread of COVID-19 have also had economic and psychosocial effects. Therefore, it is important to explore how the negative repercussions of the COVID-19 pandemic have influenced these violent incidents that interfere with the work of emergency medical services (EMS).

**OBJECTIVE:** This study aims to evaluate how violence against EMS workers has been impacted by the effects of the COVID-19 pandemic.

**METHODS:** This study takes an interpretive social science approach, using the qualitative method of in-depth semi-structured interviewing. Audio of the interviews was recorded with the interviewee's consent. Sound recordings were transcribed and their content was categorised into themes. Categorised texts were then evaluated using descriptive analysis.

**RESULTS:** Participants reported that, during the COVID-19 pandemic, they encountered more violence than usual on EMS assignments to non-emergency situations, though a sense of gratitude towards health workers at the beginning of the pandemic and positives attitudes towards health workers also contributed to reduced violence towards them. The data indicate that workplace violence among EMS employees has increased as the problems caused by the pandemic have intensified, suggesting that additional measures need to be taken to protect them.

**CONCLUSION:** In parallel with an increase in social violence during the COVID-19 pandemic, violence against EMS workers also increased in prevalence. A multidimensional approach should now be taken to determine how violence against EMS employees will be affected by risks such as the intergenerational transmission of social violence, a psychosocial repercussion of the COVID-19 pandemic, especially considering the increasing workplace violence among EMS employees.

Keywords: Violence, COVID-19, pandemic, EMS

#### 1. Introduction

Violent attacks on pre-hospital emergency health workers are an escalating problem globally. The fact that violence is so frequently directed towards these emergency medical service (EMS) workers, who risk their own lives to save those of others, is a cause for concern [1]. In the USA, violence is 22 times more common against EMS workers than other types of workers [2]. A study by Bigham et al. found that 75% of EMS workers reported exposure to violence in the last year [3]. Based on a survey across 13 different countries, Maguire et al. reported that 65% of

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EMS workers faced physical violence while carrying out their work [2]. A systematic review conducted by Sahebi et al. indicated that over 60% of EMS workers may be subject to physical violence [4].

Severe pneumonia cases connected with the SARS-CoV-2 virus (COVID-19), which was first seen on 1st December 2019 in Wuhan, China, were reported to the World Health Organization (WHO) by China on 31st December 2019. The virus spread rapidly all over the world, and on the same date as the first case was seen in Turkey, 11th March 2020, the WHO declared it a pandemic. Every country in the world has struggled during the pandemic to reduce the spread of the virus and maintain a functioning healthcare system by appropriately managing health sector resources. However, the measures taken to do so, such as social distancing, isolation and quarantine, have economic and psychosocial effects. Therefore, it is expected that many of the problems that arose during the pandemic will continue after [5–7]. It is important to determine whether the incidents of violence against EMS employees, which negatively impact EMS effectiveness even in ordinary periods, have been affected by the pandemic and will be affected after.

The purpose of this study is to evaluate the impact of the COVID-19 pandemic in terms of violence directed towards EMS workers. As factors such as the intergenerational transmission of social violence and the psychosocial impact of the COVID-19 pandemic run the risk of affecting violence against EMS employees in the future, this study is important for determining what measures can be taken to maintain the effectiveness of EMS.

#### 2. Materials and method

This study used an interpretive social science methodology. Interpretive social science, which "emphasizes the socially constructed relativity of meaning and value", involves reading texts in-depth, assuming that readers discover/interpret the meaning of the text based on their own perspective [8]. The qualitative research method of semi-structured in-depth interview was selected as a suitable means of gathering data for such an approach [9]. Based on the findings of a literature search, the aim was not to study EMS personnel in general. Instead, the methodological purpose of the research was to examine EMS personnel's exposure to violence (whether psychological, physical, sexual, or economic) in the

specific context of their professional lives and focus on their individual experiences of different forms of gender inequality and violence. In line with this purpose, EMS personnel were approached with corporate agreement and personal consent. The universe of literature search was defined as EMS workers in Turkey, and the sample was composed of 28 people working in the city of Izmir. Semi-structured in-depth interviews were held with these people, and audio was recorded with the interviewee's consent.

Thematic analysis was performed by an independent qualitative researcher, using a well-established iterative process to analyse each word-for-word transcript.

The process consists of the following steps:

- 1. Reading the interview transcripts
- 2. Noting interviewees' opinions regarding violent incidents against EMS workers during the COVID-19 pandemic
- 3. Creating themes and organising repeated ideas into these themes systematically with text excerpts
- 4. Reviewing the themes by evaluating whether they are meaningful and related to the research question
- 5. Defining and naming the themes to summarise the narrative with explicit definitions
- 6. Evaluating the themes through descriptive analysis

#### 3. Results

Excerpts used in this paper have been translated from the original Turkish and so are not exact transcriptions, though we have minimised rewording.

## 3.1. Impact of occupational difficulties arising during the pandemic on violence

The COVID-19 pandemic has affected many areas of society, especially the economy, education, health and the socio-cultural sphere. Health workers are one of the occupational groups most affected by the situation. During the COVID-19 pandemic, which has overturned how we view the world, the public's understanding of 'life outside' has been replaced by an understanding that 'life fits at home', bringing new difficulties to the working conditions of EMS employees [10]. Interviewees 11 and 26 expressed this issue as follows:

In this period, we encountered citizens who called the 112 Emergency Number just because their shoes hurt their feet. (Interviewee 11)

There was a shortage of ambulances. We were tired, as our workload at least doubled. It was very tiring, and the one hour we usually spent on a case increased to at least an hour and a half, as it takes a lot of time to put on and take off the personal protective equipment, and the disinfection of the ambulance takes at least 20 minutes. In addition, wearing a mask for a long time makes it difficult for us to breathe easily. (Interviewee 26)

Interviewee 24 explains the impact of EMS callouts to non-emergency cases on the emergence of violence as follows:

We are faced with nonsense such as the use of emergency services to enforce isolation measures. While we aim to serve people whose lives are in danger, we are now forced to transport patients to be quarantined by force. Therefore, the EMS employee is in direct contact with the patient, even though this is law enforcement. We encounter more violence on these types of assignments. (Interviewee 24)

# 3.2. Increased tolerance from patients and their relatives towards healthcare workers during the pandemic

Showing respect and understanding of people working in service roles in public health, especially in extraordinary situations, is important for their professional motivation, enabling them to perform well in their profession. Especially at the beginning of the pandemic, the public perception of healthcare as a sacred profession had a positive effect on people's attitude towards health workers:

People began to show tremendous respect, blessing health workers during the pandemic. We got respect. I was very respected during this period, and I was very surprised. (Interviewee 15)

During the pandemic, people became more understanding. Many patients were waiting during this time. Sometimes we sent an ambulance late, and sometimes there were patients we didn't reach until the evening. They always said that it was alright. (Interviewee 9)

During the pandemic, everyone understood the importance of healthcare workers. It was like that

at all times. So, we worked with the same devotion too. (Interviewee 12)

### 3.3. Impact of the COVID-19 pandemic on violent incidents

The COVID-19 pandemic has had an impact on many different variables as well as violence against EMS workers:

In other words, the pandemic actually affected the cases of violence against healthcare workers. So I think it had both positive and negative effects. (Interviewee 8)

Interviewees 10 and 7 stated that empathy was higher among patients, their relatives and health-care professionals at the beginning of the pandemic, while violence worsened compared to before the pandemic:

In other words, there weren't many violent incidents at first during the pandemic, as gratitude to healthcare providers increased. So to be honest, I don't think much respect is shown. But then they had a different psychology when people were confined to their homes and had financial problems, and then the violence started to become even worse than before. (Interviewee 10)

I think that people's tolerance has decreased. The pandemic has affected this. People are ready to fight over trivial issues. (Interviewee 7)

Interviewees 11 and 28 stated that violence has become more common during the pandemic and that factors such as an increase in family problems and financial and moral problems have augmented violence against EMS employees even more:

We saw that general financial losses, moral losses due to confinement at home and domestic violence increased significantly during this period. People are very nervous right now because of serious financial and moral concerns. Violence against EMS employees increased. (Interviewee 11)

When people are asked not to go out, they feel psychologically suppressed and want to make someone pay for it. Violence against EMS workers has increased a lot, especially among patients diagnosed with COVID-19. The tendency to aggression is slightly higher. (Interviewee 28)

Participants stated that, with the increase in violence against EMS employees during the pandemic, violence also increased among EMS workers:

Certainly, the violence has increased, the pandemic has even made us more prone to violence. Likewise, our tolerance towards each other has decreased, and aggression has increased. (Interviewee 15)

Not only the patients but we too started to interact with each other. We, as EMS employees, became more hostile to each other. (Interviewee 6)

#### 4. Discussion

Saberian et al. previously found that EMS dispatches in Iran went up more than 20% during the pandemic compared with pre-pandemic [10]. In Turkey, Şan et al. [11] reported that there was a more than 10% increase in EMS call-outs in 2020. Almost all EMS workers who participated in a study by Doğan in Turkey in 2021 reported that their workload had increased significantly compared to the prepandemic period [12]. A study conducted by Ardebili et al. in 2021 to evaluate the experiences of healthcare professionals during the COVID-19 pandemic found that healthcare professionals faced an unprecedented workload during the pandemic [13]. In the current study, the participants systematically stated that their workload increased during the COVID-19 pandemic and that this workload increase sometimes paved the way for violence.

It has been observed that EMS teams and ambulance assignments were sometimes utilised for unusual tasks during the most severe period of the COVID-19 pandemic. Even if the clinical condition of some patients diagnosed with COVID-19 at hospitals in Turkey did not warrant ambulance transport, they were sometimes sent home for isolation in company with EMS teams. Moreover, patients diagnosed with COVID-19 who violated the isolation rules were transported by ambulance to mandatory isolation centres on Ministry of Health orders [14]. Many studies show that, with the increasing demand for EMS during the pandemic, EMS teams are often sent out in non-emergency situations despite all of the triage practices used by emergency call centres [15– 18]. Participants in the current study stated that they encountered more violence during EMS call-outs to non-emergency situations during the pandemic.

The way that the public view health workers has changed during the COVID-19 pandemic because of the rate of spread of the virus, mortality rates and the high risk of occupational exposure together with the fact that health workers have to continue to fight the virus with scarce resources, especially with regards to personal protective equipment. The struggle of healthcare workers in many societies has been recognised, and the work of healthcare professionals has even been sanctified [19, 20]. At the beginning of the pandemic, a one-minute applause campaign was launched as a sign of gratitude to health workers in several countries, especially in those such as Spain and France where the pandemic was intense. The campaign was personally supported by the Minister of Health and President of Turkey [21, 22]. The participants of this study systematically stated that the sense of gratitude towards health workers from the public at the beginning of the pandemic and their positive perspective towards health workers contributed to reducing the number of violent incidents faced by EMS workers.

It is known that measures such as quarantine, isolation and social distancing, which have been very important to prevent the spread of the virus during the COVID-19 pandemic, also have psychosocial effects when combined with other factors [23]. Brooks et al. found that substance use became widespread and anger, confusion and post-traumatic stress symptoms increased in those in isolation and quarantine [24]. In addition, several studies reported that domestic violence cases increased in some regions of the USA during the pandemic [25, 26], and others stated that there has been an increase in firearm injuries, which is one of the worst forms of physical violence in society [27].

According to data from the Health and Social Workers' Union in Turkey, the monthly incidence of healthcare workers facing violence had increased by more than twice as of June 2020, and this increasing trend continued until May 2021, the latest date for which data were available [28, 29]. The participants in the current study systematically stated that they had seen a decrease in violence against EMS employees as a result of the sense of gratitude towards healthcare professionals at the beginning of the pandemic but that violence increased as the various problems people experienced during the ongoing pandemic period and the increase in violence in society in general took effect

As people went through a protracted struggle with an unfamiliar enemy during the COVID-19 pan-

demic, losing relatives, losing jobs and income, going into isolation for prolonged periods, facing increasing uncertainty, and feeling threatened, they became more aggressive, crueller and more insensitive. There is also a risk of intergenerational transmission of trauma and violent tendencies [30]. It seems that decisive government policies will be needed to combat these negative repercussions of the COVID-19 pandemic, with the aim of preventing social violence and protecting vulnerable disadvantaged groups [31]. Considering, moreover, that the participants in this study systematically claimed that cases of violence against EMS employees have been going up during the ongoing pandemic period, it is important to look into how the incidents of violence against EMS employees after COVID-19 will affect us. Additionally, the data from this study show that workplace violence among EMS employees has increased due to the impacts of the pandemic, suggesting that additional measures need to be developed for training EMS employees.

#### 5. Conclusion

As well as an increase in workload during the COVID-19 pandemic placing many additional strains on EMS employees, redundant use of EMS for non-emergency cases has contributed to their facing increased numbers of violent incidents. An increased sense of gratitude towards healthcare workers, partly due to campaigns launched at its beginning, reduced violence against EMS workers. However, a general rise in social violence due to the growing economic and psychosocial problems in society during the ongoing pandemic period has increased violence against EMS workers. How violence both against and among EMS employees will be affected in the future by psychosocial repercussions of the pandemic, such as the intergenerational transmission of social violence, remains a question that needs to be discussed multidimensionally.

#### **Ethical approval**

Approval was obtained from the Scientific Research Ethics Committee of Ege University (21-5T/65).

#### Informed consent

All participants were clearly informed that participation was based on the principles of confidentiality

and volunteerism. Prior to data collection, informed consent was obtained from all participants.

#### Conflict of interest

The authors have no conflicts of interest to declare that are relevant to the content of this article.

#### **Funding**

No funding was received for conducting this study.

#### **Author contributions**

Study design: AE, SG, SUA, and GK. Data collection: AE, SG, SUA, and GK. Data analysis: AE, SG, SUA, and GK. Study supervision: AE, SG, SUA, and GK. Manuscript writing: AE, SG, SUA, and GK. Critical revisions for important intellectual content: AE, SG, SUA, and GK.

#### References

- Maguire BJ, O'Neill BJ, O'Meara P. Tracking violence against ems: new research into an old problem. EMS World. https://www.hmpgloballearningnetwork.com/site/emsworld/ article/1222791/tracking-violence-against-ems-new-research-old-problem, 23.06.2020.
- [2] Maguire BJ, Browne M, O'Neill BJ, Dealy MT, Clare D, O'Meara P. International survey of violence against EMS personnel: Physical violence report. Prehospital and Disaster Medicine. 2018;33(5):526-31. https://doi.org/10.1017/S1049023X18000870
- [3] Bigham BL, Jensen JL, Tavares W, Drennan IR, Saleem H, Dainty KN, Munro G. Paramedic self-reported exposure to violence in the emergency medical services (EMS) workplace: A mixed-methods cross-sectional survey. Prehospital Emergency Care. 2014;18(4):489-94. https://doi.org/10.3109/10903127.2014.912703
- [4] Sahebi A, Jahangiri K, Sohrabizadeh S, Golitaleb M. Prevalence of workplace violence types against personnel of emergency medical services in Iran: A systematic review and meta-analysis. Iran Journal of Psychiatry. 2019;14(4):325-34.
- [5] Cullen W, Gulati G, Kelly BD. Mental health in the covid-19 Pandemic, QJM: An International Journal of Medicine Volume. 2020;113(5):311-2. https://doi.org/ 10.1093/qjmed/hcaa110
- [6] Pfefferbaum B, North CS. Mental health and the covid-19 Pandemic. The New England Journal of Medicine. 2020;383(6):510-2.
- [7] Duran MS, Acar M. What a virus could do the world: macroeconomic effects of covid-19 Pandemic. International Journal of Social and Economic Sciences. 2020;10(1): 54-67.

- [8] Neuman W. Social research methods: Qualitative and quantitative approaches. Pearson, Essex, UK, 2014.
- [9] Yıldırım A. ve Şimşek H. Sosyal Bilimlerde Nitel Araştırma Yöntemleri, Seçkin Yayıncılık, Ankara, 1999.
- [10] Saberian P, Conovaloff JL, Vahidi E, Hasani-Sharamin P, Kolivand PH. How the covid-19 epidemic affected prehospital emergency medical services in Tehran, Iran. The Western Journal of Emergency Medicine. 2020;21(6):110-6. https://doi.org/10.5811/westjem.2020.8.48679
- [11] Şan İ, Usul E, Bekgöz B, Korkut S. Effects of Covid-19 pandemic on emergency medical services. International Journal of Clinical Practice. 2021;75:e13885. https://doi.org/10.1111/ijcp.13885
- [12] Doğan M. Hastane öncesi acil sağlık çalışanlarının covid-19 pandemisi sırasında yaşadığı fiziksel, psikososyal, mesleki sorunlar ve korunma davranışları. Journal of Contemporary Medicine. 2021;11(2):174-9. https://doi.org/ 10.16899/jcm.832044
- [13] Ardebili ME, Naserbakht M, Bernstein C, Alazmani-Noodeh F, Hakimi H, Ranjbar H, Healthcare providers experience of working during the covid-19 pandemic: A qualitative study. American Journal of Infection Control. 2021;49(5):547-54. https://doi.org/10.1016/ j.ajic.2020.10.001
- [14] Coşkun Ş. Kovid-19 mücadelesindeki ilk el: 112. Anadolu Ajansı. https://www.aa.com.tr/tr/koronavirus/kovid-19mucadelesindeki-ilk-el-112-/1816959, 23.06.2021.
- [15] Lerner EB, Newgard CD, Clay MN. Effect of the coronavirus disease 2019 (covid-19) pandemic on the U.S. emergency medical services system: A preliminary report. Academic Emergency Medicine. 2020;27(8):693-9. https://doi.org/10.1111/acem.14051
- [16] Jaffe E, Sonkin R, Strugo R, Zerath E. Evolution of emergency medical calls during a pandemic–An emergency medical service during the Covid-19 outbreak. The American Journal of Emergency Medicine. 2021;43:260-6. https://doi.org/10.1016/j.ajem.2020.06.039
- [17] Stephen S, Marc E. Mobile integrated health care in Los Angeles: Upstream solutions to mitigate the Covid-19 pandemic. Massachusetts Medical Society. 2021;2(2):1-16. https://doi.org/10.1056/CAT.20.0383
- [18] Jensen T, Holgersen MG, Jespersen MS, Blomberg SN, Folke F, Lippert F, Christensen HC. Strategies to handle increased demand in the Covid-19 crisis: A coronavirus EMS support track and a web-based self-triage system. Prehospital Emergency Care. 2021;25(1):28-38. https://doi.org/10.1080/10903127.2020.1817212
- [19] Dogru-Huzmeli E, Cam Y, Urfali S, Gokcek O, Bezgin S, Urfali B, Uysal H. Burnout and anxiety level of healthcare professionals during the Covid-19 pandemic in Turkey. Work. 2021;70:21-9. https://doi.org/10.3233/WOR-210028

- [20] Senturk E, Sagaltıcı E, Genis B, Gunday Toker O. Predictors of depression, anxiety and stress among remote workers during the Covid-19 pandemic. Work. 2021;70:41-51. https://doi.org/10.3233/WOR-210082
- [21] TRT Haber. Türkiye sağlık çalışanlarını alkışladı. https:// www.trthaber.com/haber/gundem/turkiye-saglik-calisanlarini-alkisladi-468615.html, 24.06.2021.
- [22] Bianet. Sağlık emekçileri için bir dakika: Alkışlar Türkiye'ye uzandı. https://bianet.org/bianet/saglik/221651saglikemekcileriicin1dakika-alkislar-turkiye-ye-uzandi, 24.06.2021.
- [23] Doğan A, Keskin G. Pandemi Sürecinde Ruhsal Sorunlar: Sağlık Çalışanlarının Covid-19 Yanıtına Travmaya Dayalı Bir Yaklasım. Hastane Öncesi Dergisi. 2021;6(1):159-74.
- [24] Brooks SK, Webster RK, Smith LE, Woodland L, Wessely S, Greenberg N, Rubin GJ. The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. The Lancet. 2020;395(10227):912-20. https://doi.org/10.1016/S0140-6736(20)30460-8
- [25] Boserup B, McKenney M, Elkbuli A. Alarming trends in US domestic violence during the Covid-19 pandemic. The American Journal of Emergency Medicine. 2020;38(12):2753-5. https://doi.org/10.1016/ j.ajem.2020.04.077
- [26] Hsu LC, Henke A. Covid-19, staying at home, and domestic violence. Review of Economics of the Household. 2021;19:145-55. https://doi.org/10.1007/s11150-020-09526-7
- [27] Hatchimonji JS, Swendiman RD, Seamon MJ, Nance ML. Trauma does not quarantine violence during the Covid-19 pandemic. Annals of Surgery. 2020;272:e53-e54.
- [28] Sağlık-Sen. Haziran ayı sağlıkta şiddet raporu. http://www.sagliksen.org.tr/haber/9015/Haziran-Ay%C4%B1Sa%C4%9Fl%C4%B1kta-%C5%9şiddet-Raporu, 30.06.2021.
- [29] Duvar Sağlık-Sen. 4 sağlık çalışanından 3'ü şiddete uğruyor. https://www.gazeteduvar.com.tr/saglik-sen-4-saglik-calis-anindan-3u-siddete-ugruyor-haber-1521720, 30.06.2021.
- [30] Mazza M, Marano G, Lai C, Janiri L, Sani G. Danger in danger: Interpersonal violence during Covid-19 quarantine. Psychiatry Research. 2020;289:1-3. https://doi.org/10.1016/j.psychres.2020.113046
- [31] Marques ES, Moraes CL, Hasselmann MH, Deslandes SF, Reichenheim ME. Violence against women, children, and adolescents during the Covid-19 pandemic: Overview, contributing factors, and mitigating measures. Cad Saúde Pública. 2020;36(4):e00074420.