



Safety of Health Care Workers in a War Zone—A European Issue

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INTRODUCTION

According to the International Law and Rule 25, “*Medical personnel exclusively assigned to medical duties must be respected and protected in all circumstances. They lose their protection if they commit, outside their humanitarian function, acts harmful to the enemy.*” (1, 2). Despite this law, it is not uncommon that this aspect of international law is violated during conflicts. The International Committee of the Red Cross (ICRC) has emphasized that the problem of not protecting health care workers in a war zone is one of the most crucial yet overlooked humanitarian issues today (3), and conflict and war situations increase risk to harm of such workers (4, 5). Furthermore, the deleterious effects of war zone operations on health workers extends to material and supply shortages including breakdown in the supply of services (e.g., electricity, medicines, and equipment) which further increases stress on health care personnel (6). In the current conflict in Ukraine, the International Council of Nurses (ICN) has highlighted in a press release that the safety of health care workers during this conflict is paramount (7). This plea has been sent to both to both Ukrainian and Russian respective associations.

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VIOLENCE AGAINST HEALTHCARE WORKERS

In a recent systematic review, the authors examined 1,479 papers related to against health care violence in conflict zones (5). The articles covered different aspects of the problem such as evidence of the impact of attacks on health care personnel as well as violations of legal and human rights on such workers. The authors concluded that there is a need to broaden awareness of topic. The issues are diverse ranging from a risk of health care personnel being threatened, arrested or even jailed (5) to being forced to collaborate with one or the other side in a conflict by applying different levels of care to—or withholding it altogether from—wounded or sick people or combatants. **Table 1** shows different violations against health care personnel. According to the above-mentioned review of the literature, most comes from Middle East and Asia, but among the literature is one study of attacks from Eastern Ukraine from the year 2014 (13). This article describes the damage caused to the public health infrastructure and analyses whether the damage caused was targeted or collateral.

As a mitigation against violence toward to health professionals in conflict zones, the local community can be more directly engaged in ensuring secure access to health care (14), documenting and publicizing breaches rapidly (15). And also negotiating directly with conflict parties to ensure fair and safe provision of health services (16).

TRAUMATIC STRESS REACTION AND HEALTH CARE WORKERS

Risk for post-traumatic stress (PTSD) is well-documented among deployed military health care workers and is similar when compared to military personnel (17). It has been shown that trauma severity and additional life stress have an important impact in increasing the risk for PTSD (18).

TABLE 1 | Violence against health care workers.

Type of attack	References
Beatings and shootings	(8)
Surveillance at work	(9)
Arrest, intimidation and threats	(10)
Obstruction of daily operations	(11)
Interference of obligations of impartial care	(12)

Social support increased the resilience and acted as a protective factor (19). Chronic PTSD has been reported in several studies among combat-exposed health care workers (20, 21). In a small study by Ravella (21) of nurses, almost 25% reported symptoms of PTSD several years after being caught up in an explosion. Based on their review, Gibbons et al. (17) call for more research into finding risk factors and protective factors for PTSD among health care personnel exposed to combat. Unfortunately, a supportive work environment does not eliminate the risk of PTSD among health care workers in conflict zones. It is possible that females may be more prone to risk for developing PTSD than males in these situations (22).

A very recent study regarding health care professionals' wellbeing under extreme circumstances comes from the conflict in Yemen (23). The authors carried out 43 facility-based health care worker interviews and additionally six group sessions. The complex security situation prevented health care personnel from carrying out their everyday work normally and increased their levels of stress. Specific themes related to coping were religious motivation, sense of duty and patriotism. There is clearly a lack of clear guidelines that address protective factors for mental health among healthcare workers under extreme stress, assuming that they are relevant or accessible (23, 24).

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COMBINED COVID-19 PANDEMIC AND WAR STRESS

Not surprisingly, there is little literature regarding the combined effect of the COVID-19 pandemic and war among health care workers. Elhadi et al. (25) studied the combined stress caused by the COVID-19 pandemic and the Libyan civil war among 532 health care workers. Of these health care personnel, 357 (67%) reported emotional exhaustion (EE Score ≥ 10), 252 (47%) reported depersonalization (DP score ≥ 10) and 121 (23%) reported a lower sense of personal accomplishment (PA score ≤ 10). The authors highlight the need to develop health care policies to protect them in unique threatening, hostile and stressful environments.

CONCLUSION

The current conflict in Ukraine exposes many health care workers to severe stress. As refugees from the conflict arrive in different parts of the continent, almost all of Europe's health care systems will be challenged by the experience from conflict-exposed individuals. This will inevitably put a strain on health care staff some of whom may be traumatized vicariously. However, those who have encountered conflict and war directly, will likely suffer the greatest stress. The current situation requires the support of pan-European health professionals and investment in follow-up research and analysis of the situation. This is important, because The World Health Organization has confirmed "several" attacks on health care centers in Ukraine and is investigating others (26).

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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