THE NEW ARMENIAN MEDICAL JOURNAL
Volume19 (2025), Issue 2 p.126-131

DOI: https://doi.org/10.56936/18290825-2.v19.2025-126

VIOLENCE AGAINST HEALTHCARE WORKERS BEFORE AND AFTER COVID-19

Mkhitarian M.[1], Chopikyan A.[1], Harutyunyan A.[1], Melik- Nubaryan[1] D., Vartikyan A.[2], Tadevosyan A. [1*]

[1]Department of Public Health and Healthcare Organization, Yerevan State Medical University after M. Heratsi, Yerevan, Armenia

[2]Department of Applied Sociology, Yerevan State University, Yerevan, Armenia

Received 13.01.2025; Accepted for printing 28.03.2025

Abstract

The COVID-19 pandemic has profoundly impacted healthcare professionals, exacerbating workplace violence and emotional strain. Medical staff, particularly those in hospital settings, faced excessive workloads, emotional distress, and heightened exposure to the virus. This article examines violence against healthcare workers, highlighting its psychological and physical repercussions, including workplace-related anxiety and its broader impact on overall well-being.

Violence against medical personnel manifests in physical assaults, emotional exhaustion, depersonalization, and reduced personal accomplishment. The high-stress nature of healthcare predisposes workers to chronic stress, a condition further intensified by the pandemic. Studies indicate that a significant proportion of frontline workers exposed to violence report symptoms of depression, anxiety, and post-traumatic stress disorder. These long-term consequences not only harm individual well-being but also impair patient care and the functionality of healthcare system.

This article explores the prevalence and dynamics of violence against healthcare workers before and after the pandemic. It underscores the need for organizational reforms, including psychological support programs, mindfulness-based interventions, and the promotion of work-life balance. Evidence suggests that psychological interventions and a socially supportive approach can reduce stress and enhance resilience. Additionally, systemic strategies, such as workload adjustments, institutional backing, and leadership development, are crucial for mitigating workplace violence. Several healthcare systems have introduced policies to safeguard medical staff mental health, reinforcing the importance of structured support mechanisms.

Furthermore, the article addresses the anxiety caused by workplace violence across different periods, emphasizing the need for targeted psychological support. Healthcare professionals remain particularly vulnerable due to the nature of clinical work, necessitating violence-informed organizational strategies.

In conclusion, while the pandemic revealed vulnerabilities in healthcare systems and the mental health risks faced by medical staff, it also highlighted opportunities for systemic reform. Strengthening psychological support, implementing robust organizational strategies, and fostering a resilient healthcare workforce are essential steps toward reducing workplace violence and ensuring the long-term well-being of medical professionals.

Keywords: *violence, healthcare workers, COVID-19, psychological violence, physical violence, workplace, healthcare systems.*

Cite This Article as:

Mkhitarian M., Chopikyan A., Harutyunyan A., Melik- Nubaryan D., Vartikyan A., Tadevosyan A. (2025). Violence against healthcare workers before and after COVID-19; The New Armenian Medical Journal, vol.19 (2), 126-131; https://doi.org/10.56936/18290825-2.v19.2025-126

Address for Correspondence:

Artashes Tadevosyan, MD, PhD, Professor, DSci in medicine, Head of Department
Department of Public Health and Healthcare Organization
Yerevan State Medical University after M. Heratsi
2 Koryun str., Yerevan, 0025, Armenia
Tel: +374 91599898
E-mail: artashes.tadevosyan@meduni.am

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INTRODUCTION

The well-being of healthcare professionals is fundamental to the efficient delivery of high-quality care, particularly within high-stress work environments. Since the onset of the COVID-19 pandemic, global healthcare systems have undergone significant transformation, marked by a sharp increase in both physical and psychological stressors encountered by medical personnel. The pandemic has not only placed immense strain on healthcare infrastructures worldwide but has also subjected healthcare workers to unprecedented levels of pressure, resulting in severe consequences for their mental health, well-being, and job satisfaction [*Xu J. et al., 2023; Cohen C. et al., 2023*].

Even prior to the pandemic, healthcare professionals were vulnerable to various stress-related conditions, including workplace violence, assault, anxiety, and depression [*O'Connor K. et al., 2018*]. However, the pandemic intensified these issues, amplifying workloads, increasing patient mortality rates, and perpetuating a constant fear of infection [*Musse J. et al., 2022*]. During the COVID-19 crisis, medical staff experienced multiple forms of violence, both physical and psychological [*Stodolska A. et al., 2018*]. The healthcare workforce faced heightened demands, and recent studies show that the impact of the pandemic has been extensive, affecting both the physical and psychological health of healthcare workers [*Alharthi M, 2022]*. This has led to a broader conceptualization of workplace violence, now encompassing not only physical attacks but also psychological abuse, such as verbal aggression, intimidation, and emotional exhaustion [*Kuppuswamy G. & Warrier U., 2021*].

Recent research reveals alarming rates of workplace violence against healthcare workers during the pandemic. Studies report a significant increase in physical assaults, verbal abuse, and threats, particularly among younger healthcare professionals [*Musse J. et al., 2022*]. This violence is often associated with adverse psychological outcomes, including heightened stress, anxiety, and depression, which collectively diminish the overall well-being of medical personnel. These working conditions have spurred numerous calls for systemic reforms aimed at safeguarding healthcare workers and enhancing mental health support infrastructures [*Cohen C. et al., 2023*].

The impact of workplace violence on healthcare workers continues to be an area of active investigation [*Figueiredo S. et al., 2023; Khosravi Y., & Askarian M. 2023; O'Brien C. et al., 2024*]. In high-stress situations, including those involving violence, psychological interventions, especially mindfulness-based strategies and structured stress management programs, have demonstrated potential in strengthening emotional resilience and mitigating the effects of such violence among healthcare staff [*Riley R., & Weiss M., 2016; Jafari P. et al., 2022*]. These interventions aim to enhance the well-being of medical workers and to alleviate the detrimental consequences of chronic stress within clinical environments [*Pelloso S. et al., 2021*]. Moreover, the importance of offering psychological support during and following the COVID-19 pandemic has been underscored as a critical element in maintaining a healthy and effective healthcare workforce.

In the context of Armenia - where the healthcare system was significantly challenged during the pandemic - there remains a lack of research addressing the impact of workplace violence on medical professionals working under such strained conditions. Understanding the extent to which healthcare workers in Armenia were affected by workplace violence, stress, and anxiety during the pandemic is essential for improving their well-being and ensuring the resilience and sustainability of national healthcare services. This study seeks to address this research gap by examining the prevalence and consequences of violence among healthcare professionals in Armenia, with a comparative analysis of conditions before and after the pandemic. The goal is to identify core challenges and advocate for effective interventions that enhance workforce support and system-wide preparedness.

MATERIALS AND METHODS

A non-experimental, quantitative, cross-sectional study was conducted to assess the incidence, contributing factors, and prevalence of violence against healthcare workers in Armenia. Data collection was carried out using structured quantitative questionnaires. The study was implemented across Yerevan and all regions of Armenia, encompassing both large multi-profile hospitals and primary healthcare facilities in Yerevan.

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The minimum required sample size for the study was 384 healthcare workers; however, 432 participants were ultimately recruited based on availability sampling. Prior to participation, informed consent was obtained from each healthcare worker, and the study's purpose was briefly explained. Collected data included demographic characteristics (age, gender, and profession), occupational factors, and environmental variables, enabling comparative analysis between frontline and non-frontline healthcare workers.

The questionnaire included several sections. It collected baseline demographic information, including age group, professional role, years of work experience, department, and working hours during the year preceding the COVID-19 pandemic, as well as working hours and departmental affiliation at least 12 months post-pandemic. A section was dedicated to incidents of violence, addressing both the pre-COVID and post-COVID periods. Identical questions were asked for both periods to allow comparative analysis. Data were also collected on specific incidents of violence and included questions regarding preventive measures.

Data entry and statistical analysis were performed using SPSS software. Descriptive statistics and chi-square tests were used to identify associations between variables, including a comparative analysis between the pre- and post-COVID periods.

The study was approved by the Yerevan State Medical University Ethics Committee (Protocol #4/1, 25.11.2021).

Results

In total, 432 healthcare workers participated in the study. Of these, 73 (16.9%) were male and 359 (83.1%) were female (Table 1).

The study included a diverse group of healthcare professionals. Among the participants, 190 (44.0%) were nurses, 24 (5.6%) were resident physicians, and 143 (33.1%) were physicians. Additionally, 75 (17.4%) belonged to other professional roles, including 72 midwives (16.7%), two X-ray technicians (0.4%), and one administrator (0.2%).

Regarding work experience, 127 participants (29.5%) had been in their profession for 2-5 years, while 65 (15.0%) had between 6 and 10 years of experience. The majority, 240 individuals (55.6%), had been working for more than 10 years.

Table 1.

Baseline social-demographic characteristics of study participants.

Characteristic	n (%)
Gender	
male	73 (16.9%)
female	359 (83.1%)
Age group	
20-24	13 (3.0%)
25-29	62.2 (14.4%)
30-34	57 (13.2%)
35-39	45.8 (10.6%)
40-44	72.1 (16.7%)
45-49	41 (9.5%)
50-54	50.1 (11.6%)
55-59	34.1 (7.9%)
> 60	57 (13.2%)
Professional role	
nurses	190 (44.0%)
resident physicians	24 (5.6%)
physicians	143 (33.1%)
other professional roles	75 (17.4%)

A significant proportion of the participants (51.6%) had worked in COVID-19 departments, while 47.2% had not. A small number of respondents (5 participants) did not provide information regarding their involvement in COVID-19 departments.

In terms of weekly working hours after the COVID-19 pandemic, 38.2% of participants reported working 48 hours per week, while 15.5% worked 40 hours and 21.5% worked 72 hours. The post-pandemic departmental distribution showed that 16.7% were working in intensive care units (ICU), 18.8% in emergency or reception departments, 5.0% in post-surgical units, 18.5% in surgical units, 4.9% in infectious disease departments, 19.0% in internal medicine, and 2.1% in obstetrics and gynecology. The remaining 19.2% were distributed across other departments.

Before the COVID-19 pandemic, weekly working hours were as follows: 19.0% worked 40 hours, 43.5% worked 48 hours, and 17.4% worked 72 hours. The pre-pandemic department distribution was similar to the post-pandemic period, with 18.3% in ICUs, 19.0% in emergency/reception, 2.0% in post-operative care, 20.8% in surgical departments, 3.9% in infectious disease units, 21.5% in internal medicine, and 2.1% in obstetrics and gynecology. A total of 13.9% of participants worked in other departments.

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The study also examined workplace violence before and after the COVID-19 pandemic. Prior to the pandemic, 42.6% of participants had experienced physical assault, 77.1% had encountered verbal assault, 2.3% had reported incidents of sexual violence, and 17.8% had experienced sexual harassment. Additionally, 27.1% reported theft in the workplace. Hospital safety measures were perceived as high by 42.4% of respondents, while 57.6% rated them as medium or low. Concern about workplace violence was high or medium among 35.4% of participants, whereas 64.6% reported low concern.

Following the COVID-19 pandemic, the prevalence of physical assault decreased to 34.7%, while verbal assault remained consistent at 77.1%. The incidence of sexual violence slightly declined to 1.6%, and sexual harassment was reported by 14.1% of participants. Workplace theft also decreased to 20.1%. Perceptions of hospital safety improved, with 50.7% rating it as high, while 49.3% still considered it medium or low. Concern about workplace violence remained similar, with 36.8% expressing high or medium concern and 63.3% reporting low concern.

The study analyzed the associations between various demographic factors and workplace violence before and after the COVID-19 pandemic using chi-square tests.

Before the pandemic, male healthcare workers were significantly more likely to experience physical violence ($\chi^2 = 7.914$, $p = 0.005$) and reported a higher incidence of theft ($\chi^2 = 5.58$, $p = 0.018$). Age was also a significant factor, with healthcare workers aged 45-49 showing notable associations with both physical violence ($\chi^2 = 22.4$, $p = 0.004$) and sexual harassment ($\chi^2 = 19.1$, $p = 0.014$). Professional roles influenced exposure to violence, as physicians were more likely to face physical assault ($\chi^2 = 8.7$, $p = 0.033$), while resident physicians were more frequently subjected to verbal abuse ($\chi^2 = 8.3$, $p = 0.041$).

After the pandemic, these patterns remained evident, with male healthcare workers continuing to face higher rates of physical violence ($\chi^2 = 18.4$, $p = 0.000$) and theft ($\chi^2 = 5.9$, $p = 0.018$). However, shifts were observed in age-related associations, as younger workers aged 25-29 became more vulnerable to physical violence ($\chi^2 = 22.3$, $p = 0.004$). Meanwhile, those aged 45-49 continued to experience higher exposure to sexual harassment ($\chi^2 = 16.6$, $p = 0.035$). In terms of professional roles, physicians remained at higher risk of physical violence ($\chi^2 = 15.2$, $p = 0.002$).

Other factors analyzed were not statistically significant associations with types of workplace violence.

These findings highlight the evolving nature of workplace violence among medical staff and the need for targeted interventions to improve safety measures across different demographic groups.

DISCUSSION

The COVID-19 pandemic profoundly altered healthcare systems worldwide, leaving lasting psychological and emotional consequences for frontline medical personnel [*Chirico F. et al., 2022*]. This study investigates the multifaceted nature of workplace violence and the associated mental health challenges faced by healthcare professionals during and after the pandemic [*Debbarma S., 2023*].

The findings reveal a concerning persistence and prevalence of violence, aggression, and workplace-related anxiety. Notably, violence against healthcare workers became increasingly frequent throughout the pandemic. Many participants reported emotional exhaustion, depersonalization, and diminished professional efficacy following exposure to violence, outcomes that align with global trends [*Pappa S. et al., 2020*]. Physicians, nurses, and support staff endured extreme pressures, including extended working hours, heightened exposure to infection, and the emotional toll of patient deaths. These burdens were especially pronounced among those working in COVID-19 units, where reported rates of violence and assault were particularly high [*Zhang S. et al., 2023*].

Alarmingly, the already high pre-pandemic rates of violence remained elevated in the post-pandemic period. Before the pandemic, 42.6% of healthcare workers had experienced physical assault, and 77.1% reported verbal abuse. Post-pandemic, these figures remained largely unchanged, with 34.7% reporting physical assault and 77.1% verbal abuse. These findings highlight not only the exacerbating effect of the pandemic but also the systemic nature of workplace violence in healthcare settings.

Several notable trends emerged from the analysis, especially those related to gender, age, and professional role.

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Male healthcare workers were significantly more prone to experiencing physical assault and theft, both before and after the pandemic. These findings are consistent with existing literature suggesting that male workers may be at higher risk due to certain job roles or types of patient interactions.

In the pre-COVID period, healthcare workers aged 45-49 were the most affected by physical violence and sexual harassment. However, in the post-pandemic context, younger professionals (aged 25-29) became more vulnerable to such incidents, potentially due to limited experience or preparedness for conflict situations. This highlights a need for improved training in conflict resolution and emotional regulation for early-career healthcare workers. Resident physicians were disproportionately exposed to both physical and verbal abuse, likely due to their frontline responsibilities and frequent patient interaction.

Support mechanisms play a crucial role in mitigating these stressors. Interventions such as resilience training, mindfulness programs, and peer support systems have shown efficacy in enhancing emotional coping and reducing the negative effects of workplace violence [*Hinson J. & Shapiro M., 2003*]. Hospitals must also ensure a safe work environment, implement fair scheduling practices, and foster work-life balance.

Institutional leadership is equally critical. Organizations that prioritize employee well-being demonstrate improved staff retention and enhanced patient outcomes [*West C. et al., 2018*]. Reforms such as equitable workload distribution, clear safety protocols, and open communication channels can alleviate workplace stress and reduce the incidence of violence.

An often underutilized yet highly relevant approach is the adoption of trauma-informed care. Healthcare workers frequently endure secondary trauma, the psychological impact of witnessing patient suffering. Integrating trauma-informed principles into organizational culture and recognizing the emotional burdens carried by staff can help build a more resilient and supportive workforce [*Sweeney A. et al., 2018*].

In summary, the pandemic has intensified an already critical issue within the healthcare sector. Addressing workplace violence requires comprehensive, systemic reforms that include psychological support, safety policies, leadership accountability, and trauma-aware care.

Promoting the well-being of healthcare workers is not only an ethical imperative but a cornerstone of sustainable, high-quality healthcare delivery.

Conclusion

Thus, our data indicate that male healthcare workers were more likely to experience physical violence and theft, both before and after the COVID-19 pandemic. In the post-COVID period, young healthcare professionals aged 25-29 were found to be particularly vulnerable to physical violence. Resident physicians were disproportionately affected by verbal abuse prior to the pandemic.

While the COVID-19 pandemic has exposed the fragility of healthcare systems and the mental health vulnerabilities of medical staff, it has also illuminated critical pathways for strengthening the well-being of healthcare professionals. Systemic reforms, comprehensive psychological support, and robust organizational strategies are indispensable for combating violence and anxiety, and for securing a healthy and sustainable healthcare workforce. The article emphasizes the need for continued investment in measures that protect and empower healthcare workers, reducing the long-term repercussions of violence within clinical settings.

Funding: This study was supported by the Higher Education and Science Committee of the Republic of Armenia, under research project № 21T-3A090.

REFERENCES

1. *Alharthi M. (2022).* Assessment of workplace violence amongst psychiatric nurses. The New Armenian Medical Journal, 16(3), 15-27.
2. *Chirico F., Afolabi A., Ilesanmi O., et al., (2022).* Workplace violence against healthcare workers during the COVID-19 pandemic: A systematic review. Journal of Health and Social Sciences, 7(1), 14-35. https://doi.org/10.19204/2022/WRKP2

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3. *Cohen C., Pignata S., Bezak E., Tie M., & Childs J. (2023).* Workplace interventions to improve well-being and reduce burnout for nurses, physicians, and allied healthcare professionals: A systematic review. BMJ Open, 13(6), e071203. https://doi.org/10.1136/bmjopen-2022-071203
4. *Debbarma S. (2023).* COVID-19 Pandemic and Challenges Faced by Healthcare Professionals in India. Cureus, 15(4), e38278. https://doi.org/10.7759/cureus.38278
5. *Figueiredo S., Koch U., Oliveira E., & Ennis-Durstine K. (2023).* Implementing complex interventions to mitigate burnout among qualified healthcare professionals: a realist review protocol. BMJ open, 13(1), e067577. https://doi.org/10.1136/bmjopen-2022-067577
6. *Hinson J., & Shapiro M. (2003).* Violence in the workplace: awareness and prevention. Australian health review: a publication of the Australian Hospital Association, 26(1), 84-91. https://doi.org/10.1071/ah030084
7. *Jafari P., Lotfi M., Haghani M., et al. (2022).* Psychological interventions for improving empathy, well-being, and reducing burnout in healthcare professionals: A systematic review. Int J Environ Res Public Health, 19(24), 16092. https://doi.org/10.3390/ijerph192416092
8. *Khosravi Y., & Askarian M. (2023).* Systematic review and meta-analysis of verbal and physical violence against healthcare workers in the Eastern Mediterranean Region. Eastern Mediterranean Health Journal, 29(10), 742-750. https://doi.org/10.26719/emhj.23.083
9. *Kuppuswamy G., & Warrier U. (2021).* COVID-19 and violence against doctors: Why a law is needed? J Family Med Prim Care, 10(1), 35-40. https://doi.org/10.4103/jfmpc.jfmpc_912_20
10. *Musse J., Musse F., Pelloso S., & Carvalho M. (2022).* Violence against health personnel before and during the COVID-19 pandemic. Rev Assoc Med Bras (1992), 68(11), 1524-1529. https://doi.org/10.1590/1806-9282.20220345
11. *O'Brien C., van Zundert A., & Barach P. (2024).* The growing burden of workplace violence against healthcare workers: Trends in prevalence, risk factors, consequences, and prevention – a narrative review. EClinicalMedicine, 69, 102878. https://doi.org/10.1016/j.eclinm.2024.102641
12. *O'Connor K., Muller Neff D., & Pitman S. (2018).* Burnout in mental health professionals: A systematic review and meta-analysis of prevalence and determinants. European Psychiatry, 53, 74-99. https://doi.org/10.1016/j.eurpsy.2018.06.003
13. *Pappa S., Ntella V., Giannakas T., Giannakoulis V., Papoutsi E., & Katsaounou P. (2020).* Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: A systematic review and meta-analysis. Brain, behavior, and immunity, 88, 901-907. https://doi.org/10.1016/j.bbi.2020.05.026
14. *Pelloso S., Selič-Zupančič P., & Ketiš Z. (2021).* The impact of psychological interventions with elements of mindfulness (PIM) on empathy, well-being, and reduction of burnout in physicians: A systematic review. Int J Environ Res Public Health, 18(21), 11181. https://doi.org/10.3390/ijerph182111181
15. *Riley R., & Weiss M. (2016).* A qualitative thematic review: emotional labour in healthcare settings. Journal of advanced nursing, 72(1), 6-17. https://doi.org/10.1111/jan.12738
16. *Stodolska A., Wójcik G., Barańska I., Kijowska V., & Szczerbińska K. (2023).* Prevalence of burnout among healthcare professionals during the COVID-19 pandemic and associated factors - a scoping review. International journal of occupational medicine and environmental health, 36(1), 21–58. https://doi.org/10.13075/ijomeh.1896.02007
17. *Sweeney A., Filson B., Kennedy A., Collinson L., & Gillard S. (2018).* A paradigm shift: relationships in trauma-informed mental health services. BJPsych advances, 24(5), 319-333. https://doi.org/10.1192/bja.2018.29
18. *West C., Dyrbye L., & Shanafelt T. (2018).* Physician burnout: contributors, consequences and solutions. Journal of internal medicine, 283(6), 516-529. https://doi.org/10.1111/joim.12752
19. *Xu J., Cao Y., Wang Y., & Qia Q. (2021).* Judicial judgment and media sensation of violence against medical staff in China: A fuzzy set qualitative comparative analysis (fsQCA). PloS one, 16(10), e0259014. https://doi.org/10.1371/journal.pone.0259014
20. *Zhang S., Zhao Z., Zhang H., Zhu Y., Xi Z., & Xiang K. (2023).* Workplace violence against healthcare workers during the COVID-19 pandemic: a systematic review and meta-analysis. Environmental science and pollution research international, 30(30), 74838–74852. https://doi.org/10.1007/s11356-023-27317-2

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THE NEW ARMENIAN MEDICAL JOURNAL

Volume19 (2025). Issue 2

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Address for correspondence:

Yerevan State Medical University
2 Koryun Street, Yerevan 0025,
Republic of Armenia

Phones:

(+37410) 582532 YSMU
(+37493 588697 Editor-in-Chief
Fax: (+37410) 582532
E-mail:namj.ysmu@gmail.com, ysmiu@mail.ru
URL:http//www.ysmu.am

Our journal is registered in the databases of Scopus, EBSCO and Thomson Reuters (in the registration process)

SCOPUS EBSCO
REUTERS

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LLC Print in "Monoprint" LLC

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