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‘We will never give up’: a qualitative study of ethical challenges Syrian health workers face in situations of extreme violence

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Abstract

Active conflict settings constitute challenging operating environments for humanitarian health organisations and workers. An emerging feature of some conflicts is direct violence against health workers, facilities, and patients. Since the start of the war in 2011, Syria has endured extreme and deliberate violent attacks on health facilities and workers. This paper reports on the findings from a qualitative study that examined the lived experiences of Syrian humanitarian health workers facing extreme ethical challenges and coping with moral distress. In-depth interviews were carried out with 58 front-line health workers in north-western and southern Syria. Participants described a number of ethical and operational challenges experienced while providing services in extreme conditions, as well as strategies used to deal with them. The complex intersection of personal and organisational challenges is considered and findings are linked to key ethical and humanitarian principles. Both practical recommendations and action steps are provided to guide humanitarian health organisations.

Keywords

aid; conflict; ethics; humanitarian health; qualitative; Syria; violence

Introduction

Active conflict settings constitute challenging operating environments for humanitarian health organisations and workers. Those working in these settings are often subjected to threats, intimidation, and direct attack, as well as the impacts of limited or damaged resources, conflicting priorities, and considerable ethical challenges. In recent years, these ethical challenges have gained increasing prominence in the scholarly literature (Slim, 2015) and among humanitarian organisations. The literature, however, pays scant attention to the uniquely complex ethical challenges arising in circumstances of extreme violence, especially where healthcare facilities, patients, and medical facilities are themselves targeted. This study aims to address the ethical challenges that health workers and medical organisations face in the context of extreme violence due to the war in Syria.

Systemic violence can lead to the collapse of health systems and basic societal institutions, cause disruptions to essential infrastructure, and lead to breakdowns of communications systems. An emerging and devastating feature of some conflicts is direct violence against health workers, facilities, and patients. In 2019, there were more than 1,200 acts of violence against health workers and facilities in 20 countries with armed conflict, resulting in the

deaths of more than 150 health workers and injuries to more than 500 others. In Yemen, at least 10 hospitals were bombed or shelled; in Libya, at least 17 health workers were killed in 73 incidents of violence; and in Afghanistan, more than 100 attacks led to the deaths of at least 25 health workers (Humanitarian Data Exchange, 2019; Safeguarding Health in Conflict Coalition, 2020). The Peace Research Institute Oslo notes that the number of attacks and fatalities of humanitarian workers mirrors the trend of increased humanitarian presence in insecure and violent settings (Hoelscher, Miklian, and Nygård, 2015). The 'weaponization of health care' has become a war tactic designed to deprive people of access to health resources in violent ways, as well as to increase collective fear and insecurity (Fouad, 2017). These violent attacks, which openly defy the protections set forth in the Geneva Conventions of 1949 and other international laws, amount to war crimes (Rubenstein and Bittle, 2010).

Syria has been described as 'the most dangerous place on earth for health-care providers' (Fouad, 2017). Since the start of the war in 2011, Syrians have endured repeated, extreme, and deliberate violent attacks on health facilities and workers, mostly by the forces of President Bashar al-Assad, and, after 2015, by Russia as well, as a strategy of war (United Nations Human Rights Council, 2013, 2020). The organisational complexity of the health care and humanitarian system in Syria is an important factor that contributes to the country's unique situation (Sahloul et al., 2016), and to the fact that Syrians do not have access to stable services. As a result of the conflict, Syria's healthcare infrastructure has fragmented and deteriorated (Sankari, Atassi, and Sahloul, 2013). Consequently, the service–aid infrastructure operates differently based on context, such as between government- and non-government-controlled areas. In the opposition-controlled north-western and southern areas where this study took place, national and international non-governmental organisations (NGOs) supported local health facilities through the payment of salaries and the provision of supplies, medication, and technical support. Service coordination, as well as health governance in these areas, took place through the United Nations (UN) Health Cluster mechanism and, in the northwest, through local health directorates (Alzoubi et al., 2019). For much of the war, NGOs that were based in Turkey and supported health services employed staff who could cross the northwest border into Syria, and health workers in the northwest were at times able to enter Turkey for training and coordination meetings. In the south, however, severe restrictions on crossing the Jordan–Syria border rendered face-to-face contact between NGOs operating in Jordan and health workers near impossible.

Several qualitative studies have explored aspects of Syrian health workers' experiences operating within these contexts, including: remaining in Syria to treat civilians despite the risks (Heisler, Baker, and McKay, 2015); leaving Syria because of security concerns (Kallstrom et al., 2020); and challenges to local integration of Syrian health worker refugees in Germany (Abbara et al., 2019). Fardousi, Douedari, and Howard (2019) interviewed Syrian health workers who survived facility attacks; the authors note concerns about resource constraints and the security of personnel. Other qualitative studies have addressed health system rebuilding in Syria (Douedari and Howard, 2019) and the ethical and policy decision-making experiences of health stakeholders supporting Syrian refugees in the region (Marzouk et al., 2019).

Beyond the operational difficulties inherent in conflict zones, violence directed at humanitarian health workers, particularly by their own government, presents an additional dimension to the challenges of war, as health workers may suffer the risks of bodily injury, psychological harm, economic loss, and even death. This also contributes to the shortage of skilled humanitarian health workers (Kallstrom et al., 2020) and creates substantial ethical dilemmas for them (Slim, 2015), as well as consequent moral distress. The latter refers to the dissonance that individuals experience when they know the right thing to do according to personal and professional ethics but cannot do so given organisational and/or situational constraints (Jameton, 1984; Gotowiec and Cantor-Graae, 2017; Hunt et al., 2018). The consequence of moral distress is often various forms of psychological distress and burnout (Ager et al., 2012; Lopes Cardozo et al., 2012; Gotowiec and Cantor-Graee, 2017).

The Syrian conflict has created an environment of violence and volatility where humanitarian health workers have repeatedly faced such ethical challenges. An ethical challenge can be understood as a situation where the following criteria are met: (i) the best moral course of action is unclear; (ii) it might not be possible to uphold fully all of the moral values at stake; (iii) the moral course of action is clear, but circumstances prevent one from taking it; or (iv) there is no right answer, but action is needed. In such situations, individuals must not only recognise the ethical dimension of the dilemma, but they may also have to weigh values and principles against one another (Clarinval and Biller-Andorno, 2014; Fraser et al., 2015). Ethical challenges in humanitarian health contexts also require consideration of how clinical, public health, humanitarian, and human rights principles and frameworks intersect (Clarinval and Biller-Adorno, 2014; Fraser et al., 2015). Given the logistical and moral complexity inherent in ethical challenges, particularly in violent settings such as the conflict in Syria, guiding frameworks are useful for understanding ethical challenges, and practical tools are needed to advance decision-making among humanitarian organisations and front-line health workers.

This paper reports on the findings of a qualitative study that sought to comprehend the lived experiences of Syrian humanitarian health workers facing extreme ethical challenges and coping with moral distress in circumstances where they are subjected to violent attacks. Specifically, the study aimed to answer two research questions: (i) what are the ethical challenges humanitarian health workers experience while delivering health services in Syria, particularly in the context of extreme violence?; and (ii) what are the approaches humanitarian health workers take to resolve these challenges? In addition, it makes some recommendations for humanitarian organisations.

Methods

Study setting

The conflict in Syria has displaced millions of people since it began in 2011. The United Nations Refugee Agency (UNHCR) estimates that 5.6 million Syrian refugees have fled to surrounding countries and beyond, 6.6 million Syrians are internally displaced, and 13.1 million more are in need of humanitarian assistance (three million of whom are in hard-to-reach and besieged areas) (UNHCR, 2020a, 2020b). Estimates of the civilian death toll due to the war vary. Independent groups have documented between 228,000 and nearly 500,000

civilian causalities from early 2011 to late 2021 (SNHR, 2020; SOHR, 2021); these figures are not comprehensive, however, as they do not fully account for the tens of thousands of civilian deaths owing to torture or those who are missing/have unknown fates (SOHR, 2021). The United Nations Office of the High Commissioner for Human Rights (OHCHR) has reported that at least 350,000 people (including both civilians and combatants) have been killed in Syria, a figure that the UN (2021) describes as an undercount. Human Rights Watch (2017) provided earlier civilian death toll estimates of closer to more than 500,000.

During this time, hospitals in Syria have been directly targeted by aerial bombings and shelling. From 2011 to early 2020, there were 595 confirmed targeted attacks on at least 350 separate facilities, resulting in the deaths of 923 medical personnel (Physicians for Human Rights, 2018, 2020). More than 50 per cent of Syria's hospitals, clinics, and primary healthcare centres are only partially functioning or have been damaged beyond repair (WHO, Syrian Arab Republic, 2018). This has led to shortages of medical personnel throughout conflict areas; remaining healthcare workers have faced innumerable challenges, including ongoing threats to personal safety and lasting psychological trauma (Fouad et al., 2017; Footer et al., 2018). Health workers continue to be among those displaced and killed in Syria (HeRAMS, 2020).

Meanwhile, siege warfare waged against cities, the closure of borders (particularly the southern border with Jordan), and the kidnapping of foreigners have restricted the access of international humanitarian organisations, Syrian NGOs, and supplies to areas in need controlled by forces opposed to the regime (Fouad et al., 2017). Syrian health workers and NGOs provide almost all healthcare services in these areas. Most donors or supporting organisations are located outside Syria. Humanitarian health workers in opposition areas have been designated as terrorist facilitators by the Syrian government and have been subject to persecution, intimidation, arrest, and imprisonment as a result (Fouad et al., 2017).

This reality necessarily leads to ethical challenges (Slim, 2015), especially in terms of how health workers can maintain commitments to the norms governing their work. The qualitative findings reported here are part of a larger project examining the organisational- and individual-level ethical challenges that humanitarian organisations and staff confront in relation to the Syria response. This larger project included: a systematic literature review of challenges to ethical and humanitarian principles in conflict settings (Broussard et al., 2019); key informant interviews with organisational managers remotely supporting service delivery (Funk et al., 2018); participatory workshops with Syrian humanitarian health workers in Gaziantep, Turkey, and Amman, Jordan, to review the findings and to develop recommendations for managing ethical challenges; and the development of ethics guidance (Rubenstein et al., 2019) and a practitioners' handbook (Robinson et al., 2019).

Qualitative methodology

We selected a qualitative methodology as the ethical challenges to Syrian health workers are not well understood and require the exploration afforded by in-depth interviews. Our approach was constructivist, recognising that the research team's own perspectives could shape what interviewees shared and how their narratives were interpreted. Our research team was mixed gender (male and female) and included Syrians, Syrian-Americans, and

persons from other parts of the region, as well as professionals with backgrounds in humanitarian health and ethics, mental health, and the humanitarian response in Syria. We took a pragmatic approach, which permits flexibility in the selection of methods that will best address the study aims and concentrates on the practical implications of the research, and adopted a phenomenological orientation that focused in-depth on individual narratives and experiences (Creswell, 2007).

A semi-structured interview guide was developed for front-line health workers on the challenges they face in providing healthcare in Syria. The guide was based on the previously conducted key informant interviews (Funk et al., 2018) and the *a priori* questions of the research team. Questions were structured to keep the conversation grounded in concrete examples while maintaining an inductive approach. Interview modules covered: (i) participants' descriptions of their organisations and positions; (ii) experiences of service delivery in a context of conflict, such as effects on services, organisational decision-making, and experiences of challenges; and (iii) specific impacts of working in violent conditions, including coping with the risk of violence, personal ramifications of challenges, and gender-based issues. To avoid leading participants, we did not suggest what ethical challenges were, but asked generally about challenges confronted and then explored how, if at all, these led to ethical quandaries. We provided prompts rooted in examples from the key informant interviews. The guide was translated into Arabic and back translated into English.

Data collection

Interviews were conducted from June 2017 to June 2018 by a total of four interviewers.[2] A study coordinator, who was female and Syrian, in Gaziantep, Turkey, recruited front-line health workers providing direct services in north-western and southern Syria. Recruitment occurred largely through local and international humanitarian assistance networks. Snowball sampling was used to facilitate the recruitment of individuals working in hard-to-access communities. We used a maximum variation sampling approach (Patton, 1990) to attempt to identify a range of health worker roles, organisations, locations, and both male and female health workers; we oversampled for women given the expectation that it would be harder to recruit this group.

However, our study sample was mostly male, hospital-based, and from northern Syria. This reflects where attacks against health workers were occurring, as well as lower numbers of female health workers in the population and less willingness on the part of female health workers to participate. While we were not able to sample equal numbers of men and women or health workers across locations, we were intentional about preventing research fatigue within the community. Sampling was completed, therefore, when the study team determined saturation of themes.

[2]The first eight interviews were conducted by an American, non-Syrian, senior study team member, with translation support provided by a female, Syrian-American, and Arabic-speaking team member who is also a qualitative research specialist. The majority of interviews were performed by two primary interviewers who were male, Syrian, and native Arabic speakers; one was based in Gaziantep, Turkey, and the other in the United States. The primary interviewers participated in a four-part interactive training programme and observed the initial interviews conducted by the senior study team member. Interviewers also received feedback on their initial interviews by the female study team member to ensure an understanding of interview techniques. The female study team member sat in on and conducted interviews alongside each primary interviewer as a part of the training process, for a total of 17 interviews, all of which were with male participants.

To protect participants' safety, interviews were held remotely on an encrypted, secure communication application, and all audio files were stored using an encrypted server. Interviews lasted between 60 and 90 minutes, were audio recorded, and then transcribed in Arabic and translated into English for analysis. In the few cases where permission to record was not granted, the interviewer took handwritten notes in Arabic, which were subsequently translated into English for analysis.[3]

Data analysis

Our analytic approach to the transcripts was iterative and informed by phenomeno-logical inquiry (Creswell, 2007). We used a segment-by-segment coding approach and NVivo 12 software (QSR International, Version 12, 2019) to manage the data. An initial codebook was developed by the first author from codes that emerged from the key informant analysis (Funk et al., 2018). The initial codebook was revised to align more closely with emerging in-depth interview themes after coders read and coded an initial set of transcripts. Three analysts then coded 10 transcripts and discussed the coding process to ensure a common understanding of the codes and their application. Inter-coder reliability was assessed using the function in NVivo for this purpose, which calculates percentage agreement of codes assigned across coders; inter-coder reliability was achieved at around 85 per cent.

Analysts wrote memos to explore coded text and to identify major themes. Trustworthiness and credibility of findings (Lincoln and Guba, 1985) were ensured via: *reflexivity*, whereby analysts acknowledged and openly discussed their preconceived idea and potential biases; *peer review and debriefing* among analysts and members of the study team less familiar with the interview data; *maintaining an audit trail* of decisions made throughout the analysis; *thick description* of study findings in dissemination materials to allow for assessments of transferability; and *member checking* by presenting findings to Syrian health workers at project workshops in 2018 to verify the validity of interpretation (Creswell, 2007; Maxwell, 2013).

Results

Sample description

In-depth interviews were conducted with 58 front-line Syrian health workers who were living and working in north-western and southern Syria (see Tables 1 and 2). Participants worked for 20 unique entities in three categories: international NGOs or organisations, such as the UN (eight); Syrian NGOs (seven); and a mixed grouping that included health directorates (five). Syrian and international NGOs were equally represented. The Syrian NGOs were based in Jordan or Turkey. All of these actors provided resources, supplies, and technical assistance to health facilities delivering humanitarian medical services within Syria.

[3]This study was reviewed and approved by the Institutional Review Board of the Johns Hopkins Bloomberg School of Public Health, the Clinical Research Ethical Committee of Gaziantep University, the Jordan University of Science and Technology, and the Aleppo and Idlib Health Directorates.

Participants included 43 individuals (36 men and 7 women) in north-western Syria and 15 individuals (7 men and 8 women) in southern Syria. Most participants lived and worked in north-western Syria, were male, and worked in hospitals in roles that combined clinical and management responsibilities. Around two-thirds of participants were based in hospitals, and slightly less than one-half were physicians. The remainder were nurses, additional managers, pharmacists, laboratory technicians, or others.

Context description

Accounts of violence affecting healthcare facilities and providers primarily involved attacks or assaults, including aerial bombings and rockets. Participants also described experiencing sieges, roadblocks, and seizures of materials. Of these, bombings were described as particularly challenging for facilities to endure, as they were unpredictable and uncontrollable, occurred with little or no advance warning, and often caused catastrophic structural damage and bodily harm. Situations of close combat or attacks on persons were recounted infrequently. A few participants also discussed the fear of kidnapping, which increased distress and caused health workers to be more cautious or to seek to increase facility security.

Key themes

Participants recounted a number of major challenges they experienced as a result of providing services in a context of extreme violence, as well as strategies used to cope with them. The most frequently discussed themes include:

- disruptions in services while under attack;
- relocating or rehabilitating health facilities;
- limited access to medical resources, equipment, or supplies;
- not enough qualified workers and staff shortages;
- dealing with armed groups;
- cooperating with local communities;
- obtaining organisational support for difficult decisions;
- deciding to stay despite the risks;
- facing gender-based discrimination; and
- experiencing distress and inner conflict.

Below, we present findings on the situational realities most participants described, as well as the resulting logistical and ethical challenges that most participants depicted. We do not attempt to separate out personal versus organisational challenges, but rather, present participants' realities straightforwardly, which best reflects how they were narrated and experienced. The themes discussed below, unless otherwise noted and with the exception of gender-based challenges, were mentioned by at least half of all participants.

Disruptions in services while under attack—Many participants described how attacks, or the threat of them, led to disruptions in service provision. These disruptions took various forms. The threat of attack sometimes led to a facility being shut down or to decisions to limit staff to essential personnel only to avoid causalities. During and in the aftermath of attacks, services deteriorated and were often limited to critical care due to loss of equipment and supplies, loss of life among health workers, disruptions to supply lines, access routes, and electricity/utilities, as well as loss of access to patients and communities. As a result, trauma and emergency medicine were typically prioritised in hospitals, either by starting up new units or by pausing or shutting down other, non-emergency services and primary healthcare. Very few facilities were able to treat patients at all levels (such as emergency, surgery, communicable disease prevention, outreach, and primary care). In times of sustained violence, other services were interrupted for longer periods, thereby affecting the quality of care. As one interviewee pointed out:

> We only see death because of the bombing, but some people die because of heart disease, pressure, and diabetes. There is no appropriate medicine, and of course the reason is the bombing and siege
>
> (R.39, female, nurse, north-western Syria).

Some research participants described how health facilities were over-capacity and over-crowded owing to the high incidence of severe injuries after attacks, fewer intact and functioning facilities, and staff shortages. When this occurred, they described effects such as restrictions on patient transfers, postponed surgeries and procedures, premature discharges, and patients being deterred from seeking health services. Many participants described distress due to not being able to adhere to their perceived responsibility to save patients. Frequently, injuries were too catastrophic to allow staff to save lives. This was particularly true early in the conflict, before training and improvements in supply management helped to minimise the impacts of attacks. Inequities in access to quality care were highlighted by some participants, as facilities located or rebuilt near the border were better equipped than those closer to areas subjected to attacks.

Relocating or rehabilitating health facilities—In the wake of attacks, it was often necessary to decide whether facilities should be rebuilt, made more secure, or relocated. Participants described several ways in which these decisions took place. In some cases, facilities were moved underground or provided structural fortification to protect against future attacks. In other instances, they were forced to relocate, sometimes multiple times. In the words of one interviewee:

> We have changed our places many times because of the fear of bombing… . We are always scared to be bombed or hit by aviation when we are inside the building, because it is not fortified and we have to move to a safer area, but we are surprised that after a period of time the bombing is heavier and we have to change the place [again]. We have moved about four or five times because of the security situation, shelling, and airstrikes
>
> (R.30, male, director of operation sector/nurse, north-western Syria).

However, changing facility locations could lead to entire communities losing access to health services. Some participants explained that creating new facilities close to the border (such as the Turkish border in north-western Syria) could mean more reliable access to supplies and qualified staff, as well as increased access by communities near the border. But this could make it more difficult for others to access facilities, creating an ethical quandary for them. One participant explained:

> This moral dilemma is not solved. We have two options: either to keep away from people, so that the surrounding [area] is not affected by the shelling when planes target the [facility], but it is difficult for people to reach us as we have to move away from them
>
> (R.17, male, physiotherapist, north-western Syria).

Participants noted that decisions concerning rebuilding or relocating presented other challenges, particularly because communities were not always willing to host facilities that could be targeted:

> Civilians always [told] us they do not want to have a medical centre or hospital next to them. We understand their fears of the shelling—we faced such problems more than once
>
> (R.30, male, director of operation sector/nurse, north-western Syria).

Limited access to medical resources, equipment, or supplies—The conflict hindered access to the resources that facilities needed to provide appropriate care, leading to moral distress among participants due to not being able to fulfil their commitments to patients. Some noted how border closings and limited access to besieged areas restricted the transfer and delivery of supplies and medications. There were long wait times for shipments, and deliveries were inconsistent, so it was often unknown when facilities would receive certain medications or supplies. According to one interviewee:

> We are in a semi-besieged area, of course, we suffer from many difficulties. Many cases of maternal deaths are due to lack of medicines and lack of care. First, we have a shortage of medicines. Our hospital suffers from a shortage of tools and primary medicines, especially for children. There are only simple emergency medicines. If a child gets sick, I do not know where to take her. I only have medicines present in the home. We have a great shortage of medical devices
>
> (R.5, female, paediatric educator, southern Syria).

In response, participants underscored the need to stockpile medicines and supplies for safer storage and to prevent destruction during an aerial attack. They believed that most facilities were hiding supplies underground or in other locations far from the hospitals. This would help to keep supplies intact, but participants also acknowledged that stores of supplies could be a material liability, primarily owing to the risk of being targeted for attack or destruction. Thefts were also a risk, and ownership of supplies could be disputed among facilities. Some participants believed donors were hesitant to supply expensive equipment and drugs because

of the attendant risks. They pointed out, too, that transport of supplies could be risky if there were border delays or if supplies were destroyed in transit.

Not enough qualified workers and staff shortages—Participants frequently described under-staffed facilities where existing personnel were forced by circumstances to provide services beyond or outside of their training and clinical competencies. This was due to several factors. Many health workers were displaced from Syria or left the country voluntarily because of the conflict. Security risks deterred individuals from taking jobs at health facilities and prevented them from traveling for new jobs. The conflict also caused some to leave the field of medicine altogether, even if they chose to remain in Syria. Pauses in recruitment and hiring because of active conflict made it difficult to fill the positions of those who left, and participants described the challenge of finding qualified workers. In a few cases, participants commented on pressure by local factions or armed groups to influence hiring procedures in ways that they felt were biased.

As a result of personnel shortages, participants underlined the problem of taking on new roles for which they were not trained:

> [W]e have a scarcity of medical staff. We met with the paediatrician, who works three jobs, and the internal doctor also does many jobs. … A gynaecology doctor is working for two centres and a hospital or two hospitals because of the scarcity of the workforce
>
> (R.10, male, paediatrician/field medical coordinator, north-western Syria).

This meant that workers felt compelled to fulfil multiple roles (including as managers) and/or provide services beyond their skill level. Participants described increasing demands placed on health workers, as well as difficulties with managing unqualified staff:

> Also, there are difficulties [with] the volunteers who have [come] in the hospitals with no academic certificates. Now we have a large number of such volunteers in hospitals…. These people have less experiences and shortage of … medical knowledge—such people are not able to do well in providing services
>
> (R.13, male, manager, southern Syria).

In most cases, participants considered that, in weighing risks to patients versus inadequate skill levels, limited or lower quality care was better than nothing, given the circumstances. This was particularly true at the start of the conflict before processes were in place to attempt to increase the skills of existing staff. Participants responded to the need to take on new roles by obtaining additional training, some of which was online. Many explained that trainings allowed them to feel more competent given task-shifting and keep up with the medical field and prevented a loss of skills given the changing service landscape. When trainings were conducted in Turkey, which was rare, some respondents also depicted them as a way to have a psychological break or ‘vacation’ from the stress of the conflict.

Dealing with armed groups—Some respondents reported interference or pressure by armed groups and factions to depart from medical triage and accepted clinical practice. This

included verbal threats, harassment, humiliation, violent acts, and demanding preferential treatment for certain patients, such as members of armed groups or their family members. A few also described pressure by ISIS (the so-called Islamic State) in their area, such as requiring adherence to rules inconsistent with medical requirements, demanding involvement in decision-making, and interfering with service delivery and vaccination campaigns under threat of punishment. Two interviewees said:

> I remember once there were a lot of injuries because of shelling, and we were busy a lot, whether by ambulance or operations. A group of fighters came with a [gunshot injury to the hand], which is a medium injury of no danger. We asked the wounded man to be patient until we finish with another. They got angry and threatened us with a weapon. I was very afraid, and I did not know how to work—I felt they would shoot bullets in the hospital! So, I left the patient whom I was treating, and I hid
>
> (R.39, female, nurse, north-western Syria).

> The second challenge, which concerns us as a team, was the lack of respect and threats from the fighters. And dealing with these challenges was difficult—once a doctor left the job and no one could convince him to remain, because he could not bear the humiliation of the fighters…. Most of the medical staff, including I, left work
>
> (R.36, female, nurse, north-western Syria).

Some participants noted that the armed groups with which they interacted did in fact demonstrate respect for the hospital and its work. Participants associated a lack of interference by armed groups with maintaining good relationships with local councils and communities, being physically removed from armed groups' activities, and working in facilities that only treated women and children. One interviewee remarked:

> Armed groups leave us alone and they have nothing to gain if they hurt us because after all they will hurt their own families
>
> (R.25, female, director of gynaecology and children's hospital/paediatrician, north-western Syria).

Other strategies used to deal with these threats included: installing security guards at hospitals; having management teams handle disputes; complaining to a soldier's superior; developing a complaint system for civilians who were being treated poorly; employing staff from local communities; and over time, demonstrating neutrality to armed groups. One interviewee stated:

> We have a guard at the gate, who prevents any weapon [from entering] inside, so this can help protect the workforce. Another important thing is that we are also providing humanitarian services without bias and [with] impartiality. Employing people from the area is helping. They knew each other and can solve problems. Once we had the position that one of the fighters was intent on violence with one of our staff, but the locals in the area who worked with us stood against him. The employment of the population of the region decreases difficulties

(R.10, male, paediatrician/field medical coordinator, north-western Syria).

For many participants, maintaining impartiality was acknowledged as essential for continuing to provide medical services to their communities. They reported that while intimidation might occur (such as firing a weapon into the air or making verbal threats), volatile situations were often deescalated after health workers emphasised their impartiality and responsibility solely to provide medical services. Thus, even in the face of intimidation by armed groups, participants explained that health workers tended to respond by stressing their obligation to treat all patients equally. They accentuated that they treated people as patients, not as fighters, and that their first responsibility was to treat and be neutral, even when threatened. A few expressed their commitment to maintaining medical and clinical ethics. For instance:

> The nurse in the room told me that this person is a [captured] soldier of the regime, but I told the nurse that it is not our business, even if he was a prisoner of war, I am not a judge…. I know my country is more than opposition or supporters … we have to behave as people. I consider myself neither an opponent nor a supporter—I'm a doctor of these people and I don't differentiate. I worked on so many operations, in fact on those captured, and for people I know, and whom I don't know…. I will help everyone [who] needs [me] to serve them. I'm not a judge and I couldn't behave like a judge. I'm just a doctor
>
> (R.7, male, general surgeon, north-western Syria).

Cooperating with local communities—Some participants highlighted that cooperating with local communities was a critical part of the response of facilities to attacks and the conflict. Cooperation was required to meet community needs, improve engagement with local factions, and encourage service utilisation. This cooperation meant working with local councils and hiring local staff to ease tensions with local armed groups, address community concerns more effectively, and build trust with the local population, especially when facilities were relocated. According to one interviewee:

> We provide services and when performing a good service for people, people will support us. When we treat people well and provide good service, then we will not be exposed to military pressure and problems. We always deal with civil local councils and they in turn get along with the military and solve problems
>
> (R.13, male, hospital director/surgeon, north-western Syria).

While some participants portrayed community members as respecting the lifesaving services of hospitals, others cited a sense of mistrust among community members. They said that residents feared that facilities in their communities would be targeted by attacks if a hospital was present, or rebuilt there, and that residents felt dissatisfied with long wait times and a lack of medications. These attitudes led to dilemmas concerning whether to respect communities' wishes or fulfil their commitment to serve them medically.

Approximately one-quarter of participants described community outreach programmes that their organisations or facilities coordinated, including vaccinations and knowledge campaigns pertaining to maternal and child health. For example, community health workers visited homes to provide education on safe delivery practices. However, such activities were disrupted by the conflict, and outreach programmes were forced to adapt to these conditions. Mobile units were a strategy used to improve access to hard-to-reach communities, including those in shelters who could not travel to facilities, and displaced persons. Yet, even these strategies were compromised by ongoing attacks. One interviewee remarked:

> As the bombardment intensified, we were forced to stop all the mobile teams of 60 girls, and we could not go roaming the streets [when] shelling continued daily. The same thing happened with the vaccine campaigns—we stopped many times because of the shelling
>
> (R. 17, male, physiotherapist, north-western Syria).

Obtaining organisational support for difficult decisions—As noted in the sample description, the organisations that participants represented included international or Syrian NGOs/organisations (including donors and UN bodies) that were based in Jordan and Turkey and provided front-line health facilities with resources, supplies, financial support, and technical assistance. The organisations managing health facilities in Syria played important roles in supporting operations materially and financially. And at times, they were involved in hiring, training, and staffing decisions.

Nearly all participants said that organisational support for on-the-ground decision-making during times of attack and rehabilitation was limited. They indicated that internet applications and communication were used by organisations to alert staff to threats or attacks in the area. It was difficult to plan or coordinate effectively, though, given resource limitations, disruptions to utilities, and the risk of aerial bombing. Participants described a lack of comprehensive organisational guidance on critical or emergent issues that could guide decisions in the absence of real-time communications.

As a result, decision-making concerning ethical challenges typically became the responsibility of doctors and other staff in the field and was often ad hoc. Many participants desired more organisational guidance on logistical decisions and their ethical implications, including the following:

- changes in local security and their impacts on operational planning;
- relocating facilities;
- limiting, pausing, or shutting down services and reinstating services;
- transitioning to primary and routine health services, for example, chronic illness management;
- prioritising treatments and triage protocols;
- coping with high volumes of trauma cases;
- managing under-qualified staff;

- staffing policies and staff turnovers, which disrupted internal hierarchies;
- needs assessments;
- the role of local populations in facility decision-making and relocations;
- intervention/negotiation with military or paramilitary groups; and
- a lack of psychological services or supports for staff.

A critical challenge that participants emphasised was that organisations' headquarters were usually too far removed to be able to advise and guide health workers adequately. Some explained that remote management recognised that front-line health workers were better positioned to make certain decisions (such as when to close and reopen hospitals or how to staff hospitals while under attack), given their direct proximity to events and knowledge of the local context. When remote team members or managers deferred to local workers' judgement or organisational assistance could not be provided in a timely manner, local health workers looked to one another to make difficult decisions. While this ad hoc arrangement gave health workers a certain degree of freedom and independence, it also placed a large amount of pressure on them. Some participants expressed that this responsibility was not welcome. They did not want to be left to make decisions on their own or felt abandoned by support organisations. For instance:

> We try in any area where there is shelling, we will never give up … we have to say that the United Nations and others, they have abandoned their health facilities, their health workers. Doctors and civilians in Aleppo have been abandoned for political ends
>
> (R.16, male, paediatrician, north-western Syria).

Having to make medical and ethical decisions without formal protocols often caused intense psychological distress and guilt. As one participant put it: one person 'couldn't be responsible for the lives of all'. Participants desired formal decisionmaking tools and organisational policies to aid them in making difficult decisions and possibly to prevent the distress caused by making those decisions alone.

Although they tended to speak positively about supporting organisations, some interviewees expressed distrust or disagreement. For example, some felt mistrustful of larger NGOs and donors, referencing concerns about salaries and unpredictable or absent payments, as well as a perception that organisations did not assess their needs systematically. Furthermore, a few were worried that the support of these organisations could be jeopardised if they upheld ethical commitments and treated members of armed groups.

Deciding to stay despite the risks—Medical staff in managerial positions conveyed challenges in asking their staff to be exposed to violence and increased risk during periods of aerial attack. They expressed concern for staff whose families would lose all financial support if health workers were killed or regarding those who were highly skilled and difficult to replace. Managers described making tough decisions about whether to expose surgeons to increased risks, knowing that these specialists were invaluable for treating victims of bombings.

Front-line health workers were aware of the risks they faced in choosing to remain and work in Syria. Some participants said that a sense of moral duty motivated them to risk their own lives to save others. Also important was their sense of responsibility to help not just patients, but also their country as a whole. If they did not stay, and if all health workers left, who would be available to help? As two interviewees put it:

> When the people were dying before us, you feel that the profession of medicine is a human profession. At such times, we feel we need to be near our people, our neighbours
>
> (R. 9, male, medical coordinator, north-western Syria).

> When you see the massacres that were taking place … you do not ask for your safety. When you see cut limbs or someone carrying a severely injured son, the last thing you think about is your safety. We think about how to help people, think about the safety of our children and our family. The last thing we think of is personal safety, I and the majority of the doctors who are here; otherwise, they would have left and travelled long before
>
> (R.13, male, hospital director/surgeon, north-western Syria).

While some participants believed that the war left them with no choice but to stay and help, they also underscored fears about attacks and dying and the sacrifices they made in deciding to remain. Some underscored that they had to ignore ‘financial temptations abroad’ and the professional gains made by colleagues who had emigrated. Some participants feared that they were putting their families in harm’s way, whereas others felt torn about living apart from their families. One commented:

> In circumstances of war, a man who works during a war should leave something. For example, I chose to give up my private life in order to save more children or work in the absence of other doctors. I chose to leave my own life and family; I chose to stay away from them and live in a dangerous area in a region where a person can die at any moment. I have chosen to provide humanitarian service and treat people, and I try to save the lives of a number of people until the war stops
>
> (R.43, male, pharmacist, north-western Syria).

Participants described the pressure of balancing their responsibility to treat patients in extreme conditions with their family commitments. This was particularly the case for female health workers who had specific family and childcare responsibilities. A few expressed concern about whether their family would be compensated if they were injured or killed in an attack.

Facing gender-based discrimination—Female participants, while not a large proportion of the sample, described incidents of gender-based discrimination. A few noted that it was endemic, a product of Syria’s social systems, but others suggested that the conflict produced unique challenges. For example, it was harder for female staff to interact with armed militants demanding treatment or to provide care, given social norms. One participant said:

> I suffered from this subject a lot, as a female is not [allowed] to touch a male patient, it is haram [forbidden]. Many difficulties we faced. We were talking to them, but most of the time for the militants, he prefers to be bleeding and not to touch him or treat his wound or give first aid until a male doctor comes
>
> (R.5, female, paediatric educator, southern Syria).

One woman explained that when staff were forced to evacuate a hospital, men were able to walk alone in the streets, whereas women needed to wait to be accompanied, which created greater risks for them:

> We, as women, who work in the hospital, our main problem is transportation. We are in a rural area. We cannot move easily by virtue of the traditions of the community. There must always be some male to accompany us, and this causes a delay to arrive at the hospital or in the return home. We have asked for a lot of times for transportation, but unfortunately, they say that the grants do not cover transportation fees
>
> (R.9, female, nurse, southern Syria).

Female community health workers were critical for home visits with women, such as midwives providing maternal healthcare. Female staff desired greater support from their organisations to cope with gender-based discrimination.

Experiencing distress and inner conflict—Coping with these extreme circumstances and the ensuing ethical challenges caused considerable distress. Most participants described the burden of having to set aside their own fears of attack and death to fulfil their ethical duties and the emotional costs of the decisions they had to make. Those in leadership roles often felt compelled to repress feelings of distress to appear strong. According to one participant:

> You had to go to resume work to finish your duty, that’s it, you have to work because there are people in need for your work. You have to go on. Many times, as I was operating, the hospital was bombed, and we resumed working
>
> (R.5, male, general surgeon, northwestern Syria).

Some remarked on inner conflict about whether or not to continue working given the risks. Nearly every aspect of working in a conflict setting could be a cause of distress, from accepting a lower quality of care to accepting patients’ decisions to refuse treatment or leave against medical advice because of fear of attack. Decisions to shut down facilities were particularly wrenching:

> When we made a decision to close the project … where I have worked for about a year, I felt like I had lost one of my children. It is not an easy decision, but you are forced to do it. You have employees and you are responsible for them. You have patients who cannot afford it. You cannot put them at risk. You feel very responsible. When you make such a decision, you feel that it is a difficult decision, and you are forced to take it in order to protect the safety of the people around you

(R.13, male, hospital director/surgeon, north-western Syria).

Participants also described experiences of moral distress:

> I knew what people needed but I couldn't provide them with [it]. I was devastated. I took the responsibility and people were relying on me, so when I couldn't provide the service to them I was devastated—it was a huge psychological burden
>
> (R.6, male, laboratory technician, north-western Syria).

Moral distress was particularly acute when staff were compelled to prioritise protecting surgeons, as the loss of their lives would ultimately affect more people than the loss of one patient's life, or when they were forced to prioritise treatment for those more likely to survive rather than following the traditional triage principle of treating those most in need first. One participant underlined:

> You are a doctor, you want to save as [many] people [as] you can… . You have to leave critical cases to die and take other cases you think will have a better chance to live, and you try to help them. That is the most painful thing
>
> (R.7, male, general surgeon, north-western Syria).

Differences in experiences in north-western versus southern Syria—Given the differences in the organisational landscape between north-western and southern Syria, we carried out a sub-group analysis of themes related to access, resources, and communication and compared the responses of participants across regions. Interpretations of these comparisons are constrained by differences in the sub-sample size: most participants (n=43) were living and operating in the north, while a smaller number (n=15) were based in the south. Participants from both regions described highly similar experiences of staff shortages and their negative impacts on facilities, as well as similar coping strategies. However, participants in the north more often discussed improvements in staffing deficiencies over time, perhaps because of better access on the northern border. There was considerable overlap in the responses of participants in the north and the south regarding experiences of limited resources. The responses suggest that organisational protocols were better defined in the north. Participants from the north spoke more often about regular communication and relationships between in-country staff and remote organisations, whereas those in the south spoke more often about dealing with problems on their own, without external support.

Discussion

Our research adds to what is currently known about the experiences of healthcare workers operating in violent and insecure settings in two main ways. First, the findings respond to the call for more primary research studies in conflict settings (BouKarroum et al., 2019, 2020) and enhances what is known from other qualitative studies about the experiences of health workers under attack in Syria (see, for example, Fouad et al., 2017; Footer et al., 2018; Douedari and Howard, 2019; Fardousi, Douedari, and Howard, 2019; Hamid, Scior, and Williams, 2020, Kallstrom et al., 2020). Second, by analysing the findings through the lenses of ethics and humanitarian principles, our research advances what is known about the

uniquely ethical aspects and ‘unsavoury trade-offs’ (Slim, 2015) involved in health workers’ experiences (Clarinval and Biller-Adorno, 2014; Fraser et al., 2015; Hunt et al., 2018; Broussard et al., 2019). Only by understanding these experiences in-depth can organisations begin to create processes for managing these challenges.

The Syrian health workers interviewed here provided searing accounts of bombings, violence, death, and destruction in their communities and at the facilities where they were employed. One of the major issues due to the conflict was damage and destruction of health facilities following aerial bombings. These attacks had cascading effects, ranging from interruptions in, or shutting down of, services, such as routine care, to relocation of facilities, destruction of medication and equipment, and severe injuries to staff and community members that required emergency care and surgery. Myriad ethical challenges arose as a consequence.

Participants discussed how their choices were limited by the difficult circumstances in which they found themselves—as one said: ‘reality makes our decisions’. These included: whether to rebuild or reopen a facility when the surrounding community opposed doing so, as having a health facility in their midst put them at greater risk of attack; whether to relocate a damaged or destroyed facility closer to the Turkish border, where attacks were less likely, but where many people in need of care would have limited access; whether to permit health workers with substandard training to engage in complex surgery that compromised the quality of care; and whether to yield to armed groups’ demands for priority treatment for their fighters. Responding to ethical challenges presented by the war in Syria was not a straight-forward task. Participants noted a range of coping and logistical strategies implemented to address the effects of bombings, destruction of facilities, staff shortages, and the competing demands of other actors. Personnel not only had to make do with less, in terms of staff numbers and resources, but they also had to balance the ethics of patient care with the demands of armed groups and the preferences of local communities. Overall, participants in both north-western and southern Syria provided similar accounts of the logistical and ethical challenges faced. The strategies health workers employed demonstrated their resilience, ingenuity, and sheer dedication. Participants described making the most ethical decisions they could, given their reality. However, these decisions were never straightforward, and strategies adopted were usually incomplete and involved tough balancing of different ethical responsibilities.

Linking findings to ethical and humanitarian principles

Our findings can be interpreted in the light of recent increased attention to the roles of ethics and humanitarian principles in conflict settings (Black, 2003; Tomczyk and Lor, 2018). This study, like others (Civaner, Vatansever, and Pala, 2017; Zarka, Farhat, and Gidron, 2019), recognises the importance of collecting primary data pertaining to humanitarian workers’ first-hand experiences of challenges to ethical and humanitarian principles (Hunt et al., 2014).

How do our findings relate to this growing body of literature? First, the experiences of the participants underscored the important and mutually supportive roles that the humanitarian principle of humanity (that is, addressing human suffering wherever it is found) and

the ethical principle of beneficence (that is, promoting others' welfare) play in directing healthcare workers' actions in conflict settings (Broussad et al., 2019). The direct effects of being under attack, as well as the indirect effects (such as limited access to resources and staff shortages), interfered with these obligations and in many cases created even greater need. The primarily other-directed, self-effacing motivations of humanitarian workers come under strain in such contexts of extreme violence. At the same time, the participants recognised that delivering aid was not only about treating the most people but also about preserving fair access by the most vulnerable (a reflection of the principles of justice and impartiality) and offering quality care. An underlying commitment to these principles is evident in decisions about whether or where to rebuild health facilities in relation to areas of greatest need and in strategies that involved mobile teams enhancing access to care.

Second, participants faced with inexorably difficult decisions, often repeatedly, suffered severe psychological and moral distress. Originally described in the nursing profession, moral distress arises when an individual moral agent knows the right thing to do based on ethical commitments but, because of internal (such as psychological limitations) or external (such as resource limitations and organisational policies) constraints is unable to act in ways consistent with those commitments (Corley, 2002; Wilson, 2018). Different factors can contribute to or mitigate moral distress. For example, being able to recognise the ethical aspects of a situation can reduce moral distress, whereas an absence of organisational policy or support in ethically challenging situations is thought to increase it. The expression that 'reality makes our decisions' appears to reflect the sense of disempowerment and depersonalisation that can accompany moral distress and burnout. However, perhaps because of their commitment to the principles of humanity and beneficence, many participants stayed despite the risks of personal harm and gender-based discrimination and the costs to their families. Engaging with local communities could sometimes, but not always, help with decision-making and ease tension with combatants; yet, mistrust among community members could make relationship-building difficult.

Third, that nearly all participants expressed a desire for organisational- and decision-making support for complex ethical and humanitarian decisions highlights several ongoing and future needs. One is the need to develop practical, tailored decision support tools that health workers can use before, during, and after humanitarian response efforts (Clarinval and Biller-Adorno, 2014; Fraser et al., 2015; Slim, 2015; Rubenstein et al., 2019). Decision support tools are premised on the idea that identifying ethical values, making ethical values explicit (including when they are in tension), evaluating different action options according to them, and documenting the decision via a structured process results in better, more transparent decisions. Such tools could also help to alleviate the psychological and moral distress inherent in the on-the-ground decisions that must be made. A second is the need for greater organisational resources dedicated to training and supporting staff in developing formal processes for managing the ethical and humanitarian decisions they confront (Rubenstein et al., 2019). A third is the need to evaluate the comparative effectiveness of different tools and management strategies to inform evidence-based humanitarian practices in the future (Kohrt et al., 2019; Heyse, Morales, and Wittek, 2021).

Intersection of personal and organisational challenges

One of the difficulties in deciphering the experiences described by the participants is attempting to parse out what constitutes organisational challenges versus personal ones. Understanding the level at which key challenges and decision-making is taking place has implications for the development of recommendations and supportive interventions. Although the findings identified issues organisations need to address, the data collected are necessarily filtered through a personal lens. That is, given the nature of the study, even organisational issues are described and understood at the level of the individual. In addition, in many cases, and in the absence of formal guidelines and protocols, individuals' decisions generated de facto organizational-level responses and strategies. This was particularly the case when headquarters tasked field-based staff with decision-making. This, then, may be understood as an organisational problem itself.

Linking individual-level experiences to organisational policy is critical if organisations are to address the ethical challenges that they, and local health workers, face. For instance, protocols concerning prioritisation of patient treatment in emergent conditions would help to ease the distress identified by participants. Organisational needs assessments should also ensure that staff experiences are included. It is important that organisations communicate about field operations clearly and effectively to humanitarian health workers so that they can make fully informed decisions in accordance with their individual principles and needs (Clarinval and Biller-Andorno, 2014). When considering protocols and supportive interventions, decision-makers should consider this intersection of organisational and individual experiences. In such contexts, no individual can be detached from a professional environment as organisational experiences necessarily become personal.

Recommendations and action steps

Securing compliance with international humanitarian law is critical to solving the ethical challenges resulting from violence inflicted on health facilities and workers in Syria. An end to the bombing of hospitals and accountability of perpetrators would relieve health workers of having to make the sorts of wrenching decisions recounted here. Ten years into the war, however, the international community, through the UN Security Council, and otherwise, has failed to protect healthcare in Syria from attack and, by inaction, has allowed impunity in such regard. In the face of the abdication of these responsibilities, healthcare providers are left to cope both with the violence against them and the subsequent ethical challenges.

Tools are available to address ethical challenges in humanitarian health (Clarinval and Biller-Andorno, 2014; Fraser et al., 2015), and participants in workshops conducted as part of this research endorsed their use (Rubenstein et al., 2019). Many humanitarian health organisations, though, have neither adopted these or other tools nor adapted them to the unique challenges and circumstances confronting front-line health managers and workers in violent settings. We have set out elsewhere, therefore, a means of doing so (Robinson et al., 2019; Rubenstein et al., 2019.)

Our recommendations apply to all NGOs and other entities offering or overseeing healthcare, such as health directorates, national and local organisations in Syria, and

international organisations (such as NGOs and the UN) that provide financial and other forms of support to partners in Syria; these recommendations apply at the field, regional, and headquarters level. Organisations should devote time and resources to tackling the ethical challenges that clinicians and medical administrators face and develop procedures and mechanisms to address them as they arise. As a first step, humanitarian health organisations should review and articulate the ethical and humanitarian principles and organisational values that govern their work and train their staff and the entities that support them. They should establish a focal point for ethical guidelines within the organisation, including at the country level, such as a chief ethics officer or a managerial group responsible for overseeing matters of ethics.

They should adopt tools that can guide ethical decision-making, such as the framework of Clarinval and Biller-Adorno (2014) or the Humanitarian Health Ethics Analysis Tool (HHEAT). In this context, it is particularly important to focus on the comparative harms of various courses of action. Consultations about the ethical concern should take place as early as possible in the process.

To resolve particular ethical challenges, organisations should establish easily accessible internal processes for raising ethical concerns, facilitating their resolution, recording the result, and disseminating it within the organisation. International and national staff should be trained in the mechanism developed and be encouraged to participate in processes that permit reflection on ethical questions. International and national NGOs should engage with front-line health workers and directorates to communicate about ethical issues and collaborate in their resolution. Organisations should also share their challenges and information on how they resolved them through entities such as the Health Cluster. Donors should provide resources to humanitarian health organisations to develop and implement these processes.

As part of their duty of care to staff, many humanitarian health organisations have developed programmes to provide psychological support to their staff. Our findings, however, suggest that in Syria, humanitarian health organisations, especially international NGOs, which either operate remotely or provide financial and logistical support to front-line health workers, have done little to offer psychological support to personnel, including some means of addressing moral distress. That is a key need in such circumstances, where health workers face extreme logistical and ethical challenges. We believe that NGOs have a responsibility to provide such support, and that donors should back these activities as well.

Limitations

This study had three main limitations. First, as noted earlier, the study sample was mostly male, hospital-based, from international organisations, and from northern Syria. This in part reflects where attacks against health workers occur. While we intentionally sought to oversample women, we were not able to achieve parity within the north-western Syria sub-sample. This may have been due in part to the fact that interviews with female participants were conducted by male interviewers. Some potential participants did not want to participate given security concerns, and some of our participants might have been wary of criticising organisational leadership, which could have affected our findings. Although

our study involved health workers from opposition-controlled areas, it should be noted that health workers in government-controlled areas also face considerable challenges and constraints. Second, because recruitment relied on personal contacts, there is the possibility that recruiting within a specific network limited the themes that arose. Once we attained thematic saturation, we elected not to sample further so as not to impose an undue burden of participation and to conserve resources. Third, as is true of all qualitative research, there is inherent subjectivity in the results; we employed standard techniques to ensure credibility, but different researchers reading our interviews might interpret them differently. No claims are made about the representativeness of the data and participants' experiences. Nevertheless, to our knowledge, this is the first project of its kind to investigate in-depth the ethical challenges experienced by health workers during the conflict in Syria and to propose practical tools.

Conclusion

This study makes valuable contributions to our understanding of the ethical challenges that health workers face in humanitarian contexts characterised by extreme violence. Few analyses have examined the effects of working in such settings and the resultant burden of decision-making placed on local staff. The findings of this study thus provide important guidance for addressing these burdens. The experiences of Syrian health workers suggest the need for humanitarian health organisations to be more proactive in developing mechanisms to support front-line health workers in making challenging ethical decisions and in providing psychological support to them.

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Data availability statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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Table 1.

Participants by organisation type

Organisation type	Number of participants
Government	6
International organisation	33
Local organisation or NGO *	4
Syrian NGO in diaspora *	15
Total	**58**

Notes:

* Local organisation means an organisation that operates regionally or only within Syria and that is not an NGO (such as a local hospital without explicit support mentioned or independent actors).

Local NGO means an NGO working only in Syria.

Syrian NGO in diaspora means a Syria-specific NGO that is sponsored/managed from outside the country (usually by Syrian expatriates).

Source: authors.

Table 2.

Participants by gender, organisation type, and professional role

Sex (organisation type)	Management	Nurse	Physician	Other medical	Management/ physician	Management/ other medical	Management/ nurse	Total
Female	**0**	**9**	**2**	**3**	**1**	**0**	**0**	**15**
Government	–	–	1	–	–	–	–	1
International	–	6	–	3	–	–	–	9
Local organisation or NGO*	–	1	–	–	–	–	–	1
Syrian NGO in diaspora	–	2	1	–	1	–	–	4
Male	**10**	**1**	**13**	**4**	**10**	**4**	**1**	**43**
Government	2	–	–	–	1	2	–	5
International	7	–	6	2	6	2	1	24
Local organisation or NGO	1	–	–	1	1	–	–	3
Syrian NGO in diaspora*	–	1	7	1	2	–	–	11
Total	**10**	**10**	**15**	**7**	**11**	**4**	**1**	**58**

Notes:

* Local organisation means an organisation that operates regionally or only within Syria and that is not an NGO (such as a local hospital without explicit support mentioned or independent actors).

Local NGO means an NGO working only in Syria.

Syrian NGO in diaspora means a Syria-specific NGO that is sponsored/managed from outside the country (usually by Syrian expatriates).

Many of the participants had complex work arrangements—some fulfilled multiple roles at the same time, whereas others worked in different capacities throughout the conflict.

Source: authors.